



ST'MARY UNIVERSITY
BUSINESS FACULTY
DEPARTMENT OF ACCOUNTING

***AN ASSESSMENT OF CAPITAL INVESTMENT
DECISION IN THE CASE OF MOHA SOFT DRINK
INDUSTRY S.C***

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IN MOHA SOFT DRINK S.C***

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FOR THE DEGREE OF BACHELOR OF ARTS IN
ACCOUNTING***

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ACRONYMS

ARR Accounting Rate of Return

IRR Internal Rate of Return

NPV Net Present Value

PBP Payback Period

PI Profitability Index

CHAPTER ONE

1. INTRODUCTION

1.1 Background of the study

Capital investments are funds invested in a firm or enterprise for the purposes of meeting its business objectives. Capital investment may also refer to a firm's acquisition of capital assets or fixed assets such as manufacturing plants and machinery that are expected to be productive over many years. (www.investopedia.com June 2013)

When business organizations make investment decisions, they deserve some benefit from it. Capital investment decision should determine whether the investment will contribute to the long run value of the business. Rapid economic growth and technological projects have vastly increased the investment opportunities available to firms having only limited funds. Rapid technological advance has tended to increase the lag between decision making and the benefits of these decisions. It has also increased the necessary size of capital commitments and caused the rate of technical and product obsolescence to increase. Thus correct project appraisal decisions are increasingly crucial (Bromwich, 1979).

Capital investment is very much related to capital budgeting. Capital budgeting is the process by which firm determine how to invest their capital included in this process are the decisions to invest in new projects, reassess the amount of capital already invested in existing projects, allocate and ration capital across divisions, and acquire other firms. In essence, the capital budgeting process defines the set and size of firm's real assets which in turn generate the cash flow that ultimately determine its portability, value and viability (www.ces.putdue.edu/ec March, 2012).

When we come to the study area, MIDROC Ethiopia investment group is the leading investment group engaged in multifaceted investment undertakings that have proved to make significant contributes to the development of the country's economy. MHOA soft drinks industry S.C is one of the investments that MIDROC involved. It was established on May 15, 1996 acquiring Nifas silk plant, TekleHaimanot plant, Gondar plant, and Dessie plant from the Ethiopian privatization agency with paid capital of Birr 108,654,000. The company currently has seven operating units including summit plant, Bure plant, and the recently inaugurated Hawassa plant in the southern nations and Nationalities peoples region. Hawassa and Bure started operation after acquisition. The major products of Moha soft drinks are Pepsi, Mirinda, Orange, 7-up, Mirinda Tonic and Apple (all Pepsi brands), Kool (carbonated and sparkling) TosaAmba (Carbonated water). (www.mohasoftdrinks.com)

MOHA Soft drinks S.C holds more than 50% of the market share in soft drinks industry in the country with an expansion of new projects substantially and its contribution on increasing the countries business development.

Therefore, the main purpose of this study focuses on capital investment decision on MOHA soft drink industry and evaluate whether the managers use the appropriate appraisal techniques.

1.2 Statement of the problem

Capital investment decisions are the most important that a business organization can make. Capital investment requires allocation of considerable amount of the firm's scares resources in order to increase the value of the firm by undertaking right project at right time. Thus the importance of capital investment decision is very vital to archive the long run objectives of the firm and it needs very serious ranking and identification of the capital investment to be made.

However, it is not an easy task because most investment decision is taken under the condition of uncertainty (risk). Poor capital investment decisions misdirect financial resources. It can also undermine the future strategic direction and operation of the

organization. By using traditional methods of appraisal technique, managers might make wrong investment decision, misinterpret future investment opportunities. The techniques that they are using might not provide them with a good picture of the challenges and risks of their investment decisions. Wrong investment decision also affects the organization and the society at large.

The most important aspect of managers' job is to evaluate the feasibility of a new initiative and to make sound investment decision. The managers of the company obviously come across different capital investment decisions. By using traditional methods of appraisal technique, managers might make wrong investment decision, misinterpret future investment opportunities. The techniques that they are using might not provide them with a good picture of the challenges and risks of their investment decisions. Wrong investment decision also affects the organization and the society at large.

Evaluating or measuring proposed investment is very important to make financial decision. Financial decisions to make investments involving fixed assets are commonly known as capital budgeting. Financing with sources of capital that have fixed cost create financial leverage. Financial leverage refers to the fact that a higher ratio of debt to equity causes profitability to vary more. Greater variability of profit, of course, means the risk is higher.

Therefore, managers want to use money as maximization the creation of as much wealth as possible with the money available. Wealth is created if the value of benefits from a capital investment exceeds the cost (SEITZ, 1990). The study focuses on capital investment decision on MOHA soft drink industry and evaluate whether the managers use the appropriate appraisal techniques.

1.3 Research question

- What procedures used in making capital investment decision?
- How can the company evaluate the capital investment decision?
- What is MOHA soft drink industry S.C general goal of capital budgeting?
- How the company is benefited from its capital investment decision?

1.4 Objective of the study

1.4.1 General Objective of the Study

The general objective of the study is assessed capital investment decision at MOHA soft drink industry S.C.

1.4.2 Specific objective of the study

The specific objectives of the study are:

- To identify the procedure used in capital investment decision of MOHA.
- To analyze the evaluation techniques used in capital investment decision.
- To analyze the general goals of capital investment decision.
- To evaluate the benefits of the company's capital investment decision.

1.5 Significance of the study

Capital investment concerned with selection of long term investment and this decision is difficult for almost all organizations due to lack of concrete information and uncertainty in the future. This study is significant for MOHA soft drinks industry S.C for the future operation of the organization making the investment. In addition the study provides the followings:-

- It serve as partial fulfilment for the required of BA Degree in Accounting.
- It give constructive ideas for effective investment decision,
- It may give the way for additional and comprehensive studies, to be conducted by the organization

1.6 Scope of the study/Delamination

The study focuses on assessment of capital investment decision of MOHA soft drink industry S.C. The company began its operation in 1996. Only the capital Investment decision used by the company from 2003 – 2013 is discussed since the recent years of operation represent the company's current status.

1.7 Research Design and Methodology

1.7.1 Research Design

The study used descriptive research design in order to study the assessment of capital investment decision of MOHA soft drink industry S.C. Descriptive research is used to describe characteristics of a population or phenomenon being studied. The characteristics used to describe the situation or population is usually some kind of categorical.

1.7.2 Population and Sampling Techniques

The target population of this research paper was only members of management who are in the level of decision. There are 16 (population) working at decision level of the MOHA soft drink Industry S.C Head Office. Since the total population is small, we won't take a sample and the total population is used to conduct the research.

1.7.3 Type of Data Source

The researchers used both primary and secondary data sources. For primary sources the researcher collected data from management Department of the head office. Whereas the secondary data sources gathered from documents of such as manuals, industry reports, profile, journals, internet sources and unpublished materials.

1.7.4 Method of Data Collection

In preparing the study paper the researchers used different data gathering instruments such as questionnaire, documents analysis and written material that are related to capital investment decision.

1.7.5 Data Analysis Methodology

The data is analyzed to give sound meaning by using both qualitative and quantitative technique. The qualitative data is presented and analyzed in descriptive form. The quantitative data analyzed using numerical tables.

The research design implemented in this paper is descriptive, where data obtained from respondents recorded, descended, analyzed, and interpreted by conducting interview. The techniques employed for the realization of the objectives are qualitative and quantitative data. In this regard the researchers able to interact with the management in the organization, which could make it possible to understand the dynamic factors of the research by having a firsthand experience.

1.8 Organization of the Paper

This research paper organized with four chapters. The first chapter includes background of the study, statement of the problem, objectives of the study, significance of the study, limitation of the study and methodology. The second chapter has cover reviews of related literature. In the third chapter data analysis and interpretation is presented. Finally the fourth chapter includes the summary, conclusion and the recommendation part of the study.

1.9 Limitation of the study

The researchers faced the following problem while doing this senior research work.

- Lack of willingness for interview session
- Shortage of time and money

CHAPTER TWO

2. LITERATURE REVIEW

2.1 Overview of capital investment Decisions

Capital investment can be seen as a sub-set of capital budgeting. Capital budgeting refers to both the selection of long-term investments and planning for their financing. Capital investment is concerned with the former, although it should be recognized that the financing decision is integrally related to the investment decision (Northcott, 1992).

The investment decisions of a firm are generally known as capital budgeting or capital expenditure decision. Capital budgeting is a decision making process for investment in long term assets. It involves large cash out lays at the outset and commits the firm to a particular course of action over a relatively long period. Thus if capital budgeting is incorrect, reversing it tends to be costly. Capital budgeting (investment) and financing decisions are treated separately, although it should be clear that the use of the cost of capital as discount rate links these two decisions (Yaregal, 2007).

Capital budgeting is the decision process that managers use to identify those projects that add to the firm's value. As such it is perhaps the most important task faced by financial managers and their staffs. First a firm's capital budgeting decisions define its strategic discretion because moves into new products and services market must be preceded by capital expenditures. Second the result of capital budgeting decisions continues for many years, reducing flexibility. Third, poor capital budgeting can have serious financial consequences (Brigham and Ehrhardt, 2008).

Investment decisions may be tactical or strategic. A tactical investment decision generally involves a relatively small amount of funds and does not result in a major departure from what the firm has been doing in the past. Strategic investment decisions involve large sum of money and may also 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 profit and in the risks to which these profits will be subject to (Bierman and Smidt, 1971).

Capital investment decision that involve the purchase of items such as land ,machinery, buildings or equipment are among the most important decisions undertaken by the business manager. These decisions typically involve the business over a number of years. Furthermore, the funds to purchase a capital item must be paid out immediately. Whereas the income or benefits accrue overtime .Because the benefit are based on future events and the ability to foresee the future is imperfect, should be make a considerable effort to evaluate investment alternatives as thoroughly as possible (www.ces.purdue.edu/ec_march, 2012).

2.2. Characteristics of capital investment decision

Capital investment decision making is important to a business because these expenditures have the following characteristics:

- ***They usually involve large sums of money relative to the size of the business operation.*** The purchase of a delivery vehicle for a small business may be a large outlay but the acquisition of one delivery vehicle for a supermarket chain would not be that significant. However, if the supermarket chain were to replace all its delivery vehicles at one time then it would be a large outlay. Due to the large cost of the investment, businesses will often have to raise finance in addition to their own funds.
- ***The expenditures are usually for the long term.*** The acquisition of noncurrent assets means that the impact of the decision will be felt by the business for a long period of time. There is an expectation that the assets will generate cash flow and profit over time and that they will be sufficient to repay the debt finance, if required, also over a long period of time.
- ***The decision cannot be easily reversed.*** The decisions are difficult to change as the outlay has been made and to make any change would be costly to the business.

For example, if, one year after the purchase of a particular type of delivery vehicle, the decision turns out to be the wrong one because a more advanced vehicle is now on the market, the cost of selling the now unsuitable vehicle will involve a considerable loss because of its substantially reduced market value.

- ***They have a high risk attached to them.*** The combination of the three previous characteristics mentioned above means that the assets must generate cash flow and profits well into the future so that lenders can be repaid and investors receive a reward. The long term is uncertain as it can be difficult to predict, for example:
 - o the rate of technological change
 - o economic circumstances
 - o customer preferences
 - o what your competitors will do.

2.3 Capital budgeting process

Capital budgeting is the process of generating the capital that is to be decided upon at a point in time. Essentially, a capital budget represents a set of corporate strategies that are revised over time as actual data replace forecast values, as new investment alternatives are identified, and as previously included alternatives are dropped or modified (Neveu, 1985).

Capital budgeting is often described as a dynamic process because it is possible to identify potential alternatives almost continuously, and the firms operating environment may alter the desirability of actual or potential investments (Neveu, 1985).

2.3.1 Steps in capital budgeting process

i. Idea (proposal) generation

Proposal for capital budgeting are made by people at all levels within an organization .It has been suggested that good ideas for investment are likely to occur in environments where staff feel free to present and develop ideas. Some alternatives will be rejected early on. Others will be more thoroughly evaluated.

Strategy is the foundation of a successful capital budgeting system. Strategy is the framework within which resources are marshaled in pursuit of goods. Strategy also tells people where to search for profitable capital investments. Successful capital budgeting and shareholder wealth maximization are therefore, dependent on sound strategy (Seitz, 1990).

ii. Evaluate investment opportunities

The proposed costs and benefits are estimated and then converted into a series of cash flows to which various capital budgeting techniques are applied to measure the investment merit of the potential outlay. Once the economic analysis is completed, a summary report, often with recommendation is submitted to the decision makers (Yaregal, 2007).

The evaluation of capital investment does not end with comparison of the present values of costs and benefit. Because companies often lack sufficient resources to acquire all attractive investments they must make choices. An investment might have good cash flow characteristics but seriously reduced reported income for several years. Conflicts between accounting income and other measure of profitability would not occur in a world of perfect information, but these conflicts are important in the world in which we live (Seitz, 1990).

iii. Decision making (select investment)

Decision making is the acceptance or rejection of the proposal based on a selection criterion. Firms typically delegate capital expenditure authority on the basis of certain dollar limits. Generally the board of directors reserves the right to make final decisions on capital expenditures requiring out lays beyond a certain amount (Yaregal, 2007).

Qualitative issues will be considered before a decision is made whether to proceed.

iv. Implementation and Monitor

Once a proposal has been approved and funding has been made available, the implementation phase begins.

Capital investment are monitored during the actual period of acquisition or construction because deviations, whether good or bad should be recognized take into consideration and dealt with (Seitz, 1990).

V. Follow up

During the projects progress it will be necessary to ensure that capital spending does not exceed the amount authorized, that the implementation of the project is not delayed and that the anticipated benefits are eventually obtained.

This procedure analyzes alternatives that have been adopted in order to determine if they should be continued, modified or terminated. An investment is terminated when corporate managers decide that it no longer contributes to shareholder wealth, irrespective of the original figures that made the investment desirable. Reviewing past decisions should also improve management's ability to evaluate subsequent investment alternatives (Neveu, 1985).

2.3.2 Data requirement in capital budgeting

To make capital budgeting decision in light of its goal, a firm should perform the following three tasks in evaluating project.

- i. Estimate cash flows
- ii. Estimate a required rate of return
- iii. Apply decision rule to determine whether the project is worthy or not (Yaregal, 2007).

2.3.3 Guidelines for capital budgeting

i. Use cash flows rather than accounting profit

- The cash flows that directly affect the firm's ability to pay bills and purchase assets. If a company cannot generate cash flow from its projects, sooner or later, it will be in solvent.
- Cash flow is theoretically better measures or the net economic benefits or costs associated with a prospective project.
- Use of cash flows minimized accounting ambiguities that are prevalent in determining earnings. Where different earnings number could be developed for the same project depending on the accounting procedures followed, there is only one set of cash flow stream associated with a project.

ii. Think incrementally

Look at the company versus without, the proposed project. Not all cash flows a firm expects from an investment proposal are incremental in nature.

iii. Beware of cash flows diverted from existing produces

Just mailing sales from one product line to a new product line does not bring anything news in to the company, but if sales are captured from competitors or if sales that would have been lost to new competing products are retained then these are relevant incremental cash flows to the firm looking of at the firm as a whole with the new product versus without the new product.

iv. Look for incidental or synergistic effects

Although in some cases a new project may take sales away from firm's current projects, in other cases, a new effort may actually bring new sales. Thus it is essentials to look at potential benefit to the existing lines of products from a new project.

V. work in Net working capital Requirements

Many times a new project will involve additional investment is working capital. Working capital requirement are considered as cash out flow even though they do not leave the company.

vi. Account for opportunity cost

Consider the cash that are lost because a given project consumes scarce resources that would have produced cash flows if that project had been rejected and the resources were used for implementing the next best alternative. A project cost that doesn't consider such foreign benefits (opportunity costs) fails to account for all the economic costs of the project and hence will give an inflated and misleading result.

vii. Ignore interest payments and financing out flows

Finance costs are relevant in investment evaluation. However, care must be taken not to double-count them. When we discount the incremental cash flows to the present at the required rate of return we are implicitly accounting for the cost of raising funds to finance the new project (Yaregal, 2007).

2.4. Basic criteria for investment Decisions

The decision to invest in long-term assets is crucial to the long-run success of corporation. This investment represents the implementation of the corporate mission and goals. If the company doesn't have a clear sense where it is going, it may invest its resources in appropriate product markets (Hickman, Hunter and Bird, 1995).

Financial managers apply two decision practices. When selecting capital budgeting projects, that is accept /reject and ranking. Accept /reject decision is the fundamental decision of whether to invest in proposed project or not. The problem is defined as given a proposed project, should the firm invest in it? Every assets the firm acquires should pass the accept/ reject decision. A project that fails to meet the minimum condition for acceptance could not be considered further. But it does not mean that

acceptable projects will be implemented. Implementation depends on a host of factors such as the dependence or independence of the projects and the availability of fund.

The ranking decisions practice ranks competent projects in order of desirability in order to choose the best one. Ranking compares projects to a standard measure and orders the projects based on how well they meet the measure. If for instance, the standard is how quickly the projects pays off the initial investment, then the project that pays off the investment most rapidly would be ranked first. The project that paid off most slowly would be ranked last (Gauagher, 1996).

2.5 Capital investment Appraisal Techniques

The most important, but also the most difficult step in capital budgeting is estimating project cash flows. Many variables are involved and many individuals and departments participate in the process. For example, the forecast of unit sales and sales prices are normally made by the marketing group based on their knowledge of price elasticity, advertising effects, the state of the economy competitor's reactions, and trends in consumer tastes. Similarly, the capital outlays associated with a new product are generally obtained from the engineering and product development staffs, while operating costs are estimated cost accountants, production experts, personnel specialists, purchasing agents and so forth (Brigham and Ehrhardt, 12ed).

Any firm possesses a huge number of possible investments. Each possible investment is an option available to the firm. Some options are valuable and some are not. The essence of successful financial management of course, is learning to identify which are which with this in mind, our goal is to introduce investment appraisal techniques used to analyze potential business ventures to decide which are worth undertaking.

The idea evaluation method should

- Include all net cash flows that occur during the life of the project.
- Consider the time value of money.
- Incorporate the required rate of return on the project.

The most important investment appraisal techniques are:

2.5.1 Discounted cash flow techniques

The discounted cash flow techniques are other methods of evaluating and ranking investment project proposals. These techniques employ the time value of money concept, unlike the traditional methods

Net present value (NPV)

The Net present value (NPV) analysis method compares the present/value of future cash flows from a capital investment, with the immediate are out lay required. That is all future cash flows from a capital investment are discounted back to their present value and compared with the immediate cost of entering into the investment. Hence the “net” present value is the difference between the present values of the investments inflows and outflows (Northcott, 1992).The project selection method that is most consistent with the goal of owner wealth maximization is the net present value method. The net present value (NPV) of the capital budgeting project is the dollar amount of change in the value of the firm as a result of undertaking the project. The change in firm value may be positive, negative, or zero, depending on the NPV value.

If NPV is positive the project is accepted. A positive NPV means that the present value of capital investments inflows exceeds the present value of its costs; therefore an addition to the wealth of the investors is expected. Reject the project if NPV is negative. For mutually exclusive project with the highest positive NPV is accepted. Projects are said to be mutually exclusive if the acceptance of one project result in rejection of the other. For independent projects, all projects with positive NPV are accepted. Projects are said to be independent if the acceptance of one does not result in rejection of the other.

NPV suffers from two practical problems. It is difficult to explain NPV to people who are not formally trained in finance. The NPV results are in dollars, not percentage many owners and managers prefer to work with percentages because can be easily compared to other alternatives (Gallagher and Andrew, 1996).

Internal Rate of return (IRR)

The internal rate of return is the discount rate at which the present value of cash inflows is equal to the present value of cash out flows. In other words, it is the discount rate for which the present value of the net receipts from the project is equal to the present value of the investment and the NPV is zero.

The internal rate of return is the rate of return earned on money committed to a capital investment and it is analogous to interest rates generally quoted in the financial market place. The effective annual interest rate that a bank promises on its savings accounts is the internal rate of return, and the annual percentage rate on a loan is similar to the internal rate of return. Then internal rate of return, States the profitability of an investment in terms that are generally familiar to managers, whether or not the managers have strong financial backgrounds (Seitz, 1990).

The IRR criterion takes into account the time value of money and is a profit oriented tool. The criterion measures the compound rate of return contained in investment alternative the cash flows of which occur over several year in to the future. Since the IRR is stated as a percentage, it has the added advantage of being a type of measure that is generally familiar to most managers. This makes it relatively easy to use IRRs when explaining the desirability of individual projects (Neveu, 1985).

Accept the project if it's IRR is greater than the required rate of return and reject the project if its IRR less than the required rate of return.

IRR focuses on all cash flows associated with project, IRR adjusts for the time value of money, and IRR described projects in terms of the rate of return they earn, which makes it easy to compare them to other investments and the firms required rate of return.

When projects have different net investments, a problem arises in interpreting and using the IRR as a capital budgeting criterion.

Profitability index (PI)

Profitability index is the ratio of the total present value of net cash flows and the projects initial investments. It simply converts the NPV criterion into a relative measure. Accept the project if its profitability index is greater than one. Reject the project if its profitability index is less than one.

PI is closely related to NPV generally leading to identical decisions easy to understand and communicate and may be useful when available investment funds are limited. Sometimes PI may lead to incorrect decisions in comparisons of mutually exclusive investments (Ross, Westerfield and Jordan, 2001).

2.5.2 Non –Discounted cash flow techniques

They are called the traditional techniques because they do not consider the time value of money concepts in ranking investment proposals. Two methods are included under the traditional technique, namely the payback period and the accounting rate of return

Payback period

The payback period is the number of years it takes to recover the initial investment. Stated more precisely the payback period is the number of years until the cumulative cash benefit equals the money invested (Seitz, 1990).

To be accepted the project's payback period should be less than or equal to the standard (cut off) set by the management. For mutually exclusive projects, the project with a smaller payback period is accepted provided that its payback period is less than the firm's cut-off. Mutually exclusive (dependent) projects are projects in which the acceptance of one rejects the other. The advantage of PBP is easy and inexpensive to calculate and apply. The main problems with PBP are; a firm's cutoff is subjective, does not consider time value of money, does not consider any required rate of return, does not consider all of the project's cash flows.

Accounting rate of return (ARR)

Accounting rate of return is computed by dividing a projects expected average net income by the average investment. Accept the project if ARR is equal to or greater than the standard set by management. Reject the project if ARR is less than the standard set by the manager.

The advantage of ARR is easy to calculate and needed information will usually be available. The disadvantage is it is not a true rate of return, time value of money is ignored uses an arbitrary benchmark cut of (hurdle) rate, and based on accounting net income and book values , not cash flows and market values (Ross, Westerfield and Jordan, 2001).

2.6. Sensitivity and what if Analyses

The task of evaluating a project in terms of its cash flows and NPV involves asking “what if” questions. The purpose in doing so is to assess the degree of forecasting risk and to identify those components that are the most critical to the success or failure of an investment.

2.6.1 Sensitivity Analysis

Sensitivity analysis a risk analysis technique in which key variable are changed and the resulting NPV and IRR are observed. It shows exactly how much the NPV will change in response to a given change in input variables other things held constant.

If a change in the value of key variable has little effect on the NPV outcome, then a correct investment decision is unlikely to rest on the accuracy of that variables estimated value. However, where a small change in the value of a variable produces a significant impact on the capital investment viability, the capital investment is said to be highly “sensitive” to that variable, as the variable is making a significant contribution to the projects riskiness. In that case, the decision maker is alerted to the need for accuracy in determining the likely value of that estimate and further investigation of that variable may be warranted. Where a variable is found to be crucial to the outcome of a capital investment, and that variable is inherently risky

(uncertain), this may influence the decision to invest in a marginal capital investment (Northcott, 1992).

One difficulty in the use of sensitivity analysis arises where key variables are mutually depending. This effect is best dealt with using simulation, although it can be partially overcome by treating dependent variables as a single variable and adjusting their values proportionately based on their expected relationship (Northcott, 1992).

2.6.2 Scenario Analysis

Scenario analysis is a behavioral approach wider in scope than sensitivity analysis is used to analyze the impact of various circumstances on the firms return. Rather than isolating the effect of a change in a single variable .Scenario analysis is used to evaluate the impact on return of simultaneous change in a number of variables.

Once we start looking at alternative scenario us, we might find that the most of the plausible one result in positive NPVs. In this case we have some confidence in proceeding with the project. If a substantial percentage of the scenarios look bad, then the degree of forecasting risk is high and further investigation is in order (Ross, Westerfield and Jordan, 2001).

2.6.3 Simulation

Simulation techniques are an extension of the probability approach .The probability approach involves estimating only one out come the capital investments return or NPV. For most capital investment projects, a number of factors influence this final result, including projected costs, projected revenues, the required rate of return, the life of the investment and its expected salvage value, simulation allows for each of these inputs to be treated as risky (Northcott, 1992).If we combine scenario analysis and sensitivity analysis the result is a crude form of simulation analysis.

2.7 Empirical Review

There is a paper that is prepared on Capital Investment Decisions on IT and Its Impact on Corporate value maximization in the case of Ethiopian Financial Institutions that is submitted to Addis Ababa University, Faculty of Business and Public Administration, School of graduate studies Department of Accounting and Finance (June 2010).

The goal of the paper is that investment and returns have always been the core issue of business, the overall issue of investment on IT by Ethiopian financial service firms specifically in the banking industry and its impact on their profit have not been assessed and related research works in the area have not been done in our country prior to this paper. As a result the general objective of this study is to assess the impact of investment on IT in the financial performance of Ethiopian financial service firms namely in the banking industry.

The study was to evaluate the general trend of using project appraisal tools, the rationale to invest on IT and the impact of IT on profitability and cost efficiency. In order to evaluate these objectives five years of data has been collected from six private banks. The data has been collected from two sources: the primary data has been gathered through questionnaire and the secondary data has been obtained from the banks' published audited financial statements. In order to further strengthen the findings of this study the results has been tested by using t-test.

CHAPTER THREE

3. DATA PRESENTATION AND ANALYSIS

This chapter presents the data collected through primary and secondary data sources. Primary data collected through interview and questionnaire. During the data collection the researchers focused on the Capital Investment Decision of MOHA Soft drinks share company. The data analysis through qualitative and quantitative techniques in an attempt of filtering basing findings that answer the research questions the data gathered on the assessed made is presented in this section below.

The study are designed and distributed 16 Questionnaire to managers and other concerned ones and interview questions for management level personnels who make decision working at Head office of MOHA from the total distributed questioners all are returned.

3.1 Background information of the study population

Table 3-1: Characteristics of Respondents

		No of Respondent	Percentage
Age	20 – 30	6	37.5%
	30 – 40	10	62.5%
	41 – 50		
	+50		
Sex	Female	4	25%
	Male	12	75%
Educational Level	Diploma		
	Degree	14	75%
	Masters PHD	2	12.5%
Position	Managers	8	50%
	Production Engineer	3	18.75%
	Marketing Manager	2	12.5%
	Others	3	18.75%
Experience	1 – 3 Years	9	56.25%
	4 – 6 Years	7	43.75%
	7 – 10 Years		
	+10 Years		

Complied from Questionnaire

As shown from the above table, out of the total respondent 37.5% were age between 20 up to 30 and 62.5% age between 30 up to 40, 25% were Female and 75% were male, Degree holders were 75% and Master/PHD were 25%, about their position 50% were managers, 18.75% were Production Engineers, 25% were Marketing Managers and 18.75% were others, about their experience 56.25% were 1 up to 3 years and 43.75% were 4 up to 6 years of Experience.

Based on the Questionnaire replied all the respondent 100% were agreed “Yes” for the Question “Did the company make capital Investment Decision”, the Question “How often do you make capital Investment Decision” more than 75% of the respondent replied on yearly basis, and for the Question “What is the role of managers in the decision” the respondent replied that making capital investment decision and generate capital investment idea, and for the Question “What are the major capital Investment Decision” the respondent were replied on Acquisition of plant asset, packaging and creating new products. From this finding, it shows that the company makes capital investment decision on Acquisition of plant asset, expansion and packaging on yearly basis and the managers have a role of generating ideas and making decisions on the capital Investments major and minor capital investment decisions.

3.2 Data Presentation, Analysis and Interpretations

Table 3.2: Capital Budgeting Techniques

Question	No of Respondent	Response	Percentage
Do you have knowledge of the available capital budgeting techniques	Yes	14	87.50%
	No	2	12.5%
If your answer is Yes, Please state the techniques your organization has employed to evaluate the feasibility of investment	Pay pack period	14	87.5%
	Net present value (NPV) Method		
	Internal rate of return (IRR)		

As shown from the above table, out of the total respondent 75% were replied yes and 25% of replied No, from the type of techniques used 75%% replied that payback period, Net present value (NPV) method and Internal Rate of return. From this finding, it shows that the company have knowledge about capital investment decision but the researchers remark that it have to be done a lot on these.

Table 3.3: Procedures, measuring devices and Criteria of Acceptance of Capital Investment Decision

Question	No of Respondent 16	Response	Percentage
What procedure followed by the company to make capital Investment Decision	12	Each department request then it shows weather it is feasible then decision made	75%
	4	Other	25%
What is the measuring device and the acceptance criteria	8	Through cost and benefit analysis and market analysis and capital budgeting techniques	50%
	8	Market analysis	50%
How do you make sure it is consistent with the firms objective	9	By analyzing Market penetration effectiveness	56.25%
	7	By Considerate Level of profitability and customer satisfaction	43.75%

As shown from the above table, out of the total respondent 75% were reveal that after department request it is analyzed and decision made, 50% were replied cost benefit analysis, marketing analysis and capital budgeting techniques and 50% were reveal marketing analysis and for consistency with the firms objectives all replied “Yes”, 56.25% were replied analyzing market penetration effectiveness and 43.75% were replied considering level of profitability and customer satisfaction. From this finding, it shows that the company followed the procedures to make capital investment decision, request

will be made then it will see whether it is feasible by using measuring devices and acceptance criteria, cost and benefit analysis, market analysis and capital budgeting techniques will be made, also checks with the firms objectives by analyzing market penetration effectiveness and by considering level of profitability and customer satisfaction.

3.2.3 Basic idea generation for investment

Proposal for capital budgeting are made by people at all managerial level within an organization. Any business idea can be generated from individuals in the company that is from top manager's engineers and experts.

MOHA's planning department play great role in the generation of proposal for capital budgeting that involve managers of the planning department, employees, engineers, operational manager and other. There are investments the company gives relatively little consideration like purchase of motor vehicles that occur routinely. At the other hand the company gives much consideration for huge investment, like constructing new plant in Bure and Hawassa involve large sum of money. In this investment the company conduct feasibility study before investment made.

A feasibility study should provide all data necessary for an investment decision. The commercial, technical, financial, economic and environmental prerequisites for an investment project should therefore be defined and critically examined on the basis of alternative solutions. It should consider market analysis, availability of raw materials, environmental impact, availability of human resources and socio economic policies.

The primary objective of MOHA soft drink is to contribute to the revitalization and development effort thorough investing in various sectors of the country's economy. Investment which have significant contribution to the foreign direct investment in Ethiopia, have started to bear fruit. All investment decision is reflections of the resolute commitment to development of the economy and well being of the Ethiopia and the people. The company to achieve its objective before reaching the final capital investment decision uses the feasibility study which includes the following main components.

3.2.4 Market Analysis and Marketing Research

Business firms and non-profit organization engage in marketing. Marketing are targeted at market consisting of products purchases and also individual and groups that influence the success of an organization. Market analysis is the key activity for determining the scope of an investment, the possible production program the technology required and after also the choice of a location. Marketing research is a production for market oriented decision making. Marketing research consists mainly in the analysis of demand and competition, customer behavior and customer needs, competitive product and marketing instrument. Market analysis and marketing research in MOHA manly focus on supply of soft drinks and demand projection and analysis.

Supply of soft drink

Assessing the supply of the product should be there before investment made. Knowing the supply of the product is very important to meet the current demand by expanding the existing plant or by establishing new plant.

Before Hawassa Pepsi cola bottling plant acquired the feasibility study showed that, the supply of soft drink in Ethiopia is limited to five bottling plants, three of which are producing Pepsi cola range products. Earlier the total annual feasibility production capacity of these plants was about 12 million cases out of which about 8 million was the share of Pepsi cola plants.

However, due to various reasons, these plants are operating far below their feasible capacities and the total production level is only 9.8 million cases per annum. As a result there is a noticeable shortage of soft drink in the country. Therefore it is necessary situation in the country so as to meet the growing demand of Pepsi range products by expanding the existing plants and also establishing new ones.

Demand projection

The major determinate factors governing demand projections for a market oriented commodity are generally the overall economic growth level and population growth rate of a country.

MOHA soft drink industry determines the demand projection based on estimated population live in urban and rural. The total population expected to grow and estimated growth rate of the urban rate of the urban population are also considered.

3.2.2 Technology Choice

The technology choice must be directly related to market resource and environmental conditions and the company strategies recommended for particular project. The technology selection of MOHA soft drinks production mainly focuses on the choice of the packaging materials.

The most commonly used packaging materials for soft drinks production are

- Glass Bottles: - The bottles are reused several times before they are discarded which makes it cheaper than other technologies. The main drawback is high transportation cost.
- Polyethylene telephthalate (PET) bottles they are a relatively new technology, which gaining popularity and wide acceptance in the market.
- Can – in canning line plant.

The selection of appropriate technology and knowhow a critical element in feasibility study

3.2.3 Source of finance

The allocation of financial resource to a project constitutes basic prerequisite for investment decision. The major source of finance of MOHA soft drink industry is owner's equity which is 70% of the total project investment cost and the remaining balance of 30% from short term and long term debts of sources of finance.

3.2.4 Plant capacity

The plant capacity is determined on the basis of the demand projection. A feasibility study on Hawassa Pepsi cola bottling plant shows that, the demand for soft drink of the region by the fiscal year 1999/2000 is 5,033,000 cases per annum out of which 70% cases per annum could be the market share of Pepsi cola product. After ten year period the demand could reach 6.9 Million cases per annum of which the share of Pepsi cola products is estimated to be 4.8 Million cases.

3.2.5 Location Analysis

A project can potentially be located in a number of alternative regions, and the choice of location should be made from a fairly wide geographical area within which several alternative sites may have to be considered.

Feasibility study of Hawassa Pepsi cola bottling plant shows that the annual demand of soft drinks of southern region for the year 1997/98 estimated to be 4,645,172 cases considering from proximity point of view the Oromia regions of Borena, Bale and southern Shoa are to be supplied from Hawassa Pepsi cola plant Whereas, parts of southern administrative regions of Gurage, Keffa and Bechmaji zones may be supplied from Addis Ababa plant.

3.2.6 Availability of Raw Materials

The direct and indirect materials should be identified, analyzed and specified in the feasibility study. MOHA soft drink industry major direct materials are water, concentrate, sugar carbon dioxide and Pepsi conc., and major indirect materials are packaging chemicals, utilities (electric, steam and petrol) all these materials reasonably estimated on cost, quality and quantity on the feasibility study of MOHA.

The sources and constant availability of basic production materials are crucial to the determination of the technical and economic viability as well as the size of the most industrial project.

3.2.7 Availability of Human Resources

The feasibility study should identify and describe such requirements and assesses the availability of human resources as well as training needs. The study should pay particular attention to the assessment of those skills experiences which may be critical for the success of the project.

MOHA soft drink industry feasibility study contain qualitative and quantitative human resource requirement of the project the availability of personnel and tanning need the cost estimates for wages, salaries other personnel related expenses and training.

3.3 Analysis of capital investment decision

Capital investment decisions are the most important that a business organization make. It is therefore important that such decisions are taken using technically appropriate criteria. MOHA soft drink industry set two main criteria for investment decision that are get return greater than cost of capital and appropriately determine the availability of source of finance (debt and equity).

The general goal of capital investment decision in MOHA soft drink industry is wealth maximization wealth is created if the value of benefit from a capital investment exceeds the cost. The reason for investment decision is different for each business cycle. Business cycle has five phases which are startup, expansion, growth, maturity and decline. MOHA soft drink industry falls in the expansion phase. Most of the investment decision made during expansion phase is because of business growth, demand and supply growth potential growth and more importantly need of expansion. Need of expansion arises for two main reason the first one is to meet the demand and the second one is competition.

There are two types of capital investment decision in MOHA soft drink industry. That is major capital investment decision and minor capital investment decision.

3.3.1 Major capital investment decision.

Major capital investment decision is investment decision that involve relatively large amount of money. This strategic investment decision result in major departure from what the company has been doing in the past. Acceptance of this type of investment will involve significant change in the company expected profit and in the risks to which these profits will be subject.

Some of major capital investment decisions in MOHA soft drink are Hawassa plant, Bure plant, Semit plant and recently in Tigray regime the civil work is almost done.

3.3.2 Minor capital investment decision

Minor capital investment decision is investment decision generally involves a relatively small amount of money and does not result in a major departure from what the firm has been doing in the past. These investment decisions are routine in nature, in MOHA soft drink minor capital investment decisions was made annually for each plant. Each plant after conducting detail study of cost benefit analysis make request for acquisition of material and other necessities that are important to run the operation efficiently. However, most of the minor capital investment decision are difficult to analysis their cost and benefit. In the case of difficulty arise in the cost benefit analysis the company will depend on the past experience.

Some of the minor capital investments made by MOHA soft drink are investment in vehicle, machinery, tools office equipment, LAB equipment, ICT equipment. Mostly plants need minor capital investment decision because of the existing plant machinery so obsolete it is the cause of low standard products and contributes to excessive down time. For those capital investments each plant should prepare request from to be present to MOHA soft drink industry main office.

Table 3-4: Sample request form (Bure Plant)

Description	Class	Source		Quality	Total cost
		Local	foreign		
Vehicle	2.1	6,000,714			6,000,714
Machinery	2.2	237,136	4,505,596		4,742,732
Tools	2.5	30,050	18,207		48,257
Office equipment	2.3	173,464			173,464
LAB equipment	2.4	142,000	206,153		348,153
ICT equipment	2.3	52,434	100,000		152,434

Source: company project data

The most important aspects of manager job are to evaluate the feasibility of a new initiative and to make sound investment decision. The managers of MOHA soft drink industry made investment after evaluating opportunities. In addition to that the managers are responsible to evaluate the requests made by the plant before investment decision. For that purpose all the request were condensed in one form.

3.4 Analysis of initial investment cost and financing plan

The total investment of project includes the pre investment expenditures, investment on operating asset and net working capital. The pre investments expenditures include investment made before investment on fixed asset are made. It includes expenditure for preliminary studies, capital issue expenditures, and other pre-production expenditures. Investment on operating asset includes expenditures made for operational asset such as building, land, land improvements, machineries, equipment's, furniture and so on. Net working capital is the investment made for working capital.

3.4.1 Analysis of initial investment cost of Hawassa Pepsi cola bottling plant

Table 3-5: Initial investment summary in million

No	Description	Foreign currency	Local currently	Total
1	Machinery and equipment	36,635	2000	38,635
2	Building and civil works	6,000	31,255	37,255
3	Furniture and fixture	-	800	800
4	Motor Vehicles	-	16,295	16,295
5	Pre- production	-	3,611	3,611
6	Working capital	3,534	8,582	12,116
	Total	46,169	62,543	108,712

Source: company project data

The cost of machinery and equipment is based on contract signed with supplier. The cost of building and civil work is based on engineers estimate and that of motor vehicles is on current prices prevailing in the country. For other cost like pre production and office furniture, estimation is based on past experience of similar projects.

3.4.3. Financial and economic benefit of Hawassa Pepsi cola bottling plant

Profitability

The average selling price is determined based on cost build-up which shows the average operational cost of 21.459 per case. Then a 20% profit margin, a 12 % sales tax and 0.3% standard free is applied to arrive at a final gross selling price of 28 .9181 birr per case.

The income statement schedule also shows that the business is profitable on the above mentioned price. That is a reassembly good amount of profit is indicated for consecutive 10 years.

The cash flow statement also depicts that the project during its appraisal period maintains positive operational cash flow even after debt servicing and fulfilling expenditures on investment in the later stages of operational period.

The NPV calculation shows that the project has a NPV of 11,228,000 birr at the end of the 10th year when discounted with opportunity cost of capital (10.5%). This total NPV would naturally increase if the planning horizon opportunity cost of capital, 10.5%.

The break even analysis shows that the business breaks even at 65.35% production capacity or 2,614,000 cases.

Economic Benefit

The project creates employment opportunities to 61 peoples during construction phases and to 347 people during operational phases. It also contributes a substantial amount to government in the form of excise, sales and income taxes. In the form of excise tax alone it contributes 19 million birr a year on the average.

3.5 Analysis of capital investment Appraisal technique

MOHA soft drink evaluates return on his investment by the use of the following capital investment appraisal technique.

3.5.1 Payback period

The payback period is the number of years until the cumulative cash benefit equals the money invested.

MOHA soft drink industry set cut off period for investment on Bure plant were 8 year. Bure plant after incurring loss for three consecutive years start to generate profit and recover the initial investment cost within three year. The PBP (payback period) for this investment is six year that is less than the firm cut off period.

3.5.2 Net present value / NPV/

The project selection method that is most consistent with the goal of owner wealth maximization is the net present value. Net present value is the difference between an investments market and its cost that we add the present value of project projected cash flows and subtract the amount of the initial investment.

MOHA soft drink assigns its required rate of return is by studying the needs of the market, similar industries, and competitor and by consulting the expert in the area. Hawassa bottling plant investment was calculated the net present value by opportunity cost of capital 10.5%. The net present value shows that positive NPV that is 11,228,000 Birr at the end of the 10th year.

3.5.3 Internal Rate of Return (IRR)

IRR is the discount rate for which the present value of the net receipts from the project is equal to the present value of the investment and the NPV is zero. The procedure used to calculate the IRR is the same as the one used to calculate the NPV, but instead of discounting cash flows at a predetermined required rate of return, several discounting rates may have to be tried until the rate is found at which the NPV is zero.

MOHA soft drink Hawassa bottling plant calculates the IRR by trial and error method. The IRR is 12.49% higher than the assumed opportunity cost of capital 10.5% that is the firm's value increases because the project's estimated returns exceed the firm's required rate of return.

CHAPTER FOUR

4 SUMMARY, CONCLUSION AND RECOMMENDATIONS

4.1 Summary

This research was conducted by focusing on capital investment decision on MOHA soft Drink S.C and evaluate whether the management uses the appropriate appraisal techniques. 16 Questionnaires were distributed and collected and interview with the selected managers was held. The issues addressed in the research are shortly summarized as follows.

- In summary managers response regarding all are agreed that they involved in capital investment decision.
- 75% of them more than half of them replied that they will make capital investment decision in yearly bases.
- 60% of the respondent replied on manager's role in capital investment decision, on making capital investment decision, generating ideas on major and minor capital investment decision.
- 75% of the respondent have knowledge about the available capital investment decision techniques.
- 80% of the respondent have respond that they use feasibility study and market research to decide investment.
- 75% of the respondent replied about the capital investment appraisal techniques they used IRR, Pay back and NPV method.

4.2 Conclusion

A firm's growth and even its ability to remain competitive and to survive depends on a constant flow of ideas. Ideas may be for new products, or for way to make existing product better. MOHA soft drink industry goes a great length to encourage good capital budgeting proposal. Any business idea can be generated with a strict project evaluation or feasibility study. A feasibility study should provide all data which are necessary for an investment decision. A feasibility study of MOHA soft drink industry include market analysis and marketing research, technology choice, source of finance, plant capacity analysis, location analysis, availability of material and human resource. This feasibility study should define and consistent with the primary objective of the company. Therefore the company to achieve its objective before reaching the final capital investment decision should conduct a feasibility study as needed.

The general goal of capital budgeting is wealth maximization, the creation of as much wealth as possible with money available. The goal of investment decision is different in different business cycle. MOHA falls in the expansion phase of business cycle. The reason for investment in this phase is because of business growth, demand and supply growth potential growth and more importantly need of expansion. In MOHA soft drink industry need of expansion highly affected by competition. To meet the goal of investment decision it is important to set a criteria for the decision made. MOHA set two main criteria for capital investments decision that are get return greater than cost of capital and appropriately determine the availability of finance. The source of finance for Hawassa Pepsi cola bottling plant is assumed 70% of the total project investments come from owner equity and the remaining balance of 30% from debt.

There are two types of capital investment decision in MOHA that are major and minor capital investment decision. The major capital investment decision includes investment in Hawassa plant, Bure plant that involve relatively large amount of cash outlay. Minor capital investment decision is investment decision involves a relatively small amount of money and does not result in a major departure from what the firm has been doing in the past. Minor capital investment include investment in motor vehicle, machinery, tool,

office equipment, LAB equipment, ICT equipment's and work shop for existing plant that are occurred routinely throughout the life of the operation. The most important aspects of manager job are to evaluate the feasibility of new initiative and to make sound investment decision. The challenge facing manager making capital investment decision is significant. Formal evaluation technique promises an objective, value maximizing solution to problems. However as managers have a limited awareness of opportunities and time to evaluate them, their observed responses involve the use of short cuts and approximation.

Capital investment appraisal techniques are crucial for the evaluation of financial returns by undertaking and investment project. There are discounted and non-discounted appraisal techniques. The perceived usefulness of discounted technique is directly related to both the confidence that the decision maker have in accuracy of the assumption used in these techniques. Firms should use discounted technique more often if the economic environment is stable and they are operating in less concentrated industries. Understanding companies competitive environments and strategic reactions to these environments are vital understanding their capital investment decision making behavior. Discounted technique can play an important role in capital investment decision making. The costs of completing them properly means that their use always going to be limited. Appraisal techniques used by MOHA are NPV, IRR and payback period. NPV is the value obtained by discounting, at a constant interest rate and separately for each year, the differences of all cash outflows and inflows accruing throughout the life of the project. Hawassa bottling plant has a positive NPV of Br 11,228,000. IRR is the discounted rate for which the present value of the net receipts from the project is equal to the present value of investment and the NPV is zero. Haswssa bottling plant has an IRR 12.49 higher than the assumed opportunity cost of capital, so the company accepts the project. Payback period is the number of years until cumulative cash benefits equals the money invested. An investment is acceptable are payback period less than the firm cut off period. Therefore MOHA soft drink industry accepts the investment projects that have minimum payback period.

4.2 Recommendation

- ✓ Non-quantifiable costs and benefits:- MOHA soft drink industry should give equal attention for non-quantifiable costs and benefit with cost and benefits which can be expressed in money terms. In the firm and more especially in the public sector, cost and benefit which are difficult to quantify may be important.
- ✓ Concerning the capital structure:- before arriving at the project investment decision it is very crucial to know the capital structure of the company. MOHA soft drink industry forecast to get the proper source of finance but does not give much attention for financial leverage, that cause great variability of profit.
- ✓ Investment appraises technique: - MOHA use both discounting and non-discounting appraisal technique. It is very good and should continue it to its maximum properly. MOHA does not fix standard payback period because of market condition of the country is not consistent. So it is recommended to minimize payback period or period of recovery of capital outlays.
- ✓ Imperfect knowledge and uncertainty: conditions of certainty and perfect knowledge do not apply in practice. It is important to know that even if net present value and internal rate of return consider time value of money, they only produce optimal solutions under conditions of certainty and perfect knowledge so MOHA soft drink industry should consider to imperfect knowledge and uncertainty by using different techniques like what if analyses.
- ✓ Any investment need a huge amount of capacity outlay MOHA soft drink industry should strictly adhered to the cost estimates, the analysis of cost estimates and critical comparisons with similar project are proper means of improving the reliability and accuracy of cost projections and predictions of the financial feasibility of an investment.

BIBLIOGRAPHY

- Deryl Northcott, (1992). Capital Investment Decision Making. Chartered Institute of Management Accountant, Harcourt Brace Jovanovich.
- Eugene F.Brigham and Michael C.Ehrhardt, (2008). Financial Management theory and practice. (12 edition) USA, south-western Cengage learning.
- Harlod Bierman and Seymour Smidt, (1971). The Capital Budgeting Decision. (3rd edition), New York, the Macmillan company.
- Kent A.Hickman, Hugh O.Hunter and John W.Byrd, (1995). Foundation of corporate Finance. Minneapolis/St. Paul West Pub. Co.
- James T.S.Porterfield, (1965). Investment decisions and capital costs. NJ: Prentice-Hall.
- Micheal Bromwich, (1979). The Economics of Capital Budgeting. London, Pitman Publishing Limited.
- MOHA profile.
- Neile. Seitz, (1990). Capital Budgeting and Long term Financing Decisions. Chicago, St. Louis University, the Dryden presses.
- Raymond P.Neveu, (1985). Fundamentals of Managerial Finance. (2nd edition), professor of Finance University of southern Maine.
- Ross, (1998). Fundamentals of Corporate Finance. Boston, MA: Irwin/McGraw-Hill.
- Ross, Westerfield and Jordan, (2001). Essentials of Corporate Finance. (3rd edition), Boston, MA:McGraw-Hill/Irwin.
- Timothy J. Gallagher and Joseph D.Andrew, (1996). Financial Management Principles and Practice. NJ: Prentice-Hall.
- YaregalAbegaz, (2007). Fundamentals of Financial Management. Accounting society of Ethiopia.

Appendix

Interview question

- 1.** Did the company make capital investment decision?
- 2.** What are the major capital investment decisions you have made?
- 3.** What are minor capital investment decisions you have made?
- 4.** How often do you make capital budgeting decision?
- 5.** What is the role of managers in the decision?
- 6.** What procedure followed by the company to make capital investment decision?
- 7.** Did the company use discounted or non-discounted cash flow technique?
- 8.** What is the measuring device and the acceptance criteria for investment decision made?
- 9.** Did the measuring device and the acceptance criteria consistent with the firm's objective?
- 10.** How do you make sure it is consistent with firm's objective?
- 11.** What is the effect of capital investment decision in financial performance of the company?
- 12.** What are the major constraints in capital investment decision?
- 13.** What is the general goal in capital budgeting?

DECLARATION

We the undersigned declare that this senior essay/project is our original work, prepared under the guidance of Belayneh H/gorgis. All sources of materials used for manuscript have been duly acknowledged.

Name -----

Name -----

Name -----