JIMMA UNIVERSITY

BUSINESS AND ECONOMICS COLLEGE

DEPARTMENT OF MANAGEMENT

MAJOR CAUSES OF PROJECT IMPLEMETATION DELAY: CASE STUDY OF DEVELOPMENT BANK OF ETHIOPIA/JIMMA DISTRICT FINANCED PROJECTS

by

SisayBiru

A Research Paper Presented to Jimma University, Collage of Business and Economics; DepartmentofManagement; forPartial Fulfillment of Degree of Masters of Art in Business Administration.

Advisor: Dr. Chalchissa Amentie

Co-Advisor: Ms. Lalise Kumera

July, 2020
Jimma, Ethiopia

MAJOR CAUSES OF PROJECT IMPLEMETATION DELAY: CASE STUDY OF DEVELOPMENT BANK OF ETHIOPIA/JIMMA DISTRICT FINANCED PROJECTS

by

Sisay Biru

Advisor: Dr. Chalchissa Amentie

Co-Advisor: Ms. Lalise Kumera

A Research Paper Presented to Jimma University, Collage of Business and Economics; Department of Management; for Partial Fulfillment of Degree of Masters of Art in Business Administration

July, 2020

Jimma, Ethiopia

JIMMA UNIVERSITY

BUSINESS AND ECONOMICS COLLEGE

DEPARTMENT OF MANAGEMENT

MAJOR CAUSES OF PROJECT IMPLEMETATION DELAY: CASE STUDY OF DEVELOPMENT BANK OF ETHIOPIA/JIMMA DISTRICT FINANCED PROJECTS

by

Sisay Biru

Approved by Board of Examiners

Advisor	Signature	Date
Co-Advisor	Signature	Date
Examiner (External)	Signature	Date
Examiner (Internal)	Signature	Date

DECLARATION

I, the undersigned, declare that this Thesis entitled "Major Causes of Project Implementation Delay: the case Study of Development Bank of Ethiopia; Jimma District Financed Projects" is my original work, and has not been presented by any other person for an award of a degree in Ethiopia or any other University.

Name: - Sisay Biru

_____ . _____ .

Signature Date

CERTIFICATE

This is to certify that this research project, "Causes of Project Implementation Delay: the case study of Development Bank of Ethiopia Jimma District Financed Projects" undertaken by Sisay Biru for the Partial fulfillment of the award of Master's degree in Project Management; at Jimma University; Business and Economics College; Department of Management; is an original work and not submitted earlier for any degree either at this university or any other university.

Dr. Chalchissa Amentie(PhD) (Advisor)

_____ . _____ .

Signature Date

Ms. LeliseKumera (Co-advisor)

_____ . _____ .

Signature Date

ACKNOWLEDGMENTS

This work takes my precious time, resource and dedication. Without the help of others, the compilation of this work was utterly impossible. At this point, I would like to extend my heartfelt gratitude to those whole helped me to finish this Thesis work.

First of all, I would like to express my sincere gratitude to the Almighty God who allows me to live, protected me from all anomalies and helped me finalize this thesis with his Divine Power. Second, I would also like to express, my special appreciations to my advisor Dr. Chalchissa Amentie and my co-advisor Ms. Lelise Kumera for their constructive advices and technical support.

Thirdly, I want to express my heartfelt thanks to my long time friend Ibrahim Worku Hassen (Research Fellow, Growth Lab; John F. Kennedy School of Government at Harvard University) for his support, encouragement and constructive advices.

I also want to express my thanks to DBE staffs for their indispensable cooperation and sharing their valuable experience and time to provide the required information and their genuine opinion. And I would like also to provide special thanks to my class mates for their encouragements and cooperation during my study at Jimma University. Lastly, but not the last, my special thanks goes to my Mother, W/ro Asnaku Chakiso (Emo), whom her motherly love and encouragement following me all along the way.

ABSTRACT

Well over 80% of Development Bank of Ethiopia, Jimma District financed projects did not meet implementation as per the schedule. Such failure is the main culprit behind massive accumulation of Non-Performing Loans position of the Development Bank of Ethiopia in general and its Jimma District in particular. The major causes of project implementation delay can be classified as bank specific, borrower related and external factors to identify and rank the factors. Structured questionnaire is administered on purposively and conveniently selected customers. Statistical analysis methods: Frequencies, degree of severity and importance indices are applied to rank the identified causes. As per the findings, the top-five borrower related causes include poor project implementation management skill, unable to raise equity, improper planning and scheduling of the project, loan diversion and poor knowledge on the chosen business while the top-five bank specific include unable to pass timely decisions when unforeseen circumstances occurred, weak Know Your Customer assessment, lack of flexibility to accommodate change, weak project implementation follow up and appraisal study. The top-five external causes include; price escalation, currency fluctuation, shortage of foreign currency, political unrest; and lack of infrastructure like road, power and water. Accordingly, the study recommends: to check the availability of foreign currency before loan approval; make sure that project planning and scheduling considers the movement of domestic prices and foreign currency exchange rate; practice prudent lending and undertake pertinent follow up activity after the loan is disbursed to the borrower, and undertake the right and timely decision when a project faces unforeseen problems with contingency plans

KEYWORDS

Causes of Project Implementation Delay, project implementation delay, important index, Development Bank of Ethiopia, Jimma District Office.

Contents

List of Figures

List of Tables

.

ACRONYMS

DBE: Development Bank of Ethiopia

NBE: National Bank of Ethiopia

NPLs: Non-Performing Loans

F.I.: Frequency Index

S.I.: Severity Index

IMP.I. Important Index

PID: Project Implementation Delay

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

Project is a temporary endeavor undertaken to create unique product or service. Because of its temporary nature, it has definite beginning and ending. Project has a life cycle beginning with initiation, followed by planning and implementation and ending with closure (PMBK, 2000). A project is customarily identified with construction, research, manufacturing and agricultural projects.

Project implementation delay occurs when projects are not finalized within the intended time and budget, and is a universal phenomenon. Project implementation activity is always accompanied by cost and time overruns (Kumar & Raj, 2015). A large body of literature is available on factors causing project implementation delay in construction industry. In construction, delay could be defined as the time overrun either beyond completion date specified in a contract or beyond the date that the parties agreed upon for delivery of a project. It is a project slipping over its planned schedule and is considered as common problem in construction projects (Assaf& Al-Hejji, 2006).

A number of factors cause construction projects implementation delay. All stakeholders in the construction industry, which includes the consultant, the owner and the contractor, could be responsible for the delay. If projects are not completed on time, they become a burden to the society. Delay in construction project can cause a number of changes in a project; such as late completion, lost productivity, acceleration, increased costs, and contract termination (Rao&Culas, 2014).

Development Bank of Ethiopia (DBE) is known for financing long and medium term agricultural, agro processing and industrial project business projects. At DBE, project implementation delay is common phenomenon. Studies show that DBE financed projects faces a chronic problem of implementation schedule delay set on the loan contract (Belay, 2017).According to Belay (2017),65% of DBE financed projects do not meet implementation schedule set out on the loan contract, which is signed between the Bank and borrowers.

Delay in DBE financed projects implementation schedule results in cost overrun forcing the Bank for provision of additional loan. By delaying the time that the project starts commercial operation; makes the customers to request for loan repayment rescheduling and interest capitalization. Delay in project implementation imperils the overall feasibility and completion of the project.

Project implementations delay is the major cause for the increase in NPLs position of the Bank (Abebit, 2013 and Ifa, 2018).Few studies conducted on the major causes of project implementation delay in the case of DBE. To my knowledge, there is no study that was conducted on causes of project implementation delay, particularly at DBE district offices. This study tries to analyze the major causes of implementation delay in the case of DBE Jimma District financed projects.

1.2 Statement of the Problem

Project implementation delay is a situation where a project cannot meet its implementation schedule and a common phenomenon worldwide; especially, the situation is severe in developing countries (Alinaitwe, et al., 2013). It is a known fact for most government projects in Ethiopia are being implemented behind the schedule resulting in cost overrun and creating dissatisfaction for the community waiting the benefit of the projects (Werku and Jha, 2016).Project implementation delay is not the only the phenomenon of government owned infrastructure projects but it is also a for business projects owned by private establishments.

Unduly time taken for project implementation will result in cost overrun demanding additional resources. These demands cannot be easily responded because resources are scarce. Hence, the project implementation delay may ultimately lead to project failures.

DBE is known for its project finance in agriculture, agro-processing, and manufacturing. Problem of not meeting implementation schedule is common in this century old Bank (Tadesse, 2017).Project implementation delay has become the critical issue in the Bank. Due to the delay in implementation of projects, their socio-economic contribution is not timely attained. It is also becoming the source of NPLs and tarnishing the image of the Bank (Ifa, 2018).

Internationally, studies were conducted on causes of project implementation delays, but almost all of them focused on cost overruns of public infrastructure projects in the construction sectors of the economy. This study dwells on investment projects financed by DBE in the government

priority sectors and aimed at finding out the determinants of project implementation delay using projects financed by DBE, as a case study.

There are studies that have been dealt with the causes of project implementation delay on the case of selected projects financed by DBE (Abebit, 2013; Belay, 2017; Ifa, 2018). In these studies, the causes of project implementation delays were analyzed by using both primary and secondary data but only focusing on head office mega project borrowers, and the data were entirely collected from same area. There was no study that was dealt with project implementation delay in the DBE Districts. This study focused on understanding major causes of project implementation delay for medium scale projects financed by Jimma District of DBE.

1.3 Research Questions

This study addresses the following research questions.

- What are the major bank specific factors that contributed to project implementation delay?
- What are the major bank borrowers' weaknesses and problems that results in project implementation delay?
- What are the major factors outside the bank and the borrowers (external causes) that have become the source of project implementation delay for DBE financed projects?

1.4 Objectives of the Study

1.4.1 General Objective

The purpose of this research is to find out the main factors that are causes of project implementation delay. In addition, the study provides policy recommendations on how to deal with consequential DBE financed projects implementation delay.

1.4.2 Specific Objective

The study planned to meet the following specific objectives.

- To rank the major bank-specific factors that affect project implementation,
- To identify the important borrower-related factors that affect project implementation, and
- To prioritize the external factors that affect project implementation.

1.5 Significance of the study

Non-performing loans have been increasing in Development Bank of Ethiopia far beyond the threshold set by National Bank of Ethiopia (NBE). Such a trend tarnishes the Bank's image as well as demoralizes employees' motivation and creativity.

Project implementation delay, the situation in which projects do not start commercial operation as per the schedule set out in the loan contract, challenges borrower's ability to honor their loan repayment commitment and service their debt. The delay in project implementation becomes a good reason for a project to enter into non-performing loan classification if a borrower and the bank agreed to turnaround the project. Mechanism of resolving project implementation delay problem includes provision of additional loan, interest cancellation/amortization/capitalization and loan repayment rescheduling.

This implies implementation delay problem relinquishes the profit the promoter could get from the project and the benefit of the society at large. It is making the project promoters and the lending bank to earmark additional budget and time.

Hence, examining, identifying, understanding and ranking of the major causes of project implementation delay will help to tackle the problem right before it encounters. It also helps to mitigate the advent of NPLs. By studying the major causes of project implementation delay, the study helps, the bank and the borrower alike, to devise ways to deal with them. Lastly, the study will recommend policy choices to deal with major causes of project implementation delay.

1.6 Scope and Limitation of the Study

Loins' share of the loan portfolio of the bank (80%) is administered at head office while Jimma District administers about 2% of the loan portfolio of the bank. About 81% of Jimma District financed projects faced PID while it is 65% of DBE Head Office. However, for the interest of time and budget, the study focused on identifying, analyzing and ranking the major causes of PID for DBE Jimma District financed projects.

It gathered information and data majorly from loan officers; team and branch managers (credit unit staffs), under DBE Jimma District office and purposefully and conveniently chosen customers of same. It could have considered other domestic banks financed projects.

In reviewing the major causes PID, past studies on the subject and file records of the customers were thoroughly reviewed. A number of project implementation delay factors are out there. But, for respondents to easily compare and articulate the responses, the study picked 34 possible causes of PID and categorized them in to three- borrower related, bank specific and external factors.

CHAPTER TWO
LITERATURE REVIEW

2.1. Introduction

Project is a temporary endeavor undertaken to create a unique product, service or result, which has articulated commencement and conclusion. Project is ultimately meant to produce a product or service, which is different from all other products or services. In most of developing countries development strategies are achieved through projects and project are implemented as means of achieving strategic plan of an organization. The application of knowledge, skills, tools and techniques to meet the project requirements is called project management, which is accomplished through the use of processes under the project cycle; such as initiating, planning, implementing, controlling and closing (PMBK, 2000).

Completion of projects within schedule is a major contribution towards the competitive edge in organizations. This is based on the realization that the achievement of the targeted objectives is determined by the ability to deliver the targeted output within the stipulated time. Yet, meeting the implementation schedule of a project and also timely completion of projects is the most challenging task in project management process (Kariungi, 2014). Inability to complete a project on time and within budget is called Project Implementation Daley (PID) (Rao and Culas, 2014).It is a project slipping over its planned schedule and is considered as a common problem in construction projects.

PID causes a cost and time overrun. When the time of execution of project is delayed, it leads to failure of guarantee/warranty of the items/equipment, failure of service period of equipment, and damage of equipment due to weather condition, ultimately leads to project failure and hinders the economic growth (Prasad and Venkensen, 2017).

Following, PID on international experience particularly that of construction projects and DBE experience will be presented. Based on the summary of the review, a conceptual framework will be developed.

2.2. Delay in Project Implementation, International Experience

Most of international literatures that investigated on the causes of PID are focused on project implementation delay specific to construction projects. In construction projects, the stakeholders

that their actions significantly and directly affect project implementation include contractors, owners and consultants. Following the PID in terms of these construction stakeholders will be discussed.

2.1.1 Contractor Related Causes of PID

Research studies give issues related a contractor the major causes of PID (Werku and Jdha, 2016).Contractors' poor project management and technical skills found to be the most significant one (Prakash and Culas, 2014; Assaf and Al-Hejji, 2016). According to authors Kuma and Raj (2015), with their research titled "Delay Analysis of Projects and Effects of Delays in the Mining/Manufacturing Industries" found that more than 50% of problems are attributable to contractor while less than 50% delay is attributable to consultant and owners combined.

Assigning pertinent management and administrative staff is another crucial factor to achieve completion of projects within specified time, required quality and estimated cost (Assaf and Al-Hejji, 2016'; Al-Emad,et al, 2017**).** The same research advised that to mitigate project implementation schedule delay contractors need to employ the right professional for the right position related to work that contractors need to employee project manager specific to a project.

Project planning and scheduling is also crucial to avoid cost overrun and disputes. Studies also identify contractors' lack of ability in effective planning and scheduling of projects as a major cause of project implementation delaying connection with planning and scheduling, a delay in site mobilization of the contractors are the major ones (Prakash and Culas, 2014; Assaf and Al-Hejji, 2016).According to Werku and Jha (2016), a contractor needs to establish a dedicated team for planning, follow-up the progress of the work in daily basis and pending issues.

Labor and its productivity have a significant impact on successful implementation of a project. Contractors need to assign a motivated and the right amount of labor to improve productivity; and hence, avoid project implementation delay (Assaf and Al-Hejji, 2016). According to Al-Emad,et al (2017), a contractor need to hire competent professionals to his organization in order to prevent the project from facing construction delay.

Improper financial resources management by the contracts also found to be a reason for project not to be implemented on time within the planned budget. A contractor should manage his/her financial resources and plan cash flow by utilizing progress payments on time (Al-Emadet al,

2017**).** Finance diversion is also taken as one source of PID in that Werkuand Jdha (2016) advised not to use a project's finance to other project.

According to Werkuand Jdha (2016), material management should also be a focus in that the contractor needs to develop on time order culture and stockpiling of regular materials. Strong and proper material procurement, schedule as well as its implementations is a reliable means for resolving material related delays, which are taken as the second most important factor by this study.

2.1.2 Owner Related Causes of PID

Owners also contribute to PID, as reviewed studies show. Prakash and Culas (2014) and (Werku & Jha, 2016)by their research conducted in India and Ethiopia, contended that project owners contributed to project implementation delay by not furnishing and delivering the site on time. The same authors found that owners were late in revising and approving of design documents.

Owners can minimize project implementation delay by effecting progress payment to the contractor on time (Al-Emad et al, 2016).That is, releasing of payments on prescribed time based on contract agreement (Werku&Jha, 2016). In relation to owners, change in design is the third factor in delaying construction projects implementation in Ethiopia, according to Werku & Jha (2016). To reduce delay in implementation of construction projects minimizing change orders and timely reviewing and approving of design documents is crucial (Venkatesh and Venkatesan, 2017).Owners need to employ a company or an individual that integrate and check the harmonization of various available drawings before construction is commenced (Werku&Jha, 2016).

Employing an experienced and a competent professional consultant who is capable of carry out his duties and responsibilities related to the work with good payment is another issue that owners need to consider as strategy to avoid construction project implementation delay (Werku&Jha, 2016). Most of the time, choosing the lowest bidder as a winner of a contract is a norm. But, studies show that could be a source of project implementation delay. Of course, if owners are to award the lowest bidder, they need to check the resources and capabilities of the bidder beforehand (Werku & Jha, 2016).

2.1.3 Consultant Related Causes of Projects Implementation Delay

Consultants advise owners for the contract to undertake the construction work as per the contract made with the owner. That is, on the assumption that the owner has not full knowledge and skill in administering the construction project.

Consultants could delay the implementation of project by not timely reviewing and approving design documents. Any delay caused by the consultant engineer in checking, reviewing and approving the design submittals prior to construction phase, could delay the progress of the work (Werku&Jha, 2016; Venkatesh and Venkatesan, 2017).Consultants are also expected to be flexible in evaluating contractor works. In their evaluation work, they are expected to compromise between cost andthe quality of constructions (Werku & Jha, 2016; Venkatesh and Venkatesan, 2017).

To avoid future variations in constructions, sufficient data needs to be collected and surveyed, and detail site investigation and design needs to be done before tender(Werku&Jha, 2016). Preparation of clear and adequate detail drawing and bill of quantity without any mistakes and discrepancies is highly recommended. During cost estimation process, the estimator needs to consider appropriate risk factor and escalation factor. Because during the construction period the cost of construction materials, tools, labors, equipment etc., may vary from time to time (Werku&Jha, 2016; Venkatesh and Venkatesan, 2017).

To reduce project implementation, consultants are required to fix reasonable time and schedule for the project. Defining the scope of work as precise as possible to avoid change order is also advised (Venkatesh and Venkatesan, 2017). Timely provision of orientation to the clients on the impacts of the project implementation delay is important. Immediate approval of payments, variations, additional works and price escalation are crucial for project success. Approving the requested payments for additional works, variation orders etc., on time, as per the rule and regulation of the contract is very crucial for successful completion of the construction of the proposed projects (Werku&Jha, 2016).

2.1.4 External Causes of Construction Projects Implementation Delay

Venkatesh and Venkatesan (2017), in their study identified hosts of factors other than consultants, owners and contracts on the causes of PID in the construction industry, by extracting scholarly articles from different parts of the world. According to their findings, among the

external factors that become the causes of construction PID; are acts of God, unfavorable weather conditions, unqualified (inadequately experienced and low skill) workforce, unfavorable macro-economic conditions (such inflationary situation, interest rates hike; political instability, law and order), external works due to public agencies (link with other utilities); and shortage of resources (difficulties in obtaining resources from market). These factors are not under the control of the parties in the construction industry.

2.3. Cause of Implementation Delay for DBE Financed Projects

Project implementation period in DBE financed project context is, the time period between the dates of loan contract and the date of first loan repayment. Project implementation delay is then when the date the commencement of commercial operation delayed beyond the data specified on loan contract signed between the bank the borrower. Quarterly and annual performance and project follow up reports show that there is significant project implementation delay problem at the DBE. According to a study conducted on the major causes of project implementation delay staggering 65% projects do not meet project implementation schedule (Belay, 2017).

Literatures on causes of business PID, in general, and DBE financed projects in particular are not available for the former and are few in number for the later. A number of factors contributed for PID at DBE. The factors are classified under bank specific factors, borrower specific factors and other factors, which are external both to the customer and the Bank.

2.1.5 Bank Specific Factors that Causes PID

DBE Policy and Procedure allows the Bank to have a stake on specific project that it finances as high as 75%. Which demands the Bank to give due attention for the success of the project that it finances. The action or inaction of the Bank in respective to specific project could derail the implementation process of a project. According to Abebit (2013), lack of prudent pre- credit risk assessment is one of factors in the bank side that is identified to be the major the source of PID. Due to poor due diligence work, DBE seldom recruits bankable customers.

Though the borrower is expected to come up with a comprehensive project feasibility study that set out the detail list of the project items, DBE is also expected to undertake a comprehensive review of the customer requests in terms of price of machineries and civil construction. DBE is also expected to comprehensively review the plan and scheduling of the project before the allocated loan is approved and disbursed (Abebit, 2013; Belay, 2017 and Ifa, 2018). But, due to

lack of capable technical team, there is the occurrence of lots of missed items (machineries and equipment) during project implementation. According to Belay (2017), DBE is poorly situated to respond for such kind of unforeseen circumstances, which affects project implementation schedule.

Project supervision and inspection are required on the implementation of follow up activities. Loan disbursement follows inspection and technical progress reports. Due to host of reasons including low productivity, poor work scheduling of credit operators and low supervision from credit managers, the issuance of these reports take more time than planned (Tadesse, 2017 and Abebit, 2013). Customers are also needed to be advised and guided based on the findings these reports. According to Belay (2017), poor project follow-up and inspection are the major causes for project implementation delay.

Project finance; and hence, project implementation activity is a complex undertaking requiring lots of time and cost. It would be difficult to capture all items and costs during planning and appraisal. It is customary to observe unforeseen circumstances time and again. Beyond planning for this scenario, it also requires swift response from both the Bank and borrower alike (Yetemgeta, 2018).

2.1.6 Borrowers Specific Factors that cause of PID

As perthe recent DBE's Working Credit Policy and Procedure, customers are required to contribute, at least 25% of total project cost, either in kind or in cash or in the form of pre-operating interest (DBE Revised Credit Policy, February 2017). In project due diligence assessment, borrowers are appraised for their potential to raise the equity contribution stipulated in their feasibility study. But, most customers fail to raise equity contribution on time, sometimes at all. Equity contribution is the number one factor facing borrowers and causes of project implementation delay (Abebit, 2013 and Belay, 2017). In DBE's context, raising equity is the minimum requirement that customers are required to fulfill. There are also times when customers are demanded to 'cover unforeseen costs' during planning the project. Failing to cover those costs, will be the cause of PID (Ifa, 2018).

DBE customers knowingly or unknowingly divert the disbursed loan fund for the purpose other than stated on the loan contract without the consent of the Bank and against the benefit of the

project (Ifa, 2018 and Abebit, 2013). Loan diversion causes shortage of finance for the project in consideration while the borrowers shift the fund allocated to it.

Studies show that 'lack of sufficient knowledge on project management' is also associated with PID. Insufficient knowledge in project management coupled with lack of experience on the business they are promoting could predict PID (Abebit, 2013). Owners also do not employ the right managers for the right place. Most of the time DBE financed projects management structure is owner-manager sort.

DBE customers, as the ultimate debtor, are expected to come up with 'comprehensive feasibility study 'that presuppose the knowledge of the customer on the project that he is going to establish through the bank loan. But, DBE customers do not come up with such document, which makes the customer to plainly accept project plan scheduled by the Bank. But, due to poor and incomprehensive feasibility study, there are times when lots of missed investment items are discovered in the middle project implementation process.

Lack of proper knowledge and management of the business from the customer side coupled with poor feasibility study results in poor project plan and scheduling; and hence, project implementation delay becomes imminent (Abebit, 2013).

The delay in project implementation can be a result of plan (and scope) change by clients or client initiated variations (Belay**,** 2017).This is mostly due to incomprehensive technical feasibility study and is a common problem in DBE financed projects. Due to lack of the right attitude and poor knowledge customers are not willing to fulfill the conditions set for effecting the subsequent disbursement of the loan, and to go by the terminal dates of opening L/Cs and disbursements resulting in frequent extension of these dates (Abebit, 2013).

2.1.7 External Factors that affect PID

Project establishment does not operate in plain environment. The implementation process interacts with local government officials, suppliers, transportation and logistics and other macroeconomic situations, such as political environment, inflation and foreign currency shortage. Delays in the procurement of machineries; i.e., delay in supply of equipment by suppliers and late procurement of machineries and materials are among the external factors beyond the control of the project and causes of PID (Ifa, 2018 and Abebit, 2013).Government's

failure to avail the required infrastructures like road, water, power on time also impacts the successful implementation of projects (Belay, 2017). According to Ifa (2018), though the government of Ethiopia has the good intention of promoting investment activities in Ethiopia through tax cut and zero import tariffs, it falls behind in supplying important utilities like power, and infrastructures like road.

Shortage of foreign currency for new machines and inputs import is the other external factor that hampers the timely implementation of projects (Ifa, 2018 and Belay, 2017). Most of project machineries and equipment are sourced out of the country. Ethiopian Birr is also depreciating continuously against US Dollar, which is increasing the cost of imported machineries and inputs. According to Belay (2017), this is the most important factor impacting project implementation process.

Cost escalation on various items and budget deficit resulted from price escalations are also other causes of PID. According to Yetemgeta (2017), fluctuation of prices of materials and inputs, increases the total cost of projects. This increase in total project cost against the planned budget demands additional equity contribution by the borrower and/or additional loan from the Bank. If this is not responded on time by the parties, it will become the reason for PID.

2.4. Summary

In summary, the major causes of implementation delay for DBE financed projects are categorized in to three. The first one is promoters or borrowers related factors like, diversion or misallocation of funds, equity release problems and management problems. The second group is the bank's specific factors; such as, poor credit service delivery, weak supervision, inspection and follow up, and project planning and scheduling inefficiencies. The third and the external factors that influence the proper implementation of projects are those factors that are beyond the control of both the bank and the customer; such as, cost escalation/cost overrun of most investment items, government policy changes, changes in weather conditions or natural disasters, inflation, foreign exchange fluctuation, and etc.

This study has revised articles on DBE financed projects that identify causes of PID. Most of these studies relied on both primary and secondary data financed by DBE Head Office Mega Projects. This study focuses on causes of PID at Jimma District by employing both primary and secondary data, applying descriptive statistics technique.

2.5. Conceptual Framework

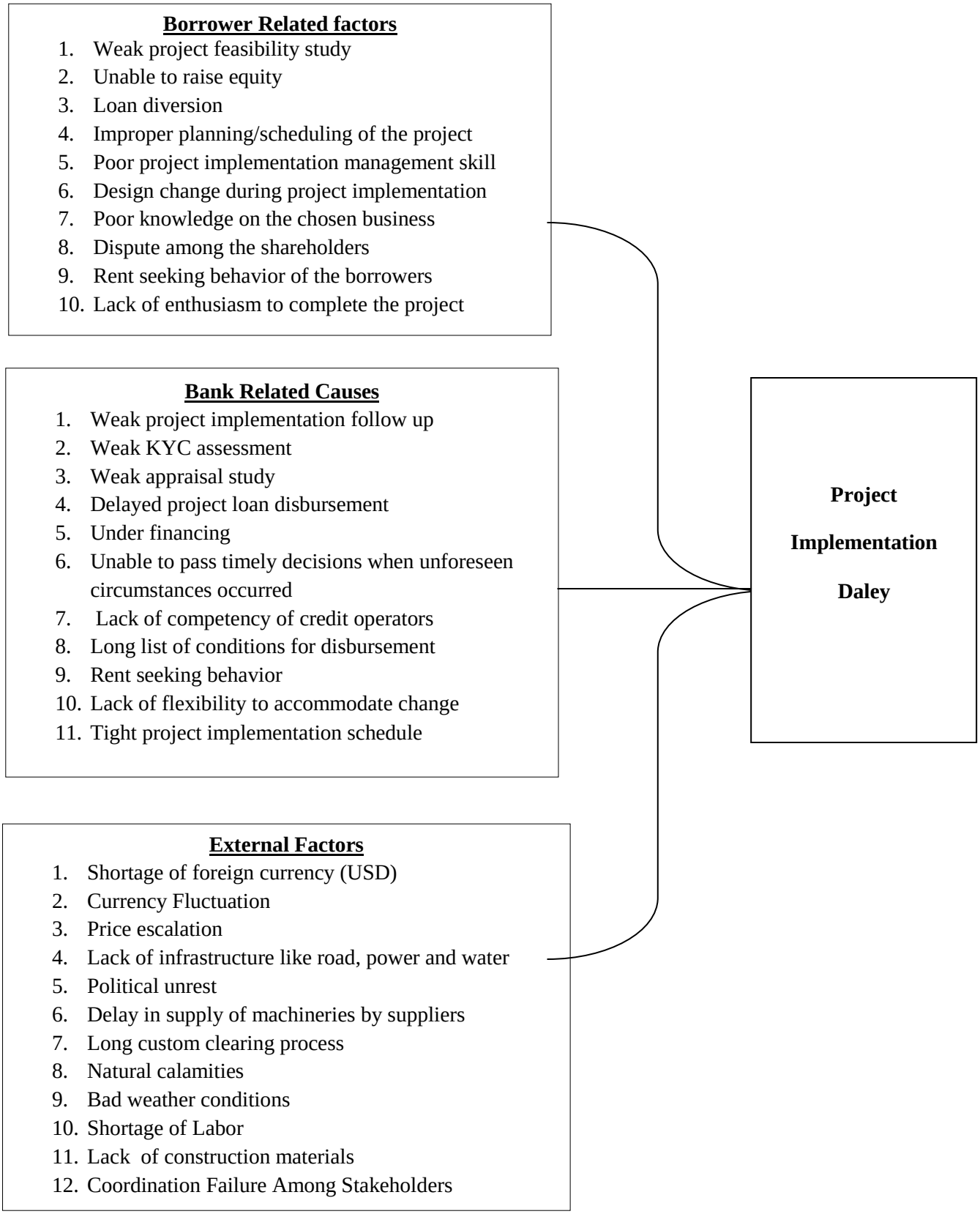
In previous sections, the study presented literatures on the problem under consideration, and now, it is time to develop a conceptual framework. The conceptual framework can be defined us a foundation on which the entire research project is based (Sekaran, 2003). Accordingly, list of independent variables that can affect the project implementation delay (the dependent) were present.

The theoretical presentation shows that factors that affect project implementation delay are classified as bank related, borrower related and external factors beyond the control of both the borrower and the Bank.

Literatures on the subject identified host of factors that affect project implementation delay (Tadesse, 2017; Belay, 2017; Ifa, 2018 & Abebit, 2013). But, they did not articulate each and every variable. Some of the variables are poorly defined, confusing to respondents; most of them are unknown for some respondents and amalgamated with one another. Based on the literatures reviewed, this researcher defined a total of 34 factors that can possibly affect project implementation.

The conceptual frame work (which is shown in figure 1below) shows the cause and effect relationship between project implementation delay factors and the project implementation delay. When one these factors encounters the project during the implementation process, they delay the implementation of the process, ultimately resulting in cost and time overrun. But, their impact varies from factor to factor and of course from project to project.

Figure 2-1: Conceptual Framework



CHAPTER THREE
Methodology

3.1. Introduction

DBE is one of government owned financial institutions engaged in financing medium and long term loans to industrial and agricultural projects, which are priority areas of the government of Ethiopia (DBE Five Year Strategic Reform Plan, 2019).The study targets projects financed between July 01, 2014 and December 31, 2019, by DBE Jimma District. The following section presents the research design, data collection method and analysis in detail.

3.2. Research Design

The function of research design is to provide for the collection of relevant evidence with minimal expenditure of effort, time and money (Kothari, 2004). On the other hand, the research area, type of research, sampling design and the type of data to be used, method analysis are all presented and discussed here.

3.1.1 Research Method and Type

Applied research is a type of research that solves a problem facing a business organization (Kothari, 2004). As apply research type, this study meant to solve the problems that DBE faces, particularly in terms of PID. Explanatory research, on the other hand, is a type of research that tends to explain reasons behind the occurrence of a particular phenomenon. It tries to identify issues and key variables in a given research problem. According to Rahi (2017), explanatory research explains a situation or problem usually in the form of casual relationships. This type of research helps one to get fresh insight into a situation in order to build, elaborate, extend or test a theory.

Taking the above facts in to account, the study has explanatory research nature. According to Tesfaye (2016), explanatory studies go beyond describing a problem (descriptive studies) as it is in that it looks for causes of a situation and provides evidence to support or refute the explanation. And also the research approach is much relevant to quantitative, which is applicable to phenomena that can be expressed in terms of quantity. This is in line with our objective of explaining the factors that cause project implementation delay at DBE Jimma District financed projects.

3.1.2 Sampling Design

Data gathering is crucial in research, as the data are meant to contribute to a better understanding of a theoretical framework, and to understand and resolve the problem under consideration. To address the problem of bias, representative sample needs to be taken either through probability or non-probability sampling techniques. The study under consideration, however, uses the mixture of convenience and purpose sampling technique, non-probability sampling type.

In convenience sampling, members of the target population that meet certain practical criteria, such as easy accessibility, geographical proximity, availability at a given time, or the willingness to participate are included for the purpose of the study (Etikan, 2016). The purposive sampling technique, on the other hand, is the deliberate choice of a participant due to the qualities the participant possesses. In this technique, the researcher decides what needs to be known and sets out to find people who can and are willing to provide the information by virtue of knowledge or experience (Oppong, 2013). This technique involves identification and selection of individuals or groups of individuals that are proficient and well-informed with a phenomenon of interest. In addition to knowledge and experience, the availability and willingness to participate and the ability to communicate experiences and opinions in an articulate, expressive and reflective manner is also taken in to account when we choose of a respondent (Cresswell& Clark, 2011).

For the study under consideration, the researcher used all Jimma District Staffs who were involved in the credit operation[1]in the data collection period. Under Jimma District there are 4 branches, 4 teams that were engaged in credit operation. Data collection was also made from Nekemte[2] and Gambella District credit operators in similar fashion with that of Jimma District. About 32% of the data were collected from Gambella (10 respondents) and Nekemte (11respneds) District conveniently and purposefully selected managers and senior staffs that were directly participating on credit operation. The chosen credit operators were believed to have rich experience and firsthand knowledge on credit operation of DBE; and of course, on the causes of project implementation delay.

[1]Credit operations include Know Your Customer (KYC) assessment, project feasibility study appraisal, loan review and approval functions.
[2]Jimma, Nekemte and Gambella were under Western Region till June 2018, with its working center at Jimma Town.

3.1.3 Questionnaire Design

The major data collection instruments questionnaire. Questionnaire is preferable to other data collection instruments when the variables of interest are predefined; the research is quantitative type and inferential (Etikan, 2016). The questionnaire is divided into subheadings that touched on some basic information of the respondents and the items on objectives as discussed in the literature. It included background of the respondents and questions regarding the major factors that cause ID at DBE.

In the second part of the questionnaire, questions are subdivided in to three categories based on parties that impact the project implementation process; those are the borrower, the bank and external factors. Questions or factors related to borrower and bank are specified to be 11 in number while questions related to external factors were set to be 12 in number.

Questions are chosen to be a closed type. Respondents are required to rank causes of PID that are specified by the researcher, which the respondents are known to be familiar with. Close ended questions in the form of Likert Scale and two parameters are chosen, degree of occurrence and degree of severity. The respondents are asked to give their opinions on the frequency and severity of each of 34 factors that are presumed to cause PID on a 4-point Likert scale.

The researcher chose 4-point Likert scale rather than a standard 5-point scale, which means eliminating the neutral point (which allows respondents to declare no opinion on the matter) eliminated from the 5-point scale. This is meant to obtain the respondents' views on all subjects (Amin, 2005). This is on the assumption that the chosen respondents are knowledgeable about the subject matter.

According to Joshi et al (2015), validity of Likert scale is driven by the applicability of the topic concerned; in context of respondents' understanding and judged by creator of the response item. In the questionnaire, respondents are asked to state how often they thought each factor contributed to delays in project implementation, the options are 'rarely', 'sometimes', 'often' and 'always', (corresponding to scale values of1, 2, 3and 4, respectively).Similarly, when the respondents have to weigh the impact of the factors on project implementation, the options are 'very little', 'moderate', 'significant' and 'immense' (corresponding to scale values of 1, 2, 3 and 4, respectively).

3.3. Data Collection

Survey research uses questionnaires or interviews to collect data from a sample that is selected to represent a population to which findings can be generalized (Kothari, 2004). Accordingly, for the purpose of this study, data are collected through structured questionnaire from all respondent categories, DBE Jimma, Nekmete and Gambella District credit operators and purposefully chosen DBE Jimma District borrowers.

The questionnaire is personally administered by the researcher. A total of 85 questionnaires were distributed and personally administrated to 15 branch managers, 21 team managers, 22 senior loan officers and 27 loan officers. The researcher distributed a total of 28 questionnaires to customers who it is believed knowledgeable to fill the questionnaire.

3.4. Data Analysis

The data, after collection, has to be processed and analyzed in accordance with the outline laid down for the purpose at the time of developing the research plan. Data processing implies editing, coding, classification and tabulation of collected data. The term analysis refers to the computation of certain measures along with searching for patterns of relationship that exist among data-groups. Data on the background of the respondents are tabulated using Stata /MB 14 while ranking of PID causes are analyzed using Microsoft Excel. Section3.4.1 and 3.4.2 below presents that in detail.

3.1.4 Importance Index

This study tries to analyze the most important causes of PID, among the list of possible causes. The statistic Important Index is used for that end. The rationale for the importance index is that the importance of a cause of a delay is the result of a combined effect of the frequency and severity of the factor (Susmitha,Raja andAsadi, 2018).

Accordingly, Important Index is calculated to be the product of frequency and severity indices. Delay factors with the same frequency of occurrence would have the same importance if they have the same scores for the severity of their impact, but if one of the causes has a more severe impact, then it would be considered more important.

Frequency Index (see equation 1) is a formula used to rank causes of delay based on frequency of occurrence as identified by the participants while Severity Index(see equation 2) is a formula

used to rank causes of delay based on severity as indicated by the participants. As a given factor's calculated index get closer to 100(in %), the factor under consideration taken to be more frequent, sever or important.

Frequency Index (F.I.) % = $\frac{\sum a(n/N)*100}{4}$…….. (Equation 1)

Severity Index (S.I.) % = $\frac{\sum a(n/N)*100}{4}$…….. (Equation 2)

Important Index (IMP.I) % = F.I. % * S.I. %……(Equation 3)

Where;

a=Weight given to the each responses (ranges from 1 to 4)

n=Frequency of the response

N=Total number of responses

3.1.5 Spearman Rank Correlation

Correlation is a relationship measure among different parties or factors, and the strength and direction of the relationship. Spearman Rank Correlation is used to measure the strength of relationship between two non-parametric variables whose distribution is not normal and do not have linear relationship (Algina and Keselman, 2001). The main objective of this coefficient is to determine the extent to which the two sets of ranking are similar or dissimilar, and also to measure the strength of the relationship.

This coefficient is determined using the following formula;

Spearman's Coefficient of correlation (or r_s) $= 1 - \left[\frac{6\sum d_i^2}{n(n^2-n)}\right]$…… (Equation4)

Where;

r=is the Spearman Rank Correlation coefficient between two parties

d_i=difference between ranks of i^{th}pair of the two variables;

n=number of pairs of observations.

The correlation coefficient varies between 1and -1; where +1 implies a perfect positive relationship (agreement), while -1 results from a perfect negative relationship (disagreement). A correlation coefficient close to 1 in magnitude implies a good correlation, while values near 0 indicate little or no correlation. In this research, Spearman's correlation coefficient is employed

to study the degree of relationship of ranking of respondents of between frequency and severity indexes for all study variables. Correlation coefficient is calculated using Stata /MB 14.

3.1.6 Reliability and Validity Issues

The study tries to test validity and reliability of the questionnaire. If the questionnaire examines the full scope of the research question in a balanced way or when it successfully measures what it aims to measure, it is said to be valid. On the other hand, a questionnaire is said to reliable if the result of the instrument can be reproduced and the results are consistent, in repeated trails (Williams, 2003).

Piloting of respondents is one way to test the validity of a questionnaire. The pilots should be from a similar population to that being examined in a given survey. For the study under consideration, the questionnaire is piloted, at DBE Jimma District. The respondents of whom the piloting is conducted are not part of the study sample in order to avoid bias.

The reliability of the questionnaire is analyzed to find out whether it was capable of yielding similar scores if respondents used it twice. Cronbach's Alpha is used to measure the reliability of the questionnaire. According to Reynold and Santos (1999), a Cronbach's alpha value greater than 0.7 implies that the instrument is acceptable. Therefore, based on the results, the questionnaire is judged to be reliable. Cronbach's alpha ($\boldsymbol{\alpha}$) is computed from the following formula presented here under.

$$\text{Alpha } (\alpha) = \frac{Nc}{v + (N-1) * c} \quad \text{..... (Equation 5)}$$

Where,

$N =$ the number of items,

$v =$ the average variance and

$C =$ the average inter-item covariance.

Stata /MB14is used to compute alpha of the factors of the questionnaire. The entire set of 34variables based their category are tested for internal consistency.

CHAPTER FOUR
DATA ANAYSIS AND PRESENTATION

4.1. Reliability of the Questionnaire

Table 4-1 presents result of data analysis on the reliability of the questionnaire. Checking of reliability is made for three categories of variables: customer related, bank related and external factors, for both customers and employees, based on the two ranking criteria: frequency of occurrence and severity of the factor.

The statistical measure of reliability of instruments (Cronbach alpha) is well above 70% for all categories of factors that causes Project Implementation Delay (PID). This shows that the instruments can well measure the respondents' answers consistently. It also implies that the questionnaire is internally consistent and reliable.

Table 4-1: Reliability of the Questionnaire

Ranking criteria	Categories of factors	No. of Questions	Alpha (%)	
			Employee	Customer
Frequency	Customer related causes	11	79.09	73.31
	Bank related causes	11	83.51	72.91
	External related causes	12	80.37	76.14
Severity	Customer related causes	11	87.33	87.30
	Bank related causes	11	88.17	83.05
	External related causes	12	83.96	74.42

Source: Researcher's Own compilation using Stata /MB 14

4.2. Background of Respondents

4.1.1 Response to the Questionnaire

The researcher distributed a total of85 and 28 questionnaires for employees and borrowers, respectively, of which 65 employees and 24customers are males. This shows that the loins' share of the respondents is male; for both categories of respondents. It reflects overall DBE employees' and customers sex distribution is dominated by males. Table 4-2 presents the gender distribution of respondents.

A total of 66 employees and 21 customers gave a valid response for the questions. A response rate is 77.65% and 75.00%, respectively, for employee and customers; which shows more than 75% of both customers and employees responded for the questionnaires. In fact, the response rate is better for male. About 92% of male employees responded to the questionnaire while only

80% of male customers fairly responded to the questionnaire. On the other hand, 30% of female employee and 50% of female customers responded to the questionnaire.

Table 4-2: Questionnaire Response Rate

Gender	Total dispatched (No.)		Valid Response (No.)		Response Rate (%)	
	Employee	Customer	Employee	Customer	Employee	Customer
Male	65	24	60	19	92.31	79.17
Female	20	4	6	2	30.00	50.00
Total	**85**	**28**	**66**	**21**	**77.65**	**75.00**

Source: Researcher's Own compilation using Stata /MB 14

4.1.2 Age distribution of respondents

Taking the age of respondents into consideration, about39% of the respondents is aged between 31 and 35 years, the largest age category for DBE employees. The second highest age category for employees is between 25 and 30 years, which is about 27% of all employee respondents. This shows DBE employee respondents are majorly young. It depicts the typical nature of Ethiopian government owned Banking Industry employees, which is being served by young staff as a lot of new opening banks are sharing the experienced staffs between them. See table 4-3 for the detail.

On the other hand, most of DBE borrowers are adult, which is shown by 62% of borrower respondents' age, above 46 years. The age distribution of customers shows the typical feature of Ethiopian business owners who enter into long term business venture after engaging early on other small businesses. In nutshell, the chosen respondents could give pertinent response to the questionnaire in both categories of respondents.

Table 4-3: Age Distribution of Respondents

Gender	Age										Total	
	25-30yrs		31-35yrs		36-40yrs		41-45yrs		46 yrs & above			
	E*	C**	E	C	E	C	E	C	E	C	E	C
Male	16	1	25	1	9	2	3	3	7	13	60	20
Female	2	-	1	-	1	1	-	-	2	-	6	1
Total	**18**	**1**	**26**	**1**	**10**	**3**	**3**	**3**	**9**	**13**	**66**	**21**
%	**27.27**	**4.76**	**39.39**	**4.76**	**15.15**	**14.29**	**4.55**	**14.29**	**13.64**	**61.90**		

Source: Researcher's Own compilation using Stata /MB 14; E*=Employee; C**= Customer

4.1.3 Educational Status and Job Position Distribution of Respondents

DBE names its credit operators job position as Junior Loan Officer, Loan Officer (4 years of experience and above), Senior Loan Officer (6 years of experience and above), Team Manager (8 years of experience and above) and Branch Manager (10 years of experience and above). The

study collected data starting from the position of loan officer, employees believed to having adequate experience for ranking of PID causes.

The largest category respondents of the questionnaires are Senior Loan Officers followed by Credit Team Managers, comprising, 32% and 26%, of the respondents, respectively. About 24% of the respondents are loan officers. This is true for government owned banks, whose staffs are relatively young as the new opening banks, takes the experienced employees from them by luring with better salaries.

According to Table 4-4, the largest category of responds have BA Degree (31%) followed by MA Degree (27%). About 48% of the employees are holders of second degree (MA and MSC).From the customer side, the largest category respondents have BSC degree (42.86%) and MSC Degree (38.1%), together comprising well over 81% of the respondents. The minimum educational status of customers is diploma and their share from the total respondents is barely 9.52%.

According to Table 4-5, most of the respondents are either general manager-owner [3](33.33%) or general manager-shareholder (38.10%), a total of 71% of the total respondents. This is true for most business firms in Ethiopia, which are run by owner-managers. An owner of a typical project is mostly a manager of same. The same is true for a major shareholder of a given project, which obviously becomes the general manager of same.

Table 4-4: Educational Status and Position

Position	Educational Status					%
	BA	BSC	MA	MSC	Total	
Branch Manager	5	1	5	1	12	18
Team Manager	8	1	4	4	17	26
Senior Loan officer	2	3	7	9	21	32
Loan Officer	5	9	2	0	16	24
Total	20	14	18	14	66	
%	31	21	27	21		

Source: Researcher's Own compilation using Stata /MB 14

Table 4-5: Educational Status and Position in the Company

Position	Educational Status					%
	Diploma	BA	BSC	MA/ MSC	Total	
General Manager	2	1	1	0	4	19.05
G/Manager (Owner)	0	1	1	5	7	33.33
G/Manager (Sh. holder)	0	0	6	2	8	38.10

[3] General Manager-Owner is a situation where the owner is the general manager. General Manager (shareholder) is a situation where the major shareholder is the general manager of the business. General Manager is a scenario where the project is being run by experienced hired professional manager.

Operation Manager	0	0	1	1	2	9.52
Total	2	2	9	8	21	
%	9.52	9.52	42.86	38.10		

Source: Researcher's Own compilation using Stata /MB 14

4.1.4 Respondents' Experience Distribution

Table 4-6 captures information on experience of the DBE employee respondents, both in DBE in general and DBE credit units in particular. The largest category of respondents (38%) has experience between 5 and 10 years. Whereas about 23% of respondents have experience between 1 and 4 years and another 23% of the respondents 11 and 15 years in DBE. Summing it up, more than 84% of the respondents' experience is below 15 years, in DBE. This fairly represents the current experience distribution of overall DBE employees.

Table 4-7 presents the experience distribution of the respondents in credits units of DBE. Taking the experience of respondents in DBE credit units in to account, 30 employees (45% of the total) have experience between 1 to 4 years. A total of 26 employees (39% of the total) have experience between 5 to 10 years in DBE credits units. The total experience of respondent employees in DBE and their particular experience in credit units, make them fairly representative in being a respondent to this study.

Table 4-7 captures information on the experience of respondent customers. Accordingly, about 42.86% and 38%, respectively, have 3 to 5 and above 7 years of experiences, on the project they established through DBE loan. Only 9.5% of the customers stated that they do have experience less than a year while the same percentage of customers stated they do have experience between one and two years.

In sum, well over 81% of the customers do have at least 3 years of experience on the project that they promoted through DBE loan. Only 19 % of the respondents have experience below 2 years. This implies that most of the respondents are well experienced on the project they have established through DBE loan.

Table 4-6: Experience of Employees

Experience	DBE Credit Units (Years)					
DBE (years)	**1-4**	**5- 10**	**11 -15**	**16 - 20**	**Total**	%
1-4	15	0	0	0	15	23.00
5- 10	9	16	0	0	25	38.00
11 -15	4	7	4	0	15	23.00
16 - 20	0	1	0	1	2	3.00
above 20	2	2	1	4	9	13.00
Total	**30**	**26**	**5**	**5**		
%	**45**	**39**	**8**	**8**		

Source: Researcher's Own compilation using Stata /MB 14

Table 4-7: Experience of Customers

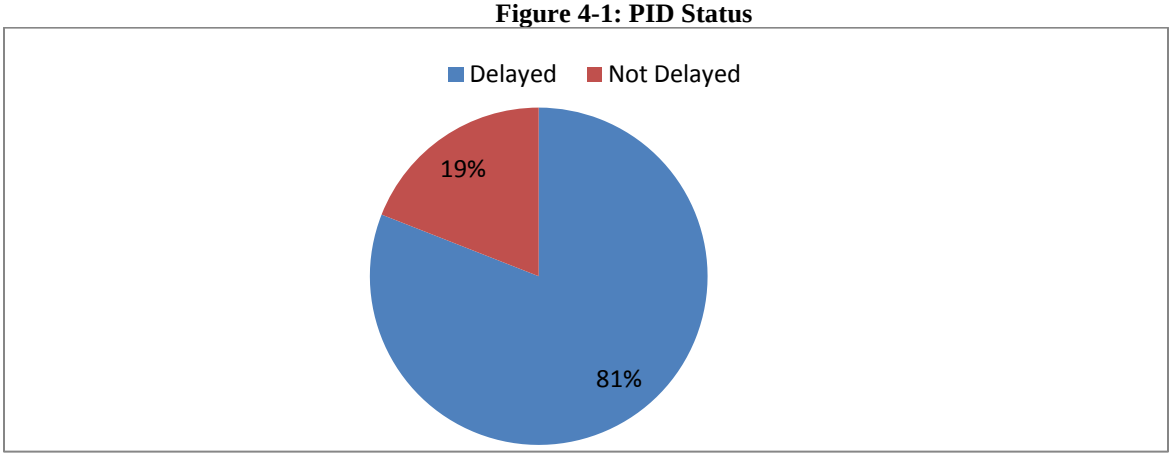
Experience (years)	Number of Customers	Percentage
< 1	2	9.52
1-2	2	9.52
3- 5	9	42.86
5 -7	0	0.00
> 7	8	38.10
Total	**21**	**100.00**

Source: Researcher's Own compilation using Stata /MB 14

4.1.5 Project Implementation Status of Jimma District Financed Projects

Project Implementation Delay (PID) is a chronic problem facing DBE in general and DBE Jimma District in particular. According to Yetemgeta (2017), more than 65% of DBE financed project at Head Office faced PID. The problem is much wider at DBE Jimma District financed projects. Project Implementation status report of Jimma District (as of March 31, 2020) shows, more than 81% of projects faced PID (See Figure 4-1 for the detail). That shows PID is a problem worth studying and demand urgent resolve. .

Figure 4-1: PID Status



Source: DBE Jima District loan files, compiled by the researcher, May 2020

4.3. Ranking and Discussion on PID Causes

The study identified a total of 34 possible PDI factors based on extensive literature review, discussion made with experienced DBE employees and author's accumulated past work experience. Then after, based on the source of the problem the factors are grouped into three major categories. Namely, borrowers related (11 PID causes), bank related (11 PID causes) and external factors (12 PID causes).

To meet the specific objective of the study, the researcher prepared and dispatched questionnaires for both DBE employees and borrowers. The questionnaire has three parts. The first part of the questionnaire presents demographic characteristics: age, gender, experience, job position and other pertinent background of both categories of respondents. The second and the third part of the questionnaire are aimed at to capture the frequency and severity of PID causes.

Frequency of the occurrence of all the34 factors that possibly cause PID were made to be ranked in four-point Likertscale, in terms of 'rarely', 'sometimes', 'often' and 'always'. Similarly, severity of PID causes are made to be ranked in four-point Liker scale having choices such as 'little', 'moderate', 'significant' and 'immense'. Section 3.2.3has presented the detail.

Frequency Index measures the degree of the occurrence of PID factors while Severity Index measures the impact of PID factors on the course project implementation process. The questionnaire made both categories of respondents (DBE employee and customers) to rank 34 variables twice; first for frequency of occurrence and second for the degree of severity of the causes.

Based on the response, frequency and severity indices are calculated. Frequency and Severity indices calculation is not an end by itself, rather important index, which is the product of the two, is the index that this study banks on. The following section drives Important Index for the three groups of causes (borrower, bank and external) based on the two categories of respondents (employee and borrowers), individually and in aggregate.

4.1.6 PID Factors Related to Borrowers

Table 4-8: Ranking of borrower-related delay factors by DBE employees

Order as per the Questionnaire	PID Factors	Degree of Frequency		Degree of Severity		Degree of Importance	
		Index	Rank	Index	Rank	Index	Rank
Q215_poprimsk	Poor project implementation management skill	75.00	1	76.89	1	57.67	1
Q212_unraeq	Unable to raise equity	72.73	2	73.86	2	53.72	2
Q214_implschpr	Improper planning/scheduling of the project	67.80	3	71.21	3	48.28	3
Q213_lodi	Loan diversion	62.88	5	70.45	5	44.30	4
Q217_poknchbu	Poor knowledge on the chosen business	57.95	8	70.83	4	41.05	5
Q221_fabuapdesp	Failure to build as per the approved design and specification	60.61	6	64.77	7	39.26	6
Q211_wprfeast	Weak project feasibility study	63.26	4	61.74	9	39.06	7
Q219_resebebo	Rent seeking behavior of the borrowers	58.71	7	64.39	8	37.81	8
Q220_laencopr	Lack of enthusiasm to complete the project	57.20	9	65.15	6	37.26	9
Q216_dechduprim	Design change during project implementation	54.55	10	61.36	10	33.47	10
Q218_diamsha	Dispute among the shareholders	44.70	11	53.03	11	23.70	11

Source: Researcher's Own compilation

Table 4-9: Ranking of borrower related delay factors by DBE Borrowers

Order as per the Questionnaire	PID Factors	Degree of Frequency		Degree of Severity		Degree of Importance	
		Index	Rank	Index	Rank	Index	Rank
Q213_lodi	Loan diversion	69.05	3	72.62	1	50.14	1
Q212_unraeq	Unable to raise equity	76.19	2	65.48	3	49.89	2
Q214_implschpr	Improper planning /scheduling of the project	80.95	1	60.71	5	49.15	3
Q215_poprimsk	Poor project implementation management skill	69.05	4	69.05	2	47.68	4
Q211_wprfeast	Weak project feasibility study	60.71	5	59.52	6	36.14	5
Q217_poknchbu	Poor knowledge on the chosen business	53.57	6	65.48	4	35.08	6
Q219_resebebo	Rent seeking behavior of the borrowers	48.81	7	47.62	9	23.24	7
Q216_dechduprim	Design change during project implementation	44.05	8	48.81	8	21.50	8
Q221_fabuapdesp	Failure to build as per the approved design and specification	40.48	11	52.38	7	21.20	9
Q220_laencopr	Lack of enthusiasm to complete the project	40.48	10	45.24	10	18.31	10
Q218_diamsha	Dispute among the shareholders	40.48	9	42.86	11	17.35	11

Source: Researcher's Own compilation

Table 4-10: Ranking of borrower related delay causes by all parties

Order as per the Questionnaire	PID Factors	Degree of Frequency		Degree of Severity		Degree of Importance	
		Index	Rank	Index	Rank	Index	Rank
Q215_poprimsk	Poor project implementation management skill	73.56	1	75.00	1	55.17	1
Q212_unraeq	Unable to raise equity	73.56	2	71.84	2	52.85	2
Q214_implschpr	Improper planning/scheduling of the project	70.98	3	68.68	5	48.75	3
Q213_lodi	Loan diversion	64.37	4	70.98	3	45.69	4
Q217_poknchbu	Poor knowledge on the chosen business	56.90	6	69.54	4	39.57	5
Q211_wprfeast	Weak project feasibility study	62.64	5	61.21	7	38.34	6
Q221_fabuapdesp	Failure to build as per the approved design and specification	55.75	8	61.78	6	34.44	7
Q219_resebebo	Rent seeking behavior of the borrowers	56.32	7	60.34	8	33.99	8
Q220_laencopr	Lack of enthusiasm to complete the project	53.16	9	60.34	9	32.08	9
Q216_dechduprim	Design change during project implementation	52.01	10	58.33	10	30.34	10
Q218_diamsha	Dispute among the shareholders	43.68	11	50.57	11	22.09	11

Source: Researcher's Own compilation

Borrowers are principal agents in project ownership, management and finance. Their action or inaction could have significant impact on the completion and ultimate success of projects. This study a total of eleven (11) borrower related factors that can delay project implementation process if borrowers are not pay attention to them. Based on frequency of their occurrence and the degree of their severity, important index is calculated and the results are presented in Tables 4-8, 4-9 and 4-10 for both DBE employees and borrowers. Table 4-8 and 4-9, respectively; present ranking of borrower-related PID factors, by DBE employees and borrowers. Table 4-10; on the other hand, present the combined ranking of employees and borrowers, of the borrower-related PID factors. Following, combined important index according to their order of importance are presented.

Accordingly, the combined importance of PID factors according to their order of importance is presented as 'Poor project implementation management skill'(IMP.I=55.17), 'Unable to raise equity'(IMP.I=52.85), 'Improper planning/scheduling of the project'(IMP.I=48.75), 'Loan diversion'(IMP.I=45.69), 'Poor knowledge on the chosen business'(IMP.I=39.57), 'Weak project feasibility study'(IMP.I=38.34), 'Failure to build as per the approved design and specification'(IMP.I=34.44),'Rent seeking behavior of the borrowers'(IMP.I=33.99), 'Lack of enthusiasm to complete the project'(IMP.I=32.08), 'Design change during project implementation'(IMP.I=30.34) and 'Dispute among the shareholders'(IMP.I=22.09). Hereunder,

the top-five PID causes will be discussed, in detail, in terms of the responses of DBE employees and customers.

4.1.6.1 Project Implementation Management

According to Table 4-8, DBE employees ranked lack of pertinent management by the project owners to be the most frequent in occurring and having highest impact if it occurs. This makes it the most important factor (IMP.I=57.67) on causing PID. On the other hand, DBE borrowers (IMP.I=47.68) ranked it to be the fourth important factor (see Table 4-9) in causing PID. On aggregate (see table 4-10), this specific PID cause comes first (IMP.I= 55.17).

In establishing a project (be it private or government owned, business or infrastructure project), management handles (responsible to) all aspects of project implementation process. Detail activities like selecting a business having highest return, loan processing, equity capital sourcing; implementation process planning, organizing, monitoring and evaluation; forecasting external threats and challenges require capable management. Lack of such management skill is taken to be the prime cause of PID. This is consistent with the finding of Abebit (2013) and Belay (2017).

4.1.6.2 Equity Capital

Both DBE employee and customers took inability to raise equity capital by the promoter[4] of the project as the second most import cause of PID, among the given 11 alternatives. DBE Credit policy requires borrowers to raise at least 25% of the total project cost, in cash or in kind. DBE finances the balance (75%) in the form of fixed investment[5]and working loan (DBE Credit Policy, 2017). In most instances, borrowers barely fulfill such minor condition.

Given the importance of equity capital in project financing, DBE follows a very strict procedure to rectify the ability of the borrower. It assesses borrowers' bank statement and other relevant documents to forecast their capacity to raise the earmarked equity. The reviewed documents should clearly portray the ability of borrowers to raise the earmarked sum in their project feasibility study.

According to assessment made on project implementation follow ups of DBE Jimma District financed projects, borrowers face a difficulty of raising the earmarked sum in the middle project

[4] The word 'promoter' could interchangeably be used with customer or borrower, in this study
[5] Fixed investment include building and construction, machinery and equipment and vehicles among others

implementation process. Some borrowers show privately sourced cash as their own, for the mere aim of accessing DBE loan. PID arises when borrowers start repaying back a portion of the privately sourced sum to their lenders, reducing the amount of disbursed fund available for the project under consideration.

Lack of sufficient equity capital has also another dimension. In the middle of project implementation process, a borrower may face a rise in price of some of the capital goods. Most loan contract covenants state such costs shall be covered by a borrower himself. If a borrower does not have strong equity base to cover such unforeseen costs, he/she will certainly face a financing crunch. The Bank expects the borrower to cover such costs, in one way or another. If a borrower fails to do so, the implementation of the project will ultimately delay.

In another and customary scenario, the customer may request the Bank for additional loan. Of course, the Bank has additional loan facility to customers facing financial shortage due to host of reasons. But, processing additional loan takes a very long time, resulting in PID.

This is consistent with the finding of Abebit (2013), Belay (2017) andYetemgeta (2017). The researchers concluded that the shortage of the equity capital is the main cause of the PID; in DBE Head Office financed projects. But, all the three studies did not rank the PID causes in the same order. Lack of raising equity capital is ranked as first by Abebit (2013), second by Belay (2017) and fourth by Yetemgeta (2017), in causing PID.

4.1.6.3 Planning (Scheduling) of the Project

Project planning or scheduling need sound project data to meet its objective. In Ethiopia, however, project planning and design suffers from lack of data and comprehensive planning, scheduling and knowhow. Owing to this, most of the project feasibility and appraisal studies fail to reasonably predict the span of project implementation period.

To tackle the problem from the outset, DBE has a Directorate[6] (unit or department) that collects and submits data for loaning [7]units. The Directorate collects (market and other relevant) data from the related government and private institutions, analyze it, after it gets approval by the research studies approval committee, send it to credit units, to be used for loan processing

[6] The unit at DBE that supplies data for loaning units is called Project Data and Research Management Directorate. It reports to VP Corporate Service to maintain check and balance.
[7] Loaning units in DBE context include Client Relationship Management Directorate, Project Appraisal Directorate, Loan Review Teams at Head Office and Branches at DBE Districts

purpose. Most of the time, these data and the research study itself lack quality.A project planning or scheduling made based on this data is prone to misjudgment and failure.

According to the ranking factors made in Table 4-8 and 4-9, employees and borrowers ranked this factor as the third important one, with IMP.I 48.28 and 49.15, respectively. In combined ranking (See table 4-10), too, the factor becomes the third important one, with IMP.I of 48.75.

'Improper planning and rescheduling' is the Top-five important causes of delay based on the study made on DBE Head Office (Abebit, 2013; Ifa, 2017; Yetemgeta, 2017; & Tadesse, 2018). Studies made by Prakash and Culas (2014) andAssaf and Al-Hejji (2016) show that lack of proper planning and scheduling is among the top causes of construction PID.Werku and Jha(2016) on the other hand, recommended a contractor should establish a dedicated team for planning, follow-up the progress of the work in daily basis and pending issues.

4.1.6.4 Loan Diversion

Loan diversion is taken to be the most important PID causing factor for DBE borrowers (IMP.I=50.14) and the fourth most important (IMP.I=44.30) for DBE employees. The combined rankings of DBE employees and borrowers, makes 'Loan diversion', the third most important PID (IMP.I= 45.69).

Project planning, feasibility or appraisal[8] reports capture the allocation of loan budget to each and every investment and working capital item of a project. 'Loan diversion' occurs when a borrower shifts a loan budget to another unplanned item, against loan contract and without the consent of the Bank. Diverting of loan fund to another business venture or another activity reduces the budget available for the project at hand. This finding is consistent with Ifa (2018), which concluded that miss utilization of the disbursed fund is the second most important cause of PID.

4.1.6.5 Knowledge and Experience on the chosen Line of Business

DBE employees ranked lack of knowledge of the chosen business as the fifth important (IMP.I=41.05) causes of PID while borrowers ranked it as the sixth important (IMP.I=35.08); the combined ranking put the factor as the fifth important (IMP.I=39.57).

[8] Project appraisal the task of evaluation and validation the feasibility study submitted by the promoter

Businesses can be run by hired professional managers. But, the importance of general knowledge of the owners of business has no replacement. Most of DBE customers enter in to long term business investment without having sufficient knowledge on the business. This is, of course, relates to poor entrepreneurial culture of the business community of the country.

Lack of knowledge of the business to be promoted has significant implication. It includes not well knowing the full list of machineries required, the cost of establishment, not selecting the proper place and time to invest and the like. It is evident that not having general knowledge on the business to be established has direct impact on the implementation process of a given project. This finding is inline the finding of Mahamid(2017), which argued that it is established fact from learning effect that if you do the same task more than onetime, you will control it better with less time and cost.

4.1.7 PID Factors Related to Bank

Table 4-11: Ranking of bank related delay causes by DBE employees

Order as per the Questionnaire	PID Factors	Degree of Frequency		Degree of Severity		Degree of Importance	
		Index	Rank	Index	Rank	Index	Rank
Q223_wekycas	Weak KYC assessment	70.45	2	73.11	1	51.51	1
Q222_weprimfo	Weak project implementation follow up	71.59	3	68.94	4	49.35	2
Q224_weapst	Weak appraisal study	64.77	4	72.73	2	47.11	3
Q227_unpatideuncioc	Unable to pass timely decisions when unforeseen circumstances occurred	61.36	1	72.35	3	44.40	4
Q225_deprlodi	Delayed project loan disbursement	63.64	7	64.77	5	41.22	5
Q226_unfi	Under financing	63.64	9	60.23	9	38.33	6
Q228_lacocrop	Lack of competency of credit operators	55.68	10	61.36	8	34.17	7
Q231_laflacch	Lack of flexibility to accommodate change	51.14	6	64.39	6	32.93	8
Q229_lolicodi	Long list of conditions for disbursement	54.55	8	59.85	10	32.64	9
Q230_resebe	Rent seeking behavior	52.27	11	58.33	11	30.49	10
Q232_tiprimsch	Tight project implementation schedule	47.73	5	63.26	7	30.19	11

Source: Researcher's Own compilation

Table 4-12: Ranking of bank related delay causes by DBE borrowers

Order as per the Questionnaire	PID Factors	Degree of Frequency		Degree of Severity		Degree of Importance	
		Index	Rank	Index	Rank	Index	Rank
Q226_unfi	Under financing	76.19	1	77.38	1	58.96	1
Q225_deprlodi	Delayed project loan disbursement	75.00	2	75.00	4	56.25	2
Q231_laflacch	Lack of flexibility to accommodate change	71.43	4	77.38	3	55.27	3
Q229_lolicodi	Long list of conditions for disbursement	69.05	5	72.62	5	50.14	4
Q227_unpatideuncioc	Unable to pass timely decisions when unforeseen circumstances occurred	73.81	3	58.33	9	43.06	5
Q223_wekycas	Weak KYC assessment	63.10	7	65.48	8	41.31	6
Q232_tiprimsch	Tight project implementation schedule	57.14	8	70.24	7	40.14	7
Q228_lacocrop	Lack of competency of credit operators	51.19	9	77.38	2	39.61	8
Q222_weprimfo	Weak project implementation follow up	45.24	10	70.24	6	31.77	9
Q224_weapst	Weak appraisal study	67.86	6	34.52	11	23.43	10
Q230_resebe	Rent seeking behavior	41.67	11	53.57	10	22.32	11

Source: Researcher's Own compilation

Table 4-13: Ranking of bank related delay causes by both parties

Order as per the Questionnaire	PID Factors	Degree of Frequency		Degree of Severity		Degree of Importance	
		Index	Rank	Index	Rank	Index	Rank
Q227_unpatideuncioc	Unable to pass timely decisions when unforeseen circumstances occurred	72.13	1	68.97	3	49.74	1
Q223_wekycas	Weak KYC assessment	68.68	3	71.26	1	48.94	2
Q231_laflacch	Lack of flexibility to accommodate change	63.79	2	67.53	4	43.08	3
Q222_weprimfo	Weak project implementation follow up	60.06	7	69.25	2	41.59	4
Q224_weapst	Weak appraisal study	64.66	4	63.51	9	41.06	5
Q225_deprlodi	Delayed project loan disbursement	60.34	6	67.24	5	40.58	6
Q232_tiprimsch	Tight project implementation schedule	62.07	5	64.94	7	40.31	7
Q226_unfi	Under financing	58.05	8	64.37	8	37.36	8
Q229_lolicodi	Long list of conditions for disbursement	58.05	9	62.93	10	36.53	9
Q228_lacocrop	Lack of competency of credit operators	51.15	10	65.23	6	33.36	10
Q230_resebe	Rent seeking behavior	46.26	11	57.18	11	26.46	11

Source: Researcher's Own compilation

DBE employees and borrowers ranked PID factors that are related to DBE internal operational activities based on a four-point liker scale. They ranked the factors differently according to their perspective. Table 4-11, 4-12, and 4-13 presents ranking of bank related delay causes by DBE employees, by borrowers and the combined ranking of the two, respectively. Following, the results of the combined rankings presented for discussion and analysis.

Accordingly, the combined importance of PID factors according to their order of importance is presented as 'Unable to pass timely decisions when unforeseen circumstances occurred' (IMP.I=49.74), 'Weak KYC assessment' (IMP.I=48.94), 'Lack of flexibility to accommodate change' (IMP.I=43.08), 'Weak project implementations follow up' (IMP.I=41.59), 'Weak appraisal study' (IMP.I=41.06), 'Delayed project loan disbursement' (IMP.I=40.58), 'Tight project implementation schedule' (IMP.I=40.31), 'Under financing' (IMP.I=37.36), 'Long list of conditions for disbursement' (IMP.I=36.53), 'Lack of competency of credit operators' (IMP.I=33.36), and 'Rent seeking behavior' (IMP.I=26.46). Hereunder, the top-five PID causes will be discussed, in detail, looking in to the views of the DBE employees and customers.

4.1.7.1 Making Timely Decision

DBE employees ranked (IMP.I=41.22) 'Unable to pass timely decisions when unforeseen circumstances occurred' as the fourth important PID cause. On the other hand, borrowers ranked it (IMP.I=41.31) as the fifth important factor. The combined ranking of employees and borrowers make it the most important one (IMP.I=49.74).

Establishing a project is a complex activity involving the participation of a number of stakeholders beyond the bank and the borrower. Unforeseen events encounter project implementation process now and then. Forecasting those unforeseen events beforehand and making sound and timely decision is crucial to avert PID.DBE is the major stakeholder in the project being established. Making timely decision when those unforeseen events encounter reduces project implementation delay, significantly. Both Abebit (2013) and Yetemgeta (2017) found that 'Unable to pass decision on time' is the among top-five causes of PID.

4.1.7.2 Know Your Customer (KYC)

DBE employees ranked (IMP.I=51.51) 'Weak KYC assessment' as the most important PID cause. On the other hand, borrowers ranked it (IMP.I=43.06) as the sixth important factor. The combined ranking of employees and borrowers make it the most important one (IMP.I=48.94).

KYC is the single most important activity that lenders do assessment regarding the bankability of their borrowing customers. It is another name for due diligence assessment. Banks need to know their customer in terms of their management skill, ability to raise equity capital, their relationship with other banks and with the communities where the project is going to be established, their credit history and the like. Not well knowing your customers means, putting Banks money in

wrong hands. DBE's weak KYC assessment is the most important cause of PID. Studies conducted by Abebit (2013), Belay (2017), Ifa (2018) and Yetemgeta (2018) confirmed same.

4.1.7.3 Tight Project Implementation Schedule

DBE employees ranked (IMP.I=30.19) 'Tight Project Implementation Schedule' as the most important PID cause while borrowers ranked it (IMP.I=43.06) as the sixth important factor. The aggregate ranking of employees and borrowers make it the most important one (IMP.I=40.14).

Assumptions are the basis for setting of project implementation schedule. They are based on experience of project feasibility appraisers and real factors on the ground. Due to lack of pertinent data and information such assumption are mostly arbitrary and do not represent the real situation on the ground. In most cases, the assumptions do not hold. The project implementation schedule that is based these assumptions is not only imperfect but also tight. Not meeting those tight schedule results in PID. Previous studies conducted on PID at DBE Head office projects did not consider this factor as an important cause of PID.

4.1.7.4 Project Implementation Follow up

DBE employees considers lack of project implementation follow up as the 2ndmost important factor (IMP.I=49.35) causing PID while borrowers consider this factor as the 9th important factor (IMP.I=31.77).

Project implementation process demands frequent follow up from the Bank side. Otherwise, the disbursed fund may end up misused or diverted to other unplanned purpose. DBE undertakes project implementations follow up activity once in three months, according to the credit procedure of the Bank. This helps to solve problems right before they happen.

Follow up reports help identify problems and come up with solutions. It is one of the mechanisms to awaken customers not to make unsound decisions that affect the interest of the Bank in general and the commissioning of the project in particular. It helps the Bank to think ahead of time on how to give a customer technical and financial support if need be. Undertaking periodic project implementations follow up helps mitigate PID.

4.1.7.5 Appraisal Study

Borrowers consider 'Weak appraisal study' as the 9th important factor (IMP.I=23.43). For the DBE employees the factor is the 3rd important one (IMP.I= 47.11). It the fifth important factor (IMP.I=41.06) in aggregate. See table 4-11, 4-12 and 4-13 for the detail.

Appraisal Study is the process of evaluating the feasibility study of the customer for its bankability. The study determines project establishment costs, terms and condition of the loan and reviews the overall feasibility of the project as presented by the borrower. For hosts of reasons, appraisal study could end up being poor.

Under estimation of costs and missing of important investment items is common feature of poor appraisal study. Poor appraisal study makes the project to require additional loan and equity contribution from the customer side for cost overrun and missed investment items. This becomes a challenge to a borrower as processing additional loan requires significant time and cost. Hence, week project feasibility appraisal study ends up being the reason for PID. Nonetheless, none of the studies conducted on the causes of PID at DBE found this factor as a significant cause.

4.1.8 Ranking of External PID Factors

Table 4-14: Ranking of External delay causes by DBE employees

Order as per the Questionnaire	PID Factors	Degree of Frequency		Degree of Severity		Degree of Importance	
		Index	Rank	Index	Rank	Index	Rank
Q233_shfocu	Shortage of foreign currency (USD)	75.00	1	77.27	1	57.95	1
Q235_pres	Price escalation	73.11	2	75.38	2	55.11	2
Q234_cufl	Currency Fluctuation	72.73	3	72.35	3	52.62	3
Q238_desumasu	Delay in supply of machineries by suppliers	68.18	4	68.18	6	46.49	4
Q236_lain	Lack of infrastructure like road, power and water	66.67	5	69.70	5	46.46	5
Q237_poun	Political unrest	63.64	6	72.35	4	46.04	6
Q244_cofaamst	Coordination Failure Among stakeholders	60.98	7	65.53	7	39.96	7
Q241_baweco	Bad weather conditions	60.23	8	62.88	8	37.87	8
Q240_naca	Natural calamities	58.71	9	60.98	9	35.81	9
Q239_locuclpr	Long custom clearing process	57.95	10	60.61	10	35.12	10
Q242_shla	Shortage of Labor	45.08	11	51.89	12	23.39	11
Q243_lacoma	Lack of construction materials	42.42	12	53.41	11	22.66	12

Source: Researcher's own compilation

Table 4-15: Ranking of external delay causes by DBE customers

Order as per the questionnaire	PID Factors	Degree of Frequency		Degree of Severity		Degree of Importance	
		Index	Rank	Index	Rank	Index	Rank
Q235_pres	Price escalation	78.57	2	83.33	1	65.48	1
Q234_cufl	Currency Fluctuation	79.76	1	77.38	3	61.72	2
Q237_poun	Political unrest	71.43	3	83.33	2	59.52	3
Q236_lain	Lack of infrastructure like road, power and water	67.86	4	72.62	5	49.28	4
Q242_shla	Shortage of Labor	67.86	5	64.29	7	43.62	5
Q238_desumasu	Delay in supply of machineries by suppliers	54.76	9	77.38	4	42.38	6
Q244_cofaamst	Coordination Failure Among stakeholders	65.48	6	64.29	8	42.09	7
Q233_shfocu	Shortage of foreign currency (USD)	57.14	7	71.43	6	40.82	8
Q241_baweco	Bad weather conditions	57.14	8	63.10	9	36.05	9
Q243_lacoma	Lack of construction materials	45.24	12	61.90	10	28.00	10
Q240_naca	Natural calamities	52.38	11	52.38	11	27.44	11
Q239_locuclpr	Long custom clearing process	52.38	10	47.62	12	24.94	12

Source: Researcher's own compilation

Table 4-16: Ranking of external delay causes by all parties

Order as per the questionnaire	PID Factors	Degree of Frequency		Degree of Severity		Degree of Importance	
		Index	Rank	Index	Rank	Index	Rank
Q235_pres	Price escalation	74.43	1	77.30	1	57.53	1
Q234_cufl	Currency Fluctuation	74.43	2	73.56	4	54.75	2
Q233_shfocu	Shortage of foreign currency	70.69	3	75.86	2	53.63	3
Q237_poun	Political unrest	65.52	5	75.00	3	49.14	4
Q236_lain	Lack of infrastructure like road, power and water	66.95	4	70.40	5	47.14	5
Q238_desumasu	Delay in supply of machineries by suppliers	64.94	6	70.40	6	45.72	6
Q244_cofaamst	Coordination Failure Among stakeholders	62.07	7	65.23	7	40.49	7
Q241_baweco	Bad weather conditions	59.48	8	62.93	8	37.43	8
Q240_naca	Natural calamities	57.18	9	58.91	9	33.69	9
Q239_locuclpr	Long custom clearing process	56.61	10	57.47	10	32.53	10
Q242_shla	Shortage of Labor	50.57	11	54.89	11	27.76	11
Q243_lacoma	Lack of construction materials	43.10	12	55.46	12	23.91	12

Source: Researcher's own compilation

The study ranked 12 external PID causing factors according to their importance. First, importance index ranking according to DBE Employee response to External PID factors is made followed by DBE borrowers ranking of same. Ranking of DBE employees and customers is shown in Table 4-14 and 4-15 below. Then after, to give better insight in to the causes of PID, the combined ranking of employee and borrowers is made and presented here under in its importance order.

The overall rankings of the 12 external PID causing factors are 'Price escalation (IMP.I=54.75), 'Currency Fluctuation' (IMP.I=53.63), 'Shortage of foreign currency' (IMP.I=49.14), 'Political

unrest' (IMP.I=47.14), 'Lack of infrastructure like road, power and water' (IMP.I=45.72), 'Delay in supply of machineries by suppliers' (IMP.I=40.49), 'Coordination failure among stakeholders'(IMP.I=37.43),'Bad weather conditions' (IMP.I=33.69),'Natural calamities' (IMP.I=33.69),'Long custom clearing process' (IMP.I=32.53),'Shortage of labor' (IMP.I=27.76), and 'Lack of construction materials' (IMP.I=23.91). Following, the top-five PID factors ranking based on the importance index derived from the combined rankings will be discussed in detail.

4.1.8.1 Price Escalation

According to Table4-14, DBE employees rank 'Price escalation' to be the second most important (IMP.I=55.11) PID cause. On the other hand (see Table 4-15), DBE customers make it the most important PID cause (IMP.I=65.48).The combined ranking by DBE employee and borrowers make it this factor to be the most important PID causing (IMP.I=57.53)

Project cost determination requires evaluation of the price of machineries, construction inputs, raw materials and consumables. The general rise in price level (inflation) and the rise in price of specific investment items create havoc on the project implementation process.

Projects by their definition, demand stable micro economic environment in general and stable and predictable prices of capital goods in particular. When prices of products keep changing from time to time, it would be difficult to grasp the full project establishment cost. The unexpected rise in prices of investment items increases the total cost of the project and changes the debt-equity position of the project. Change in debt-equity ratio ultimately requires additional investment from the borrower and the DBE, alike. According to Werku & Jha(2016), 'Escalation of materials prices' is the number one cause of construction projects delay in Ethiopia.

4.1.8.2 Foreign Exchange Fluctuation

This is the continuous depreciation of Ethiopian Birr against major international currencies; such as, US Dollar and Euro. DBE employees considered foreign exchange fluctuation as the 3rd importance cause of PID (IMP.I= 52.62). DBE customers, on the other hand, considered this factor as the 2nd most important factor (IMP.I= 61.72). The aggregate importance index makes this factor the second most important one (IMP.I= 54.75).This finding is consistent with the finding of Belay (2017), which found that 'Foreign currency fluctuation' as the 6th important factor.

Foreign currency position of Ethiopia is low. High amount of import coupled with low export performance is the characteristic feature of Ethiopia's international trade. This is creating huge pressure on NBE to reduce the exchange rate between Ethiopian Birr and other major currencies.

To cope with the pressure, NBE forced to depreciate Ethiopia Birr against major currencies. Price of investment items escalates due to depreciation of Ethiopian Birr, increasing the value of major imported capital items. This has similar impact on the project implementation process as of prices escalation factor discussed above.

4.1.8.3 Shortage of Foreign Currency

The combined ranking of customers and DBE employee makes 'Shortage of foreign currency' as the third importance PID Cause (IMP.I= 53.63). But, for DBE employees this is the most important cause of PID (IMP.I= 57.95). In stark contrast with DBE employees, customers rank this factor as the 8th PID cause. But, given the current Ethiopian economic outlook, shortage of foreign currency is the pressing economic problem the country is facing. Earlier studies also put shortage of foreign currency the prime cause of PID. According to Belay (2017) both clients and employees ranked shortage of foreign currency as the first factor among the external causes related delays factors.

Ethiopia's foreign currency imbalance is wide and keeps increasing. The amount of export that the country makes falls short of imports. Other sources of foreign exchange like tourism and remittances are hard hit by the ongoing political crises. Most of DBE financed projects requires imported machinery, consumables and raw materials. DBE meets its foreign currency demand largely from NBE and small amount from its financed projects. NBE approves foreign currency to importers after long vetting and queuing. Foreign currency shortage ultimately results in PID.

4.1.8.4 Political Unrest

In the last four years Ethiopia political landscape is changing. There has been political unrest in most parts of the country. The unrest has largely been led by youth and characterized by civil disobedience and road blockings to disrupt the transportation system in the country. Lockdown in transportation system makes movement of labor and project inputs virtually difficult. Above all, transporting of labor power from surplus areas to areas where there is in shortage is found to be difficult.

Beyond that most businesses in regional towns are obliged to suspend operation, sometimes for a weak and beyond. This disrupts the normal follow of business operation in the country and the smooth operation of project under the implementation process. In some areas, there were ransacking and burning of project properties due to unwilling of local government to enforce law and order.

In this study, respondent customers have made 'Political unrest' to be the most important (IMP.I=49.14) PID causing factor. In contrast, it is the 6th important (IMP.I=46.04) PID causing factor for DBE employees. Earlier studies made on DBE Head office financed projects did not even consider 'Political unrest' to be PID causing factor in the first place, as the country was relatively stable by that time.

4.1.8.5 Lack of Infrastructure

Infrastructure like road, water and electricity are crucial for a project establishment and ultimate success. In Ethiopia, the supply of basic utilities is at its infant stage. Lack of power supply is one of the challenges projects face at their early stage. The public power supply company, Ethiopian Electric Corporation, pledges to supply power on time for projects, but mostly it fails to honor its promise. It is the same for access road to projects and supply of water for project sites.

Government officials in a bid to grow the economy of the country, issue investment licenses and lease land for investors in the absence of infrastructures like access road and utilities. Most of the time there is a time lag between issuing investment certificate (or provision of land) and fulfillment of basic utilities and accessed road. Hence, lack of infrastructure in project sites become the major impediment for timely implementation of projects.

This study took lack of infrastructure among the causes of PID. It is the fifth important cause of PID (IMP.I=46.46) for both DBE employee and customers. The combined ranking of this factor makes it also the fifth important one (IMP.I=47.14). Earlier studies make on the problem show that lack of infrastructure is among the important PID for Belay (2017).

4.4. Importance Rank Correlation

Correlation is a relationship measure among different parties or factors; and the strength and direction of the relationship. Spearman Rank Correlation is used to measure the strength of

relationship between two non-parametric variables whose distribution does not satisfy the condition of normality and do not have linear relationship (See Equation 5). The main objective of this coefficient is to determine the extent to which the two sets of ranking are similar or dissimilar.

Based on the conventional definition of effect size for correlations (ignoring the sign); the correlation coefficient between 0.00 and 0.19, 0.20and0.39, 0.40and0.59, 0.60and0.79; and 0.80 and 1.0, respectively, are for very weak, weak, moderate, strong and very strong.

Table 4-17: Spearman Rank Correlation Coefficients

S/N	Groups	No. of Observation	Employee Vs. Borrowers Rank Correlation	Significance Level
1	Borrower related factors	11	0.7545	0.95
2	Bank related factors	11	-0.0273	0.95
3	External factors	12	0.6305	0.95

This study tried to show how the two respondent categories (DBE Employee and Borrowers) ranked each group (borrower related, bank related and external) of PID causes. Accordingly, the correlation coefficient between employee and borrowers ranking for borrowers' related PID causes is moderate, with correlation coefficient of 0.75. This implies there is reasonably good agreement between employees and borrowers on the ranking of borrower related PID causes. The Spearman's Rank correlation coefficient for the two parties on external factors is also moderately positive, 0.63. The two parties (employee and borrowers) reasonably agree on the rankings of importance of external cause of PID.

The results agree with the findings of Belay (2017) in which he found that borrowers rating of the causes of PID had a strong with that of DBE employees' ratings on bank related and external causes of delay. But, on bank related causes the Spearman Rank Correlation coefficient is not only negative but also small in absolute terms; 0.03.This is quite the reverse of the finding of Belay (2017), which found that the correlation coefficient between employees and borrowers rankings for bank related causes positive and statistically significant. See Table 4-17 for the detail.

CHAPTER FIVE
SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of Findings

DBE is one of government owned financial institution that engaged in providing medium- and long-term credit for businesses in priority area of the government. Priority areas for the government of Ethiopia include irrigated agriculture, agro processing and manufacturing industries. Project Implementation Delay (PID) is the major problem of DBE financed projects. Successfully implemented projects at DBE are less than 40%overall financed projects. PID is one of the factors contributing to the mounting NPLs position of the Bank.

The broad objective of the study is to identify the causes of PID, for DBE Jimma District financed projects. Identifying the PID factors in terms of the three major stakeholders (borrowers, DBE and external factors), ranking them according to their frequency and severity (which means importance) is the theme of this study.

Based on extensive literature review, interview with experienced employees of the DBE and personal experience, the researcher identified a total 34 PID factors. The researcher gathered primary data through structured questionnaire from all DBE Jimma District; Branch and Team managers, and loan officers having above four years of experience. Theresearcher collected additional primary data through questionnaire from Nekemte and Gambella Districts working in credit units, to boost as much information as possible. To fully capture the causes of the PID, the same questionnaire were distributed to the borrowers of DBE Jimma District, who were chosen purposively and conveniently.

The questionnaire is found to satisfy both internal consistency and reliability criteria, as verified by the statistic Cronbach Alpha. As part of reliability analysis, piloting is conducted to confirm for the validity of the questionnaire.

The study ranked all the34 PID factors according to their importance. Important Index is the product of frequency and severity indices. Frequency Index shows the number of times specific variable occurs while severity index presents the impact of the variable on project implementation process, when it occurs.

The top-five borrower related PID causes according to their importance are the following: Poor project implementation management skill, 'Unable to raise equity, Improper planning of the project, 'Loan diversion and 'Poor knowledge on the chosen business. Similarly, the top-five bank related PID causes according to their importance are the following: Unable to pass timely decisions when unforeseen circumstances occurred, Weak KYC assessment, Lack of flexibility to accommodate change, weak project implementations follow up and weak appraisal study. Lastly, the Top five external causes of PID includes, Price escalation, Currency Fluctuation, Shortage of foreign currency, Political unrest, lack of infrastructure like road, power and water.

On the other hand ranking all the factors, the top-ten causes of PID according to their importance include price escalation, currency fluctuation, shortage of foreign currency, poor project implementation management skill, unable to raise equity by borrowers, weak KYC assessment by the bank, tight project implementation schedule, improper scheduling of the project of the borrowers, weak project implementation follow-up by the bank and delay in supply of machineries by suppliers. The least-five important causes of PID include rent seeking behavior of DBE Employees, lack of competency of credit operators, dispute among the shareholders, shortage of labor and lack of construction materials.

5.2 Conclusion

DBE Jimma District Non-Performing Loan ratio is staggeringly high, well beyond the acceptable level by NBE. Project Implementation delay is among the major cause of non-performing loans. That is high proportion PID means large numbers of projects do no meat implementation schedule as agreed on the loan contract. If implementation schedule is not met, projects neither service debt nor repay their loan, which ultimately classifies the project as non-performing.

This study identified and ranked more than 34 PID factors from each major stakeholder in project finance. It found out that external factors are the major causes of PID followed factors related borrowers. Issues related to improper functioning of the commodity and forex market, and the management aspect of the project deemed to cause PID. In nutshell, the major causes of PID are mostly beyond the control of the Bank. To reduce the impact PID on the overall performance of the Bank, project appraisal studies should give due consideration for the frequent project implementation delaying causing factors identified in this study. Recommendation

5.2.1 General Recommendation

The study recommended the following for all stakeholders, to reduce PID.

Borrowers should give special attention to the following:

i. Employ capable project implementation management staff – both in terms of human capital and experience
ii. Need to have enough capital to start and promote the establishment a given project
iii. Project implementation process should be well planned by considering the surrounding political, economic and social condition

DBE should give special attention to the following:

i. Contingency allowance for unexpected rise in prices and/or for currency depreciation should be planned and has to be part of project contingency cost. Bankability of the project should be checked by taking such factors in to consideration.
ii. During project appraisal study, the amount of foreign currency required for the project should be estimated and its availability should be checked a head of loan contract signing
iii. Need to check the promoter's ability to have capable management to run the project's implementation process and sufficient capital to start the given project right before loan contract signing
iv. Project implementation process should be well planned/scheduled; loan disbursement schedule should be based on real situation on the ground and also need to be flexible enough to accommodate change.
v. Strict project implementations follow up needs to be made as per the working procedure of the Bank.

5.2.2 Recommendation for further Research

It is worthwhile to conduct similar studies in other districts of DBE in order to assess the generalizability of this analysis. Furthermore, future study can be conducted to estimate the probability of delay of factors, by using this study as a stepping stone. Undertaking these two types of analysis would help to make general inference about project implementation and management in national mega projects.

REFERENCES

Al-Emad .N., Rahman, I.S., Nagapan,S., Gamil, Y. (2016) Ranking of Delay Factors for Makkah's Construction Industry. *MATEC Web of Conferences 103, 03001 (2017).* [Online] Available from: DOI: 10.1051/matecconf/20171030 ISCEE 2016[Accessed 2ndJune 2020].

Algina, J. & Keselman, H. J. (1999) Comparing squared multiple correlation coefficients: *Examination of a confidence interval and test significance*. Psychological Methods, 4(1), 76-83.

Alinaitwe, H., Apolot, R. & Tindiwensi,D. (2013) Investigation into the Causes of Delays and Cost Overruns in Uganda's Public Sector Construction Projects. *Journal of Construction in Developing Countries, 18(2), 33–47, 2013*

Assaf, S. A., & Al-Hejji, S. (2005) Causes of delay in large construction projects. *International Journal of Project Management. [Online] 24 (2006), 349–357*. Available from: www.sciencedirect.com [Accessed 30th November 2019].

Aziz, R.F. (2013) Ranking of delay factors in construction projects after Egyptian revolution. *Alexandria Engineering Journal (2013)52,387-406.* [Online] Available from: http://dx.doi.org/10.1016/j.aej.2013.03.002 [Accessed 03thMay 2020].

Belay, T. (2017) *Major Causes of Project Implementation Delay, the Case of Development Bank of Ethiopia Financed Projects.* [Online] Available from: http://etd.aau.edu.et/bitstream/handle/123456789/13603/Belay%20Teferra.pdf?sequence=1&isAllowed=y [Accessed 19thJuly 2020].

Bernard, H. R. (2002) *Research methods in anthropology: qualitative and quantitative approaches (3rd Ed.)*. Walnut Creek, CA: Alta Mira Press

Cresswell, J. W. & Plano Clark, V. L. (2011) *Designing and Conducting mixed method research (2nd Ed.)*. Thousand Oaks, CA: Sage.

Etikan, I., Musa, A. M. & Alkassim, R. S. (2016) Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics.*Vol. 5, No. 1,

2016, pp. 1-4. [Online] Available from: doi: 10.11648/j.ajtas.20160501.11 [Accessed 29thNovember 2019].

Haile Mariam, A. (2013) *Causes and effects of project implementation delay on loan recovery performance*: *the case of selected projects financed by Development Bank of Ethiopia. Addis Ababa:* thesis (MA) St. Mary's University. [Online] Available from: https://opendocs.ids.ac.uk/opendocs/handle/20.500.12413/7903 [Accessed 19thJuly 2020].

Ifa, Sh. (2018). *Research project on causes of project implementation delay: the case of development bank of Ethiopia financed projects.* Thesis (MA) Addis Ababa University.

James, J.G. (2015) *Determinants of Projects Delay in the Construction Industry in Kenya; The Case of Selected Road Projects Implemented by Kenya National Highways Authority in Kenya's Coast Region.* Thesis (MA) University of Nairobi, Nairobi.

Joshi, A.,Kale, S., Chandel,S. & Pal, D.K. (2015) Likert scale: explored and explained. *British Journal of Applied Science & Technology 7(4): 396-403, 2015, Article no.BJAST.2015.157.* [Online] Available from: DOI: 10.9734/BJAST/2015/14975 [Accessed 13th June 2020].

Kothari, C. R. (2004) *Research Methodology; Methods & Techniques*. New Delhi, India: New Age International Publishers.

Kumar, P. & Raj, P. (2015) Delay Analysis of Projects and Effects of Delays in the Mining/ Manufacturing Industries. *IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE) E-ISSN: 2278-1684, p-ISSN: 2320-334X, Volume 12, Issue 6 Ver. IV (Nov. - Dec. 2015), PP 61-7.* [Online] Available from: DOI: 10.9790/1684-12646171 [Accessed 03th December 2019].

Marzouk, M.M. & El-Rasas, T. (2014) *Analyzing delay causes in Egyptian construction*

Megha, D. & Rajiv B. (2013) A Methodology for Ranking of Causes of Delay for Residential Construction Projects in Indian Context. *International Journal of Emerging Technology and Advanced Engineering. Volume 3, Issue 3, March 2013.* [Online] Available from: http://www.ijetae.com [Accessed 12th February 2020].

Mohammed, I. (2017) Schedule delay in Saudi Arabia road construction projects: size, estimate, determinants and effects. *International Journal of Architecture, Engineering and Construction Vol 6, No 3, September 2017, 51-58.* [Online] Available from: http://dx.doi.org/10.7492/IJAEC.2017.017 [Accessed 30th November 2019]

Project Management Institute (2004) *A guide to the project management body of knowledge* Newtown Square, Pa: Project Management Institute. [Online] Available from:https://caricom.org/wpcontent/uploads/PMI_Project_Management_Body_of_Knowledge_Guide.pdf Accessed 30th November 2019]

Projects. (2014) *Journal of Advanced Research* 5 49-55. [Online] Available from: http://dx.doi.org/10.1016/j.jare.2012.11.005 [Accessed 30th November 2019]

Rahi, S. (2017) Research Design and Methods: *A Systematic Review of Research Paradigms, Sampling Issues and Instruments Development Int J Econ ManagSci 6: 403*. [Online] Available from: doi: 10.4172/2162-6359.1000403[Accessed 05th January 2020]

Rao, B.P. & Culas, J.C. (2014) Causes of delays in construction projects- a case study. *International Journal of Current Research Vol. 6, Issue, 06, pp.7219-7222, June, 2014.* [Online] Available from: http://www.journalcra.com/ [Accessed 03th December 2019]

Revilla, M. A., Saris, W. E., &Krosnick, J. A. (2013) Choosing the number of categories in agree-disagree Scales. *Sociological Methods & Research, 43(1), 73–97.* [Online] Available from: http://doi.org/10.1177/0049124113509605 [Accessed 29th November 2019].

Roopa, S. & Rani, MS. (2012) Questionnaire Designing for a Survey. *J Ind Orthod Soc 2012; 46 (4):273-277.* [Online] Available from: http://www.jios.in/ [Accessed 14th June 2020]

Singer, E. & Couper, M. P. (2017) Some methodological uses of responses to open questions and other verbatim comments in quantitative surveys. *Methods, data, analyses Research Center, University of Michigan.* [Online] 11(2), 2017, pp. 115-134 DOI: 10.12758/mda.2017.01 [Accessed 29th November 2019].

Susmitha, K., Hemantha, R., &Asadi, S. (2018) A Statistical Approach for Ranking of Factors Impacting the Timeline of Residential Construction Projects Using Important Index Method (IMPI). *International Journal of Civil Engineering and Technology*, 9(5), 2018, pp. 1075–

1083. [Online] Available from: http://www.iaeme.com/IJCIET/issues.asp?JType=IJCIET&VType=9&IType=5[Accessed 30th May 2020].

Tadesse, T. (2017) *Determinants of Project Implementation Delay*: The Case Of Selected Projects Financed By Development Bank Of Ethiopia. [Online] Available from: http://repository.smuc.edu.et/bitstream/123456789/3510/1/Tadesse%20Thesis.pdf Accessed 14th June 2020]

Tan, Li Jr. (2012) Confidence Intervals for Comparison of the Squared Multiple Correlation Coefficients of Non-nested Models. *Electronic Thesis and Dissertation Repository Paper 384.* [Online] Available from: http://ir.lib.uwo.ca/etd [Accessed 14th June 2020]

Travakol, M. & Dennick, R.(2011) Making sense of Cronbach's alpha. *International Journal of Medical Education. 2011; 2:53-55.* [Online] Available from: DOI: 10.5116/ijme.4dfb.8dfd [Accessed 02th June 2020]

Venkatesh, P.K. & Venkatesan,V.(2017) Delays in construction projects: a review of causes need and scope for further research. *Malaysian Construction Research Journal; Vol. 23 (No.3) 2017.*[Online] Available from: https://www.researchgate.net/publication/325381206 [Accessed 02th December 2020]

Weijters, B., Cabooter, E., & Schillewaert, N. (2010) the effect of rating scale format on response styles: The number of response categories and response category labels. *International Journal of Research in Marketing, 27(3), 236–247.* [Online] Available from: http://doi.org/10.1016/j.ijresmar.2010.02.004 [Accessed 14th December 2020]

Werku, K. & K. N. Jha. (2016) Investigating Causes of Construction Delay in Ethiopian Construction Industries. *Journal of Civil, Construction and Environmental Engineering*. Vol. 1, No. 1, 2016, pp. 18-29. [Online] Available from:doi: 10.11648/j.jccee.20160101.13[Accessed 30th November 2019]

Wilfred, A. & Sharauden, M. (2015) A methodology to identify the delays and rank its causative factors in Indian construction industry. *International Research Journal of Engineering and Technology (IRJET), Volume: 02 Issue: 03 | June-2015. [Online] Available at www.irjet.net [Accessed 05th January 2020]*

Yetemgeta, A. (2017) *The Determinants of Delay in Implementation of Projects financed by Development Bank of Ethiopia*. A thesis (Msc). Debre Markos University.

APPENDIXES ONE:
QUESTIONNAIRE

The Determinants of Delay in Implementation of Projects financed by Development Bank of Ethiopia

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

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

1. Gender: Male ☐ Female ☐
2. Age: 25-30 ☐ 31-35 ☐ 36-40 ☐ 41-45 ☐ 45 and above ☐
3. Please indicate your educational level

   Diploma☐ BA ☐ BSC ☐MA ☐

   MSC ☐ PhD ☐ Others specify _____
4. Please indicate your current position in the Bank

   Branch Manager ☐ Team Manager ☐

   Senior Loan officer ☐ Loan Officer ☐
5. Please indicate your work experience in the Banking Industry

   Less than one year ☐ 1-4 years ☐ 5- 10 years ☐

   11 -15 years ☐ 16 - 20 years ☐ above 20 years ☐
6. Please indicate your experience in credit processing (credit, appraisal & review)

   1- 4 years☐ 5- 10 years ☐ 11- 15 years ☐ 16 - 20 years ☐

Part II. Questions Related to Project Implementation Delay

Please indicate how much you agree or disagree with each of the following statements by putting (√) or (X) that best represent your opinion under the space provided.

1=rarely; 2= sometimes; 3=often; 4=always

2. Frequency of the occurrence of project implementation causes

2.1. *Borrower related* causes of project implementation delay

How ***frequent*** are under mentioned ***borrower related*** issues to be a reason for project implementation delay?

S/N	Issues	Rarely=1	Sometimes= 2	often=3	always=4
1	Weak project feasibility study				
2	Unable to raise equity				
3	Loan diversion				
4	Improper planning/scheduling of the project				
5	Poor project implementation management skill				
6	Design change during project implementation				
7	Poor knowledge on the chosen business				
8	Dispute among the shareholders				
9	Rent seeking behavior of the borrowers				
10	Lack of enthusiasm to complete the project				
11	Failure to build as per the approved design and specification				

2.2. *Bank related causes of project* implementation delay

How ***frequent*** are under mentioned ***Bank related*** issues to be a reason for project implementation delay?

S/N	Issues	Rarely=1	Sometimes=2	often=3	always=4
1	Weak project implementation follow up				
2	Weak KYC assessment				
3	Weak appraisalstudy				
4	Delayed project loan disbursement				
5	Under financing				
6	Unable to pass timely decisions when unforeseen circumstances occurred				
7	Lack of competency of credit operators				
8	Long list of conditions for disbursement				
9	Rent seeking behavior				
10	Lack of flexibility to accommodate change				
11	Tight project implementation schedule				

2.3. *External causes* that delay project implementation

How ***frequent*** are under mentioned ***external*** issues to be a reason for project implementationdelay?

S/N	Issues	Rarely=1	Sometimes= 2	often=3	always=4
1	Shortage of foreign currency (USD)				
2	Currency Fluctuation				
3	Price escalation				
4	Lack of infrastructure like road, power and water				
5	Political unrest				
6	Delay in supply of machineries by suppliers				
7	Long custom clearing process				
8	Natural calamities				
9	Bad weather conditions				
10	Shortage of Labor				
11	Lack of construction materials				
12	Coordination Failure Among stakeholders				

3. Severity of the Causes

3.1. Borrower related causes of project implementation delay

How ***severe*** are under mentioned ***borrower related*** issues to be a reason for delay in project implementation?

S/N	Issues	Little=1	Moderate=2	Significant=3	Immense=4
1	Weak project feasibility study				
2	Unable to raise equity				
3	Loan diversion				
4	Improper planning/scheduling of the project				
5	Poor project implementation management skill				
6	Design change during project implementation				
7	Poor knowledge on the chosen business				
8	Dispute among the shareholders				
9	Rent seeking behavior of the borrowers				
10	Lack of enthusiasm to complete the project				
11	Failure to build as per the approved design and specification				

3.2. Bank related causes of project implementation delay

How ***severe*** are under mentioned ***Bank related*** issues to be a reason for delay in project implementation?

S/N	Issues	Little=1	Moderate=2	Significant=3	Immense=4
1	Weak project implementation follow up				
2	Weak KYC assessment				
3	Weakappraisal study				
4	Delayed project loan disbursement				
5	Under financing				
6	Unable to pass timely decisions when unforeseen circumstances occurred				
7	Lack of competency of credit operators				
8	Long list of conditions for disbursement				
9	Rent seeking behavior				
10	Lack of flexibility to accommodate change				
11	Tight project implementation schedule				

3.3. External factors that causes project implementation delay

How ***severe*** are under mentioned ***external factors***to be a reason for delay in project implementation schedule?

S/N	Issues	Little=1	Moderate=2	Significant=3	Immense=4
1	Shortage of foreign currency (USD)				
2	Currency Fluctuation				
3	Price escalation				
4	Lack of infrastructure like road, power and water				
5	Political unrest				
6	Delay in supply of machineries by suppliers				
7	Long custom clearing process				
8	Natural calamities				
9	Bad weather conditions				
10	Shortage of Labor				
11	Lack of construction materials				
12	Coordination Failure Among stakeholders				

APPENDIXES TWO

Summary of Response to the Questionnaire

Table 7-1: Frequency Index-DBE Employee

S/N	Issues	Rarely=1	Sometimes= 2	often=3	always=4	F.I. (%)
Borrowers Related Factors						
Q211_wprfeast	Weak project feasibility study	9	21	28	8	63.26%
Q212_unraeq	Unable to raise equity	3	16	31	16	72.73%
Q213_lodi	Loan diversion	9	27	17	13	62.88%
Q214_implschpr	Improper planning/scheduling of the project	6	18	31	11	67.80%
Q215_poprimsk	Poor project implementation management skill	3	18	21	24	75.00%
Q216_dechduprim	Design change during project implementation	13	33	15	5	54.55%
Q217_poknchbu	Poor knowledge on the chosen business	11	29	20	6	57.95%
Q218_diamsha	Dispute among the shareholders	26	31	6	3	44.70%
Q219_resebebo	Rent seeking behavior of the borrowers	11	30	16	9	58.71%
Q220_laencopr	Lack of enthusiasm to complete the project	18	19	21	8	57.20%
Q221_fabuapdesp	Failure to build as per the approved design and specification	11	24	23	8	60.61%
Bank Related Factors						
Q222_weprimfo	Weak project implementation follow up	7	26	20	13	64.77%
Q223_wekycas	Weak KYC assessment	6	15	30	15	70.45%
Q224_weapst	Weak appraisal study	10	23	20	13	63.64%
Q225_deprlodi	Delayed project loan disbursement	15	26	20	5	55.68%
Q226_unfi	Under financing	15	33	15	3	52.27%
Q227_unpatideuncioc	Unable to pass timely decisions when unforeseen circumstances occurred	5	17	26	18	71.59%
Q228_lacocrop	Lack of competency of credit operators	21	24	18	3	51.14%
Q229_lolicodi	Long list of conditions for disbursement	15	28	19	4	54.55%
Q230_resebe	Rent seeking behavior	28	24	6	8	47.73%
Q231_laflacch	Lack of flexibility to accommodate change	8	31	16	11	61.36%
Q232_tiprimsch	Tight project implementation schedule	8	26	20	12	63.64%
External Factors						
Q233_shfocu	Shortage of foreign currency (USD)	5	13	25	23	75.00%
Q234_cufl	Currency Fluctuation	2	19	28	17	72.73%
Q235_pres	Price escalation	1	17	34	14	73.11%
Q236_lain	Lack of infrastructure like road, power and water	9	18	25	14	66.67%
Q237_poun	Political unrest	6	30	18	12	63.64%
Q238_desumasu	Delay in supply of machineries by suppliers	3	27	21	15	68.18%
Q239_locuclpr	Long custom clearing process	10	30	21	5	57.95%
Q240_naca	Natural calamities	13	28	14	11	58.71%
Q241_baweco	Bad weather conditions	12	25	19	10	60.23%
Q242_shla	Shortage of Labor	29	25	8	4	45.08%
Q243_lacoma	Lack of construction materials	29	29	7	1	42.42%
Q244_cofaamst	Coordination Failure Among stakeholders	15	15	28	8	60.98%

Table 7-2: Frequency Index-DBE Borrower

S/N	Issues	Rarely=1	Sometimes= 2	often=3	always=4	F.I. (%)
Borrower Related Factors						
Q211_wprfeast	Weak project feasibility study	4	7	7	3	60.71%
Q212_unraeq	Unable to raise equity	0	5	10	6	76.19%
Q213_lodi	Loan diversion	1	7	9	4	69.05%
Q214_implschpr	Improper planning/scheduling of the project	0	2	12	7	80.95%
Q215_poprimsk	Poor project implementation management skill	0	7	12	2	69.05%
Q216_dechduprim	Design change during project implementation	7	12	2	0	44.05%
Q217_poknchbu	Poor knowledge on the chosen business	8	5	5	3	53.57%
Q218_diamsha	Dispute among the shareholders	11	7	3	0	40.48%
Q219_resebebo	Rent seeking behavior of the borrowers	3	16	2	0	48.81%
Q220_laencopr	Lack of enthusiasm to complete the project	8	13	0	0	40.48%
Q221_fabuapdesp	Failure to build as per the approved design and specification	10	9	2	0	40.48%
Bank Related Factors						
Q222_weprimfo	Weak project implementation follow up	9	9	1	2	45.24%
Q223_wekycas	Weak KYC assessment	1	9	10	1	63.10%
Q224_weapst	Weak appraisal study	0	8	11	2	67.86%
Q225_deprlodi	Delayed project loan disbursement	0	6	9	6	75.00%
Q226_unfi	Under financing	1	5	7	8	76.19%
Q227_unpatideuncioc	Unable to pass timely decisions when unforeseen circumstances occurred	0	7	8	6	73.81%
Q228_lacocrop	Lack of competency of credit operators	5	11	4	1	51.19%
Q229_lolicodi	Long list of conditions for disbursement	1	8	7	5	69.05%
Q230_resebe	Rent seeking behavior	10	8	3	0	41.67%
Q231_laflacch	Lack of flexibility to accommodate change	0	7	10	4	71.43%
Q232_tiprimsch	Tight project implementation schedule	6	4	10	1	57.14%
External Factors						
Q233_shfocu	Shortage of foreign currency (USD)	6	4	10	1	57.14%
Q234_cufl	Currency Fluctuation	1	1	12	7	79.76%
Q235_pres	Price escalation	2	1	10	8	78.57%
Q236_lain	Lack of infrastructure like road, power and water	6	3	3	9	67.86%
Q237_poun	Political unrest	3	3	9	6	71.43%
Q238_desumasu	Delay in supply of machineries by suppliers	5	8	7	1	54.76%
Q239_locuclpr	Long custom clearing process	4	12	4	1	52.38%
Q240_naca	Natural calamities	4	12	4	1	52.38%
Q241_baweco	Bad weather conditions	3	11	5	2	57.14%
Q242_shla	Shortage of Labor	2	5	11	3	67.86%
Q243_lacoma	Lack of construction materials	8	9	4	0	45.24%
Q244_cofaamst	Coordination Failure Among stakeholders	2	7	9	3	65.48%

Table 7-3: Severity Index- DBE Employee

S/N	Issues	Little=1	Moderate=2	Significant=3	Immense=4	S. I, %
Borrower Related Factors						
Q211_wprfeast	Weak project feasibility study	9	25	24	8	61.74%
Q212_unraeq	Unable to raise equity	3	13	34	16	73.86%
Q213_lodi	Loan diversion	8	16	22	20	70.45%
Q214_implschpr	Improper planning/scheduling of the project	3	12	43	8	71.21%
Q215_poprimsk	Poor project implementation management skill	4	8	33	21	76.89%
Q216_dechduprim	Design change during project implementation	8	24	30	4	61.36%
Q217_poknchbu	Poor knowledge on the chosen business	5	13	36	12	70.83%
Q218_diamsha	Dispute among the shareholders	18	28	14	6	53.03%
Q219_resebebo	Rent seeking behavior of the borrowers	8	22	26	10	64.39%
Q220_laencopr	Lack of enthusiasm to complete the project	7	21	29	9	65.15%
Q221_fabuapdesp	Failure to build as per the approved design and specification	10	17	29	10	64.77%
Bank Related Factors						
Q222_weprimfo	Weak project implementation follow up	9	11	33	13	68.94%
Q223_wekycas	Weak KYC assessment	8	7	33	18	73.11%
Q224_weapst	Weak appraisal study	7	11	29	19	72.73%
Q225_deprlodi	Delayed project loan disbursement	8	21	27	10	64.77%
Q226_unfi	Under financing	10	26	23	7	60.23%
Q227_unpatideuncioc	Unable to pass timely decisions when unforeseen circumstances occurred	5	14	30	17	72.35%
Q228_lacocrop	Lack of competency of credit operators	8	27	24	7	61.36%
Q229_lolicodi	Long list of conditions for disbursement	10	24	28	4	59.85%
Q230_resebe	Rent seeking behavior	17	19	21	9	58.33%
Q231_laflacch	Lack of flexibility to accommodate change	6	23	30	7	64.39%
Q232_tiprimsch	Tight project implementation schedule	9	23	24	10	63.26%
External Factors						
Q233_shfocu	Shortage of foreign currency (USD)	5	11	23	27	77.27%
Q234_cufl	Currency Fluctuation	2	17	33	14	72.35%
Q235_pres	Price escalation	1	13	36	16	75.38%
Q236_lain	Lack of infrastructure like road, power and water	3	21	29	13	69.70%
Q237_poun	Political unrest	3	19	26	18	72.35%
Q238_desumasu	Delay in supply of machineries by suppliers	2	20	38	6	68.18%
Q239_locuclpr	Long custom clearing process	7	28	27	4	60.61%
Q240_naca	Natural calamities	12	25	17	12	60.98%
Q241_baweco	Bad weather conditions	11	24	17	14	62.88%
Q242_shla	Shortage of Labor	16	30	19	1	51.89%
Q243_lacoma	Lack of construction materials	19	23	20	4	53.41%
Q244_cofaamst	Coordination Failure Among stakeholders	9	19	26	12	65.53%

Table 7-4: Severity Index- DBE Borrower

S/N	Issues	Little=1	Moderate=2	Significant=3	Immense=4	S. I. (%)
Borrower Related Factors						
Q211_wprfeast	Weak project feasibility study	4	7	8	2	59.52%
Q212_unraeq	Unable to raise equity	2	7	9	3	65.48%
Q213_lodi	Loan diversion	3	2	10	6	72.62%
Q214_implschpr	Improper planning/scheduling of the project	7	2	8	4	60.71%
Q215_poprimsk	Poor project implementation management skill	3	5	7	6	69.05%
Q216_dechduprim	Design change during project implementation	5	12	4	0	48.81%
Q217_poknchbu	Poor knowledge on the chosen business	6	1	9	5	65.48%
Q218_diamsha	Dispute among the shareholders	9	9	3	0	42.86%
Q219_resebebo	Rent seeking behavior of the borrowers	8	8	4	1	47.62%
Q220_laencopr	Lack of enthusiasm to complete the project	9	7	5	0	45.24%
Q221_fabuapdesp	Failure to build as per the approved design and specification	7	6	7	1	52.38%
Bank Related Factors						
Q222_weprimfo	Weak project implementation follow up	0	6	13	2	70.24%
Q223_wekycas	Weak KYC assessment	1	8	10	2	65.48%
Q224_weapst	Weak appraisal study	0	2	3	4	34.52%
Q225_deprlodi	Delayed project loan disbursement	0	5	11	5	75.00%
Q226_unfi	Under financing	0	3	13	5	77.38%
Q227_unpatideuncioc	Unable to pass timely decisions when unforeseen circumstances occurred	1	12	8	0	58.33%
Q228_lacocrop	Lack of competency of credit operators	0	3	13	5	77.38%
Q229_lolicodi	Long list of conditions for disbursement	2	5	7	7	72.62%
Q230_resebe	Rent seeking behavior	5	9	6	1	53.57%
Q231_laflacch	Lack of flexibility to accommodate change	1	3	10	7	77.38%
Q232_tiprimsch	Tight project implementation schedule	1	7	8	5	70.24%
External Factors						
Q233_shfocu	Shortage of foreign currency (USD)	0	8	8	5	71.43%
Q234_cufl	Currency Fluctuation	0	3	13	5	77.38%
Q235_pres	Price escalation	0	1	12	8	83.33%
Q236_lain	Lack of infrastructure like road, power and water	1	4	12	4	72.62%
Q237_poun	Political unrest	1	0	11	9	83.33%
Q238_desumasu	Delay in supply of machineries by suppliers	0	3	13	5	77.38%
Q239_locuclpr	Long custom clearing process	6	11	4	0	47.62%
Q240_naca	Natural calamities	4	12	4	1	52.38%
Q241_baweco	Bad weather conditions	2	7	11	1	63.10%
Q242_shla	Shortage of Labor	1	9	9	2	64.29%
Q243_lacoma	Lack of construction materials	0	11	10	0	61.90%
Q244_cofaamst	Coordination Failure Among stakeholders	1	9	9	2	64.29%