Causes and effects of project Implementation Delay on Loan Recovery Performance *(The case of selected projects financed by Development Bank of Ethiopia)*

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LIST OF ACCRONYMS

ADB:- African Development Bank

DBE:- Development Bank of Ethiopia

PRLR:- Project Rehabilitation and Loan Recovery Sub Process

IRR:**-** Internal Rate of Return

RII: Relative Importance Index

LIST OF SYMBOLS

I - Relative Importance Index

Wi - Weight assigned to ith response

Xi - Frequency of the ith response given as percentage of the total responses for each factors

i - Response category index = 1, 2, 3, 4, 5

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ABSTRACT

Project implementation delay can be defined as the late completion of work compared to the planned schedule. Project implementation delay can be minimized only when their cause are identified. The objective of this study was to identify the major causes of project implementation delay, the effects of delays, and methods of minimizing project implementation delays. This study was carried out based on literature review and a questionnaire survey and project financed by DBE was taken as a case study as a means of validating the results from the survey. Relative Importance Index was computed and the factors were ranked for all factors.

The five most important causes of delays found to be shortage of equity contribution; miss utilization of the disbursed fund; ineffective planning and scheduling of project by the owners; conditions for effectiveness of the loan are not fulfilled in time to enable disbursement of loan and lack of comprehensives of feasibility study submitted by the project owners. Project owner/manager related delays was ranked the most significant groups that cause delays, followed by DBE related delays, cost escalation & suppliers related delays.

Although time, cost overrun and low rate of successful implementation of projects (poor quality of project), were the common effects of delays, the overall effects is poor loan recovery performance.

To minimize delays in projects the top five effective methods has been identified this includes: effective strategic planning, use of adequate application screening criteria, verifying reliable source of equity contribution, through pre-credit risk assessment, revision of the policy & procedure of the Bank and to be certain on comprehensiveness of feasibility study and proper emphasis on past experience. Finally, the analysis result will be used as the baseline for the next research to find the causes of delay in the industry.

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CHAPTER-I

1. INTRODUCTION

The inability to complete projects on time and within budget continues to be a chronic problem worldwide and is worsening (Ahmed et al., 2002). Azhar and Farouqui (2008) observe that the trend of cost overrun is common worldwide and that it is more severe in developing countries .Projects are centrepieces of development plans. Objectives of a plan get reflected in projects, so achievement of planned targets rest heavily on successful and timely completion of projects. Generally, a project passes through a cycle involving different stages including implementation.

The success of any project is measured in terms of three important dimensions – time, cost and quality. When a project is completed within time and within budget by satisfying the customer requirements, it is said to be a successful project. Of all these three deciding dimensions, quality is an abstract one and hence a project's quality can be measured mainly with the customer satisfaction. If a project's time of completion is extending, while taking all necessary measures to bring back the project into track, the project manager should update and convince the customer. When the cost of project exceeds the targeted budget, in many cases, the developer has to face the brunt and in rare cases only, the customer may be convinced to release additional funds. Hence, when compared to time, the budget and running costs of the projects should be monitored and controlled more.

This research study tries to assess and address the influence of implementation delay of financed projects on the loan recovery performance of Development Bank of Ethiopia. Delay implementation of projects and cost increase are common phenomena in projects worldwide. However, these are especially severe in developing countries. Delayed implementation gives a

project a difficult start, unduly long time taken for project implementation results in time-overrun which is invariably followed by cost overrun. Cost-overrun has the ill effect of affecting the financial viability of the project. The problem of cost-overrun will get more compounded if the finance necessary to meet the increased cost cannot be arranged in time. Any delay in arranging for the finance needed to meet the cost overrun will only further tend to increase the cost and this may land the project in trouble leading eventually to the death of the project and the project may not take off. (Proceedings of the world Congress on Project Management, IPMA, Ljublian project pg. 360)

It is clearly stated in the Bank's credit policy that the major aim of the Development Bank of Ethiopia is to extend medium to long-term loans for investment projects in the priority areas set by the Government. All projects financed by the bank were approved taking into consideration the project appraisal and its implementation schedule however, a good number of projects have not been executed in line with the designed implementation schedule as a result the loan recovery performance of the DBE is reported to be less than 50%.(- RM & BD Department, M & E Division : Report on Loan Recovery Performance of the DBE,) This trends has cause for influence on the loan recovery perfor mance of the bank significantly.

Project implementation is one of the core project management processes. What steps must project managers take in order to successfully complete a project? Implementation of a project is the step where all the proper planned activities are put into action. Usually project implementation process involves preparing, deployment, maintaining and use of the final product of the project. Project managers and sometimes project team members are committed to controlling and monitoring project implementation process. Project team helps run project evaluation process which precedes project implementation process. Project evaluation process

includes performing a complete analysis of customer's needs and requirements and results in forming the definition of one or more projects to be implemented. Project implementation process may be effective if some very important factors are kept in minds that are urgent in a project management system.

One of the biggest factors contributing to the success of a project is how effectively the project manager carries out the steps of implementing project. Managing a project is an orderly process that, if properly executed, will maximize project resources, enable effective communication among project personnel and the project's clients, and allow for the unexpected bumps along the way.

The project start is the most important project management sub-process, because in it the bases for the other project management sub-processes, such as the project plans, the project communication structures, the relationships to relevant environments, are established.

A successful project is difficult to achieve. Starting the project in the right way is another step closer to avoiding the likely outcome of project failure. Ensure that the project proposal focuses on the business problem to be solved and the benefits of solving that problem. That focus will help to define an approvable project with a clearly defined objective and scope – a major step in the right direction. *Fangel*, M. 1998, Best Practice of Project Start-up, in: Proceedings of the 14th World Congress on Project Management, IPMA, Ljubliana, project pg. 354-361

In this paper the researcher will use data, on a sample of financed projects available at the Development Bank of Ethiopia and to assess the cause and the effect of project implementation delay on loan recovery performance of the Bank.

A delay may occur concurrently with other delays and all of them may impact the project completion date. Delays caused by the Owners of the project such as shortage of equity

contribution due to failure to raise equity by share holders/promoter as scheduled, miss utilization of the disbursed fund ,lack of comprehensiveness of feasibility study submitted by the promoter and delays caused by project managers are such as inexperienced project managers generally be attributes to poor managerial and Management problems such as personnel, labour and contractor disputes, mismatch of equipment, etc can generally be attributes to poor managerial skills lack of planning and coordinating skill.

Delays caused by cost escalation can generally be cost escalation on various items, serious budget deficit resulted from fluctuation and price escalation, utilization of low unit price of civil works in estimating the cost. caused by suppliers in activities such as supply of equipment by suppliers; i.e. delays in the procurement machineries and materials required for the projects, delays in rendering the required design specifications for the specific type of machineries to be erected and delay related to the DBE Stringent procedure of the Bank in utilization of loan (loan may be not be disbursed on the right time due to policy procedure, lack of comprehensiveness of feasibility study apprised by the Bank delays caused by external factors such as delay in obtaining the required documents from concerned government offices, Municipality, Regional Environmental offices, delay in providing services for utilities such as water, electricity, delays in sub-contractors work inadequate contractor's work etc

By focusing on DBE financed projects, this paper studies cause and effect of project implementation delay on loan recovery performance of DBE financed projects and evaluate the possible measures taken by the Development Bank of Ethiopia to exterminate delays in project implementation and to draw up possible recommendations / methods of minimizing delays for successful implementation of projects with respect to planning and managing of implementation.

The Development Bank's Project Analysis Process:

Project cycle activities typically include the following stages: identification, preparation and appraisal, related to pre-implementation, and monitoring and evaluation. At the appraisal stage, a decision is made on the suitability of a project or program for Bank financing. The appraisal process involves evaluation of the following aspects of the project: technical feasibility, financial and economic viability, management capability, institutional capacity, social and distributional concerns, and environmental soundness. (ADB, Economic research papers No. 56)

An important aspect of project analysis is the estimation of the financial and economic viability of the projects being financed by the Bank. The internal rate of return (IRR) criterion is normally used, where applicable, to evaluate the adequacy of the potential investment. The internal rate of return of a project is defined as the quantified opportunity cost of capital that makes the net present value of a project equal zero. This occurs at the point where social benefits accruing to the project equal the social costs being incurred. The internal rate of return is, therefore, the maximum interest rate that a project could pay for the resources used, if the project is to recover its investment and operating costs and still break even (Gittinger, 1982).

In practice, the decision rule when using the internal rate of return criterion is to consider a project as economically viable if its rate of return is greater than the alternative rate of return or in the case of economic analysis, simply the opportunity cost of capital. The alternative rate of return may include such rates of return as domestic interest rates. In a number of countries, however, domestic interest rates are of little value in this regard since they often do not provide a good approximation of the opportunity cost of capital. (Gittinger,1982). It is important to note, however, that the internal rate of return is a relative rather than an absolute measure of a project's worth.

Development Banks in general and DBE in particular are, however, established for the sole purpose of providing credit to strategic projects or priority area projects. The other unique objective of such Bank is renders technical support and advice to those projects financed by the Bank.

In broad terms the Bank delivers medium and long-term credit for strategic projects, provide technical support and advice, and mobilize financial resources from local & foreign sources for project finance.

The main process of DBE in project financing is project appraising, DBE working with borrowers, commercial bank and other local and multinational and local development organizations. DBE is mainly involved in development projects finance along with technical advice. In addition to this the Bank is currently involved in sales of government saving bond, Rural Financial intermediation program; Administering trust funds; Export Credit Guarantee to Commercial Banks

The mission of DBE establishment is to promote the national development agenda through development finance and close technical support to viable projects from the priority areas of the government by mobilizing fund from domestic and foreign sources while ensuring its sustainability. The vision of DBE is "**100% Success for All Financed Projects by 2020**"

To achieve its vision and mission, identifying factors which causes project implementation delay and effects on loan recovery performance of the bank is vital.

1.2 Statement of the Problem

As it has been observed most DBE financed agricultural and industrial projects implementation schedule lag behind from what was planned in the feasibility studies submitted by the project owners to the Bank and on revised appraisals studies of the Bank and as a result ,there is frequently request for an additional loan for missing items and incomplete construction works and loan repayment rescheduling request by most huge and large sized projects due to delayed of implementation schedule derived mainly from external and internal causes. (Source: Corporate Credit Process i.e. no of loan repayment schedules and additional loan requests)

In addition to this, currently it is common to watch foreclosure advertisement of different Banks on television window every day and this simply indicate that the failure of many projects. Case example: Past Macaroni project financed by DBE still under foreclosure

This situation resulted great apprehension on the part of potential investors not to look for Bank finance with the perception that credit is the main cause for project failure. Moreover, the failure of projects increases sunk cost of the country irrespective of their ownership since fixed investments of most projects are purpose oriented and require high switching cost.

Understanding the prevailing perception in the country, Development Bank of Ethiopia has set zero tolerance for project failure in the year 2010 EC. as the Bank's vision is to implement "**100% Success for All Financed Projects by 2020**"

This is assumed to be achieved through developing and tightening the credit management system of the Bank. However, it is obvious that hundred percent project successes is impossible in project finance because of uncertainty and dynamism in the global economy, and the internal weakness of the projects.

1.3. Objective of the Study

This research was aimed at identifying the major causes of delay in project implementation ,effect of delay in implementation and its implication on loan recovery of the Development Bank of Ethiopia and method of minimizing delays in Bank financed projects. To achieve the aims, objectives have been identified as following:

a) To identify the causes of delay in implementation
b) To identify the effect of delay in implementation and its implication on loan recovery of the Development Bank of Ethiopia,
c) To evaluate the possible measures taken by the Development Bank of Ethiopia to exterminate delays in implementation
d) To identify the methods of minimizing project implementation delay and to draw up possible recommendations for successful implementation of projects with respect to planning and managing of implementation.

1.4 Scope of the Study

With regard to the scope of the research is mainly focus on literature review and questionnaire survey. The project is focus on DBE financed agricultural and industrial projects in the core process of the Bank at Corporate level i.e. Credit Process and Corporate appraisal sub Process and Project Rehabilitation and Loan Recovery sub Process will be selected from the head office of Development Bank of Ethiopia. However the study will exclude Regional and Branch office data as large scale projects mostly financed by head office. The questionnaire server would be designed based on the causes of construction project delays, effects of construction delays and the method of rectification of construction delays.

Moreover, assessment was made on the status of active projects under implementation under the Credit Process of the Bank, and those projects which face the problem and found under the PRLR sub process.

CHAPTER-2

2. LITERATURE REVIEW

2.1 Introduction

Project success can be defined as meeting goals and objectives as prescribed in the project plan. A successful project means that the project has accomplished its technical performance and maintained (Yaw et al 2003).

Delay could be defined as an act or event that extends the time required to perform the tasks under a contract. It usually shows up as additional days of work or as a delayed start of an activity (G. Sweis et al 2007).

According to Sadi A. Assaf et al 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. In some cases, to the contractor, delay means higher overhead costs because of longer work period, higher material costs through inflation, and due to labour cost increases.

Time, cost and quality are the basis of successful project which include also the safety and it environment. Time and cost had parallel relationship which the increasing of the time will make the increasing of the cost. Then, the controlled of time is really important for avoid any loss to the contractor. The time that already discuss is the period which is the schedule for the activities from beginning until finish the process of planning.

Failure to achieve targeted time, budgeted cost, designer changes or errors, user changes, weather, late deliveries and specified quality result in various unexpected negative effects on the projects are the reason that delay occur. Normally, when the projects are delayed, they are either extended or accelerated and therefore, incur additional cost. The normal practices usually allow a percentage of the project cost as an allowance in the contract price and this allowance is usually based on judgment.

In additional, the increasing of the world oil price, give the impact to the construction project. The cost for the construction also will increase because the price to buy the material and to pay the labour salary will increase too.

While almost everyone has had experience with projects in one form or another, developing a definition of what exactly a project is often difficult. Any definition of a project must be general enough to include examples of the wide variety of organizational activities which managers consider to be "project functions." However, the definition should be narrow enough to include only those specific activities which researchers and practitioners can meaningfully describe as "project-oriented." Two of the many definitions of projects that have been offered may be considered as follows:

A project is an organization of people dedicated to a specific purpose or objective. Projects generally involve large, expensive, unique, or high risk undertakings which have to be completed by a certain date, for a certain amount of money, within some expected level of performance.

At a minimum, all projects need to have well defined objectives and sufficient resources to carry out all the required tasks. (24, p. 498) The second definition is offered by Cleland and Kerzner (7), in their work *A Project Management Dictionary of Terms*, and includes the following characteristics:

A project is a combination of human and nonhuman resources pulled together in a temporary organization to achieve a specified purpose. (7, p. 199)

A project, then, can be defined as possessing the following characteristics: A defined beginning and end (specified time to completion),a specific, preordained goal or set of goals, a series of complex or interrelated activities and a limited budget.

In addition to defining the concept of projects, it is important, to discuss the steps leading to a successful project, to describe just exactly what a "successful project" is. Project implementation success has been defined in many ways to include a large variety of criteria. However, in its simplest terms, project success can be thought of as incorporating four basic facts. A project is generally considered to be successfully implemented if it comes in on-schedule (time criterion) and comes in on-budget (monetary criterion). Achieves basically all the goals originally set for it (effectiveness criterion). Is accepted and used by the clients for whom the project is intended (client satisfaction criterion).

One of the problems faced by organizations involved in projects seriously is delayed in projects implementation. Variance between anticipated and actual completion of the project completion will delay the project. Each project is a series of activities. Completion of an activity may be due to the delayed start or extension of time or both be delayed. Delay in starting the work place due to delay in operations or to their previous activity, or both. However, delay in completion of an activity may be cause to delays in the further activities, which in turn may cause a delay in completing the project. Delays in project activities are the outcome of the individual delays.That a delay in the project is delayed or not, depends on the buoyancy of its activity.

Projects can be delayed due to several factors, that many of them can be controlled with proper management. One of the most important indicators of project success is a function of their timing. There are several tools for proper planning of projects, that each of them in the control and management of individual projects are used to improve timing performance of projects. Although has been efforts to control the delay of projects and studies at the level of project management but it seems that the main problem of delayed projects mainly does not related to the nature of your project, they should be head of a higher level of planning in the management of multiple projects. In fact, if a decision making model for controlling a set of projects is available, can be largely prevented them from individual delays. Capabilities and limitations of the projects are continuously and dynamic changing. In addition, environmental and technological changes occurred over time may develop strategies for the organization to change. These calls for methods to dynamic, flexible and effective for scheduling and controlling projects are designed. This relatively simple and robust method for scheduling multiple projects provided the system that includes useful algorithms to prioritization, selection and budgeting projects in optimal way and control of a flexible and dynamic scheduling and budgeting projects at any time provided and in all organizations that are involved in multiple projects can be used.

2.2 Types of delay

Theodore (2009) mentioned that there are four basic ways to categorize type of delays:

2.2.1 Critical or noncritical

2.2.2 Excusable or non-excusable

2.2.3 Compensable or non-compensable

2.2.4 Concurrent or non-concurrent

In the process of determining the effect of a delay on the project, the analyst must determine whether the delay is critical or noncritical. The analyst must also assess if delay are concurrent. All delays that are identified in the analysis will be either excusable or non-excusable. Delay can be further categorized into compensable or non-compensable delays.

2.2.1 Critical Versus Non-Critical Delays

Delays that affect the project completion,or in some cases a milestone date, are considered as critical delays, and delays that do not affect the project completion, or a milestone date, are noncritical delays. If these activities are delayed, the project completion date or a milestone dater will be delayed. The determining which activities truly control the project completion date depends on the following:

a) The project itself

b) The contractor's plan and schedule (particularly the critical path)

c) The requirement of the contract for sequence and phasing

d) The physical constraint of the project, i.e. how to build the job from a practical perspective.

2.2.2 Excusable versus Non-Excusable Delays

All delays are either excusable or non-excusable. An excusable delay is a delay that is due to an unforeseeable event beyond the contractor's or the subcontractor's control. Normally, based on common general provisions in public agency specifications, delays resulting from the following events would be considered excusable dealys: General labor strikes, Fires, Floods, Acts of God, Owner-directed changes, Errors and omissions in the plans and specifications, Differing site conditions or concealed conditions, Unusually severe weather, Intervention by outside agencies and Lack of action by government bodies, such as building inspection.

Non-excusable delays are events that are within the contractor's control or that are foreseeable. These are some examples or non-excusable delays: Late performance of sub-contractors, Untimely performance by suppliers, Faulty workmanship by the contractor or sub-contractors, a project-specific labor strike caused by either the contractor's unwillingness to meet with labor representative or by unfair labor practices.

2.2.3 Compensable Delays versus Non-Compensable Delays

A compensable delay is a delay where the contractor is entitled to a time extension and to additional compensation. Relating back to the excusable and non excusable delays, only excusable delays can be compensable. Non-compensable delays mean that although an excusable delay may have occurred, the contractor is not entitled to any added compensation resulting from the excusable delay. Thus, the question of whether a delay is compensable must be answered. Additionally, a non excusable delay warrants neither additional compensation nor a time extension.

Whether or not a delay is compensable depends primarily on the terms of the contract. In the most cases, a contract specifically notes the kinds of delays that are non-compensable, for which the contractor does not receive any additional money but may be allowed a time extension.

2.2.4 Concurrent Delays

The concept of concurrent delay has become a very common presentation as part of some analysis of construction delays. The concurrency argument is not just from the standpoint of determining the project's critical delays but from the standpoint of assigning responsibility for damages associated with delays to the critical path. Owners will often cite concurrent delays by the contractor as a reason for issuing a time extension without additional compensation. Contractors will often cite concurrent delays by the owner as a reason why liquidated damages should not be assessed for its delays. Unfortunately, few contract specifications include a definition of concurrent delay and how concurrent delays affect a contractor's entitlement to additional compensation for time extension or responsibility for liquidated damages.

In analyzed concurrent delays, each delay is assessed separately and its impact on other activities and the project duration is calculated. There are some guidelines for concurrent delays classification. Firstly, if excusable and non excusable delays occur concurrently, only a time extension is granted to the contractor. Next, if excusable with compensation and excusable without compensation delays occur concurrently, the contractor is entitled to time extension, but not to damages. Lastly, if two excusable with compensation delays occur concurrently, the contractor is entitled to both time extension and damages.

In addition, although the guidelines are useful for the purpose of carrying out the delay analysis, it is in the best interest of all parties involved in a construction project to agree, at the beginning,

the definitions of such delays and accommodate them throughout the contract language. There was no reliable method to differentiate the impact of contractor caused delays from client caused delays until the development of CPM schedule analysis is developed. By the available of sophisticated computerized techniques, the possibility to segregate the impacts of apparently concurrent client and contractor delays would be higher.

2.3 Causes of Delays

Delay in implementation of projects and cost increase are common phenomena in projects worldwide. However, these are especially severe in developing countries. Delayed implementation gives a project a difficult star.Unduly long time taken for project implementation results in time-overrun which is invariably followed by cost overrun. Cost-overrun has the ill effect of affecting the financial viability of the project. The problem of cost-overrun will get more compounded if the finance necessary to meet the increased cost cannot be arranged in time. Any delay in arranging for the finance needed to meet the cost overrun will only further tend to increase the cost and this may land the project in trouble leading eventually to the death of the project and the project may not take off. (Proceedings of the world Congress on Project Management, IPMA, Ljubliana project pg. 360).

The main purpose of this study is to identify the cause of delay factors and their impact (effect) on project completion. Earlier studies either considered the causes or the effects of project delays, separately. This study takes an integrated approach and attempts to analyze the impact of specific causes on specific effects.

Literatures review was made for this particular research study on the causes and effects of delay in construction projects since some of the Banks' client's in the industry sector projects are turn key projects I think the it will be applied for projects delay in general. Generally, there are many factors that contributed to causes of delays in construction projects, these range from factors inherent in the technology and its management, to those resulting from the physical, social, and financial environment. There are in total of seven groups of causes for delay in construction project:

Table 2.1: List of causes of delay categorized into 7 groups (Theodore, 2009)

Group 1: Causes of delay by client

1	Delay in progress payments by owner
2	Delay to furnish and deliver the site
3	Change orders by owner during construction
4	Late in revising and approving design documents
5	Delay in approving shop drawing and sample materials
6	Poor communication and coordination
7	Slowness in decision making process
8	Conflicts between joint-ownership of the project
9	Suspension of work

Group 2: Causes of delay by contractor

1	Difficulties in financing project by contractor,
2	Conflicts in sub-contractors schedule in execution of project
3	Rework due to errors during construction
4	Conflicts between contractor and other parties (consultant and owner)

5	Poor communication and coordination
6	Ineffective planning and scheduling of project
7	Improper construction methods implement
8	Delays in sub-contractors work
9	Inadequate contractor's work
10	Frequent change of sub-contractors
11	Poor qualification of the contractor's technical staff
12	Delays in site mobilization

Group 3: Causes of delay by Consultant

	Delay in approving major changes in the scope of work
	Poor communication and coordination
	Inadequate experience of consultant
	Mistakes and discrepancies in design documents
	Delays in producing design documents
	Unclear and inadequate details in drawings
	Insufficient date collection and survey before design
	Un-use of advanced engineering design software

Group 4 : Causes of delay by materials

	Shortage of construction materials in market
	Changes in material types and specifications during construction
	Delay in material delivery
	Damage of sorted material while they are needed urgently
	Delay in manufacturing special building materials
	Late procurement of materials

Group 5: Causes of delay by equipment

	Equipment breakdowns
	Shortage of equipment
	Low level of equipment-operator's skill
	Low productivity and efficiency of equipment
	Lack of high-technology mechanical equipment

Group 6: Causes of delay by labors

	Shortage of labors
	Working permit of labors

	Low productivity level of labors
	Personal conflicts among labors

Group 7 : Causes of delay by external factors

	Effects of subsurface conditions (e.g. soil, high water table, etc.)
	Delay in obtaining permits from municipality
	Hot weather effects on construction activities
4	Traffic control and restriction at job site
	Accident during construction
	Changes in government regulations and laws
	Delay in providing services from utilities (such as water, electricity)
	Delay in performing final inspection and certification by a third party

2.4 Effects of Delay

Aibinu and Jagboro (2002) studied the effects of construction delays on project delivery in Nigerian construction industry. The six effects of delay identified were:

a) Time overrun;

b) Cost overrun;

c) Dispute;

d) Negotiation;

e) Total abandonment; and

f) Litigation.

In the study of Manavazhia and Adhikarib (2002), delays in the delivery of materials and equipment to construction sites are often a contributory cause to cost overruns in construction projects in developing countries. The actual impact of these delays on project costs was found to be on average, only about 0.5 per cent of the total budgeted cost of the projects.

2.5. Methods of Minimizing Construction Delays

When construction delay occurs , there is no question that the owner suffers financially, but the extent which the owner can recover its loss of income from the contractor, and more importantly minimizing the risk that such delays will occur, depends largely on how the construction contract was drawn up. Based on several studied of projects success factors and ratifications of delays in construction projects, a total of 11 methods have been identified as follows:

Table 2 Methods of minimizing Construction Delays

1	Effective strategic planning (Majid,2006)
2	Use of up- to- date technology(Majid,2006)
3	Accurate initial cost estimation (Majid,2006)
4	Proper material procurement (Majid,2006)
5	Proper emphasis on past experience (Majid,2006)
6	Accurate cost initial estimates (Majid,2006)
7	Sit management and supervision (Long ,2008)
8	Sit management and supervision (Long,2008)
9	Proper planning and scheduling of project(Majid,2006)
10	Complete and proper design and specification of projects at right time (Assaf ,2006)
11	Frequent coordination between parties involved (Majid,2006)

2.6 Conclusion

Delays occur in every project weather it is financed by the Bank or not and the magnitude of these delays varies considerably from project to project. Some projects are only a few days behind the schedule; some are delayed over a year. So it is essential to define the actual causes of delay in order to minimize and avoid the delays in any project financed by the Bank.

There is a wide range of views for the causes of time delays for engineering and construction projects. Some are attributable to a single party, others can be ascribed to several quarters and many relate more to systemic faults or deficiencies rather than to group or groups. The successful execution of projects financed by the Bank and keeping them within estimated cost and prescribed schedules depend on methodology that requires sound engineering judgment, experience of project manager and timely financing by the Bank as per the procedure of the Bank.

CHAPTER-3

3. RESEARCH METHODOLOGY

3.1 Introduction

This research methodology will described and explained based on the objectives and the aims of the study. In this study, I will focus on the literature review and the questionnaire survey targeted on different development orientated projects financed by Development Bank of Ethiopia.

This section explains the overall framework, methods, and underlying assumptions for analyzing the problem of cost overruns, time delays and customer satisfaction for projects financed by Development Bank of Ethiopia and its effect on the loan recovery performance Furthermore, statistical methods would be used to analyze the data collection from the questionnaire survey and follows by discussions section, recommendations, and conclusion.

The methodology includes preliminary descriptive statistics that examines the general temporal and spatial trends in the data.

3.2 Literature Review

The literature review was done through refereeing, books, and internet and engineering journals. By referring to the previous literature, the information from the causes of construction delays, effects of construction delays, and the method of rectification of construction would be used to develop the questionnaire survey in order to collect data from the targeted respondent.

The present study seeks to identify the main reasons and responsibilities for change orders, among others, and it is expected that a descriptive statistical analysis would throw more light on this issue. For cost overruns and time delays, descriptive statistical analysis in terms of their

frequency and amounts was carried out. Simple descriptive graphs (histograms) may show any variations in such attributes by causes for implementation delay.

Moreover, descriptive figures such as pie charts easily and readily show the relative significance of various categories of cost overruns. A description of the distribution and frequency of each type of change order can help understanding the extents and root causes of the problem.

3.3 Data Collection Methods

Both primary and secondary data were employed to conduct this research study. Primary data collected through structured questionnaire and interviews to supplement the secondary data for the analysis of the qualitative part of the study, while secondary data gathered through review of DBE working documents and individual file of different projects from Credit Process , PRLR sub process and by consulting and reviewing different documents of the Bank including annual and fourth quarter performance reports were collected to provide the explanatory analysis of the research questions.

Using structured questionnaire there are in total of one hundred sets of survey questionnaire was distributed to the targeted respondent in order to identify the most important factors that cause delays, the common effect of delays, and methods of minimizing construction delays.

The survey questionnaires were distributed to the target group such as project owners /management of the project, and DBE Bank staffs who are take part in the project implementation of the those projects financed by DBE.

The total number of questionnaire distributed to Project owners/ manager and DBE professionals staffs are hundred sets. Out of these one hundred sets Fifty five per cent of questionnaire survey has been distributed to project Owners/ Managers, while forty five per cent of questionnaire

survey has been distributed to DBE professional staff. Data which is obtained from the questionnaires was analyzed with an appropriate method which may result in the successful of the research. The relevant source of secondary data is taken from Corporate Credit Process, Corporate appraisal sub Process and Corporate Project Rehabilitation and Loan Recovery Process.

Regarding the application of data, the sampling method used in this study was convenience, and snowball sampling to select the process of DBE. This sampling comes under the class of non-probability sampling techniques. As the name implies, sample elements are identified by convenience (concerned units/core units of DBE). This method of sampling is preferred when it is difficult to get response from sample elements selected at random.(Sekaran Uma. Research methods for business: a skill building approach. 3rd ed. New York: John Wiley; 2000).

The sample size will consists f 10% of total projects financed by DBE Head Office , it will be composed of different projects from Agricultural , Industrial and other sectors which were financed by DBE Head Office and individual projects from each process will be selected from the selected 2 core process of the Bank using random sampling method.

3.4 Questionnaire Design

A questionnaire survey was designed based on the objectives of the study, which are causes of delay in implementation of projects financed by DBEs, effects of delays and the method rectification of these delays. A questionnaire survey was developed to get the opinion and understanding from the experienced respondents regarding to projects implementation delays problem. The questionnaires are all classified into 4 sections:

a) SECTION A: Respondent Background

b) SECTION B: Causes of project implementation Delays

c) SECTION C: Effects of Construction Delays

d) SECTION D: Method of Minimizing Construction Delays

3.4.1 Section A: Respondent Background

In this section, we are trying to obtain the respondents' information. The questionnaire includes:

a) The respondent organization,

b) The position of the respondent in the company,

c) The experience of the respondent in project appraisal and management

3.4.2 Section B: Causes of project Delays

This section is designed to evaluate the factor that contributes to the causes of Project implementation delays from the previous literature review. There are in total of seven groups of causes for delay in construction project:

a) Client

b) Contractor

c) Consultant

d) Materials

e) Equipment

f) Labor

g) External factors

The questionnaire is mainly based on Likert's scale of 5 ordinal measures from 1 to 5 according to level of contributing.

(5) = Strongly Agree

(4) = Agree

(3) = Moderate

(2) = Disagree

(1) = Strongly Disagree

3.4.3 Section C: Effects of project implementation Delays

For this section, respondents should evaluate the effects of construction delays based on their working experience and their own judgment. There are consists of 6 impacts of construction delays, i.e. time overrun, cost overrun, dispute, arbitration, litigation, total abandonment.

The questionnaire is mainly based on Likert's scale of 5 ordinal measures from 1 to 5 according to level of contributing.

(5) = Always

(4) = Mostly

(3) = Sometimes

(2) = Seldom

(1) = Never

3.4.4 Section D: Methods of Minimizing project implementation Delays

This section is to identify the effective methods of minimizing project implementation delays. There are in total of 15 methods are identified for this questionnaire used. The questionnaire is mainly based on Likert's scale of 5 ordinal measures from 1 to 5 according to level of contributing.

(5) = Very highly effective

(4) = Highly effective

(3) = Effective

(2) = Low effective

(1) = Very Low effective

3.5 Data Analysis

This data analysis was determined to establishing the relative importance of the various factors that contribute to causes of project implementation delays, effects of project implementation delays, and methods rectification of project implementation delays. There are consists of 2 steps to analyzing the data:

a) Calculating the Relative Importance index (RI I),

b) Ranking of factors in each category based on the Relative Importance Index (RII).

3.5.1 Relative Importance Index

Odeh and Battaineh (2002), to determine the ranking of different factors from the viewpoint of contractors and consultants, the Relative Importance Index (I) was computed as:

$$I = \frac{\sum Wi\ Xi}{\sum Xi} \qquad (1)$$

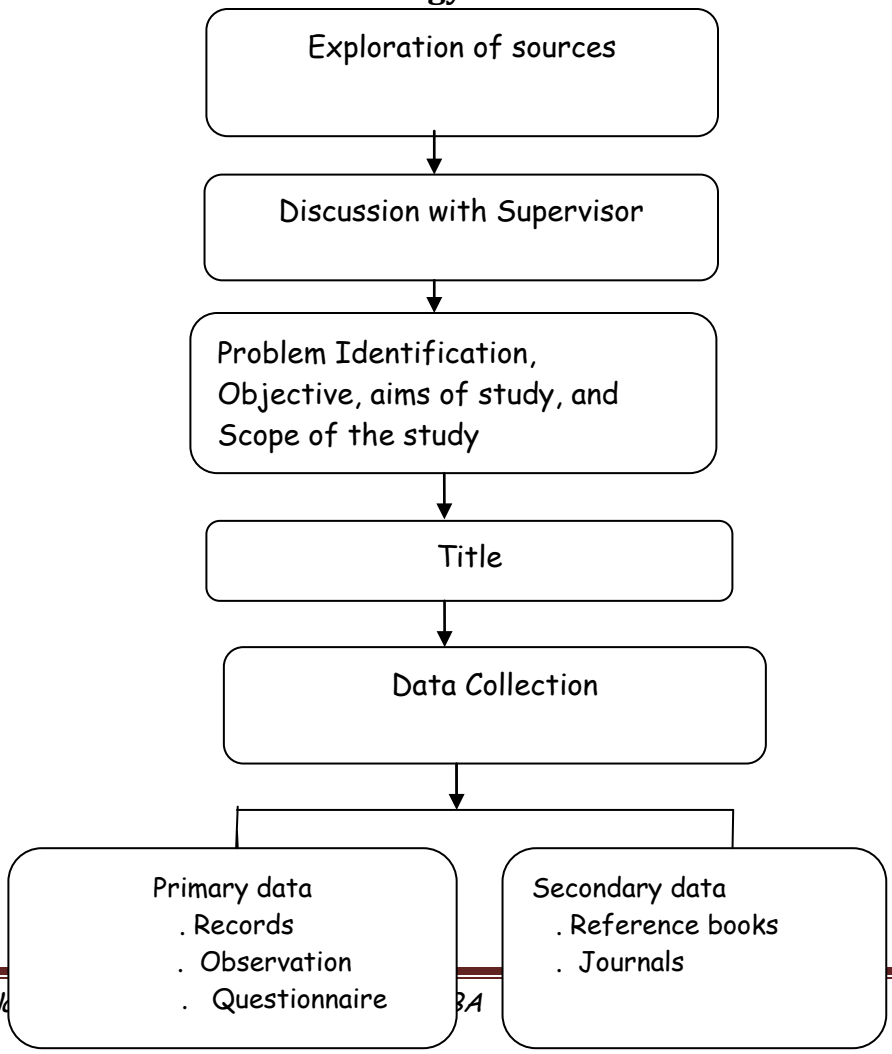
Where:

i = response category index

Wi = the weight assigned to ith response = 1, 2, 3, 4, 5, respectively.

Xi = frequency of the ith response given as percentage of the total responses for each factors.

3.6 A flow Chart of Research methodology



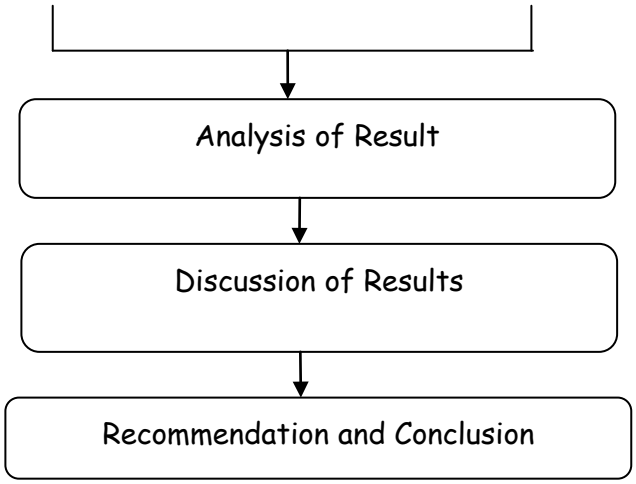


Figure 3.1: A Flow Chart of Research Methodology

3.7 Conclusion

The research methodology described and explained based on the objectives and the aims of the study. In this study, the researcher focus on the literature review and the questionnaire survey targeted on different development orientated projects financed by Development Bank of Ethiopia.

Both primary and secondary data were employed to conduct this research study. Primary data collected through structured questionnaire and interviews to supplement the secondary data for the analysis of the qualitative part of the study, while secondary data gathered through review of DBE working documents and individual file of different projects.

The methodology includes preliminary descriptive statistics that examines the general temporal and spatial trends in the data.

The literature review was done through refereeing, books, and internet and engineering journals. By referring to the previous literature, the information from the causes of construction delays,

effects of construction delays, and the method of rectification of construction would be used to develop the questionnaire survey in order to collect data from the targeted respondent.

The present study seeks to identify the main reasons and responsibilities for change orders, among others, and it is expected that a descriptive statistical analysis would throw more light on this issue. For cost overruns and time delays, descriptive statistical analysis in terms of their frequency and amounts was carried out.

A questionnaire survey was designed based on the objectives of the study, which are causes of delay in implementation of projects financed by DBEs;, effects of delays and the method rectification of these delays.

CHAPTER-4

4. ANALYSIS AND DISCUSSIONS

4.1 Introduction

This chapter presents the data analysis and discussions based on the questionnaire survey. The collected data were analyzed using the method as mentioned in Chapter Three.

4.2 Data Collection

There are in total of one hundred sets of survey questionnaire was distributed to the targeted respondent in order to identify the most important factors that cause delays, the common effect of delays, and methods of minimizing construction delays.

The survey questionnaires were distributed to the project owners /management of the project, and DBE Bank staffs who are take part in the project implementation of the those projects financed by DBE. The questionnaire was completed by experienced DBE Professional staffs and project owners/project managers. The total number of questionnaire distribution and responses has been analyzed and shown in table below.

Table 4.1 Questionnaire Distribution and Responses

Description	**Number of Distributed**	**Number of respondents**	**Percentage of Number of Responses**
Project Owner/ Manager	55	35	58
DBE Professional Staffs	45	25	42
Total	100	60	100

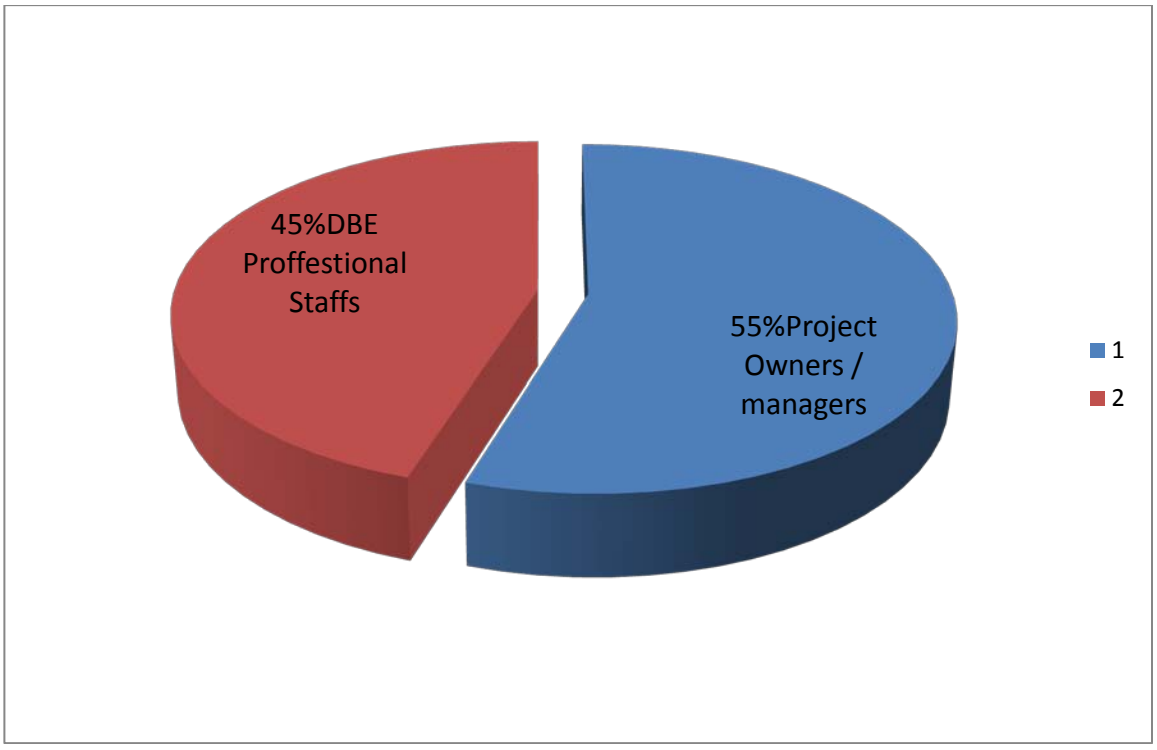


Figure 4.1 Total Number of Distributed

Based on the table 4.1 and figure 4.1, the total number of questionnaire distributed to both Project owners/ manager and DBE professionals staffs are hundred sets which includes Project owners/ manager's fifty five sets and DBE Professional staffs forty five sets. Fifty five per cent of questionnaire survey has been distributed to project Owners/ Managers, while DBE professional staff consist of forty five per cent of questionnaire survey have been distributed. The total of one hundred questionnaire have been distributed to both project owners/ manager and DBE professionals staffs at DBE Head Office and out of questionnaires distributed to project owners/ managers , twenty sets of questionnaire has been distributed to the different agricultural and industrial projects sites to be filled on site by the owners/ manager available on site.

Fifty five sets of questionnaire have been distributed to the Project owners/ managers of different projects as follow:

25 Sets from Agricultural projects ongoing projects and to those under implementation

35 Sets from manufacturing projects ongoing projects and to those under implementation.

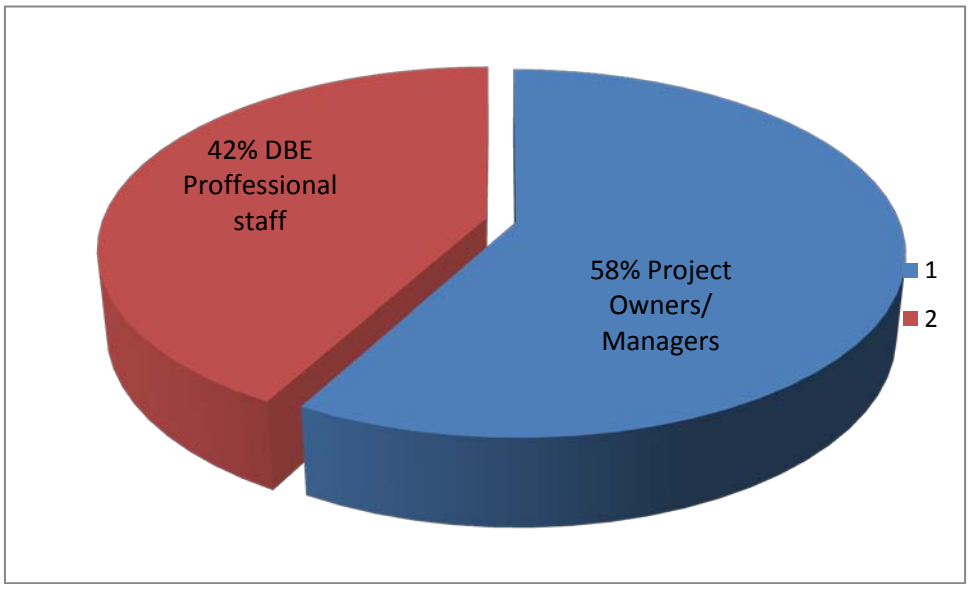


Figure 4.2: Total Number of Respondents

Referring to the table 4.1 and figure 4.2, there are in total sixty sets of questionnaire has been return back, there were consist of thirty five sets from project owners /managers, and twenty five sets from DBEs professional staffs. Fifty-eight per cent of feedback was come from project owners /managers s while another forty two per cent was come from Bank staffs.

4.3 Analysis of Results

The objective of conducting the analysis for this section is to establish the factors under the groups of causes identified from the literature review and the ranking according to their significant influence towards cause and effects of project implementation delays.

A ranking method was used to achieve this objective and the significant of using these methods is it can reveal the most influential factors within each category of causes.

4.3.1 Factors and Groups that Causes Delays

The first objective of study related to causes of delays from sixty sets of questionnaire have been identified and grouped into six major groups. These factors were ranked in each group based on Relative Importance Index (RII) from the viewpoint of project owners/ managers and DBE professional staffs. The following is a brief description of these factors in each group.

4.3.1.1 Factors of Project Owner Related Delays

Table 4.2 shows the results of survey analysis of factors of project owner related delays. Factors to causes of delays were ranked based on relative important index between group of respondent of project owner, and Bank‘s professional staffs. Referring to Table 4.2 and Figure 4.3, shortage of equity contribution i.e. lagging behind the schedule to deposited equity as required and failure to raise equity by shareholders/ promoters as scheduled was contribute the most for owners related delays by project owners/mangers and DBE professional staffs. Besides miss utilization of the disbursed fund ranked second in overall while delay due to conditions for effectiveness of the loan are not fulfilled in time to enable disbursement of the loan ranked third.

Shortage of equity contribution i.e. lagging behind the schedule to deposited equity as required by the Bank due to failure to raise equity by shareholders/ promoters as scheduled ranked first as the most factor cause that cause implementation delays, miss utilization of the disbursed also one of the most important factor which impede the smooth implementation of the project for the intended purpose and it is wasting money unnecessary activities. Next Delay due to conditions for effectiveness of the loan are not fulfilled in time to enable disbursement of the loan was ranked second highest among the project owner related delays group.

Low capacity of the promoter to cover unseen costs while planning the project, and lack of comprehensiveness of feasibility study submitted by the promoter i.e. inadequate investigations and project formulation frequent changes in scope and revision of projects size due to inadequate project preparation might extend the project activity and affect the whole project schedule ling which comes to unable to complete the project on time. Thirdly, delay due to conflicts between

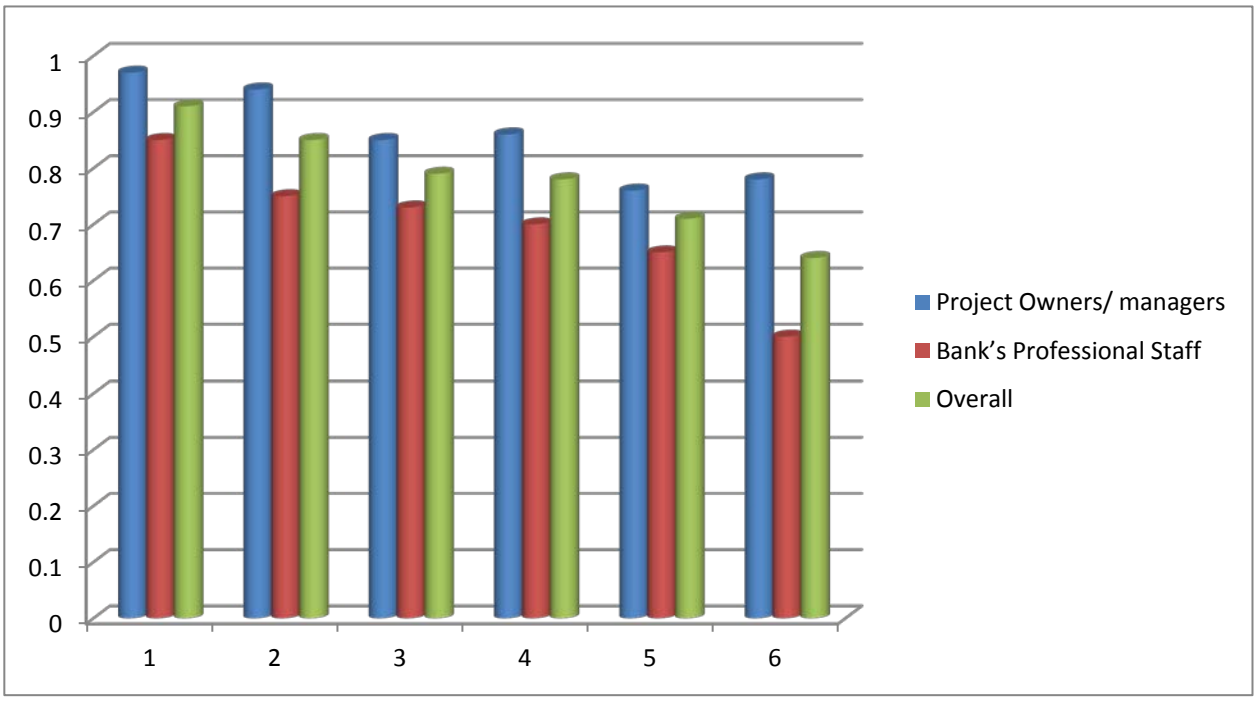
joint –ownership of the project which might post phone the activity of the project to the back and delay the whole schedule.

Table 4.2: The result of factors of Project Owner related delays

Factor	Project Owners/ managers		Bank's Professional Staff		Overall	
	Index	**Rank**	**Index**	**Rank**	**Index**	**Rank**
Shortage of equity contribution	0.97	1	0.85	1	0.91	1
Misapplication of the disbursed fund	0.94	2	0.75	2	0.85	2
Low capacity of the promoter to cover unseen costs while planning the project	0.85	3	0.73	4	0.79	3
Delay due to conditions for effectiveness of the loan are not fulfilled in time to enable disbursement of the loan	0.86	4	0.7	5	0.78	4

Lack of comprehensiveness of feasibility study submitted by the promoter	0.76	6	0.65	7	0.71	5
Conflicts between joint – ownership of the project	0.78	7	0.5	8	0.64	6

Source: Own Survey result as of December,2012



Source: Own Survey result as of December,2012

Figure 4.3: Factors of Project Owner related delays

Where:

1. Shortage of equity contribution i.e, Lagging behind the schedule to deposit equity as required Failure to raise equity by share holders /promoter as scheduled ,
2. Miss utilization of the disbursed fund ,
3. Delay due to conditions for effectiveness of the loan are not fulfilled in time to enable disbursement of the loan,
4. Low capacity of the promoter to cover unseen costs while planning the project,

5. Lack of comprehensiveness of feasibility study submitted by the promoter i.e. Inadequate investigations and project formulation frequent changes in scope and revision of drawings due to inadequate project preparation;
6. Conflicts between joint –ownership of the project.

4.3.1.2 Factors of Project Manager Related Delays

As shown in Table 4.3, both group of respondent agreed on the ranking of the factors based on relative important index. As referring to table and diagram, project managers/owners ranked Management problems such as personnel, labour and contractor disputes, mismatch of equipment, and the occurrence of lots of missed out items (machineries and equipment) and civil works resulted from absence of securing final plan and design ahead of processing the loan as top of all the project managers/owners related factors while Banks Professional staffs give the lack of sufficient knowledge of project management as the first.

Besides that, the project managers/owners choose the delay in site mobilization as less contributing to project implementation delays among all the project managers/owners related factors while Banks Professional staffs prefer frequent change of contractors, as the lowest mark among the factors .Both project managers/owners and Banks Professional staffs took as a less contributing factor delay in site mobilization.

In overall, lack of sufficient knowledge of project management, Management problems such as personnel, labour and contractor disputes, mismatch of equipment was ranked top, while ineffective planning and scheduling of projects, poor communication and coordination and the occurrence of lots of missed out items (machineries and equipment) and civil works resulted

from absence of securing final plan and design ahead of processing the loan ranked fourth to sixth.

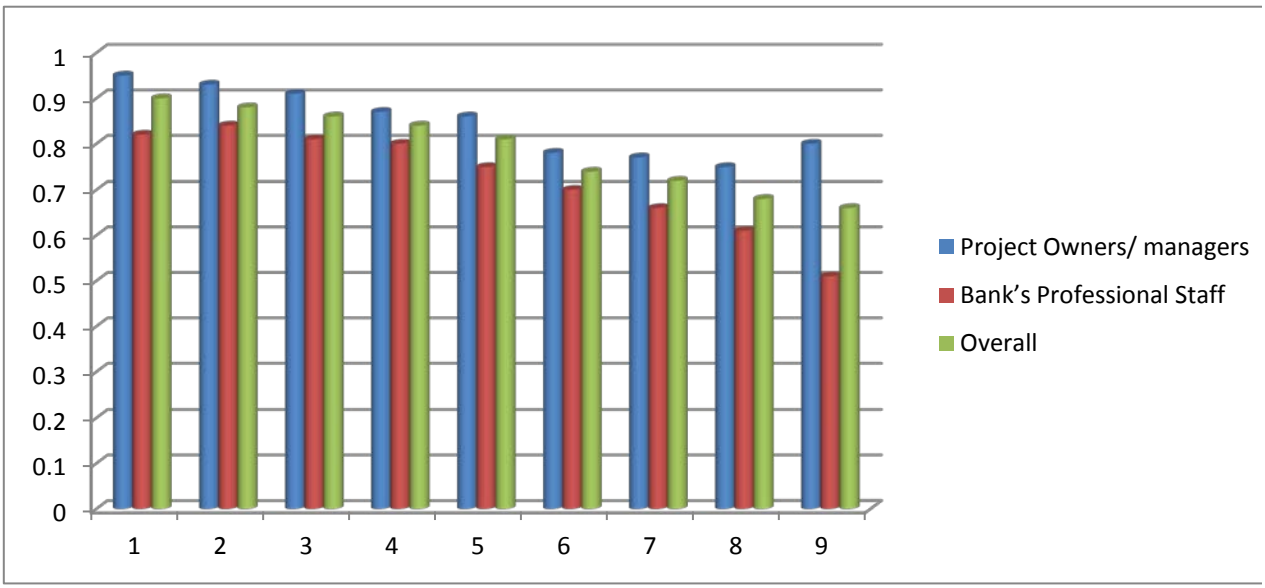
Effective communication and coordination is essential to develop a good team work which may indirectly give a successful to the project. Furthermore, inadequate contractor's work not only will cause the time overrun but also cost overrun.

Table 4.3: The result of factors of Project Manager related delays

Factor	Project Owners/ managers		Bank's Professional Staff		Overall	
	Index	Rank	Index	Rank	Index	Rank
Lack of sufficient knowledge of project management	0.95	2	0.82	1	0.9	1
Management problems such as personnel, labour and contractor disputes, mismatch of equipment, etc.;	0.93	1	0.84	3	0.88	2
Ineffective planning and scheduling of project	0.91	3	0.81	2	0.86	3
Poor communication and coordination	0.87	4	0.8	4	0.84	4
The occurrence of lots of missed out items (machineries and equipment) and civil works resulted from absence of securing final plan and design ahead of processing the loan	0.86	5	0.75	5	0.81	5
Conflicts between project manager & contractor and other parties	0.78	6	0.7	6	0.74	6
Not fulfilling missed documents required by the Bank	0.77	7	0.66	8	0.72	7
Frequent change of contractors	0.75	8	0.61	9	0.68	8

Delays in site mobilization	0.8	9	0.51	7	0.66	9

Source : Own Survey result as of December ,2012



Source: Own Survey result as of December,2012

Figure 4.4: Factors of Project managers Related Delays

Where:

1. Management problems such as personnel, labour and contractor disputes, mismatch of equipment, etc.;
2. Ineffective planning and scheduling of project
3. Poor communication and coordination
4. The occurrence of lots of missed out items (machineries and equipment) and civil works resulted from absence of securing final plan and design ahead of processing the loan,
5. Lack of sufficient knowledge of project management
6. Conflicts between project manager & contractor and other parties
7. Not fulfilling missed documents required by the Bank

8. Frequent change of contractors
9. Delays in site mobilization

4.3.1.3 Factor of Cost Escalation Related Delays

Table 4.4 shows the results of survey analysis of factors of cost escalation related delays .There are three factors that contributed to the causes of delays related to cost escalation. These factors were identified and ranked from the viewpoint of project owner, and Bank‘s professional staffs.

Referring to the table and diagram below, cost escalation of various items was ranked in first for both project owner, and Bank‘s professional staffs and it is the most important factor that affects the project implementation. Besides that, serious budget deficit resulted from fluctuation of price and utilization of low unit price of civil works in estimating the cost was ranked second and third respectively in the overall factors that affect the project implementation delay for both project owner, and Bank ‘s professional staffs.

Due to different point of view for project owner, and Bank’s professional staff, their rank have a big gap if compare with each other. For example, project owner ranked cost escalation of various items as the first choice to contributing the project implementation delays for cost escalation related delays while, the survey from Bank’s professional staff had stated that this factor would be the least contributing among the cost escalation ‘related factors.

In overall delay in the cost escalation of various items was ranked top while serious budget deficit resulted from price fluctuations and utilization of low unit price of civil works in

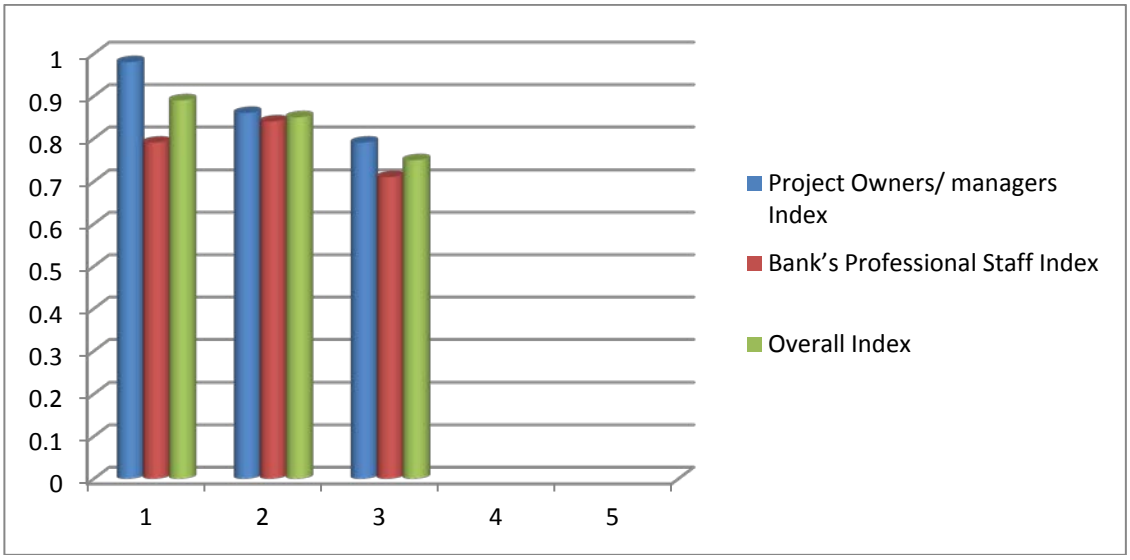
estimating the cost were ranked second and third respectively.

Table 4.4: The result of factors of Cost escalation related delays

Factor	Project Owners/ managers		Bank's Professional Staff		Overall	
	Index	Rank	Index	Rank	Index	Rank
Cost escalation on various items	0.98	1	0.79	3	0.89	1

Serious budget deficit resulted from price fluctuation	0.86	2	0.84	1	0.85	2
Utilization of low unit price of civil works in estimating the cost	0.79	3	0.71	2	0.75	3

Source: Own Survey result as of December, 2012



Source: Own Survey result as of December,2012

Figure 4.5 Factors of cost escalation Related Delays

Where:

1. Cost escalation on various items
2. Serious budget deficit resulted from fluctuation and price escalation
3. Utilization of low unit price of civil works in estimating the cost

4.3.1.4 Factors of labour related Delays

As shown in Table 4.5, there are four factors of labor related delays were ranked based on Relative Important Index from the perspective of project owner, and Bank's professional staffs.

Unavailability of labors force was ranked in first among factors of overall labour related delays even though project owner, and Bank‘s professional staffs have ranked differently in their point of view.

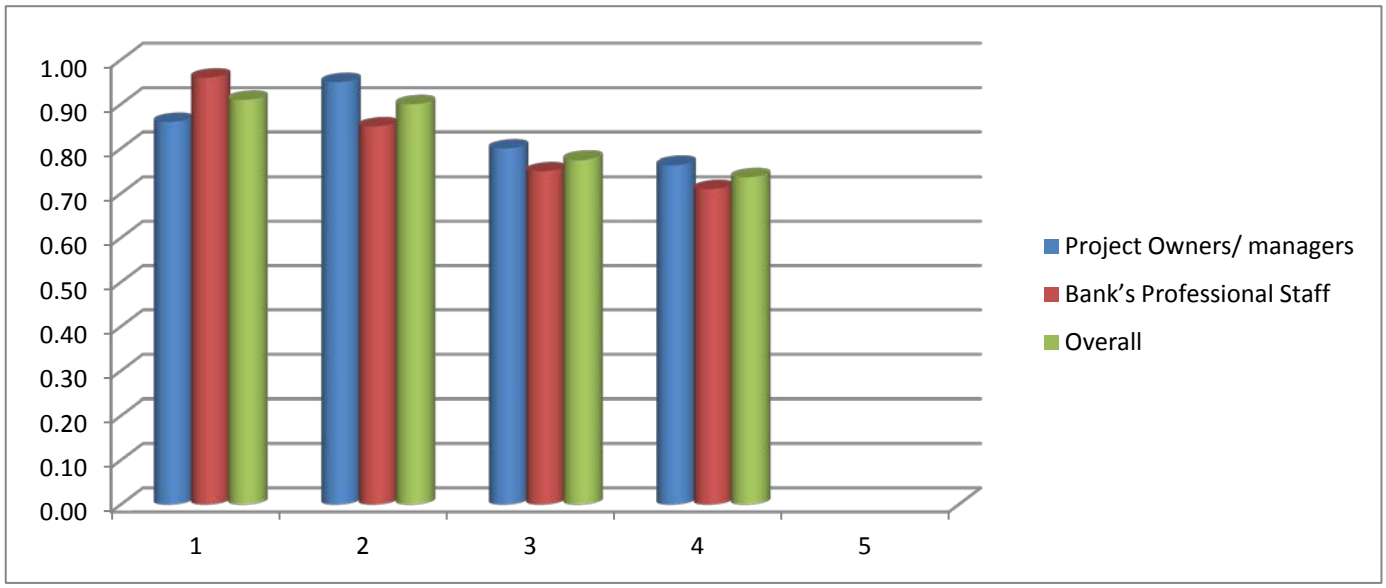
Besides that, the Demand for high wage by the surrounding labourers in the area was ranked in second for Banks professional staffs and first for project owners. Low productivity level of labours and Personnel conflict among labours was ranked third and forth for both project owner, and Bank ‘s professional staffs.

The shortage of labor will slow down the project progress due to low productive of site activity. In addition, labor productivity is typically measured as a ratio of output per labor-hour an input. If the low quality of labors is being occupied, therefore it might affect the project schedule and cause the project to delay.

Table 4.5: The result of factors of Labour related delays

Factor	**Project Owners/ managers**		**Bank's Professional Staff**		**Overall**	
	Index	**Rank**	**Index**	**Rank**	**Index**	**Rank**
Unavailability of labour	0.86	2	0.96	1	0.91	1
Demand for high wage by the surrounding labourers in the area	0.95	1	0.85	2	0.90	2
Low productivity level of labours	0.80	3	0.75	3	0.78	3
Personnel conflict among labours	0.76	4	0.71	4	0.74	4

Source: Own Survey result as of December ,2012



Source: Own Survey result as of December,2012

Figure 4.6 Factors of Labour Related Delays

Where:

1. Unavailability of labour
2. Demand for high wage by the surrounding labourers in the area
3. Low productivity level of labour
4. Personnel conflict among labours

4.3.1.5 Factors of Suppliers Related Delays

As shown in Table 4.6, there are six factors of suppliers related delays were identified and ranked based on relative important index from the perspective of project owners and Banks professional staffs.

Referring the table and a diagram below, the delays in the procurement machineries i.e delay in supply of equipment by suppliers /Late procurement of machineries and materials/ was ranked first for project owners and Banks professional staffs. This is the most important factor that affects the successful implementation of different projects weather they are industrial of agricultural projects. Besides, the delay in rendering the required design specifications by the supplier company for the specific type of machineries is ranked first by the Bank's staff and third by the project owners.

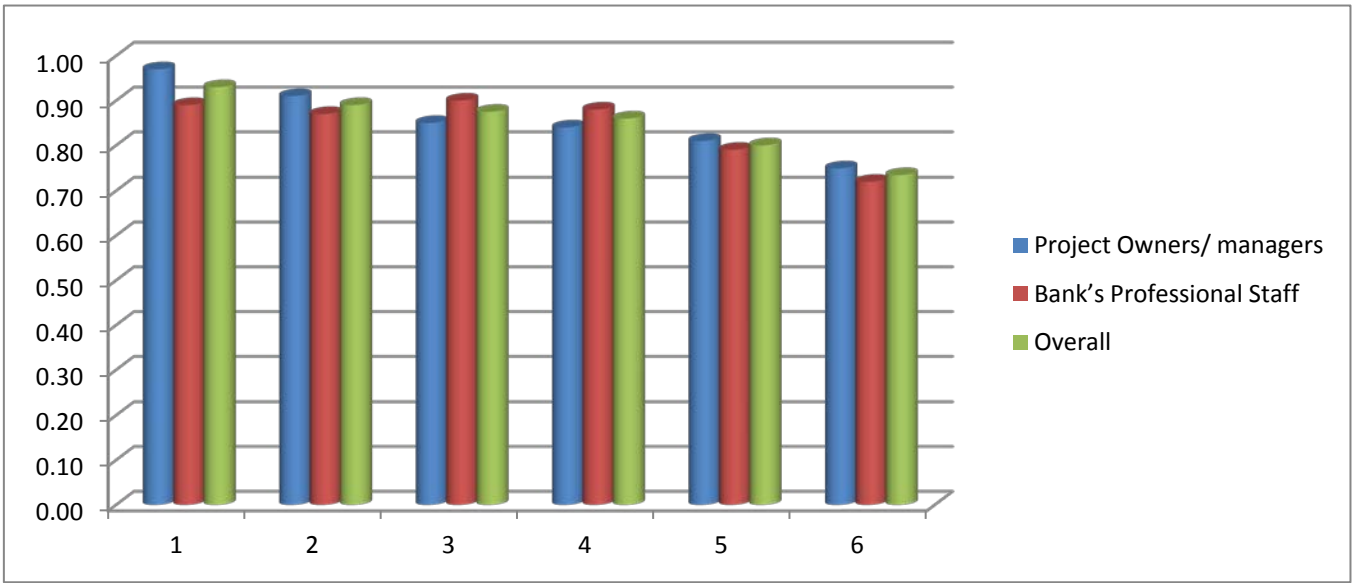
In addition to this, that design change by the by the winner company due to time elapses of procurement of machineries was ranked second and third for the project owners and Bank's professional staffs respectively. Moreover shortage of in-calf heifers for dairy project and parent stocks locally for poultry projects & shortage of/ imported materials like spare parts and the like in the market ranked fourth and fifth both from project owners and Banks professional staffs point of view .Finally damage of sorted materials while they needed urgently ranked bottom for both.

Shortage of imported materials as inputs to the manufacturing and agricultural projects will affect the cash flow and scheduling of the project activities.

Table 4.6: The result of factors of suppliers related delays

Factor	Project Owners/ managers		Bank's Professional Staff		Overall	
	Index	Rank	Index	Rank	Index	Rank
Delays in the procurement machineries i.e delay in supply of equipment by suppliers Late procurement of machineries and materials	0.93	1	0.89	2	0.91	1
Design change by the winner company due to time elapses	0.91	2	0.87	3	0.89	2
Delay in rendering the required design specifications by the supplier company for the specific type of machineries to be erected	0.85	3	0.90	1	0.88	3
Shortage of imported in-calf heifers for dairy project and parent stocks locally for poultry projects	0.84	4	0.88	4	0.86	4
Shortage of imported materials like spare parts and the like..	0.81	5	0.79	5	0.80	5
Change in price of machineries	0.79	6	0.75	6	0.77	6

Source: Own Survey result as of December, 2012



Source: Own Survey result as of December,2012

Figure 4.7 Factors of Suppliers Related Delays

Where:

1. Delays in the procurement machineries i.e delay in supply of equipment by suppliers / Late procurement of machineries and materials/
2. Design change by the by the winner company (due to time taken)
3. Delay in rendering the required design specifications by the supplier company for the specific type of machineries to be erected.
4. Shortage of in-calf heifers for dairy project and parent stocks locally for poultry projects.
5. Shortage of imported materials like spare parts and the like in the market
6. Damage of sorted materials while they needed urgently.

4.3.1.6 Factors of Development Bank of Ethiopia Related Delays

As shown in Table 4.7, there are six factors of financing bank related delays were identified and ranked based on relative important index from the perspective of project owners and Banks professional staffs.

Referring to the table and a diagram below ,stringent procedure of the Bank in utilization of loan.(loan may be not be disbursed on the right time due to policy & procedure of the Bank was ranked first for project owners and second for Banks professional staffs.

Besides, Lack of prudent pre- credit risk assessment is ranked first by the Bank's staff and second by the project owners.

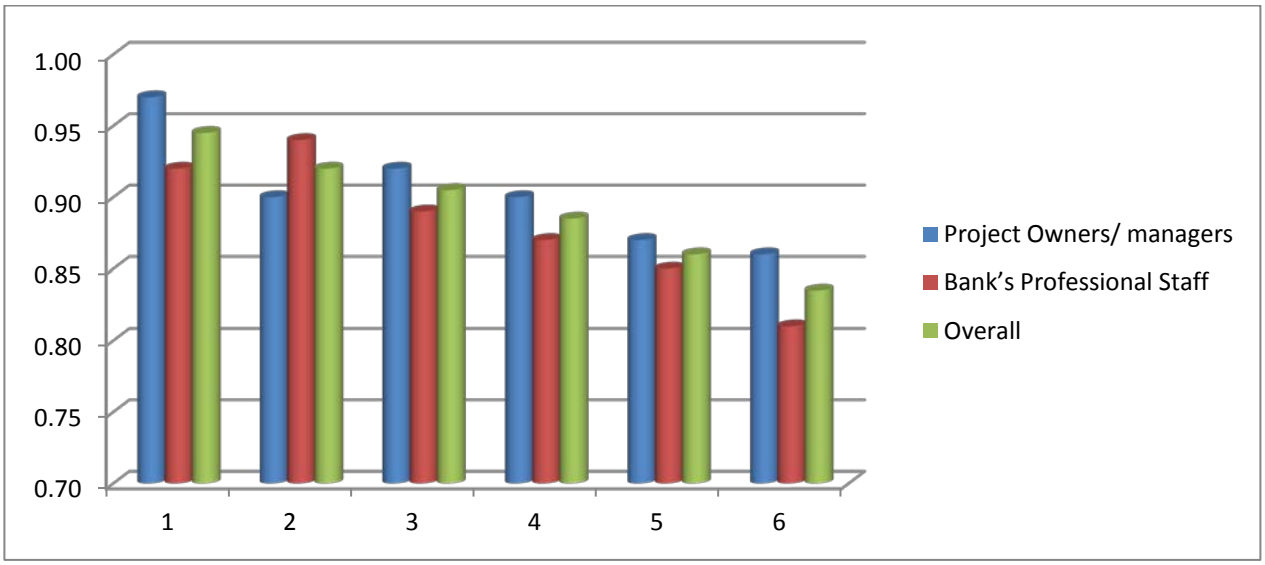
In addition to this, insufficient of experience in project appraisal work (good analytical exercise) and providing low technical advice (guidance and support of the client were ranked third and fourth for the project owners and Bank's professional staffs respectively.

Moreover, to go by the terminal dates of opening L/Cs and disbursements resulting in frequent requests for extension of these dates and inadequate communication with Bank clients, including progress tracking and reporting ranked fifth and sixth both from project owners and Banks professional staffs point of view.

4.7 The result of factors of DBE related delays

Factor	Project Owners/ managers		Bank Staff		Overall	
	Index	Rank	Index	Rank	Index	Rank
Stringent procedure of the Bank in utilization of loan	0.97	1	0.92	2	0.95	1
Lack of prudent pre- credit risk assessment	0.90	2	0.94	1	0.92	2
Insufficient of experience in project appraisal work(good analytical exercise)	0.92	3	0.89	3	0.91	3
Providing low technical advice (guidance and support of the client	0.90	4	0.87	4	0.89	4
Inadequate communication with Bank clients, including progress tracking and reporting	0.86	6	0.81	6	0.84	6

Source: Own Survey result as of December,2012



Source: Own Survey result December ,2012

Table 4.7: The result of factors of DBE related delays

Where:

1. Stringent procedure of the Bank in utilization of loan.(loan may be not be disbursed on the right time due to policy & procedure of the Bank
2. Lack of prudent pre- credit risk assessment
3. Insufficient of experience in project appraisal work(good analytical exercise)
4. Providing low technical advice (guidance and support of the client
5. Tendency of the executing agencies to go by the terminal dates of opening L/Cs and disbursements resulting in frequent requests for extension of these dates.
6. Inadequate communication with Bank clients, including progress tracking and reporting.

4.3.1.7 External Factors of Related Delays

There are seven factors of external related delays that contributed to the causes of delays were ranked based on relative important index between contractor and consultant as shown in Table 4.8.

Project owners has ranked seasonality of works to be performed (for example civil work, Land development etc ranked first and it can not be done during rainy season, Foreign exchange variation, slow custom clearance system, ranked as second and third among the top three of the external related delays factors while, Bank's professional staffs rank weather condition for unforeseeable reasons such as adverse natural calamities, foreign exchange variation and Slow custom clearance system as top three of the related factors.

The seasonality of works to be performed (for example civil work, land development etc ranked first and it can not be done during rainy season can be considered as the most important external factors that affect the project implementation.

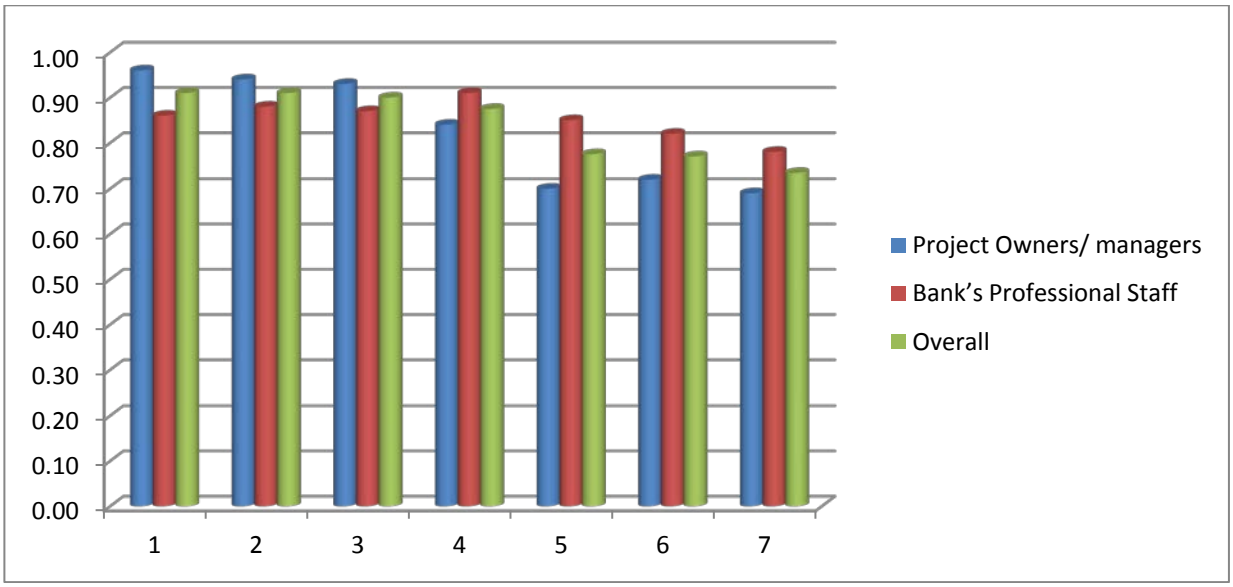
Finally in overall view delay in obtaining the required documents from concerned government offices such as from Municipality, Regional Environmental offices and delay in getting services for utilities such as water, electricity, etc ranked fifth by both project owners and Banks professional staffs. Last of all unforeseen site condition ranked least for both.

Table 4.8: The result of external factors related delays

Factor	Project Owners/ managers		Bank Professional staffs		Overall	
	Index	**Rank**	**Index**	**Rank**	**Index**	**Rank**
Seasonality of works to be performed (for example civil work, Land development etc can not be done during rainy season)	0.96	1	0.86	4	0.92	1
Foreign exchange variation	0.94	2	0.88	2	0.91	2
Slow Custom clearance system and schedule	0.93	3	0.87	3	0.90	3
Weather condition: Unforeseeable reasons such as adverse natural calamities, etc	0.84	4	0.91	1	0.88	4
Delay in obtaining the required documents from concerned government offices. Municipality , Regional Environmental offices	0.70	7	0.85	5	0.78	5
Delay in providing services for utilities such as water, electricity, etc	0.72	5	0.82	6	0.77	5
Unforeseen site condition	0.69	6	0.78	7	0.74	6

Source: Own Survey result as of December , 2012

Figure 4.9 Factors of External Related Delays



Source: Own Survey result as of December ,2012

Where:

1. Seasonality of works to be performed (for example civil work, Land development etc can not be done during rainy season)
2. Foreign exchange variation
3. Slow custom clearance system
4. Weather condition: Unforeseeable reasons such as adverse natural calamities, etc
5. Delay in obtaining the required documents from concerned government offices. Municipality , Regional Environmental offices
6. Delay in providing services for utilities such as water, electricity, etc
7. Unforeseen site condition

4.3.1.8 Ranking of Factors that Causes Delays

Based on the results of analysis the factors in each group, as discussed above, the overall ranking of factors that causes delays have been established as shown in Table 4.9.

Table 4.9: Ranking of Factors that Causes Delays

Factors	Project Owners/ managers	Bank's Professional Staff	Overall	
	Index	Index	Index	Rank
Shortage of equity contribution	0.97	0.92	0.945	1
Miss utilization of the disbursed fund	0.90	0.98	0.940	2
Ineffective planning and scheduling of project by the owners	0.89	0.98	0.935	3
Delay sometimes takes place because the conditions for effectiveness of the loan are not fulfilled in time to enable disbursement of the loan.	0.89	0.97	0.930	4
Low capacity of the promoter to cover unseen costs while planning the project	0.87	0.98	0.925	5
Lack of comprehensiveness of feasibility study submitted by the promoter	0.86	0.98	0.920	6
To go by the terminal dates of opening L/Cs and disbursements resulting in frequent extension of these dates.	0.87	0.97	0.919	7
Delays in the procurement machineries i.e delay in supply of equipment by suppliers Late procurement of machineries and materials	0.94	0.89	0.915	8
Lack of sufficient knowledge of project management	0.88	0.95	0.914	9
The occurrence of lots of missed out items (machineries and equipment) and civil works resulted from absence of securing final plan and design ahead of processing the loan	0.88	0.95	0.913	10

Factors	Project Owners/ managers	Bank's Professional Staff	Overall	
	Index	Index	Index	Rank
Lack of prudent pre- credit risk assessment	0.89	0.93	0.910	11
Stringent procedure of the Bank in utilization of loan	0.86	0.94	0.900	12
Foreign exchange variation	0.90	0.89	0.895	13
Cost escalation on various items	0.93	0.83	0.880	14
Management problems such as personnel, labour and contractor disputes, mismatch of equipment, etc.;	0.70	0.90	0.800	15
Insufficient of experience in project appraisal work(good analytical exercise)	0.88	0.86	0.870	16
Loan may be not be disbursed on the right time due to policy & procedure of the Bank	0.89	0.845	0.868	17
Inadequate communication with Bank clients, including progress tracking and reporting	0.86	0.80	0.830	18
Delay in rendering the required design specifications by the supplier company for the specific type of machineries to be erected due to late advance payment	0.85	0.77	0.810	19
Serious budget deficit resulted from price fluctuation	0.88	0.73	0.805	20
Providing low technical advice (guidance and support to the client	0.93	0.67	0.800	21
Unavailability of labour	0.85	0.74	0.795	22
Slow Custom clearance system and schedule	0.88	0.70	0.790	23
Demand for high wage by the surrounding labourers in the area	0.90	0.67	0.785	24
Design change by the by the winner company (due to time elapses)	0.75	0.80	0.775	25
Shortage and delay of raw materials imported from aboard	0.84	0.69	0.765	26

Factors	Project Owners/ managers	Bank's Professional Staff	Overall	
	Index	Index	Index	Rank
Seasonality of works to be performed (for example civil work, Land development etc can not be done during rainy season)	0.81	0.76	0.783	27
Shortage of in-calf heifers for dairy project and parent stocks locally for poultry projects	0.84	0.69	0.765	28
Weather condition: Unforeseeable reasons such as adverse natural calamities, etc	0.80	0.72	0.760	29
Shortage of spare parts in the market	0.80	0.71	0.755	30
Low productivity level of labours	0.80	0.66	0.730	31
Delay in obtaining the required documents from concerned government offices. Municipality , Regional Environmental offices	0.75	0.69	0.720	32
Delay in providing / getting /services for utilities such as water, electricity, etc	0.75	0.67	0.710	33
Utilization of low unit price of civil works in estimating the cost	0.60	0.81	0.706	34
Damage of sorted materials while they needed urgently	0.75	0.66	0.703	35
Unforeseen site condition	0.60	0.79	0.695	36
Personnel conflict among labours	0.73	0.657	0.694	37
Conflicts between project manager & contractor and other parties	0.70	0.68	0.690	38
Not fulfilling missed documents required by the Bank	0.60	0.77	0.685	39
Frequent change of contractors	0.61	0.75	0.680	40
Delays in site mobilization	0.51	0.80	0.655	41
Conflicts between joint –ownership of the project	0.50	0.78	0.640	42

Source: Own Survey result as of December,2012

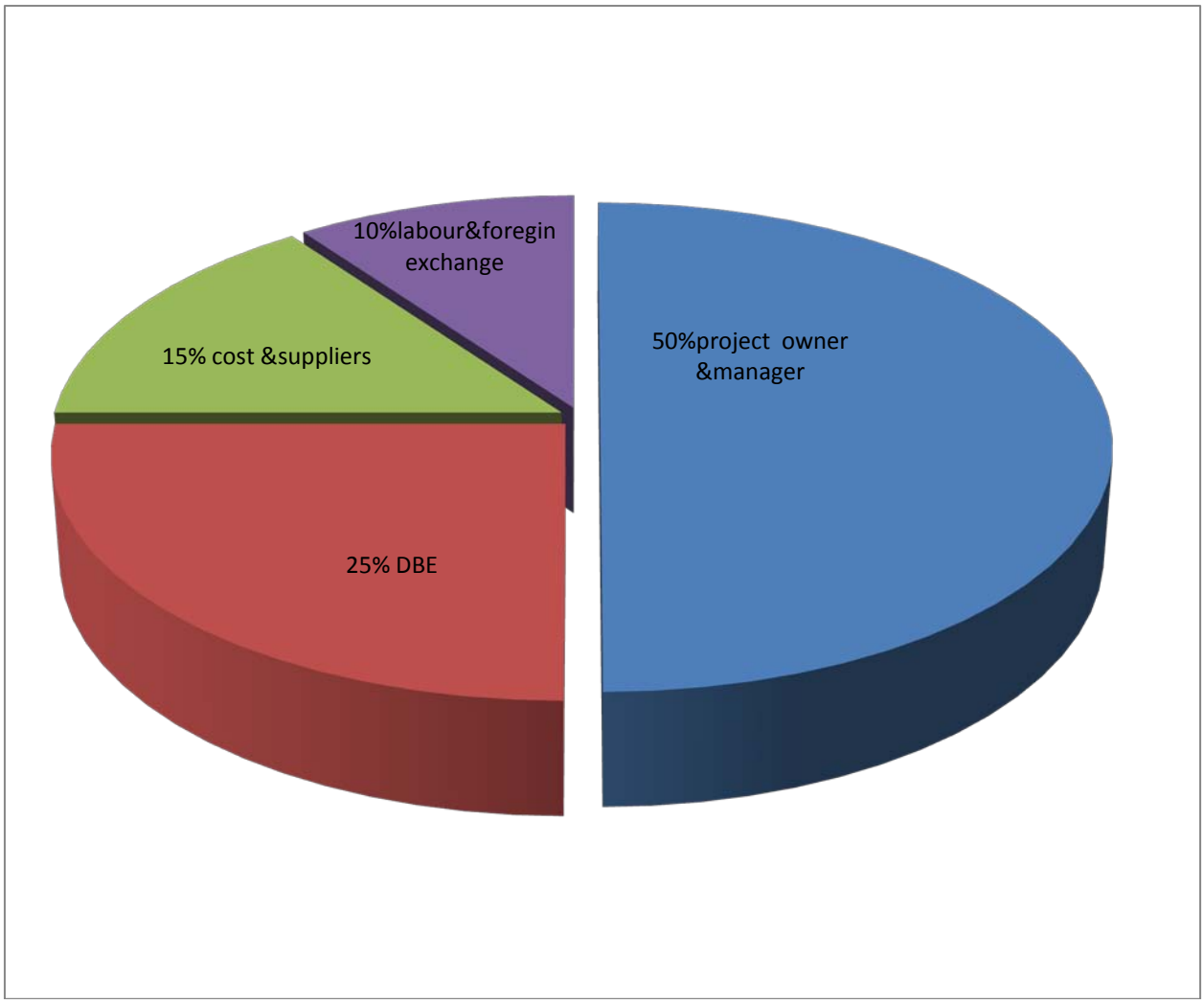
4.3.1.9 Group analysis

Based on the above data, a total of forty two factors that contributed to the causes of delays in implementation of project were identified, ranked and analyzed.

The top five most important factors that contributed to the causes of delays in implementation of project financed by the Bank are shortage of equity contribution, miss utilization of the disbursed fund, ineffective planning and scheduling of project by the owners, lack of comprehensiveness of feasibility study submitted by the promoter and the conditions for effectiveness of the loan are not fulfilled by the promoter in time to enable disbursement of loan.

Besides, to go by the terminal dates of opening L/Cs and disbursements resulting in frequent extension of these dates, delays in the procurement machineries i.e. delay in supply of equipment by suppliers, late procurement of machineries and materials, lack of sufficient knowledge of project management and the occurrence of lots of missed out items (machineries and equipment) and civil works resulted from absence of securing final plan and design ahead of processing the loan are among the top ten ranked factors with sequence.

From the top twenty factors, there are five factors of DBE related delays, totally ten factors of project owner & management related delays, totally three factors of Cost escalation suppliers & related delays and totally two factor of labor and foreign currency fluctuation related delays. This mean that the project owner and management delays occupy a 50% of the top twenty factors while 25%, 15% and 10% is belongs to Bank related cost escalation & suppliers and foreign exchange variation related delays.



Source: Own Survey result as of December,2012

Figure 4.10: Top twenty factors that contributed to the causes of delays

4.4 Effects of project implementation delay

The questionnaire surveyed on the effects of project implementation delay from the viewpoint of project owners/managers and Bank's professional staff was analyzed as shown in Table 4.10. In order to identify the effect of project implementation delay DBE financed projects, there are factors that effects delays were identified and ranked based on the mean value which calculate the average indexes of factors between project owners/managers and Bank's professional staff, as shown in Table 4.10.

Referring to Table 4.10 and Figure 4.11, shows time overrun and cost overrun were the two most common effects of delays in project from the view of point of project owners/managers and Bank's professional staff. According to the top ten factors that contributed to the causes of delays, there are at least five factors having high influence that caused of time overrun in project under implementation such as shortage of equity contribution, late fulfillment of conditions for effectiveness of the loan to enable disbursement of loan, lack of comprehensiveness of feasibility study submitted by the promoter, to go by the terminal dates of opening L/Cs and disbursements resulting in frequent extension of these dates, delays in the procurement machineries and materials.

For cost overrun, there are also contain at least five factors having high influence in project implementation delay, such as the occurrence of lots of missed out items (machineries and equipment) and civil works resulted from absence of securing final plan and design ahead of processing the loan, cost escalation on various items, foreign exchange rate variation, delay in rendering the required design specification by the supplier company, and ineffective planning and scheduling of project by owners

The effects of delays have been identified as time overrun as a result there is a frequent loan repayment rescheduling requesters by the owners/managers of the project, cost overrun as a result almost all DBE financed projects submit additional loan request recurrently and as a consequence it is observed a low rate of successful implemented projects .The over all effect is unsatisfactory performances have been observed in loan recovery in the past few years. For the last five years (2004/2003 to 2007/2008) the Bank's overall average recovery rate was 30%, showing very low performance due to various factors mentioned above.

Table 4.10: Result of effect of project implementation delays

Factors	Project Owners/ managers	Bank's Professional Staff	Overall
Low loan recovery rate	0.97	0.91	0.94
Low rate of successful implementation of projects (Quality of project)	0.85	0.8	0.83
Loan rescheduling due to time overrun	0.78	0.75	0.77
Additional Loan request due to cost overrun	0.7	0.68	0.69

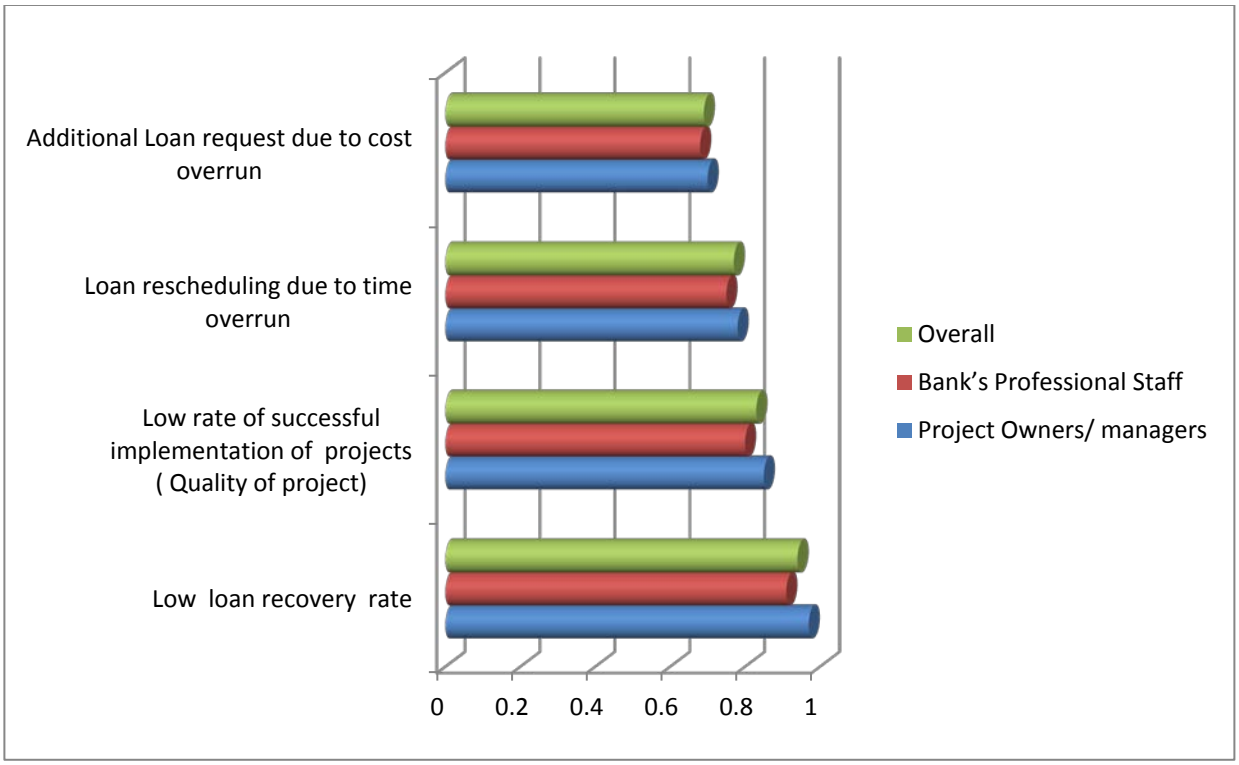


Figure 4.11: The Common Effects of Delays

4.5 The Methods of Minimizing project implementation delay

In Table 4.11 shows the results of methods of minimizing project implementation delays from the viewpoint of project owners/managers and banks Professional staffs. These methods were ranked based on the mean value which calculating the average indexes.

The results of research revealed that effective strategic planning, use of adequate application screening criteria, verifying reliable source of equity contribution, pre-credit risk assessment, revision of the policy & procedure of the Bank and comprehensiveness of feasibility study has made the top six effective for overall ranked by project owners/managers and banks Professional staffs.

The use of adequate application screening criteria, verifying reliable source of equity contribution, pre-credit risk assessment are the most important factor among the nineteen factors. In project financing the equity and the debt of the project were structured in a way to support one another. The Bank loan was arranged before the equity financing was raised so that the investors have enough confidence that the reminder of the capital requires for the project is available. Similarly the equity raised gave the lenders confidence that the project is capitalized. Besides, this adequate application screening criteria /check list will ensure that all the required credit and other background information from the side of borrowers required by the Bank in order to process the loan available.

On the topic of the issue of pre-credit risk assessment, revision of the policy & procedure of the Bank, the Bank ought to reconsider and strengthen its pre-credit assessment and revise its credit policy & procedure regarding loan utilization.

A feasibility study is, therefore, a pre-requisite for preparation of a major development project on sound lines, and is not ruled out even for a minor one. It is basically an in-depth "three-in-one" study consisting of the technical, financial and economic viability of a project. The study arrives at a definite conclusion about the feasibility of a project after considering the various options.

Moreover, regarding the comprehensiveness of feasibility study, it should provide basic information related to the main scheme on the basis of various surveys/ researches carried out. It should include technical, financial, economic, managerial, social and regional aspects of the project.

Moreover, the strategic planning is important for financing Bank and clients of DBE as it will give you the direction and measurement tools you need to be competitive in the industry.

Frequent communication with clients including progress tracking and reporting is essential since it is passing of idea and information and providing training with specific sector of project to upgrade analytical exercise of project appraisal officers of the Bank which leads to maintain capable staffs.

Table 4.11 Results of methods of minimizing project implementation delays.

Factors	Project Owners/ managers		Bank's Professional Staff		Overall	
	Index	Rank	Index	Rank	Index	Rank
Effective strategic planning	0.93	1	0.99	1	0.96	1
Set adequate applicant screening criteria,	0.93	3	0.97	2	0.95	2
Verify reliable source of equity contribution with documents	0.90	2	0.98	3	0.94	3
Frequent follow up of projects	0.89	4	0.96	4	0.93	4
Prudent pre- credit risk assessment	0.87	5	0.97	4	0.92	5
Revise the policy & procedure of the Bank utilization of loan	0.87	6	0.95	10	0.91	6
Proper planning and scheduling of project	0.85	8	0.93	5	0.89	7
Comprehensiveness feasibility study	0.83	9	0.92	6	0.88	8
Verify proper utilization of disbursed loans before the release of subsequent loans	0.82	10	0.90	8	0.86	9
Providing training with specific sector of project to upgrade analytical exercise of project appraisal officers of the Bank	0.80	12	0.95	9	0.88	10
Securing final plan and design of building & construction ahead of processing the loan	0.83	9	0.89	11	0.86	11
To consider average time taken for procurement of machinery	0.81	11	0.90	12	0.86	12
Providing high technical advice & guidance and support to the client	0.86	7	0.83	13	0.84	13

Factors	Project Owners/ managers		Bank's Professional Staff		Overall	
	Index	**Rank**	**Index**	**Rank**	**Index**	**Rank**
Frequent communication with clients, including progress tracking and reporting (communication channels)	0.70	15	0.90	14	0.80	14
Use up-to-date technology in processing the loan application of clients	0.80	12	0.75	15	0.78	15
Proper management qualification for project works/Upgrade knowledge of project management	0.72	13	0.80	16	0.76	16
Fulfilling missed documents on right time	0.70	14	0.78	17	0.74	17
Proper emphasis on past experience	0.67	19	0.73	18	0.70	18
Proper assessment of the availability labor and update the price of labour while conducting the feasibility study.	0.68	17	0.67	19	0.67	19

Source : Own Survey result as of December ,2012

4.6 Summary

The major delays groups were identified and ranked, among the two groups and project owners/ managers related delays is the top main groups that contribute to the causes of delays.

The top five most important factors that contributed to the causes of delays in implementation project financed by the Bank are shortage of equity contribution, miss utilization of the disbursed fund , ineffective planning and scheduling of project by the owners/mangers of the project , delay sometimes takes place because the conditions for effectiveness of the loan are not fulfilled by owners/mangers in time to enable disbursement of loan and lack of comprehensives of feasibility study submitted by owners.

The effects of delays have been identified as time overrun as a result there is a frequent loan repayment rescheduling requesters by the owners/managers of the project, cost overrun as a result almost all DBE financed projects submit additional loan request recurrently and as a result it is observed a low rate of successful implemented projects as scheduled .The over all effect is unsatisfactory performances have been observed in loan recovery in the past few years. For the last five years (2004/2003 to 2007/2008) the Bank's overall average recovery rate was 30%, showing very low performance due to various factors mentioned above.

To minimize delays in project implementation , effective strategic planning, adequate applicant screening criteria, verification of reliable source of equity contribution with documents ,frequent follow up of projects and Prudent pre- credit risk assessment are the top five recommended methods to minimizing project implementation delays from a total of nineteen methods.

CHAPTER 5

5. CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the conclusions on the finding of the research based on the literature review and a questionnaire survey. The main survey of project owner/ managers and DBE staffs related delays as discussed in previous chapter related to causes and effects of project Implementation Delay on Loan Recovery Performance (The case of selected projects financed by Development Bank of Ethiopia)

5.2 Conclusions

Delayed implementation gives a project a difficult start, unduly long time taken for project implementation results in time-overrun which is invariably followed by cost overrun. Cost-overrun has the ill effect of affecting the financial viability of the project. The problem of cost-overrun will get more compounded if the finance necessary to meet the increased cost cannot be arranged in time. Any delay in arranging for the finance needed to meet the cost overrun will only further tend to increase the cost and this may land the project in trouble leading eventually to the death of the project and the project may not take off.

There are four objectives of this study which have been achieved.

The first objective was to identify the major causes of delays in project implementation, the second was to pin point the consequence /effects / of delay in implementation of project, and its implication on loan recovery of DBE, to evaluate the possible measures taken by Development Bank of Ethiopia and to draw up possible recommendation for successful implementation of projects with respect to planning and managing of project implementation in order to minimize delays of projects implementation.

5.2.1 The Major Causes of Delays

The first objective of the study has been successfully identified. A total of forty two factors that causes delays were identified. Among these factors were the top ten most important factors that contributed to the causes of delays include shortage of equity contribution , miss utilization of the disbursed fund ,ineffective planning and scheduling of project by the owners, conditions for effectiveness of the loan are not fulfilled in time to enable disbursement of the loan, lack of prudent pre- credit risk assessment low capacity of the promoter to cover unforeseen costs while planning the project, lack of comprehensiveness of feasibility study submitted by the promoter, delays in the procurement machineries i.e. delay in supply of equipment by suppliers late procurement of machineries and materials, lack of sufficient knowledge of project management, the occurrence of lots of missed out items (machineries and equipment) and civil works resulted from absence of securing final plan and design ahead of processing the loan, and to go by the terminal dates of opening L/Cs and disbursements resulting in frequent extension of these dates.

The factors were grouped into seven groups of causes of delays. Group of project owner/manager related delays was ranked the most significant groups that cause delays, followed by Bank related delays, cost escalation & suppliers related delays, and labour & external factors related delays.

5.2.2 The Common Effects of Delays

The second objective of this research was to pin point the consequence /effects / of delay in implementation the effects of delays. This objective has been successfully achieved. There are four effect delays in implementation of project which includes loan rescheduling due to time overrun, additional Loan request due to cost overrun, low rate of successful implementation of projects (Quality of project) and Low loan recovery rate of projects. The results of analysis showed loan rescheduling due to time overrun and cost overrun were two most common effects of project implementation delays in DBE financed project. However, as the over all effect unsatisfactory performances have been observed in loan recovery in the past few years. For the last five years (2004/2003 to 2007/2008) the Bank's overall average recovery rate was 30%, showing very low performance due to various factors mentioned above.

5.2.3 The Methods of Minimizing project implementation delay

The third objective of this study was to identify the effective methods of minimizing delays project implementation delay has been successfully achieved. The most effective methods of minimizing delays includes: effective strategic planning, use of adequate application screening criteria, verifying reliable source of equity contribution, pre-credit risk assessment, revision of the policy & procedure of the Bank and to make sure that comprehensiveness of feasibility study

and proper emphasis on past experience and providing training with specific sector of project to upgrade analytical exercise of project appraisal officers of the Bank locally as well as abroad.

Moreover, regarding the comprehensiveness of feasibility study, it should provide basic information related to the main scheme on the basis of various surveys/ researches carried out. It is basically an in-depth "three-in-one" study consisting of the technical, financial and economic viability of a project. The study arrives at a definite conclusion about the feasibility of a project after considering the various options. A feasibility study is, therefore, a pre-requisite for preparation of a major development project on sound lines, and is not ruled out even for a minor one.

5.3 Recommendation

From this study, some recommendations are given as follows:

1. Projects can be delayed due to several factors. Implementation of projects financed by the DBE is delayed due to shortage of equity contribution i.e, Failure to raise equity by share holders/promoter as scheduled or lagging behind the schedule to deposit equity as required by the Bank as a result of failure to raise equity by share holders and as a result conditions for effectiveness of the loan are not fulfilled in time to enable disbursement of the loan. Therefore, the Bank has to make sure that there is reliable source of equity before accepting the loan application and disclaimer agreement signed by the owner/ manager of the project in order to minimize project implementation delay. Therefore, projects with higher equity share as a ratio of total investment requirement and borrowers who are relatively educated and acquired extensive experience in related economic activities are to be favored by the Bank.

2. Miss utilization of the disbursed fund, and the Bank shall monitor the whole operation of the project and shall detect any deviation in the project against plan (without the consent of the Bank), and any mal practice and diversion of fund to other purposes. Any deviation on these issues shall be subject for immediate action on the project to the extent of blocking subsequent disbursements and / or cancellation of the loan.

3. Cost escalation on various items, and serious budget deficit resulted from price fluctuation and price escalation. Therefore, the Bank needs to be aware on these three factors stated above and revise its cost estimation summary in order give breathing time for projects.

4. Lack of sufficient knowledge of project management, low technical and managerial skills of project managers s are the problems that faced by project managers which might cause project implementation delays. Therefore, project manager should organize some training programs for their workers in order to update their knowledge and improve their management skill. And a capable project manager and a good team around him, with involvement right through all four phases of project is mandatory.

5. Lack of comprehensiveness of feasibility study submitted by the promoter i.e. inadequate investigations and project formulation frequent changes in scope and revision of drawings due to inadequate project preparation. A feasibility study is, therefore, a pre-requisite for preparation of a major development project on sound lines, and is not ruled out even for a minor one. It is basically an in-depth "three-in-one" study consisting of the technical, financial and economic viability of a project. The study arrives at a definite conclusion about the feasibility of a project after considering the various options. Hence, it should be a through feasibility study which does not overlook any significant element affecting the project.

6. Delay/ Late procurement of machineries and materials. Therefore, award of contracts for Civil works/supply of machinery and equipment to experienced firms of repute on fair and equitable contractual obligations plays a vital role in the execution of works and implementation of projects for achieving the objectives conceived at the planning stage. As

the implementation of the project in physical terms begins with the award of contracts, it should be concluded with maximum expedition.

7. Unavailability of labors force was ranked in first among factors of overall labour related delays even though project owner, and Bank 's professional staffs have ranked differently in their point of view. Therefore, in order the alleviate the problem of shortage of labour either a machinery has to be taken as an alternative for example if it is a cotton farm picking machine has be owned or daily labours have to be moved from the place where they are available in temporary basis with adequate remuneration.

8. Stringent procedure of the Bank in utilization of loan (loan may be not be disbursed on the right time due to policy & procedure of the Bank. Hence, the Bank has to revise and amend its policy regularly and Banks pre- credit risk assessment has to be strengthen.

9. Insufficient of experience in project appraisal work (lack of good analytical exercise providing low technical advice (guidance and support of the client) .Hence, the in essence, the project should be technically feasible and adequate demand should exist for selling the products generated by the operation of the project facilities. There should be adequate financial returns, and adequate returns to the national. For that reason, the professional staffs engaged in appraising the project should trained locally and abroad recurrently as required to upgrade their skills.

10. Due to the dynamic nature of project environments, it is inevitable that conflicts among the project team will arise. All project participants should recognize that conflict are inevitable

and actually can be beneficial if resolved in an appropriate manner. Therefore, the conflict management is a need to produce a good working environment.

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APPENDIX – A

QUESTIONNAIRE

CAUSES AND EFFECTS OF PROJECT IMPLEMENTATION DELAY ON LOAN RECOVERY PERFORMANCE *(The Case of Selected Projects Financed By Development Bank of Ethiopia)*

This questionnaire consists of 4 sections

SECTION A: Respondent Background

SECTION B: Factors that Contributing to Causes of project implementation Delays

SECTION C: Effect the project implementation delays

SECTION D: Methods of Minimizing project implementation Delays

Objective of the Study

1. To identify the main factors that contributing to the causes of project implementation delays.

2. To identify the consequences /effect of delay in implementation and its implication on loan recovery of the Development Bank of Ethiopia

3. To evaluate the possible measures taken by the Development Bank of Ethiopia to
4. exterminate delays in implementation

5. To draw up possible recommendations for successful implementation of projects with respect to planning and managing of implementation.

STUDENT NAME: Abebit H/Mariam

SUPERVISOR: Prof. Gaga Kuma

NOTE:

Your answer will be treated confidentially. The findings of the study will be used for academic purposes. Your name is optional in this questionnaire.

Thank you for your corporation

SECTION A

Respondent Background

PART I. General Information/Personal Data

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

Organization/ Company name:
_____

1. Sex Male ☐ Female ☐

2. Age

I 25-30 ☐

II 31-40 ☐

III 41-50 ☐

IV Above 50 ☐

3. Your Area of Profession _____

4. Educational Qualification _____

Diploma		BA/BSC degree		MA/ MSC		PHD		Others, Please specify	

3. Respondent organization/company _____

4. State respondent position in the organization/company.
In which position you are currently working?

☐ Non Managerial

☐ Managerial ☐ Other Please specify

5. State the number of year respondent has experienced in the industry/Bank /. For how long have you been working in the Industry/Bank?

1 to 5 years ☐

5 to 10 years ☐

11- to 15 years ☐

16 and above ☐

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

☐ 1 - 3 projects ☐ 4 - 6 projects

☐ 7 - 9 projects ☐ > 9 projects

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

☐ 1 - 3 projects ☐ 4 - 6 projects

☐ 7 - 9 projects ☐ > 9 projects

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

☐ Agriculture

☐ Industry (manufacturing

☐ Others, Please specify:_____

9. State the percentage of delay from estimated project duration.

☐ 0 – 5 % ☐ 5% - 10%

☐ 10% - 15% ☐ 15% - 20%

☐ 20% ,

Please specify:_____

SECTION B

Factors that Contributing for Causes of project implementation Delays

Objective of the study: To identify the main causes of project implementation delay of projects financed by the Bank

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

Each scale represents the following rating:

(5) Very highly contributing (4) Highly contributing (3) Medium contributing

(2) Low contributing (1) Very low contributing

Question:

Which of the following related to internal and external factors stated below that contribute to causes of implementation delays of projects financed by the DBE?

Categories	No	Causes of delay	1	2	3	4	5
Internal Factors							
Project Owner related	1	Miss utilization of the disbursed fund					
	2	Low capacity of the promoter to cover unseen costs while planning the project					
	3	Lagging behind the schedule to deposit equity as required					
	4	Failure to raise equity by share holders /promoter as scheduled					
	5	Shortage of equity contribution					
	6	Lack of comprehensiveness of feasibility study submitted by the promoter					
	7	Low capacity of the promoter to cover unseen costs while planning the project					
	8	Conditions for effectiveness of the loan are not fulfilled in time					
	9	Conflicts between joint –ownership of the project					
	10	Slowness in decision making process by the owner managers					

Project Management related							
	1	The occurrence of lots of missed out items (machineries and equipment) and civil works					
	2	Not fulfilling missed documents required by the Bank					
	3	Management problems such as personnel, labour and contractor disputes, mismatch of equipment, etc.					
	4	Lack of sufficient knowledge of project management					
Related to cost escalation							
	1	Serious budget deficit resulted from fluctuation and price escalation					
	2	Utilization of low unit price of civil works in estimating the cost					
	3	Cost escalation on various items					
Factors of labour related							
	1	Low productivity level of labours					
	2	Personnel conflict among labours					
	3	Shortage the required man power					
Suppliers Related							
	1	Delay in rendering the required design specifications for the specific type of machineries to be erected					
	2	Design change by the by the winner company					
	3	Delays in the procurement machineries and materials required for the projects.					

DBE related							
	1	Lack of prudent pre- credit risk assessment					
	2	Lack of comprehensiveness of feasibility study					
	3	Providing low technical advice (guidance and support of the client)					
	4	Inadequate communication, including progress tracking and reporting					
	5	Inadequate release of funds					
	6	Tendency of the executing agencies to go by the terminal dates of opening L/Cs					
	7	Stringent procedure of the Bank in utilization of loan.(					
	8	Lack of experience in project appraisal work(good analytical exercise)					
External factors							
	1	Delay in obtaining the required documents from concerned government offices. Municipality , Regional Environmental offices					
	2	Delay in land acquisition					
	3	Delay in providing services for utilities such as water, electricity, etc					
	4	Delay in clearances from various regulatory agencies;					
	5	Frequent interruption of power supply which leads to delay in civil works and machinery installation					
	6	Unforeseeable reasons such as adverse natural calamities, etc					
	7	Delays in sub-contractors work Inadequate contractor's work					
	8	Seasonality of works to be performed (for example civil work, Land development etc cannot be done during rainy season)					

SECTION C

Effects of projects implementation delays

Objective of the study: To identify the effect of Projects implementation delays in the Loan recovery of DBE

Please tick and fill in the blanks if you select others.
Each scale represents the following rating:

(5) Always (4) Mostly (3) Sometime
(2) Seldom (1) Never

Question:

What is the effect of Project implementation delays?

	Effects	1	2	3	4	5
1	Low recovery rate of the Bank					
2	Time overrun (Loan repayment rescheduling request)					
3	Cost Overrun (Additional loan request)					
4	Low rate of successful implementation of projects (Quality of project)					

What is the overall effect of Project implementation delays?

If any other effects which do you suggest, Please write down.

_____
_____
_____
_____
_____

SECTION D

Methods to Minimizing Project implementation delays

Objective of the study: To identify the methods of minimizing Project implementation delays financed by DBE.

Please tick and fill in the blanks if you select others.
Each scale represents the following rating:

(5) Very highly effective (4) highly effective (3) Medium effective
(2) Low effective (1) Very low effective

Question:

Which of the following methods will minimize the Project implementation delays financed by DBE?

	Proposed Method	**1**	**2**	**3**	**4**	**5**
1	Revision of policy and procedure of DBE in accordance with Government strategies to favor priority area project to meet the development agenda of the country					
2	Verifying secure source of equity contribution from the side of borrowers					
3	Providing appropriate technical advice to support the client of the Bank					
4	Frequent progress inspection and follow up and projects which were under implementation					
5	Effective strategic planning a new strategy should be developed to improve project implementation and should consider environmental scanning					
6	Providing an specific training on job training at the Bank on technical matters for those who lack experience in					
7	Proper project planning and scheduling					
8	Initial cost estimates of projects should be revised and estimated by the Bank engineers					
9	Use up-to-date technology utilization reinforce the MIS system of the Bank					
10	Proper emphasis on past experience					

Please state out your comment for any recommendations

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