ST. MARY'S UNIVERSITY
SCHOOL OF GRADUATE STUDIES

CAPITAL BUDGETING PRACTICES: A STUDY OF ETHIOPIAN CONSTRUCTION DESIGN AND SUPERVISION WORKS CORPORATION

BY

BEMINET SHIMELES

ID NO.SGS/0530/2009A

Advisor: Abreham Gebregiorgis (Ass.prof.)

JUNE, 2018

ADDIS ABABA, ETHIOPIA

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A THESIS SUBMITTED TO ST. MARY'S UNIVERSITY, SCHOLL OF GRADUATE STUDIES IN PARTIAL FULFILMENT OF THE REQUREMENTS FOR THE DEGREE OF MASTERS OF BUSINESS ADMINSTRATION IN ACCOUNTING AND FINANCE.

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List of Acronyms

NPV- Net Present Value

PB- Pay Back Period

IRR- Internal Rate of Return

MIRR- Modified Internal Rate of Return

PI- Profitability Index

DPB- Discounted Pay Back Period

DCF- Discounted Cash flow

CEO- Chief Executive Officer

SPSS- Statistical Package for the social Sciences

ECDSWC- Ethiopian Construction Design and Supervision works Corporation

WWDSE- Water Works Design and Supervision Enterprise

CDSCO- Construction Design Share Company

TCDSCO- Transport Construction Design Share Company

EC- Ethiopian Calendar

Abstract

The implementation of sound capital budgeting practices is one of the most important factors for the success of a business. The purpose of this study is to assess and describe the results of the case study conducted on the capital budgeting practices of Ethiopian Construction Design and Supervision Works Corporation. The capital budgeting practices of the corporation was examined using an analytical frame work of likert scale measurements. Case study design with mixed research approach is employed. Research evidence was gathered distributing questionnaires to managers and experts who involved in capital budgeting practices of the corporation and Interview and document reviews were conducted to get sufficient evidence in evaluating the capital budgeting practices. The result show that capital budgeting practice of the corporation is in line with the theory of capital budgeting and empirical evidences. Accordingly, the corporation uses profitability index technique which applies discounting cash flow method. The corporation's capital budgeting task organization which the study tried to assess from planning, evaluation, investment selection, implementation and post investment evaluation work processes are found to be in line with the theory and the practices addressed in the literature review section of the study. The study found that shortage of skilled man power to be a challenge for the capital budget practices of the corporation. Since a case study on a single unit is conducted, universal generalization of the findings cannot be claimed.

Key word: *Capital Budgeting, Case Study.*

Chapter One

1. Introduction

This chapter presents the back ground of the study, statement of the problem, research questions, objectives of the study, significance of the study, scope of the study, limitation of the study and organization of the study. These main sections of the chapter give detail information about the issue in the topic.

1.1. Background of the study

Firms continually invest funds in assets, and these assets produce income and cash flows that the firm can either reinvest in more assets or pay to the owners. These assets represent the firm's capital. The process of investing in assets is called capital investment. Managers must evaluate a number of factors in making investment decisions. Not only does the financial manager need to estimate how much of the firm's future cash flows will change if it invests in a project, but the manager also evaluate the uncertainty associated with these future cash flows (Peterson & Fabozzi, 2002). Furthermore capital budgeting practice has become one of the fundamental criteria for a company planning to undertake an investment. It is one of the most important decisions that face the financial managers today; these decisions shape the future of the company. The process of capital budgeting should be done taking in to consideration the firm's strategic plan (Maroyi, 2011).

Ross, Westerfield & Jaffe (1999) mentioned that the selection of potential investment is done using several techniques which have been developed over the years. The Net Present Value (NPV), the Pay Back Period (PB), Internal Rate of Return (IRR), Modified Internal Rate of Return (MIRR), Profitability Index (PI) and Discounted Pay Back Period (DPB) can be used in selection of potential investments. Companies might use different techniques for different projects. Research done by Anand & Monoj (2002) and Jain & Yadev (2002) states that the most frequently used capital budgeting technique for large corporations is either the Internal Rate of Return (IRR) or the Net Present Value (NPV) or a combination of both. The use of quantitative techniques in capital budgeting varies with the industry. Firms that are better able to precisely estimate cash flows are more likely to use NPV.

Du Toit & Plenaar (2005) and Morgan et al., (2001) cited in Moroyi, (2011) states that capital budgeting is a crucial aspect for the firm's success for several reasons. First, capital investments typically account for a large amount of the funds of the organization. Second, capital investments normally have fundamental effect on the future cash flow of the organization once an investment decision has been taken. Third, it is often not possible to reverse it in short period of time, or it is costly to do so. Finally, investments affect the profitability and long term strategy of the organization. These reasons calls for management to use proper techniques to evaluate their projects since failure to make valuable decisions can result in the company suffering financially in the future. This study aims to assess the capital budgeting practice in Ethiopian Construction Design and Supervision Corporation. The research result will help the corporation's management to bring effective and efficient capital budgeting practice that will enable the corporation in using funds in an economic manner in its long term operations.

1.2. Description of the Corporation

Public Enterprises in Ethiopian plays a decisive role in the economic environment of Ethiopia for the past several years and they are also expected to continue in the same way for the years to come. The government expends a big lump sum of investments in these ventures hoping that these public enterprises fulfill its expectation; covering the existing market gap in providing services to the public and subsequently financing themselves from the profit they derive from their business activities.

Public enterprises role in the economy of Ethiopia plays a vital role by providing basic services like telecommunication, electricity, water, road, air and sea transport and construction works of different vital public infrastructure. In addition to these, other engineering and consulting services are provided by these public enterprises. Out of these public enterprises which provide engineering and consulting services, Ethiopian construction design and supervision Works Corporation (ECDSWC) is the one. This corporation provides study, design, supervision and contract administration services in water and energy, transport, building and urban planning works for local and international markets.

The corporation is established as a Federal Government Public Enterprise by Council of Ministers regulation No.365/2015 is a multi-disciplined engineering firm and provides

professional consultancy services of design & supervision in Water & energy, Transport, Building and Urban planning disciplines. ECDSWC is founded by amalgamation of three former public enterprises, viz. Water Works Design and Supervision Enterprise (WWDSE), Construction Design share Company (CDSCO) and Transport Construction Design share Company (TCDSCO) that were predominantly providing engineering consultancy services in water, building and transport sectors, respectively. According to council of ministers regulation No.365/2015, the authorized capital of the corporation is Birr 1,301,515,785.00 of which Birr 393,771,990.00 is paid in cash and in kind.

ECDSWC is a multidiscipline engineering firm and provides professional services with the following objectives:

1. Provide services related to study, survey, design, construction supervision, contract administration and material inspection laboratory services which is related to road, water & energy and building works.
2. Provide services related to producing infrastructure safety standards.
3. Attract technology and additional investment in its field to fulfill engineering service gaps which predominantly hampers the fast development of the country.
4. Provide services of training, research and development in construction design works.
5. Provide services related to preparation of infrastructure development strategies to ever growing demand of the Ethiopian society.

1.3. Statement of the problem

The implementation of capital budgeting practice is one of the most important business practices that should be seriously considered. However, it has been the subject of substantial debate and investigation. The debate on capital budgeting practices is still open.

A research done by Souza & Lunkes (2016) found that most companies under their survey (70.5%) used Payback Period on assessing investments followed by Net Present Value and Internal Rate of Return. The companies also indicated to use one or more of the techniques in for different investment issues. The study also found that most of the companies surveyed (63%) used Weighted Average Cost of Capital as a discounting factor. Risk factor analysis is also

considered in capital budgeting practices of the surveyed companies and 51% of them use one method or another in analyzing risk.

Slagmulder, Bruggeman & Wassenhove (1995) argue that the existing accounting based decision models (such that Discounted Cash Flow) are no longer adequate to help evaluate investments, mainly because of the strategic, intangible nature of the benefits involved in some investment ventures. They stated that strategic issues dominated the capital budgeting decisions about investments in new technologies and qualitative considerations, such as fit with the company strategy and the support of a committed project champion, appeared to have a significant positive impact on the investment decisions.

According to Andora, Mohanty & Toth (2015) Capital budgeting decisions are among the most important decisions that the financial manager of a firm has to make that maximize share holder value and they found that capital budgeting practices are influenced mostly by firm size, multinational culture, firm's goals, and the presence of code of ethics. The result also suggest that large firms as well as multinational firms are more likely to have the skilled man power, technical knowledge and expertise, financial resources, and a formal capital budgeting process in place than small and medium firms. Large and multinational firms are more likely to use DCF and other sophisticated techniques than small and medium firms. They also found that a good project that is selected based on DCF analysis can be rejected by top management due to several other factors such as ethical and moral considerations, lack of financial resources and strategic fit.

Although the above studies have great contributions to the practice of capital budgeting, the findings are not consistent. In addition, these studies were limited to western developed and developing countries and restricted to pure corporate business organizations. Developing countries like Ethiopia, which has different business culture and business strategy has received little attention in the literature. Therefore, this study attempts to assess the capital budgeting practices by employing a case study design in Ethiopian Construction Design and Supervision Works Corporation.

1.4 Research Questions

In line with the literature gap identified in the problem statement, the following research questions concerning the capital budgeting practices will be addressed.

- What capital budgeting techniques applied?
- How capital budgeting activities are conducted?
- How post implementation evaluation work is performed?
- What are the challenges of the current capital budgeting process?

1.5. Objectives of the study

1.5.1. General objective

The main objective of this research is to assess the capital budgeting practices of Ethiopian construction Design and Supervision Works Corporation by adopting a case study design.

1.5.2. Specific Objectives

The specific objectives of this research will be:

- To assess the capital budgeting techniques practice of the corporation.
- To investigate how capital budgeting work process conducted.
- To assess the post implementation evaluation work process.
- To assess the challenges of current capital budgeting process of the corporation.

1.6. Significance of the study

The importance of investment decisions on financial performance of firms cannot be over emphasized since many of the factors that contribute to business failure can be addressed using strategies and financial decisions that drive growth and the achievement of organizational objectives (Kemuma, 2011).

This study has significant contribution in filling the gap in the capital budgeting practices and will help the management of Ethiopian construction design and supervision Works Corporation to evaluate the current capital budgeting practices and to take actions on any improvement

required in the corporation's capital budgeting system. Hence, this research will serve as reference for the corporations' management team to evaluate the capital budgeting in their business environment, and as a base for improvement to the practices. It will also uses to other researchers in the subject area for further study.

1.7. Scope of the study

The current study confined to the assessment of capital budgeting practices in Ethiopian Construction Design and Supervision Works Corporation. The corporation is selected to the study for it is assumed that the corporation's capital budgeting practices is exemplary. A case study design was used to study the capital budgeting techniques to take the advantage of rich data. In addition, as it is well mentioned in the description of the corporation section, the corporation is a consultancy firm engaged in the engineering profession. This research is focused on capital investment made on fixed assets and some specially designed engineering software.

1.8. Limitation of the study

The main limitation of this study is the non generalization of the case study's result which may not be comparable to other purely business oriented ventures and enterprises.

The other limitation concerning this study is availability of empirical research materials which is done on the subject from Ethiopian public enterprises context. Due to this the study takes empirical research findings for business corporations for developed economies.

1.9. Organization of the study

This report is organized in the following way. Chapter one presented introduction about the study. Review of related literature is presented in chapter two. Chapter three presented research design. Chapter four presented data presentation, analysis and discussion. Finally summary of findings, conclusion and recommendation is presented in chapter five.

Chapter Two

2. Review of Related literature

This part of the researcher's proposal presented in detail theoretical and conceptual frame work related to the subject matter under the study. Theories concerning capital budgeting techniques are reviewed and addressed in detail. Empirical literatures are reviewed and presented to show the studies done on the theme and literature gap.

2.1. Theoretical Reviews

The effectiveness of capital investment theoretically associated with the disciplines of capital budgeting practices. Therefore, in order to capture the theoretical frame work, the researcher presents capital budgeting overviews and detail theories found from different theoretical sources.

2.1.1. Over views of Capital budgeting

According to Chandra (2004) the first and perhaps the most important decision that any firm has to make is to define the business or businesses that it wants to be. This decision has significant bearing on how capital is allocated in the firm. This allocation process is termed capital budgeting. Capital budgeting is a complex process which involves identification of potential investment opportunities, assembling of proposed investments, decision making and preparation of capital budget, implementation followed by performance revision. Chandra (2004) also describes capital budgeting as the principal instruments for implementing corporate strategy. A distinctive feature of capital budgeting in public sector undertakings is that the boards of these enterprises are empowered to sanction capital expenditure within certain limits which, of course, are reviewed from time to time. Capital expenditures involving larger outlay have to be approved by the higher echelons in the government.

According to Bhalla (2004), the field of capital budgeting is both comprehensive and challenging. It clearly plays a rite role in assisting most business firms to achieve their various goals. Bhalla (2004) defined capital budgeting as the planning, evaluation, and selection of capital expenditure proposals. Capital expenditure represents outlay whose principal benefits will be recognized over longer periods of time. Much emphasis should be placed on the proper

analysis and evaluation of capital expenditures, because they typically require large cash outlays. Decisions relating to capital expenditures are generally irreversible, and they require careful selection techniques and procedures.

Herman, Edwards & Ivancevich (2011), states that Poor capital budgeting decisions can be costly because of the large sums of money and relatively long period involved. Poor capital budgeting decision leads to a company to lose all or part of the fund originally invested in the project and not realize the expected benefits. In addition, other actions taken within the company regarding the project such as finding suppliers of raw materials are wasted if capital budgeting decisions must be revoked. The company's competitive position may also be harmed. Workers hired for the project might be laid off if the project fails, creating morale and unemployment problems.

For Quirin (1967) capital budgeting is a process for analyzing and selecting long term investment projects. At times this pursuit represents art more than science; in many cases, factors determining a capital investment project's ultimate success (general economic condition, competition, interest rates, government regulation etc.) are beyond a company's control.

Concerning the need for capital budgeting analysis need Gitman (2008) states that long term investments represent sizable out lays of funds that commit a firm to some course of action. Consequently, the firm needs procedures to analyze and properly select its long term investments.

Hagos (2007) described investing is incurring costs in order to gain benefit during the estimated life of the plant assets or current assets in the future. As a result investment activity should be assessed and analyzed carefully within the given alternatives.

According to Kolb (1968) the theory of capital budgeting calls for;

1) Estimating in terms of a rate of return the benefits expected to result from carrying out a capital investment project,
2) Estimating the overall cost of capital to the firm (also in terms of a rate)
3) Basing approval of the project up on whether or not the benefits exceed the cost of capital.

2.1.2. Significance of Capital Budgeting

According to Bhalla (2004) there are several practical reasons for placing greater emphasis on capital expenditure decisions. The investment involves long time period and substantial expenditures. In addition, the irreversibility nature of long-term investments without paramount loss and the effect of over and under capacity of the business bring additional cost to the business.

Khan & Jain (2007) states that the rationale underlying the capital budgeting decision is efficiency. Thus, a firm must replace worn and obsolete plants and machinery, acquire fixed assets for current and new products and make strategic investment decisions. This will enable the firm to achieve its objective of maximizing profits either by way of increased revenue or cost reductions. Capital budgeting decisions are of paramount importance in financial decision making. Such decisions affect the profitability of a firm. They also have a bearing on the competitive position of the enterprise mainly because of the fact that they relate to fixed assets. Further, they are "strategic" investment decisions as against "tactical" which involve a relatively small amount of funds. Therefore, such capital investment decisions may result in a major departure from what the company has been doing in the past. Acceptance of a strategic investment will involve a significant change in the company's expected profits and in the risks to which these profits will be subject. Thus, capital budgeting decisions determine the future destiny of the company. An opportune investment decision can yield spectacular return. On the other hand, an ill-advice and incorrect decision can endanger the very survival even of the large firms. A few wrong decisions and the firm may be forced in to bankruptcy. In addition, a capital expenditure decision has its effect over a long time span and inevitably affects the company's future cost structure. If a particular plant has been purchased by a company to start a new product, the company commits itself to a sizable amount of fixed cost. If the investment turns out to be unsuccessful in future or yields less profit than anticipated, the firm will have to bear the burden of fixed costs unless it writes off the investment completely. Furthermore, Capital investment decisions, once made, are not easily reversible without much financial loss to the firm because there may be no market for second hand plant and equipment and their conversion to other uses may not be financially viable. Finally, Capital investment involves costs and the majority of the firms have scarce capital resources. This underlines the need for thoughtful, wise

and correct investment decisions, as an incorrect decision would not only result in losses but also prevent the firm from earning profits from other investments which could not be undertaken for want of funds.

According to Ehrhard & Brigham (2011) capital budgeting plays crucial role in apprising investment projects that contribute to long term strategic goals of a company. The capital budgeting practice helps to evaluate investment opportunities there by selecting the best that fit the strategic objective of the company. Capital budgeting also helps to investigate for new investment projects.

Haka (1987) categorized capital budgeting practices as simple and advanced. Payback Period and Accounting Rate of Return is categorized as simple, and generally do not use cash flows, do not consider the time value of money and do not incorporate risk in a symmetric manner. Advanced capital budgeting practices (such as the Internal Rate of Return, Profitability Index and the Net Present value consider cash flows, risks and the time value of money.

According to Antony, Dearden and Bedford (1984) formal capital budgeting system involves preparation of an investment proposal with its full description and justification followed by analysis of the proposal by a higher level staff unit which presents its recommendations to top management. Then the proposals are aggregated in capital budget, which is usually prepared once a year and separately from the operating budget. Projects are often classified under different headings like cost reduction, replacement, expansion of existing product lines, etc. and are prioritized within these classifications. Based on the aggregated report the capital budget is revised, if necessary, and finally approved by top management. In preparing the capital budget, management must appraise individual projects as well as the total amount of funds requested. If it turns out that this total exceeds the amount that the company is willing to spend, and then some projects are deleted, reduced in size or deferred. To obtain the final approval to proceed with a particular project, a specific capital authorization request has to be prepared for the project. Most companies have standard procedures which contain instructions showing how to perform a detailed project analysis.

These authorization requests are approved at specific levels in the organization depending on the magnitude of the capital expenditure involved. Finally, the company may have post audit

procedures to follow up on capital projects once they have gone estimates of costs and benefits are realized in practice.

2.1. 3. Capital budgeting Decision process

According to Norren, Brewer & Garrison (2011) any decision that involves an outlay now in order to obtain a future return is a capital budgeting decision. Typical capital budgeting decisions include cost reduction decision, expansion decision, equipment selection decision, lease or buy decisions and equipment replacement decisions.

2.1.3.1. Planning phase

According to Bhalla (2004) Capital budgeting, and investment appraisal, is the planning process used to determine whether an organization's long term investments such as new machinery, replacement of machinery, new plants, new products, and research development projects are worth the funding of cash through the firm's capitalization structure (debt, equity or retained earnings). It is the process of allocating resources for major capital, or investment, expenditures. One of the primary goals of capital budgeting investments is to increase the value of the firm to the shareholders. The planning phase involves assessing the potential effect of an investment opportunity. Opportunity having little merit and considered to be unworthy of further time and effort for analysis may be rejected during this early phase. Promising opportunities are advanced in the form of a proposal to enter the evaluation phase.

2.1.3.2. Evaluation phase

In the evaluation phase, all investment opportunities serving the planning phase in the form of investment proposals will be further refined by estimating all cash flows associated with the proposals. Then, by noting the nature of economic relationships between proposals, they will be grouped in to projects. Finally, a secondary screening of projects will occur and some projects may be eliminated. All projects surviving the evaluation phase will go on to the selection phase (Bhalla , 2004). According to Ehrhard & Brigham (2011) evaluation phase mainly involves selecting all correct criteria to judge the desirability of a proposal. This must match the objective of the firm to maximize its market value. The tool of the time value of money comes in handy in this phase. Also, the estimation of the benefits and the costs need to be done. The total cash

inflow and outflow along with the uncertainties and risks associated with the proposal must be analyzed thoroughly and appropriate provisioning has to be done for the same.

2.1.3.3. Selection phase

Ehrhard & Brigham (2011) argued about the non existence of defined method for the selection of a proposal for investments as different businesses have different requirements. That is why the approval of an investment proposal is done based on the selection criteria and screening process which is defined for every firm keeping in mind the objectives of the investment being undertaken. Once the proposal has been finalized, the different alternatives for raising or acquiring funds must be explored by the finance team. This is called preparing the capital budget. The average cost of funds must be reduced. A detailed procedure for periodical reports and tracking the project for the lifetime needs to be streamlined in the initial phase itself. The final approvals are based on profitability, Economic constituents, viability and market conditions. Bhalla (2004) states project selection work involves sound decision making processes. Taking account of the returns and risks of individual projects as well as the cost of capital for the firm, the firm will choose among projects so as to maximize shareholder wealth with its chosen criterion of selection. Projects not expected to meet this criterion are rejected, while accepted projects enter the implementation phase.

. 2.1.3.4. Implementation phase

When the final selection has been made, the firm must acquire the necessary funds, purchase the assets and begin operating the projects to implement the decision to accept projects in the capital budget (Bhalla, 2004). According to Ehrhard & Brigham (2011) implementation phase involves spending of money on proposal implementation. The different responsibilities of implementing the proposals, completion of the project within the requisite time period and reduction of cost are allotted. The management then takes up the task of monitoring and containing the implementation of the proposals.

2.1.3.5. Control phase

According to Ehrhard & Brigham (2011) the final stage of capital budgeting involves comparison of actual results with the standard ones. The unfavorable results are identified and removing the various difficulties of the projects helps for future selection and execution of the proposals. According to Bhalla, (2004) control phase is a process which is to be conducted once the projects are implemented. The firm will attempt to manage them to insure that assets, labor and material are efficiently employed. The control phase involves the comparison of actual and expected cash flows and the explanation of differences between actual and expected flows. The attempt to explain such differences will have implications for the firm's planning and evaluation procedures

2.1.3.6. Auditing phase

Audits are constructive in purpose. When a project terminates, or even before, the firm should perform an audit on the entire project to explain its success or failure. Like the control phase, the auditing phase may have implications for firm's planning and evaluation procedures. In addition, the audit may produce ideas for new improved proposals gains from operating now-terminated projects (Bhalla, 2004).

2.1.4. Capital budgeting analytical methods

2.1.4.1. The payback period

According to Keown, Martin, Petty & Scott (2003), Payback period is the number of years needed to recover the initial cash outlay. As this criterion measures how quickly the project will return its original investment, it deals with free cash flows, which measure the true timing of the benefits, rather than accounting profits. Unfortunately, it ignores the time value of money and does not discount this free cash flow back to the present. The accept reject criterion centers on whether the project's payback period is less than or equal to the firm's maximum desired payback period. This criterion does not consider time value of money.

2.1.4.2. The net present value (NPV)

Keown, Martin, Petty & Scott, (2003), states that an investment proposal is equal to the present value of its annual after tax net cash flows less the investment's initial outlay. The project's net

present value gives a measurement of the net value of an investment proposal in terms of today's dollars. Because all cash flows are discounted back to the present, comparing the difference between the present value of the annual free cash flows and the investment outlay is appropriate. The difference between the present value of the annual free cash flows and the initial out lay determines the net value of accepting the investment proposal in terms of today's dollars. Wherever the project's NPV is greater than or equal to zero, we will accept the project; wherever the NPV is negative, we will reject the project. Note that if the projects net present value is zero, then it returns the required rate of return and should be accepted. The NPV criterion is the capital budgeting decision tool we will find most favorable. First of all it deals with free cash flows rather than accounting profits. Also, it is sensitive to the true timing of the benefits resulting from the project. Moreover, recognizing that, the time value of money allows comparison of the benefits and costs in a logical manner. Finally, because projects are accepted only if a positive net present value is associated with them, the acceptance of a project using this criterion will increase the value of the firm, which is consistent with the goal of maximizing the shareholders' wealth. Its major disadvantage is that it requires detailed free cash flow forecasts over the entire life of the project. According to Herman, Edwards & Ivancevich (2011), a major issue in acknowledging the time value of money in the net present value method is determining an appropriate discount rate to use in computing the present value of cash flows. Management requires some minimum rate of return on its investments. Under this method, management often selects a target rate that it believes to be at or above the company's cost of capital, and then uses that rate as a basis for present value calculation. According to Ehrhard & Brigham (2011) the NPV is the best single criterion, primarily because it is directly related to the firm's central goal of maximizing the stock's intrinsic value. Sophisticated firms usually use this method.

2.1.4.3. Profitability Index (Benefit/Cost Ratio)

Keown, Martin, Petty & Scott (2003), states that the Profitability Index (PI), or benefit/cost ratio, is the ratio of the present value of the future cash flows to the initial outlay. Although the net present value investment criterion gives a measure of the absolute dollar desirability of a project, the profitability index provides a relative measure of an investment proposal's desirability; that is, the ratio of the present value of its future benefits to its initial cost. Under this criterion the project is accepted if the PI is greater than or equal 1.00, and reject the project if the PI is less

than 1.00. Profitability index criterion yields the same accept reject decision as the net present value criterion. This criterion recognizes the timing of cash flows and is consistent with value maximization goal. The major disadvantage of this criterion is that it requires detailed free cash flow forecasts over the entire life of the project. According to Herman, Edwards & Ivancevich (2011), profitability index is the ratio of the present value of the expected net cash inflows (after taxes) divided by the initial cash out lay (or present value of cash outlays if future outlays are required). Management should consider only those proposals having a profitability index greater than or equal to 1.

2.1.4.4. The internal Rate of Return (IRR)

The internal rate of return is defined as the discount rate that equates the present value of the project's future net cash flows with the project's initial cash outlay. Under this criterion projects would be accepted if their return is equal to the required rate of return by investors. Internal rate of return is another discounted cash flow criterion; it exhibits the same general advantage and disadvantage as both the net present value and profitability index do, but has an additional disadvantage of being tedious to calculate (Keown, Martin, Petty & Scott, 2003).

According to Herman, Edwards & Ivanccevich (2011), internal rate of return, equates the present value of expected after tax net cash inflows from an investment with the cost of investment. It does this by finding the rate at which the present value of the project is zero. If the rate of return equals or exceeds the cost of capital or target rate of return, a firm should consider the investment further. If the proposal's rate of return is less than the minimum rate of return the firm should reject the proposal. The higher the rate of return, the more desirable the project is.

According to Bhalla (2004) each capital budgeting analytical methods has their own advantage and disadvantages. Payback period method is easy to understand, compute, and communicate to others. Its quick computation makes it a favorite among financial managers who prefer snap answers. It fails to consider the earnings from an investment after the payback period, thus treating them as a wind fall. It also does not consider time value of money. Discounted cash flow methods (the net present value, the profitability index, modified internal rate of return & the internal rate of return) take account of the rate of return on the capital invested in the project by discounting all the cash flows to their present value equivalent. There exist complex processes in estimating future cash flows.

2.2. Empirical review : Capital Budgeting Practices

As indicated in the over view of the chapter of the study section the main point to be addressed in this study is to assess how capital budgeting is practiced in Ethiopian Construction Design and Supervision Works corporation.

Capital budgeting process involves many activities that ensure the existence of good business practice in organization. Therefore the study tried to review and presented empirical research conducted in capital budgeting practices worldwide and presented as follows:

Lazaridis (2004) argue that companies mostly use capital budgeting techniques for evaluating projects intended to be launched that leads for companies operation to be profitable. This ensures the management to commit resources on profitable projects that meet the minimum threshold. In addition Hornstein & Zhao (2011) indicates that a significant relationship exist between value-enhancing capital budgeting decisions and stronger internal linkage. Specifically, corporate over investment is significantly reduced with better information sharing across units. Moreover Batra & Verma (2017) found that corporate practitioners largely follow the capital budgeting practices using discounted cash flow techniques of net present value and internal rate of return. Non financial criteria are also given due consideration in project selection.

A research done by Verbeeten (2005) found that firms use advanced capital budgeting practices in case of financial uncertainties like exchange rate, interest rate increases. Social uncertainties (political, policy, society), Market uncertainties (quality of labor and materials) do not seem to have impact on the importance and use of advanced capital budgeting practices.

According to Slagmulder et al. (1995) formal capital budgeting procedures are typically designed for a bottom-up capital budgeting process, that is , companies are assumed to let investment proposals bubble up from plants for review by division management and then by senior management. The ultimate authority for investment decisions rests with top management (the board of directors or CEO). Top management accept or reject decision for investments in general was based on the expected financial return and they strictly treated the required minimum rate of return or maximum payback period as a pass/fail hurdle. Management as well considers strategic reasons in addition to the above pass/fail hurdle application. Strategic considerations, especially

the investment's fit with the competitive strategy pursued by the company, appeared to have the biggest weight in the decision to go ahead with the project despite the low rate of return. It is also found that important influence of committed project champion on the investment decision process also has a rewarding impact on meeting the expected results. The study also found that qualitative considerations such as fit with the company strategy and the support of a committed project champion appeared to have a significant positive impact on the investment decision.

Chittenden and Derregia (2013) found that payback period is the most widely used technique in evaluating investment opportunities. This research concludes that most firms use payback period on its own or with other techniques.

Anand & monoj (2002) and Jain, P.K & Yadav (2002) conducted studies in capital budgeting practices in India and their findings show that discounted cash flow (DCF) tools/ techniques/methodology are more popular in Indian companies. Indian corporate firms use multiple criteria in their project selection decisions. Vast majority of the sample corporate firms use a combination of traditional as well as DCF techniques. The IRR is the most frequently used capital budgeting techniques. The NPV technique is also used widely. The IRR method is preferred over the NPV method. The payback period is equally popular method of project selection. Large firms more frequently use NPV while payback period is more widely used by small firms. Similarly, high growth firms use IRR more frequently that small firms. Profitability index (PI) technique is used more by public sector units than private sector firms. Capital budgeting decisions are undertaken at the top management level/ central (Head) office and are planned in advance. The corporate firms follow mostly top-down approach in this regard. However, in several corporate firms (two-third of the sample corporate) investment proposals originate at plant/division levels as well. High competitive and volatile conditions restricted the planning horizon to the next five years only. The corporate firms are not guided by adhoc approach and they follow organized approach to capital budgeting.

2.3. Literature Gap

The aforementioned theoretical and empirical works serve as a basis for further studies in the areas of capital budgeting practices. The importance of capital budgeting is emphasized in literatures as follows:

Lazardis (2004) clearly showed the importance of capital budgeting techniques for profitable operation thereby ensuring the management commits resources on profitable projects only. In capital budgeting practices Slagmulder et al. (1995) found that pre established criterion governs capital budgeting practices and strategic considerations receive attention in decision making processes. Verbeeten (2005) found that firms use advanced capital budgeting practices in case of financial uncertainties. Concerning efficient utilization of resources Hornstein & Zaho (2011) found that corporate over investment is significantly reduced with better information sharing across units. In case of capital budgeting techniques used Chittenden and Derregia (2013) found that payback period is the most widely used technique in capital budgeting practices. Contrary to this finding Anand and Monoj (2002) and Jain and Yadev (2002) found that the discounted cash flow techniques are more popular.

It could be seen from the above summary that there are serious issues to be considered in capital budgeting practices so as to bring efficient utilization of resources. There is also a contradiction in findings of different researchers. In addition these researches are done in developed economies and no previous studies are conducted concerning the subject in Ethiopian context. Therefore, this gap derives the attention of the researcher to engage in assessing the capital budgeting practices of Ethiopian Construction Design and Supervision Works Corporation.

Chapter Three

3. Research Methodology

The chapter is organized in to five sections. The first section presents the research design adopted to study capital budgeting practice, and the second is about the research approaches. Data sources and sampling techniques are discussed in the third section of the chapter. Furthermore, data analysis method and ethical considerations are presented in the fourth and fifth sections respectively.

According to Kothari (2004) Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. It determines the relevant research techniques that should be used for the study at hand. All this means that it is necessary for the researcher to design his methodology for his problem as the same may differ from problem to problem.

The purpose of this study is to assess the capital budgeting practices using a case study research design. According to Yin (2009) case study approach allow to use more variables of interest than data points there by to converge in a triangulation fashion. The case study's unique strength is its ability to deal with a full variety of evidence- documents and interviews in addition to the questionnaire feedback.

3.1. Research Design

This research is going to assess the capital budgeting practice of Ethiopian construction design and Supervision Corporation with the case study research design using mixed research approach. The use of case study research design will help to perform in depth analysis of the responses collected from multiple sources to get answers to the research questions. Benbasat et al. (1987), Soy (1987) and Jick (1997) as cited in Miheret and woldeyohanes (2008) study, the case study strategy enables the use of multiple data sources and this helps to cross validate results through triangulation. Yin (2009) states the use of case study method allows investigators to retain the holistic and meaningful characteristics of managerial processes. According to Cooper & Emory (1995) case studies place more emphasis on a full contextual analysis of fewer events or conditions and their interrelations. An emphasis on detail provides valuable insight for problem

solving, evaluation, and strategy. This detail is secured from multiple sources of information. It allows evidence to be verified and avoids missing data.

In order to get answer to the research questions the researcher used descriptive research design. Descriptive research includes surveys and fact finding enquires of different kinds in addition to case study. The main purpose of descriptive research is description of the state of affairs as it exists at present and it helps to portray accurately the characteristics of a particular individual, situation or group. Descriptive research design is appropriate for this study since it is useful when the problem has been defined specially and where the researcher has certain issue to be described by respondents about the problem (Kothari, 2004).

3.2. Research approaches

Creswell (2003 & 2014) noted that in an investigative study there are three familiar types of research approaches to business and social research namely, quantitative, qualitative and mixed approach. Though, each approach has its own strengths and limitations, Creswell (2003 & 2014), advocates that certain types of social research problems call for specific approach. Hence, in selecting an approach one should take in to account the nature of the research problem, the personal experience of the researcher, and the audience for whom the report will be written.

The researcher used mixed research approach which tends to give better insight to the study. This approach is appropriate for the research work is based on data which is collected through closed ended and likert scaled questions. The research looked for pattern of meaning on the basis of the data that is going to be collected through structured questions. In addition the research work used interview and document review to gather some important information concerning the study which helps to triangulate and clarify points which may need further investigation.

3.3. Source of data

3.3.1. Data collection methods

Data for this study is collected from primary and secondary sources. The Primary sources are questionnaire and interviews feedback. The secondary data source is document review. Data from interview and document review help to triangulate findings from the questionnaire data source.

3.3.1.1. Questionnaire instruments

Data for this study is collected through questionnaire from senior experts who extensively involve in the preparation of capital budgeting practice as well as from senior managers who supervises the operation. The questionnaire is developed and refined on the basis of field interviews with some senior managers in the corporation. The questionnaire is composed of 52 closed ended questions which are grouped in 9 sub section. The first sub section is designed to provide general information about respondents and the other 8 sub sections are designed to provide basic information that can help the researcher to assess how capital budgeting practices is conducted at the corporation. The questionnaire feedback is collected using 5 point likert scale and the data is analyzed and interpreted using frequency, mean score and standard deviation. Because of the sensitivity nature of some of the questions asked and the level of detail sought, the anonymity of the respondents was assured in cover letter explaining the purpose of the study.

In the questioners, five-point Likert scale ranging from strongly disagree (1) to strongly agree (5) is used. The main advantage of likert scale questions is that they use a scale, respondents are not forced to express an extreme opinion allowing them to be neutral should they so choose. The researcher prefers to use a likert- type scale because it is very easy to analyze statistically (Jackson, 2009). The questionnaire also includes open ended questions to collect other additional relevant data that could be given by respondents which cannot be included in the closed ended questionnaires.

According to Stefan Debois (2016) the main advantage of using questionnaire is that it is an instrument for collecting data in cost efficient way, with practicality in targeting large group of respondents. The response speed is also high. It also provides space for respondents' anonymity. The respondents can also take ample time to complete the questions. John Miline (2009) also states questionnaire instrument provides platform to gather responses in standardized way and generally it is relatively quick to collect information from large number of respondents.

The researcher favors questioner method in data collection for it takes less time to fill questioner by respondents and it uses standardized questions to all respondents. In addition respondents will take ample time to think and analyze the questions and data analysis work will be facilitated if questionnaire feedback is used as an input.

3.3.1.2. Interview instruments

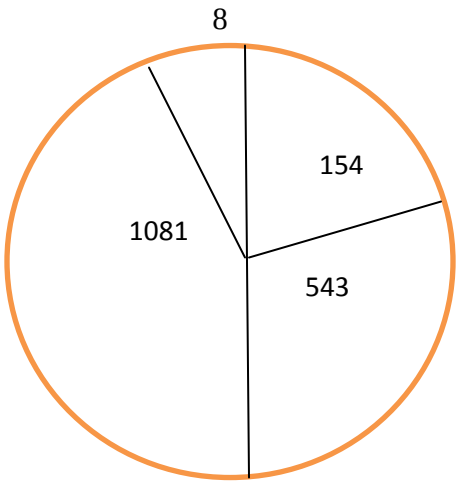
Interview is conducted to get clarification for some questionnaire feedbacks which require triangulation. Interviews are an excellent way to gather detailed information about the study. It provides an opportunity of face to face interaction between 2 persons; hence, they reduce conflicts. Unlike questionnaire, the interviewer has the opportunity to probe or ask follow up questions. The corporation's plan and program executive officer is interviewed to get answer for items that need clarification. The interview feedback is included in chapter four of the study report.

3.3.1.3 Document sources

Document sources like Capital budget activities documents, policy and procedure guide lines of capital budget process and strategic plan of the corporation for the period covered 2008 to 2012 E.C. are revised. The review helped to gather back ground information about the corporation's capital budgeting work process guideline and how actual work is conducted. The results of the review work help the researcher to triangulate results from questionnaire analysis and it is included in chapter four of the study report.

3.3.2. Sampling techniques and sampling size

The research work is designed to find out answers to the research questions mentioned in the research question section. Data related to these activities are associated with experts working on the activities and senior managers who supervise the operation. Therefore, to get relevant information to the study non probability sampling specifically purposive sampling technique was used. As the research design is case study this method of sampling allows data collection from those experts and senior managers who has the professional capacity to give the required information about capital budgeting practices. The corporation possesses multidisciplinary professionals with extensive and proven experience in the engineering consultancy services as well as in other support services. According to strategic planning and management document for the period 2009-2013EC., the corporation possesses 1786 man power with different qualification level as presented below in the pie chart.



Manpower	Qualification Level
8	PHD
154	MSC & MBA
543	BSC &BA
1081	Other

According to the information obtained from Resource management service of the corporation (2010 E.C.), the total number of senior managers and experts who directly engaged in the capital budgeting activities are 70. From the total population of 70 the researcher chooses 50 professionals who have extensive work experience on capital budgeting practices. The work experience level provides leverage in providing relevant and reliable information to the study. As the study focuses in assessing the capital budget practices of the corporation, using purposive sampling provided chance of getting better information from employees who was judged to do so. The sampled employees were selected based on their regular engagement on preparation of annual plan (Budget proposal), evaluation of annual plan (Budget proposal), and approval of annual plan (Budget proposal).

3.4. Data Analysis method

The questionnaire results were analyzed quantitatively by using descriptive statistics, namely mean, frequency and standard deviation. Descriptive results summarize a given data set which can be either a representation of the entire population or a sample of it. They provide descriptive statistic results summarized to measure frequency, spread and central tendency. SPSS soft ware was used to run the data. The final results were interpreted to draw appropriate conclusion concerning the problem statement. In addition data collected through interview and document

review were used as a source of additional information and to triangulate results of questionnaire.

3.5. Ethical Considerations

This study is conducted with sponsorship by the Ethiopian Construction Design and Supervision Works Corporation's management. The management is interested to get clear information about its capital budgeting practices. To achieve the management's expectation it is necessary to exercise some ethical issues. This will protect the interests of the sponsor. The people who involved in the study as data provider also should be protected.

The researcher exercised due diligence in designing the research work which can provide a platform on which to conduct the study. In addition secret of the corporation is well protected and all data used in the study is acknowledged by the concerned authority.

The privacy of the people engaged in providing data is well maintained. Data collected through interview is included in the report with consent of the interviewee.

Chapter Four

4. Results and discussion

This chapter presents results and discussion of the study. The first section, section 4.1 presents reliability test result. General back ground of respondents is presented in section 4.2. Questionnaire results concerning the capital budgeting practices is presented in section 4.3. In this section tables from 4.3.1 to 4.3.7 is presented with their discussions.

It is clearly stipulated in the research methodology section that questionnaire is one method of data collection instrument. Accordingly, questionnaire which is organized in 10 Sub topics is distributed to sample of 50 respondents. Out of the total 50 questionnaire distributed to the sample, 46 were filled and returned. Thus the response rate for this case study is 92%. The 46 questionnaire feedback analysis results are presented in 11 tables followed by discussions.

4.1. Reliability Test Result

Table 4.1. Cronbach Alpha Tests (Reliability statistics)

Questionnaire sub titles	Cronbach's Alpha
Capital budget task organization	0.83
Capital budget task planning	0.85
Capital budgeting evaluation task	0.72
Capital investment selection task	0.87
Capital budget implementation task	0.78
Post implementation evaluation task	0.90
Challenges in capital budgeting practice	0.90
Average	**0.84**

Source: Case study results, 2018.

The cronbach's alpha result of .85 clearly shows the existence of consistency within the feedback collected from the respondents. The researcher also confirmed the existence of the same result to the whole 46 questionnaires feedback. Note that a reliability coefficient of .70 or higher is

considered ‘’acceptable’’ in most social science researches. Therefore the researcher concluded that the average 0.84 cronbach’s alpha value is far beyond the minimum requirement and confirmed the existence of consistency which shows reliability of data.

4.2. General Background of Respondents

Table 4.2. 1: Respondents by Gender & educational back ground

Sex	Educational back ground					
	First Degree		Second Degree		Total	
	Count	Percent	Count	percent	count	percent
Female	8	17.39	6	13.04	14	30.43
Male	14	30.44	18	39.13	32	69.57
Raw total	22	47.83	24	52.17	46	100

Source: Case study results, 2018.

The above table shows that out of the 46 respondents 30.43% are female and 69.57% are male. There educational back-ground information summary shows that 22 of them have first degree and 24 of them have second degree qualification level. This summary shows that the researcher used data from well educated source. The source of data exhibits reliability from the point of respondents’ educational status which guarantees the respondents understanding of the language used and the topics addressed in the questionnaire. As sample was drawn from employees who are actively participated in capital budgeting practices, the existence of educated employees guarantees the acquirements of relevant information about the capital budgeting practices.

Table 4.2.2: Respondents by years of service and work position

Years of Service	Work Position							
	Managerial		Supervisory		Expert		Total	
	Count	Percent	count	Percent	Count	Percent	Count	percent
Less than 5 years	1	2.17	1	2.17	4	8.70	6	13.04
5-10 years	3	6.52	1	2.17	4	8.70	8	17.39
Greater than 10 years	17	36.96	8	17.39	7	15.22	32	69.57
Raw total	21	45.65	10	21.73	15	32.62	46	100

Source: Case study results, 2018.

The above table indicates the existence of well experienced employees. 32% of the respondents have greater than 10 years of experience out of whom 36.95% have managerial position.

This fact confirm the reliability of data source for it is general truth that well experienced respondent can provide better information. In addition, respondent with a managerial position can provide better information concerning the study for simple reason of sense of responsibility.

Table 4.2. 3: Professional back ground of respondents

Profession	Count	Percent	Remark
Engineering	9	19.60	
Finance	23	50.00	
Administration	14	30.40	
Raw total	46	100	

Source: Case study results, 2018.

The table above clearly shows that most of respondents have Administrative and finance back ground. 50% of respondents are from finance and 30.40% are from administration stream.

The corporation's capital budgeting practice some time involves investments which need engineering professionals. For this reason the researcher included some in the sample of the study. 9% of respondents are from this stream.

The researcher initially conducted interviews with sample chosen to get information about the stream of their professional back ground and found that mechanical engineers economists and professionals from management streams are included in the sample. This gave a chance to get response from stream of professionals who engage in capital budgeting practice as a regular job or as adhoc committee members.

4.3. Capital Budgeting Techniques applied

In verifying what capital budgeting techniques the corporation applied, the study reviewed documents related to capital budgeting practices of the corporation. The corporation's capital budgeting practices policy and procedure document clearly indicate profitability index technique should be applied for every investment that involves high amount of investment funds. The document states when an investment involves high amount of funds above 500,000.00 Br. The guide line clearly set the use of Profitability index (PI) technique as investment evaluation technique. In addition revision of practical document also shows the corporation used this technique for all investments exceeding the above threshold. The policy and procedure document reveals the advantage of using profitability index from context of easiness and consideration of time value of money. Interview is conducted to plan and program executive officer of the corporation for the same issue and it is found that profitability index is the applied technique in the evaluation process. This is in line with the empirical findings of Anand &Monoj (2002) and Jane & Yadav (2002), that Profitability index (PI) is used more by public sector units than private sector firms. Keown et el.,(2003) declare that profitability index criterion yields the same accept reject decision as the net present value criterion and it recognizes the timing of cash flows and is consistent with value maximization objective of firms.

Table 4.3. 1: Capital budgeting task organization

Capital Budgeting task organization		No of Respon.	Percentage of Respondents					Mean Score	S.dev.
			SA	A	N	DA	SD		
1	The corporation has a responsible department for evaluating capital investments.	46	50.00	30.40	8.70	4.30	6.50	4.13	1.16
2	The corporation uses formal policy & procedure in its capital budgeting practices.	46	45.70	43.50	6.50	4.30	0.00	4.30	0.78
3	The capital budgeting team is well organized and well trained.	46	17.40	41.30	21.70	15.20	4.30	3.52	1.09
4	Specially trained employees participate in capital budgeting practice.	46	15.20	43.50	21.70	6.50	13.00	3.41	1.22

5	The corporation's management regularly updates its capital budgeting policy & procedure manual.	46	17.40	32.60	23.90	10.90	15.20	3.26	1.30

Note: 1= Strongly Disagree (SD), 2= Disagree (DA), 3=Neutral (N), 4=Agree (A) and 5=Strongly Agree (SA)

Source: Case study results, 2018.

The above table clearly shows the existence of well-organized capital budgeting task in the corporation. The existence of responsible department for capital budgeting practices is demonstrated by 50% strong agreement by respondents. The mean score of 4.13 is also confirms this. But the standard value of 1.16 exhibits the existence of response variability among respondents. It is found through document review that the corporation has responsible department for its capital budgeting work process. This department's work process is governed by formal policy and procedure document. This is confirmed by 45.7% strong agreement and 4.3 mean score. The standard deviation value of .78 also shows the existence of non variability in respondents answer. The existence of well organized and well trained man power for the job is demonstrated by 41.3% agreement and 3.52 mean score. The standard deviation value of 1.09 confirms the same. The participation of specially trained employees is confirmed by 43.50% of respondents. Mean score of 1.22 shows the existence of variability of response. The regular updates of policy and procedure document is confirmed by response rate of 32.60% and mean score of 3.26. Standard deviation value of 1.30 shows the existence of response variability among respondents. According to Slagmulder (1995) the support of a committed project champion appeared to have a significant positive impact on the investment decisions.

Table 4.3.2: Capital budgeting task planning

	Capital Budgeting task planning	No of Respo.	Percentage of respondent					Mean Score	S.dev.
			SA	A	N	DA	SD		
1	Capital investment practice is aligned with its strategic plan.	46	32.60	52.20	8.70	4.30	2.20	4.08	0.89
2	The corporation develops and formulates long term strategic goals which direct its capital investments.	46	32.60	60.90	4.30	0.00	2.20	4.23	0.63
3	Investment proposals are initiated at lower level management followed by revision by top level management.	46	43.50	43.50	6.50	4.30	2.20	4.21	0.91
4	Unproductive investment is significantly reduced/avoided) with better information sharing across units.	46	13.00	54.30	13.00	17.40	2.20	3.58	1.00
5	Capital asset underutilization is avoided by sharing resources from excess unit to other units which are in short fall.	46	17.40	43.50	19.60	17.40	2.20	3.56	1.04

Note: 1= Strongly Disagree (SD), 2= Disagree (DA), 3=Neutral (N), 4=Agree (A) and 5=Strongly Agree (SA)

Source: Case study results, 2018.

The data collected to assess how capital budgeting task planning shows the existence of sound capital budgeting task planning practice in the corporation. 52.20% respondents agree about the alignment of capital investment practice and mean score of 4.08 also confirm this. Standard deviation value of 0.89 shows the non variability of responses. From document review it is found that investments should always consider the strategic direction of the corporation. Capital investments governance by strategic goals is demonstrated by respondents' agreement rate of 60.90% and mean score of 4.23 clearly shows the same. Standard deviation value of 0.63 shows the non variability of responses to this regard. The initiation of investment proposals at lower level followed by revision by top level management is manifested by strong agreement by 43.50% respondents and mean score of 4.21 confirms the same. Standard deviation value of 0.91 shows the respondents agreement to this. The existence of efficient utilization of resources is agreed by 54.30% of respondents' and mean score of 3.58 shows the same. The standard deviation value of 1.00 shows non variability of answers. Resource is shared across units for efficiency and this is demonstrated by response rate of 43.50% and means score of 3.56. Standard deviation value of 1.04 shows the non variability of responses to this regard. A research

done by Anand &Monoj (2002) and Jain & Yadav (2002) declares the importance of capital budgeting task planning in advance and the need to be bounded by a planning horizon.

Table 4.3. 1: Capital budgeting evaluation task

Capital Budgeting Evaluation task		No of Respo	Percentage of respondent					Mean Score	Sdev.
			S A	A	N	DA	S D		
1	The corporation's management and the capital budgeting department understand the significance of their proper decision.	46	21.70	65.20	4.30	6.50	2.20	3.97	0.85
2	The capital budgeting practice sometime conducted by adhoc approach to fill a gap of expertise needed.	46	28.30	54.30	10.90	4.30	2.20	4.02	0.88
3	The capital budgeting practices consider uncertainty factors associated with the investment.	46	17.40	52.20	19.60	10.90	0.00	3.76	0.87
4	Long term investments receive greater attention than other investments.	46	30.40	56.50	4.30	2.20	6.50	4.02	1.02

Note: 1= Strongly Disagree (SD), 2= Disagree (DA), 3=Neutral (N), 4=Agree (A) and 5=Strongly Agree (SA)

Source: Case study results, 2018.

The capital budgeting evaluation task is shown to be well organized and addressed. The significance of capital budgeting decisions is well understood by practitioners in the corporation. This is shown by 65.20% agreement by respondents and mean score of 3.97 demonstrates that. Standard deviation value of 0.85 shows the existence of general agreement by respondents. The existence of adhoc approach to fill expertise gap in capital budgeting practice is agreed by 54.30% of respondents. Mean score of 4.02 shows the same. Standard value of 0.88 shows the non variability of responses in this respect. Consideration of future uncertainty is also the issue of the practice and this is confirmed by 52.20% of respondents. Mean score of 3.76 shows the same. Standard value of 0.87 manifests the existence of general agreement to the case by respondents. Attention to long term investment is an issue in the practice. This is demonstrated by 56.50% agreement of respondents and mean score of 4.02 states the same. The standard

deviation value of 1.02 shows less variability of answers by respondents. Bhalla (2004) and Khan & Jain (2007) demonstrates the importance of placing greater emphasis on capital expenditure decisions. The result is in line to the theoretical requirements.

Table 4.3. 2: Capital investment selection task

	Capital Investment selection task	No of Respo.	Percentage of respondent					Mean Score	S.dev.
			SA	A	N	DA	SD		
1	The capital budgeting process facilitates the transfer of information to the appropriate decision makers.	46	30.40	60.90	6.50	2.20	0.00	4.19	0.65
2	There are pre-established criteria to create a set of decision rules that can categorize which project is acceptable.	46	22.20	46.70	17.80	8.90	4.40	3.73	1.05
3	The corporation's top management is committed to capital budgeting practices and are actively involved in the decision making process.	46	41.30	50.00	6.50	2.20	0.00	4.30	0.69
4	Capital budgeting decisions are made by top level management following the investment proposal evaluation.	46	43.50	45.70	4.30	2.20	4.30	4.21	0.96
5	Prioritizing investment is the responsibility of top management and their decision is based on the importance of the investment.	46	54.30	39.10	2.20	0.00	4.30	4.39	0.90
6	The management board is the ultimate body in approving capital investments.	46	54.30	32.60	4.30	4.30	4.30	4.28	1.04

Note: 1= Strongly Disagree (SD), 2= Disagree (DA), 3=Neutral (N), 4=Agree (A) and 5=Strongly Agree (SA)

Source: Case study results, 2018.

Responses to questions in the above table concerning capital investment selection task shows that capital investment selection task is well conducted from the point of the parameters mentioned in the questionnaires. Decision makers are well informed and this is demonstrated by 60.90% agreement by respondents. The mean score of 4.19 clearly show the same. The standard deviation value of 0.65 shows the existence of agreement to the same. The adherence to pre established criterion in decision making is agreed by 46.70% of respondents. The mean score of 3.75 demonstrates the same. The standard deviation value of 1.05 slightly shows the non

variability of responses by respondents. Top management commitment existence is confirmed by 50% agreement and means score value of 4.30 shows the same. Standard deviation value of 0.69 shows the non variability of responses in this regard. Decisions of capital investment are done by top management and this is confirmed by 45.70% of respondents. Mean score value of 4.21 shows the same. Standard deviation value of 0.96 shows non variability of responses. Strategic importance of investments is the criterion for prioritizing and this is confirmed by 54.30% strong agreement by respondents. Mean score value of 4.39 shows the same. Standard deviation value of 0.90 shows the non variability of responses by respondents. Management board's ultimate power in approving capital investment is confirmed by 54.30% of strong agreement by respondents. Mean score value of 4.28 shows the same. Standard deviation value of 1.04 shows the existence of slight variability in responses. Document review work shows the board only gives decisions for capital investments beyond one million birr threshold. Interview with plan and program executive officer also confirm this. Bhalla (2004) classified the entire capital budgeting process in six phases, and investment selection process is one issue that receives greater attention by management.

Table 4.3. 3: Capital budgeting implementation task

Capital budget implementation task		No of Respo	Percentage of respondent					Mean Score	S.dev.
			SA	A	N	DA	SD		
1	Capital investment implementation activity is conducted based on the management's decision.	46	34.80	52.20	4.30	4.30	4.30	4.08	0.98
2	Regular investment implementation report is produced and revised by management.	46	39.10	37.00	13.00	6.50	4.30	4.00	1.09
3	Prompt corrective actions taken for any irregularity in investment implementation activity.	46	43.50	28.30	17.40	6.50	4.30	4.00	1.13

Note: 1= Strongly Disagree (SD), 2= Disagree (DA), 3=Neutral (N), 4=Agree (A) and 5=Strongly Agree (SA)

Source: Case study results, 2018.

The above table clearly shows the respondents agreement to the management's exclusive decision making role in investment implementation activity and this is demonstrated by 52.20% agreements by respondents. The mean score value of 4.08 shows the same. The standard deviation value of 0.98 manifests the non variability of responses. Investment reports are regularly revised by management for prompt corrective action and this is demonstrated by 39.10% strong agreement by respondents. The mean score of 4.00 shows the same and standard deviation value of 1.09 slightly shows the non variability of responses. Irregularity is promptly corrected and this is demonstrated by strong agreement by 43.50% of respondents. The mean score value of 4.00 shows the same and standard deviation value of 1.13 shows the existence of variability in responses. Bhalla (2004) states implementation phase as one important part in capital budgeting practices.

Table 4.3. 4: Post Investment Evaluation Task

Post investment Evaluation task		No of Resp.	Percentage of respondent					Mean Score	S.dev.
			SA	A	N	DA	SD		
1	Post investment monitoring and control procedures are applied to make sure whether investments achieve the expected goals.	46	32.60	39.10	8.70	13.00	6.50	3.78	1.22
2	Independent department exist to evaluate capital investments which can perform its duty without any interference.	46	21.70	37.00	10.90	13.00	17.40	3.32	1.41
3	Audit findings are adequately addressed by management for future improvement.	46	32.60	30.40	21.70	6.50	8.70	3.71	1.24
4	The corporation's management regularly revises its policy & procedures for post implementation audit work.	46	17.40	41.30	28.30	4.30	8.70	3.54	1.10
5	There exist pre investment audit procedures that insure adherence to established criterion in project evaluation process.	46	19.60	37.00	28.30	6.50	8.70	3.52	1.14
6	There exist pre-established policy & procedures for evaluating capital investments.	46	19.60	45.70	13.00	10.90	10.90	3.52	1.24
7	There is accountability for capital budgeting malpractices.	46	19.60	56.50	15.20	4.30	4.30	3.82	0.94

Note: 1= Strongly Disagree (SD), 2= Disagree (DA), 3=Neutral (N), 4=Agree (A) and 5=Strongly Agree (SA)

Source: **Case study results, 2018.**

The corporation's post implementation evaluation task exhibits the existence of sound business practice based on the results of the respondent's feedback. Post investment monitoring and control procedure is applied and this is confirmed by 39.10% agreement by respondents. The mean score value of 3.78 demonstrates the same. Standard deviation value of 1.22 shows the variability of responses to this issue. Post investment monitoring and control is done independently and this is confirmed by 37.00% agreement by respondents. The mean score value of 3.32 also show the same. But the standard deviation value of 1.41 shows the existence of response variability. Audit findings are well addressed and it is confirmed by 32.60% strong agreement by respondents. Mean score value of 3.71 shows the same. Standard deviation value of 1.24 demonstrates the variability of responses. Regular revision of policy and procedure documents is done and this is confirmed by 41.30% of respondents and standard deviation value of 1.10 shows variability in response. Adherence to established criterion is tested before investment and it is confirmed by 37% agreement by respondents. Mean score value of 3.52 shows the same. Standard deviation value of 1.14 demonstrates the existence of variability in response. The existence of audit guideline in investment monitoring and control is confirmed by 45.70% agreement by respondents. Mean score value of 3.52 shows the same. Standard deviation value of 1.24 manifests the existence of variability in responses. Accountability for malpractice is confirmed by 56.50% agreement by respondents. Mean score value of 3.82 demonstrates the same. The standard deviation value of 0.94 shows the non variability of responses. In triangulating the variability of responses, documents is revised and interview is conducted and it is found out that post investment evaluation task is performed as stipulated in the questions. Prompt corrective action is made based on findings of post investment evaluation work. Bahala (2004) clearly stated the importance of auditing phase in capital budgeting practices as a source of prompt decision making opportunity for malpractices.

Table 4.3. 5 : Challenges in Capital Budgeting Practices

Post investment Evaluation task		No of Respo	Percentage of respondent					Mean Score	S.dev.
			SA	A	N	DA	SD		
1	There exists possibility of rejection of investment proposal.	46	6.50	37.00	19.60	26.10	10.90	3.02	1.16
2	There exists unregulated capital budgeting practice.	46	2.20	30.40	15.20	39.10	13.00	2.69	1.11
3	There exists capital investment short falls that will lead to prioritization.	46	10.90	54.30	10.90	19.60	4.30	3.47	1.06
4	There exist government regulations that hinder the use of funds for certain investments.	46	4.30	45.70	6.50	32.60	10.90	3.00	1.19
5	Lack of adequate management commitment & involvement are the big challenge.	46	15.20	15.20	17.40	34.80	17.40	2.76	1.33
6	Lack of well-trained capital budgeting staffs make capital budgeting practice difficult.	46	15.20	28.30	23.90	23.90	8.70	3.17	1.21
7	The nonexistent of accountability in capital budgeting malpractices make the practice to be unregulated which leads to inefficient investment.	46	8.70	19.60	23.90	41.30	6.50	2.82	1.10
8	The non-existences of clearly stipulated guide lines make capital budgeting practice to be inefficient.	46	23.90	19.60	21.70	28.30	6.50	3.26	1.28
9	The nonexistent of regular pre and post audit makes difficult capital budgeting practice to be efficient.	46	19.60	13.00	19.60	37.00	10.90	2.93	1.32
10	Future cash flow estimate would not be done properly.	46	6.50	21.70	28.30	28.30	15.20	2.76	1.15
11	Capital budgeting techniques may not be used properly.	46	13.50	15.20	30.40	30.40	10.90	2.89	1.19

Note: 1= Strongly Disagree (SD), 2= Disagree (DA), 3=Neutral (N), 4=Agree (A) and 5=Strongly Agree (SA)

Source: Case study results, 2018.

The study designed eleven questions to investigate challenges that may face the corporation in its capital budgeting practices.

Based on the analysis of the respondents level of agreement 37% of them agreed that the existence of possibility of rejection of investment proposal. The mean score of 3.02 shows the existence of this challenge. The standard deviation value of 1.16 demonstrates the variability of responses. The researcher interviewed corporate plan and program executive officer to clarify reason for rejection of investment which qualifies the investment evaluation criterion and found that some investment proposal may be rejected for reason of investment short fall that may face the corporation for unforeseen reasons.

Concerning the existence of unregulated capital budgeting practice even if 30.40% of the respondents agree, the mean score of 2.69 shows that this challenge may not threatened the corporation's capital budgeting practice. The standard deviation value of 1.11 shows variability of responses. In triangulating the response capital budgeting monitoring and control work documents are reviewed and no major deviation is reported.

Capital investment short fall is also mentioned to be challenge in capital budgeting practices and 54.30% of respondents agree to the same. The mean score value of 3.47 also shows the general agreement by respondents to this issue. Standard deviation value of 1.06 shows slight variability in responses.

Government regulations hinder the use of funds for investment is found out to be a challenge and 45.70% of respondents agree to the issue. Mean score of 3 imply that the respondents' position is not valid. The standard deviation value of 1.19 shows variability of responses. Interview is conducted with plan and program executive officer of the corporation to triangulate the result and found out that the existence of some regulation on the use of annual profit. In the past most of the corporation's profit is going to be paid as dividend to the government. This problem is currently smoothened by the government by allowing the corporation to use its profit to expand its business activity till the authorized capital is totally paid.

Lack of adequate management commitment is not a challenge in capital budgeting practice of the corporation. 34.80% of respondents disagree to this and mean score of 2.76 also confirm this. Standard deviation value of 1.33 shows variability in response. Lack of well-trained capital budgeting staff is agreed to be a challenge by 28.30% of respondents and the mean score of 3.17 also confirms this. Standard deviation value of 1.21 shows variability of responses. This result contradicts to the result found under table 5 item numbers 3 which states the existence of well-trained employee. The researcher tried to clarify this contradiction by interviewing the concerned officials. The officials responded even if there are well trained staffs to the job they expressed the existence of knowledge gap of on some specialization issue.

Professional non accountability is not a challenge in the capital budgeting practice. 41.30% of respondents disagree to the questionnaire concerning this issue. The mean score of 2.82 also confirms this. Standard deviation value of 1.10 shows variability of responses.

The researcher designed a question to assess the nonexistence of clear guideline to the practice and found that 23.90% of respondents agree to the same. The mean score of 3.26 also confirm this. Standard deviation value of 1.28 shows variability of responses. This result contradicts with table 5 item number 2. To get clarification interview is conducted with the corporate plan and program executive officer and found that even if there exist policy and procedure document to the practice, it does not encompass all issues that may come across in the capital budgeting practice of the corporation.

The non existence of regular pre and post audit work is not a challenge and this is confirmed by 37% of respondents. Mean score of 2.93 confirms this. Standard deviation value of 1.15 implies the existence of variability in responses. Non proper future cash flow estimate is not the challenge and this is confirmed by 28.30% disagreement to the question. Mean score of 2.76 confirm the same. Standard deviation value of 1.15 shows variability of responses. Improper application of capital budgeting techniques is not a challenge and this is confirmed by 30.40% disagreement to the question. Mean score of 2.89 shows the same. Standard deviation value of 1.19 demonstrates variability of responses. In triangulating the responses capital budgeting monitoring and control work and capital budget practice documents are reviewed and no major deviation is reported.

Chapter Five

5. Summary of Findings, Conclusion and Recommendation

The earlier chapter presented the results and discussion, whereas this chapter presents summary of findings in section 5.1, section 5.2 presents conclusion, followed by section 5.3 which deals with recommendation. Finally, future research direction will be indicated in section 5.4.

5.1. Summary of Findings

This Study tried to assess the capital budgeting practices of Ethiopian Construction design and supervision Works Corporation. Experts and officers who directly participate in the practice are selected as a sample to provide answers to the questionnaire designed based on literature review. This questionnaire is designed to assess whether the capital budgeting practices of the corporation adheres the theory and the international practices parameters based on the literature review.

Based on the document review and interview conducted the corporation is found to use profitability index technique for evaluating capital investments. This technique is applied for every investment which have above five hundred thousand birr threshold. The technique is preferred from context of easiness and consideration of time value of money. Anand & Monoj (2002) and Jain & Yadev (2002) found that profitability index technique is used more by public sector units than private sector firms. Future cash flow estimating procedures is also applied in the capital budgeting practices of the corporation in using profitability index technique.

The corporation's capital budgeting task organization is found to have responsible department for the work process, the work process is found to be governed by formal policy and procedure guideline, the guideline also found to be regularly updated and well trained work force is found to engage in the work process. The above findings are in line with Slagmulder (1995) findings that state the support of a committed project champion to have a significant positive impact on investment decisions. Concerning capital budgeting task planning it is found that the corporation capital budgeting practices is directed strategically and coordinated activity contribute for efficient utilization of resources. The capital budgeting evaluation task is found to be conducted responsibly with adequate expertise and long term investment decisions are done considering

uncertainty factors and greater attention is deployed to long term investment that involve vast amount of money. Capital investment selection task is found to be the priority of top level management. The findings are in line with Bahalla (2004) who states investment selection process is one issue that receives greater attention by management. The investment implementation activity is found to be regularly followed by management and corrective action is found to be taken promptly. This finding is in line with Bhalla (2004) who states that implementation phase as an important part in capital budgeting practices. The post investment evaluation task is found to be well organized, guided by pre established policy and procedure document and audit findings are regularly addressed by management for taking corrective actions. The finding is in line with Bahalla (2004) statement that states auditing phase as a source of prompt decision making opportunity for malpractices. The corporation is found to face challenges from short fall of funds for investments which lead to rejection of some investment which is vital to the corporation's business. In addition lack of well trained capital budgeting staff for some special attention requiring investments also is found to be a challenge to the business practice in the corporation. The non-existence of clearly stipulated guide lines is also another challenge that makes capital budgeting practice difficult.

5.2. Conclusion

Literatures show that capital budgeting discipline is one of the most strategic decisions that determine the future of businesses. The question is whether there exist good capital budgeting practices and hence maximizes the value of the firm. Extensive prior research findings which are done on developed countries have provided evidence of the need to sound capital budgeting practices for better performance of firms.

The main objective of this study was to assess the capital budgeting practices of Ethiopian Construction Design and Supervision Works Corporation. To achieve the intended objective the study used quantitative approach using likert scale rating in assessing the capital budgeting practices of the corporation. Qualitative approach is applied to analyze data collected through interview and document review. The results of the study show that the corporation uses profitability index as an investment evaluation technique, which is in line with empirical evidences discussed in chapter two. The capital budgeting practices of the corporation is found to

be well organized from investment planning to post investment evaluation work process. This is clearly stated in the summary of finding section of the report.

5.3. Recommendation

The researcher recommend to the management of the corporation to focus on short term training to fill the gap of knowledge which is implicated to exist in the study. In addition the corporation should try to revise its capital budgeting policy and procedure document which is found to be a challenge in capital budgeting practice. The revision should be done by a concerned body to include detail issue which is part and parcel of the business practice. Making this will facilitate standardized business practice in the corporation.

The corporation's strategic plan document which is revised by the researcher indicates the need of alignment of capital investment with the strategic plan of the corporation. But the document lacks clarity as to how this alignment should be maintained. Therefore, the corporation's management should review its strategic plan document to address this problem.

5.4. Future Research

This study tried out to assess the capital budgeting practice of Ethiopian construction design and supervision Works Corporation. The findings of the research are based on the researches questionnaire, interview and document review feedback. The result of the study found that the corporation's capital budgeting practices are in line with the theoretical aspect and some findings are in congruence with empirical findings included in the empirical literature review. But as this study is conducted on a single entity, its findings cannot be generalized. Therefore, the researcher would recommend future researchers to engage in other study which can be generalized to the public sector of the country.

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Annex A

St. Mary's University

School of Graduate Studies

Questionnaire Designed to Ethiopian Construction Design & Supervision Works Corporation

Dear Respondent,

The study entitled ‘‘capital budgeting practice: a case study of Ethiopian Construction Design and Supervision Works Corporation" will be conducted for the partial fulfillment of the requirement of Master of Business Administration in accounting and finance. This questionnaire is developed to collect data concerning capital budgeting practice of Ethiopian Construction Design & Supervision Works Corporation. The questionnaire answers will be solely used for an academic purpose and the data will be treated confidentially.

I therefore, kindly request you to carefully read all questions and give your answers with due care and return it promptly.

Thank you in advance for giving your valuable time and effort to fill the questionnaire.

Researcher:

Beminet Shimeles/0911641297/

General Instructions:

The questionnaire is divided in to two parts; general information of respondents and questions regarding capital budgeting practices. The instructions in filling the questions are;

1. You don't need to write your name or any identifying remark.
2. Indicate your choice by putting a '✓' Mark on a given box.

Part I: General Information

1. Gender

Male ☐ Female ☐

2. Education back ground

College Diploma ☐ First degree ☐

Second Degree ☐ PhD ☐

3. Years of Services

Less than 5 years ☐ 5-10 years ☐

Above 10 years ☐

4. Position you are working on

Managerial ☐ Supervisory ☐ expert ☐

5. Professional background

Engineering ☐ Finance ☐ Administration ☐

<u>Part II</u>: Capital Budgeting Practices

Instructions: give your answers based on your degree of agreements with questions using the level of agreements scale answers. The level of agreements is explained by likert-scale and represented as follows:

<u>NB</u> 1 = =Strongly Disagree (SD) 4=Agree (A)

2 = Disagree (DA) 5=Strongly Agree (SA)

3= Neutral (N)

Please Indicate your response by using tick mark **(✓)** accordingly to your degree of agreements.

		SA	**A**	**N**	**D**	**SD**
Capital budgeting tasks:						
Capital budget task organization:						
1	The corporation has a responsible department for evaluating capital investments.	(5)	(4)	(3)	(2)	(1)
2	The corporation uses formal policy & procedure in its capital budgeting practices.	(5)	(4)	(3)	(2)	(1)
3	The capital budgeting team is well organized and well trained for delivering the expected duty and the team gets proper training to update their knowledge.	(5)	(4)	(3)	(2)	(1)
4	Specially trained employees participate in capital budgeting practice.	(5)	(4)	(3)	(2)	(1)
5	The corporation's management regularly updates its capital budgeting policy & procedure manual to address bottle necks that may arise due to the general change of the economic environment.	(5)	(4)	(3)	(2)	(1)

Capital budget task planning:						
1	The corporation aligns its capital investment practice with its strategic plan.	(5)	(4)	(3)	(2)	(1)
2	The corporation develops and formulates long term strategic goals which direct its capital investments.	(5)	(4)	(3)	(2)	(1)
3	Investment proposals are initiated at lower level management followed by revision by top level management.	(5)	(4)	(3)	(2)	(1)
4	Unproductive investment is significantly reduced/avoided (if possible) with better information sharing across units within the corporation.	(5)	(4)	(3)	(2)	(1)
5	Capital asset underutilization is avoided by sharing resources from excess unit to other units which are in short fall.	(5)	(4)	(3)	(2)	(1)
Capital budgeting evaluation task:						
1	The corporation's management and the capital budgeting department understand the significance/importance of their proper decision in the future of their organization.	(5)	(4)	(3)	(2)	(1)
2	The capital budgeting practice sometime is conducted by adhoc approach to fill a gap of expertise needed for evaluating special capital investment.	(5)	(4)	(3)	(2)	(1)
3	The capital budgeting practices consider uncertainty factors associated with the investment in addition to simple project evaluation criterion established in the guide line.	(5)	(4)	(3)	(2)	(1)
4	Long term investments which require significant fund receive greater attention than other investments in the capital budgeting practice.	(5)	(4)	(3)	(2)	(1)
Capital investment selection task:						
1	The capital budgeting process facilitates the transfer of information to the appropriate decision makers within the company.	(5)	(4)	(3)	(2)	(1)

2	There are pre-established criteria to create a set of decision rules that can categorize which project is acceptable and which projects is un acceptable.	(5)	(4)	(3)	(2)	(1)
3	The corporation's top management is committed to capital budgeting practices and they are actively involved in the decision making process.	(5)	(4)	(3)	(2)	(1)
4	Capital budgeting decisions are made by top level management following the investment proposal evaluation by the capital budget evaluation team.	(5)	(4)	(3)	(2)	(1)
5	Prioritizing investment is the responsibility of top management and their decision is based on the importance of the investment in achieving the strategic goal of the corporation.	(5)	(4)	(3)	(2)	(1)
6	The management board is the ultimate power in approving capital investments.	(5)	(4)	(3)	(2)	(1)
Capital budget implementation task:						
1	Capital investment implementation activity is conducted only based on the management's decision.	(5)	(4)	(3)	(2)	(1)
2	Regular investment implementation report is produced and revised by management.	(5)	(4)	(3)	(2)	(1)
3	Prompt corrective action will be taken for any irregularity in investment implementation activity.	(5)	(4)	(3)	(2)	(1)

Post implementation evaluation task:						
1	Post investment monitoring and control procedures are applied to make sure whether investments achieve the expected goals.	(5)	(4)	(3)	(2)	(1)
2	Independent department exist to evaluate capital investments which can perform its duty without any interference.	(5)	(4)	(3)	(2)	(1)
3	Audit findings concerning capital investments performances are adequately addressed by management for future improvement.	(5)	(4)	(3)	(2)	(1)
4	The corporation's management regularly revises its policy & procedures for post implementation audit work.	(5)	(4)	(3)	(2)	(1)
5	There exist pre investment audit procedures that insure adherence to established criterion in project evaluation process.	(5)	(4)	(3)	(2)	(1)
6	There exist pre-established policy & procedures for evaluating capital investments once they are invested.	(5)	(4)	(3)	(2)	(1)
7	There is accountability for capital budgeting malpractices by concerned employee or official.	(5)	(4)	(3)	(2)	(1)
Challenges in current capital budgeting practice:						
1	There exists possibility of rejection of investment proposal even if it qualifies for investment.	(5)	(4)	(3)	(2)	(1)
2	There is unregulated capital budgeting practice in the corporation.	(5)	(4)	(3)	(2)	(1)
3	There exists capital investment short falls that will lead to prioritization.	(5)	(4)	(3)	(2)	(1)

4	There exist government regulations that hinder the use of funds for certain investments which are decisive to the corporation.	(5)	(4)	(3)	(2)	(1)
5	Lack of adequate management commitment & involvement are a big challenge for the capital budgeting practice of the corporation.	(5)	(4)	(3)	(2)	(1)
6	Lack of well-trained capital budgeting staffs make capital budgeting practice difficult in the corporation.	(5)	(4)	(3)	(2)	(1)
7	The nonexistent of accountability in capital budgeting malpractices make the practice to be unregulated which leads to inefficient investment.	(5)	(4)	(3)	(2)	(1)
8	The non-existences of clearly stipulated guide lines make capital budgeting practice to be inefficient.	(5)	(4)	(3)	(2)	(1)
9	The nonexistent of regular pre and post audit makes difficult capital budgeting practice to be efficient.	(5)	(4)	(3)	(2)	(1)
10	Future cash flow estimate would not be done properly.	(5)	(4)	(3)	(2)	(1)
11	Capital budgeting techniques may not be used properly.	(5)	(4)	(3)	(2)	(1)

Additional questions to be addressed as open ended alternative

- What other issue would you like to mention which is not mentioned in the questionnaire _

_____

_____

_____

Thank You!!

Annex B

Interview questions

1. What capital budgeting techniques the corporation uses? And why?
2. Is the corporation deployed enough budget to train its capital budget staffs?
3. Is management board the ultimate power in decision making for every capital investment?
4. How do management use post investment evaluation task for prompt corrective actions?

Declaration

I, the undersigned, declare that this thesis is my original work, prepared under the guidance of my advisior, Abreham Gebregiorgis (Ass.Prof.)

All source of information used for this study have been acknowledged and I confirm that this thesis has not been submitted either in part or in whole to any other higher learning institutions for the purpose of earning any qualification.

Name	Signature & Date
St.Marry University, Addis Ababa	

Endorsement

This thesis has been submitted to St.Marry's University, school of graduate studies for examination with my approval as a university advisor.

Advisor	Signature & Date