THE EFFECT OF INVESTMENT APPRAISAL TECHNIQUE ON MANAGEMENT DECISION MAKING IN MANUFACTURING

(A Case study of Nigeria Bottling Company)

CHAPTER ONE

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

It is a known facts that allocation of limited economic resources is a fundamental problem common to (individual firms and nations) to the economic units that make investment decision.

The aim of these units in making investment decision is the maximization of the ability of their consumption on overtime, that is, they try o maximize their satisfaction from returns on their investment.

The investment decision of the firm according to OYEWOLE (2001) is generally known as capital but gathering or capital investment decision. Investment decisions and those decisions that involve current outlay in the return for a stream of benefits in future years. In other words, investment decision includes the firms decision to put its current fund in the long term asset (profitability) in anticipate of an expected flow of benefit over series of years.

Capital investment decision normally represents the most important decision that a firm makes because a substantial proportion that are likely to have been irreversible and this also makes it imperative for the firm to plan it's investment programme very carefully, said by Pandey (1999). However, in many organizations, capital budgeting as part of criteria decision has been taking with levity due to perhaps, like of knowledge of various investment appraisal techniques or the belief of various investment makers in taking on their experience.

As it is well known that is, the field of financial management capital budgeting decision because of this native in the area of firm growth ought to be handed scientifically.

However, firms substantially ignore various techniques open to them to appraise various investment opportunities and as a result commit their limited resources to wrong investment opportunity that is capital in nature.

Therefore, the research is carried out to assess the effects of the various investment appraisal techniques tools on management decision making as regard.

1.2 STATEMENT OF THE PROBLEM

In many organizations, capital budgeting as an investment that has huge capital and its attendant long term stream benefit inform of return is excessively to be of increment in shareholders wealth. A way of assessing this critical decision, is the use of various investment appraisal techniques believe that a decision taking will not only be reliable but accurate.

However, many firm policy makers handle investment decision that is capital in nature with levity.

The research is carried out with a view to testing the effectiveness of investment appraisal techniques on management decision making especially in manufacturing companies.

1.3 OBJECTIVE OF THE STUDY

The objectives of the study include:

1. To find out how cash flow associated with various investment appraisal are being estimated.
2. To examine the various investment appraisal techniques opened management of a company
3. To determine the effects of taxation, inflation risk and uncertainty on investment appraisal.
4. To ascertain whether the attribute various investment criteria area achieved in practice or are just a product of some imagination.

1.4 RESEARCH QUESTIONS

Based on the problems highlighted above, the researcher attempted to provide answers to the following research questions.

1. What is meant by the term investment appraisal?
2. What are the various techniques used in investment appraisal?
3. What are the various appraisal techniques strictly ahead by the management?

1.5 RESEARCH HYPOTHESIS

The general hypothesis to be tested in this study are:

Ho, investment appraisal technique will not have positive impact on management decision making.

Hi: Investment appraisal techniques will have positive impact on management decision making.

1.6 SIGNIFICANCE OF THE STUDY

All countries particularly the developing countries are faced with basic economic problem of allocating limited resources such as labour at all levels of skills management and administrative capacity land and other natural resource foreign exchange and more importantly capital to many different uses such as current product goods and public services or externalities in their appraisal. For instance, the setting of a project capable of generating increased employment opportunities achieves an income redistribution objective of the government. This benefit though unclassifiable, with be a qualitative consideration that will be included in the appraisal of the investment.

Private enterprises project choice is a simple exercise having determined his objective all he has to do is to ascertain which project satisfies his objectives but for an economic planner, it is but a bit complex project choice which involves ascertaining which one best satisfy national interest and objectives. National interest is however not easy to define and this may perceived differently by different planners. Finally the absence of a complete declaratory between project choice and national planning as another reason. For carrying out investment analysis of projects for example, the choice of one particular project has consequences for output, consumption, savings foreign exchange earnings and other things as relevance to national planning.

1.7 SCOPE OF THE STUDY

The study covered and based on capital investment decision i.e capital budgeting of a manufacturing company. Other investment decisions are mentioned in the study. Moreso, special emphasis shall be laid on capital investment decision, i.e long term decision making.

1.8 LIMITATION OF THE STUDY

This research work is limited by time constraint shortage of find in carrying the investigations, reluctance in giving the required information by the management of Nigeria Bottling Company (NBC) and above all, insufficient data from federal offices of statistics (FOS).

1.9 DEFINITION OF KEY TERM

- **CAPITAL BUDGETING:-** This is a theoretical area which involves investment and finance decision
- **CASH FLOW:** A cash flow stream is a series of cash receipt and payment over the life of an investment
- **Discounted factor:** It is an appraisal on term that takes into consideration time valve of money
- **COST OF CAPITAL:** The project cost of capital is the minimum acceptable rate of return on funds committed to the project.
- **LONG TERM ASSET:** These are assets that are fixed in nature which are acquire for use in the business for a long period of time. The assets are sometimes tagged as capital investment.
- **SHORT TEM ASST:** they are assets which are of a short term in nature. They can easily be converted into cash or liquidity.
- **Accounting rate of return (ARR);** it is a method of using accounting information as reviewed by financial statement to measure the profitability of an investment.
- **Appraisal techniques;** this is a criteria for measurement of investment worth.
- **Discounted factor:** It is an appraisal criteria that takes into consideration true value of money.
- **Net Present Value (NPV):** This is the class is economic method of evaluating the investment proposals. It is one of the discounted value of money.
- **Investment:** This is the process of committing fund to a particular project in anticipation of flow of benefits.
- **Profitability index (PI):** It is a time adjusted method of evaluating the investment proposal. It is otherwise **known as benefit cost (BIC) ratio.**

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 NATURE OF INVESTMENT DECISION

A business is a series of capital investment project and each investment is an attempt to ensure some of the company's future well being. Therefore, according to Lawal (2004), investment decision otherwise know as capital budgeting, in accounting terminology is related to any money spent fixed asset by an enterprise. The distinguishing feature is the expectation that the asset purchased will be used for producing, selling or other function, over a long range such as five to ten years. An Horne (1989), says that, capital budgeting is the process of allocating the firms fund to a capital project whose benefit lies in the future. In other words, Pandey (1999) defines investment decision as the firms decision to pot in its current fund most efficiently in the long term assets in anticipation of an expected flow of benefits over a series. According to Adeniyi (2004), in his words, says that the field of investment involves the study of investment process. Investment is concerned with the management of an investors wealth which s the s

um of current income and the present valve of all future income. Though the field of investment encompasses many aspects, it can be though of in terms of two primary function analysis and management.

The firms worth will increase in investment are profitable and added to shareholder's wealth. Thus investment proposal should be evaluated on the basis of a criterion will be compatible with the object of the shareholder's wealth maximization likewise, it significant to measure, an investment on cash. Every capital budgeting literature stresses the evaluation of individual investment whose cost and benefits can be oppressed as cash flows. According to Pandey (1999) project cash flow includes project costs, that is the outlays off set by the disposal of replace asset and various cash flows.

Outlays can be made to modernize, facilitate, or expand capacity for growing market share; to develop, produce and market a new product; or to develop human resources, thus, the firms. Investment will generally include: expansion acquisition, modernization and the replacement of the long term asset sales of a division of a business change in methods of sale distribution undertaking and advertisement campaign or research and development programme have long term implication on the firms expenditures and benefits are also analysed as investment decision.

2.1 PURPOSE OF INVESTMENT DECISION

The effect of investment decision extend into future and have to be ensured for a longer period than the consequences of the current operating expenditure. Therefore firms investment decision has a tremendous influence on the rate and direction of its growth. A way decision can impair profitability and survival of the firms. According to Olowe (1989) and Adeniyi (2004): the outstanding importance of investment are as follows:

1. Maximize shareholders wealth, selecting optimal investment project.
2. Assist firms to determine the total amount of capital expenditure that is desirable to be undertaken.

3. Determine how the portfolio project should be finance.

4. Ensure the future survival between risk and profitability.

2.2 TYPES OF INVESTMENT DECISION

According to Adeniyi (2004), a very important part of a management accountant's job is to provide information which will assist the making of decisions concerning the investment of capital funds. This process is known as capital budgeting. The following are the classification of investment decision.

i. Replacement decisions e.g decision to replace semi-automatic machine with a fully automated machine.

ii. Investment for expansion of existing business

iii. Investment for product improvement and or cost reduction

iv. New venture (diversification).

v. Strategies investment where investment may be undertaken to be benefit of the overall objects but might not satisfy the normal financial criteria.

Another useful classification of investment decision according to Olowe (1998) are as follows.

i. Mutually exclusive investments

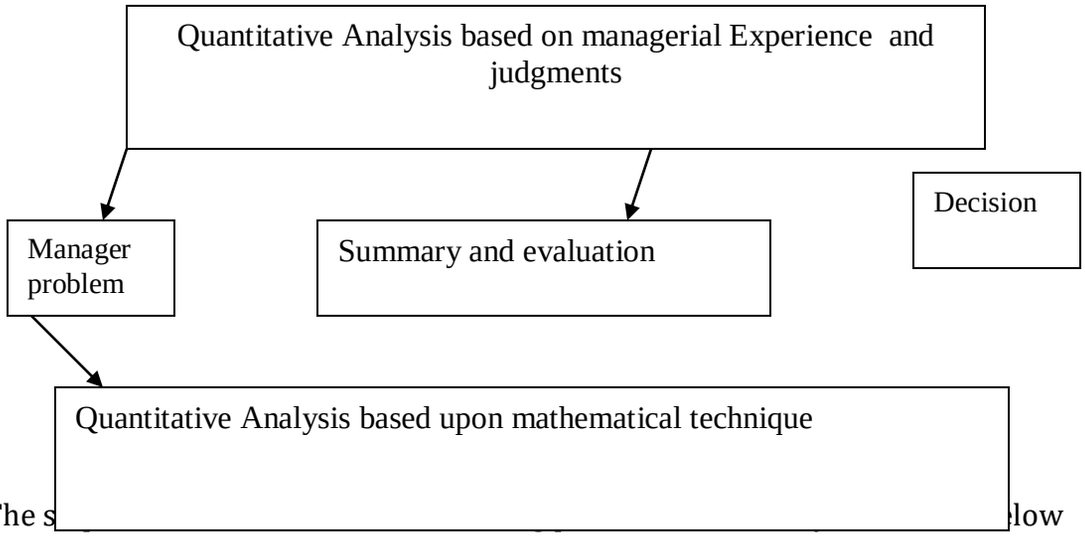
ii. Independent investments

iii. Contingence investment

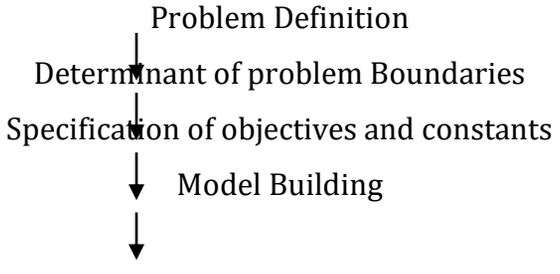
2.3 DECISION MAKING MODEL FOR CAPITAL INVESTMENT DECISION

This is the way the capital investment decision are being applied to the overall framework for decision making. There are many stags which decision making process pass through. The diagram below represent the role of quantitative analysis in managerial decision making.

A DECISION MODEL



The s low



Data preparation

↓ Implementation

Post project implementation review. Source: Asaolu (2002).

2.4 MEASUREMENT OF INVESTMENT WORTH

There are types of decision to make accept or reject decision can be arrived at without knowing how investment worth are measured. Therefore, there are various techniques for measuring the wittiness of investment decision. These include discounted cash flow methods an non-discounted cash flow methods.

BASIC ASSUMPTION OF INVESTMENT DECISION

For simplicity, various scholars in the field of financial management have succeeded in establishing their theoretical justification for some assumption which may not hold in reality. According to Charles (1997), the various assumptions includes.

i. Investment which should be measured in cash
ii. There is no capital rationing
iii. Inflation does not exist in the economy
iv. There is no effect of taxation on the investment appraisal
v. Investment project are impendent
vi. Item cash flow will be invested before the project lapses
vii. The cash flow are assumed to be conventional i.e they consist on initial negative cash flows by positive cash inflows in later year.

However, they pointed out that some of these assumptions will be relaxed in face of reality

STEPS IN INVESTMENT EVALUATION

The following steps are taking while evaluation investment worthiness

a. Estimation of investment cash flows

According to Oyewole (2001) the cash flows associated with a project is defined as the cash receipt and expenditure solely attribute tot eh setting up to the project. Computing cash flows has to be discounted since cash flow are likely to occur at various times throughout the year, to allow for time valve of money.

b. Estimation of cost of capital

According to Pandey (1999) the cost of capital in firm is the minimum return which the supplies capital requires i.e the price of obtaining capital. It is a compensation for time and risk. Firms obtain its supply of capital for financing it's investment in the form of equity debtors both Pandey (1999). Therefore the firms cost of capital means the firm maintain a target debt equity mix.

The firms weighted average cost of capital (WACO) reflects the average risk of all projects. Therefore, it can be used for investment evaluation only when the risk of the project is equal to the firms average risk. In practice the firms WAEC should be adjusted for the risk characteristic of the project. That is the projects cost of capital to WAEC risk adjustment.

The risk adjustment factors can be determined by decision maker base on his express and judgment.

This estimated cost of capital will then be used as projects present valve and serve as the standard for testability of the project.

c. Application for investment criteria

These are basically the various techniques of evaluating the worth if an investment project. Having ascertained the cash flow and the cost of capital i.e the required rate of return a sound appraisal technique should be used to measure the economic worth of investment proposals. A known objective of the shareholders is the maximization then wealth, therefore, one essential property of sound techniques should include shareholders opportunity should be selected for the evaluation.

A number of capital budgeting techniques are in use in practice however, they may be broadly categorized into discounted cash flow criteria.

The subsequent explanation will descried what each of the above group entails.

2.5 INVESTMENT EVALUATION CRITERIA

The investment evaluation criteria, according to Pandey (1999) may be referred to as the capital budgeting techniques or investment decision rules. Olowe (1998) states that the essential property of sound techniques is that it should maximize the shareholders wealth. Therefore a sound appraisal technique should used to measure the economic with any of investment project and achieve shareholders objectives.

Qualities of a sound investment evaluation criteria

According to Adeniyi (2004) the following characteristics should be possessed by sound investment evaluation criteria.

1. It should be a measure of projects profitability by considering all cash flows
2. It should provide a means of distinguishing between
3. It should provide a ranking project in order of their economic desirability
4. It should be recognized that the bigger cash flow are preferable to smaller one and early cash flows are preferable to bitter ones
5. It should help to choose among mutually exclusive project which maximize the shareholders wealth
6. It should be a criteria which is applicable to any conceivable investment project independent of others.

DISCOUNTED CASH FLOWS (DCF) TECHNIQUES

Discounted cash flows techniques explicitly recognize the time valve of money. They correctly postulate that cash flows arising at different time periods differ in valve and are comparable when their equivalent present values are found out. According to Pending (1999) DCF techniques can be sub-grouped into the following.

i. Net Present Valve (NPV)

ii. Internal Rate of Return (IRR)

iii. Profitability Index (PI)

NET PRESENT VALUE

The NPV method according to Olowe (1998) is the classic method of evaluating investment proposal. It is one of the DCF techniques explicitly recognizing the time valve of money.

Pandey (1999) provides the following involved in time NPV method.

Firstly, an appropriate rate of interest should be selected to discount forecasted cash flows. This rate is the same as firm's opportunity cost of capital which is equal to minimum rate of return expected by investors.

Secondly the present valve of investment cash flow should be computed using cost of capital as discounting rate.

$$NPV = \frac{C_1}{1+k} + \frac{C_2}{(1-k)_2} + \frac{C}{(1+k)} - \frac{Cn}{} - \frac{C_0}{}$$

$$NPV = \frac{E}{t-1} \; ct - 0$$ where $C_1, C_2, C_3, \ldots$ represent $(1+k)$ cash flows

Where, C1…. is the opportunity cost of capital

1c… is the initial cost outlays (cash flows)

DECISION RULE

By using discounted cash flows techniques the acceptance rule using NPV method of the Investment project if it's not present valve is positive (NPV> 0) and to reject if the net present valve is negative (NPV < 0) in case of impendence project.

For mutual exclusively project, investment with the higher NPV should be selected.

EVALUATION OF NPV METHOD

According to Collins Drury (1992), the NPV is the time measure an investment profitable an therefore provides the most acceptable investment rule the positive NPV from an investment indicates the increase in the market become a wake of the acceptance of the project Drury (1992), thus, NPV method offers the following advantages.

i. It considers all cash flows

ii. it recognizes the time value of money

iii. It satisfy the value activity principle

i.e value of separate assets can be added to know firms value.

iv. It is consistent with wealth maximization principles

DISADVANTAGES INCLUDES

i. It requires estimation of cash flows which is tedious table

ii. It requires the computations of the opportunity cost of capital which posses practical difficulties

iii. It is sensitive to discount rate. The impact of discounting becomes more several for cash flows occurring latter in the life of the projects. The present valve declines as the discount rate increases.

EVALUATION OF INTERNAL RATE OF RETURN (IRR)

According to Collins Drury (1992), "The IRR is alternative techniques for use in making capital investment decision that also takes into account the time value of money. The IRR represent the true interest rate earned on an investment over cost of its economic life, Pandey (1999) also his own view the IRR is lows with present value of cash flows of an investment. It is the rate of which the NPV investment is zero. It is called IRR because it depends solely on outlay and proceeds associated with the investment and not on any rate determined outside the investment.

According to Acca (1999) It can be determined by solving the following equation four

$$NPV = \frac{C1}{(1+r)} + \frac{C2}{(1+k)2} - \frac{C3}{(1+1)3} + \frac{Cn}{(1+r)n}$$

$$NPV = E = 1 \ \frac{C1}{(1+r)} - C = 0$$

Therefore, in a situation like this a quadratic equation of the firm $ax^2 + 1c = 0$ can be used to determined v, said by Olowe (1998).

DECISION RULE

For single project, it will be considered acceptable as long as the IRR is greater than or most equal to the cost of capital.

For mutual exclusive projects IRR's computed will be ranked and the one with highest IRR will be chosen.

Like the NPV method, the IRR method recognize the time valve of money and considered all cash flows occurring over the entire life of project to calculate it's rate of return. However, it suffers from many pit falls.

Method of IRR

i. It considered all cash flows

ii. It recognizes the timing of the cash flows

i.e the time value of money is recognized

DEMERITS OF IRR METHOD

i. It requires estimate of cash flow which is a tedious task

ii. It fails to indicate correct choice between mutually exclusive projects

iii. It is in consistent with shareholders wealth maximization.

Modified Interest Rate of Return

The modified internal rate of return (also known as the terminal rate of return) is currently being used in America companies to overcome some of the theoretical limitations of IRR and also give a sign

that is consistent with the NPV approach. The MIRR is commanded rate of return that when applied to the initial outlays, accumulates to the technical values.

According to Drury (1992) the MIRR involves the following stages

i. Calculate the terminal values of the project by compounding for all item in cash flow at the cost of capital to the end of the project life.

ii. Ascertain the rate of interest that equates the terminal with initial cost. The MIRR will in case of mutually exclusive project give an answer that is consistent with NPV rule and the reinvestment of interim cash flow is assumed to be at the cost of capital.

PROFITABILITY INDEX (PI)

Profitability index is another time adjusted method of evaluating the investment proposals that takes into account the time value of money.

It is the ratio of the present value of cash flows at the required rate of return, to the initial cash out flows of the investment Pandey (1999).

According to Adeniyi, (2004) the profitability index method is defined as a variation of the NPV method and its computed by dividing the present value of the cash proceeds by the initial cost of the investment.

P.T= Present value of inflow

Initial outlays

DECISION RULES

The accept or reject rule using P.I

Is to accept the project if it's P.I

Is greater than one (P1 >1) since the project will have positive net present value. This method is consisted when the NPV method, since the index can only be less than one (P.1<1) when the NPV is negative.

For mutually exclusive investment, the P.1 will not always result in the same rankings as the NPV method but the project with higher P.1 should be selected.

Merit of profitability index (p.1)

i. It can be used to determined how the scarce can best be allocated

ii. It considered all cash flows

iii. It is consistent with wealth maximization principles

iii. It is a relative measure of profitability

DEMERITS OF PROFITABILITY INDEX (P.I)

i. It requires estimate of cash flows which is a tedious task

ii. It is a weeks measure of selecting between mutually exclusive investment project. According to Ogunsan (1996), the pay back period (PBP) method measures the break even period of a perfect. It is a time concept suitable for the assessment of risk of time natures.

DECISION RULE

The payback period can be used to accept or reject criterion as well as a method of ranking project. If the payback period calculated for a project is less than the set period by the management of the firms such project will be accepted and vice versa.

As a ranking method, it gives highest ranking to the project which has shortest pay back period and lowest ranking to the project with highest pay back. Thus if the firms has to choose among two mutually exclusive project with shortest pay back period will be selected.

MERITS OF PAYBACK PERIOD (PBP)

i. It is simple to understand and calculate
ii. It is expensive to use unlike some other sophisticated techniques
iii. It is an easy and crude way to cope with risk
iv. It emphasizes liquidity of the firm

DEMERITS OF PAYBACK PERIOD (PBP)

i. It ignores the time value of money
ii. It ignores the cash flows occurring after the payback period even when they are profitable
iii. It only measure break even and not profitability of an investment
iv. It is not consistent with the wealth maximization principle
v. Setting of standard payback period method is very popular in practice.
vi. Despite its weakness, payback period method is very popular in practice. Beside simplicity, the cause for it's popularity are.

First, the company can move favoured short run effect on earnings par share by setting up a shorter standard payback period.

Second, the risk of the project can be tackled a shorter standard pay back period as it may ensure guarantee against loss.

Thirdly, the emphasis on payback is on the early recovery of the investment. Thus, it gives an insight into the liquidity of the project.

According to Pandey (1999), however, the fact still remains that the payback period method is not a sound method for evaluating the acceptability of the investment project. The payback period can only be valid indicator of the time than an investment requires to pay for itself, if all the cash flows are first discounted or present values and the discounted valves are used to calculate the payback period.

DISCOUNTED PAYBACK PERIOD

This method uses NPV rules for determining discounted payback period techniques. With this innovation not with standing the discounted payback period sill fails to consider the cash flow occurring after the payback period.

PAYBACK RECIPROCAL AND THE RATE OF RETURN

Though the payback period method does not recognize the time valve of money it has received approval firm academicians being useful in few situations. According to Adeniyi (2004) one significant argument in favour of payback period is that its reciprocal is good approximation of the rate of return

under certain conditions. Argument in favour of payback is that it's reciprocal is a good approximation of the rate of return under certain condition. The requisition of the payback reciprocal will be

PBR $\frac{1}{\text{Payback period}} \times \frac{100}{1}$

Source: Olowe (1998) the reciprocal of payback is thus a close approximation of the internal rate of return if the following two conditions are satisfied.

i. The life of the project is large or at least twice of the payback period.

ii. The project generate equal cash flows

2.6 ASSUMPTIONS OF LIMITATION

From the foregoing explanation, all the appraisal technique are considered and treated with a lot of over simplicity assumptions. According to Pandey (1999) however, in reality investment appraisal is not independent of all the conditions that were hold constant in the foregoing analysis. Scholars in the field were certainty, not taxation, adequate capital or find or fund and inflation.

However, all those limitations in using the P.1 rule as caused by the multi period capital constraints. Therefore, better method for investment decision under capital rationing problem (especially multi period), is through programming approaching.

2.7 INVESTMENT DECISION UNDER INFLATION

According to Pandey (1999) a common problem which complicates investment decision making is inflation. The rule of the of the game is to be consistent in treating inflation in cash flows and the discount rate.

Van Horne (1989) says that although the discount cash flow (DCF) techniques provides for the value of money, it tells to consider the possible changes in the purchasing power of money. Wrong investment ignored because both the cash flows and the case of capital are affected by inflation.

Olowe (1998) opined that NPV gives correct answer to change an investment under inflation if the cash flows choose an investment under inflation, if the cash flow add the discount rate are expressed in the same denominator (i.e real or nominal terms). The discount rate is market determined rate and therefore, include the expected inflation rate. It is unbiased NPV.

Alternatively, the real cash flows can be discounted at the discount rate to calculate unbiased NPV. The equation of the relationship between and real cost of capital.

INVESTMENT APPRAISAL UNDER RISK AND UNCERTAINTY

From the going, we have so far assumed that the proposed investment project do not involve any risk or uncertainty. The over simplified assumption was just made to facilitate the quick understanding of situation risk exist because of the inability of the decision.

According to Drury (1992) a line of distinction is often drawn by decision theorists between risks and uncertainty. He states further that risk is applied to a situation where there are several possible outcomes and there is relevant post experience to enable statistical evidence to be produced for predicting the possible outcomes. Uncertainty exists where there are several possible outcomes, but

there is little previous statistical evidence to enable the possible outcomes to be predicted. However, the distinction between risk and uncertainty is of little importance in our analysis and better definition of that risk arises in investment. It's evaluation because we cannot anticipate the occurrence of the possible future events with certainty and as result we cannot make any correct prediction about the cash flow sequence.

According T. Lucey (1999) there are different method of considering the uncertainty associated with project. These methods have the general objective of assessing or qualifying the uncertainty surrounding project by some firms of analysis and to help decision maker to make better decision.

He broadly classifies the method into three groups.

i. Time based
ii. Probability based
iii. Scousitivity analysis and simulation

TIME BASED

The three methods of incorporating uncertainty which are based on time are payback period, risk premium and finite horizon, these method rest on the assumption that project risk and uncertainty are related time, that is the longer the project life the more uncertain it is longer the project life, the more uncertain it is.

PAYBACK PERIOD

It is one of the oldest and commonly used for explicitly recognizing risk associated with an investment project. It is the first litmus test for investment desirability in terms of risk and liquidity. The lesser the payback period the lesser the risk on investment project.

RISK PREMIUM

It is a method that exists based on the assumption that the discounting rate should be adjusted for risk.

On the occasion, the discount rate is raised above the cost of capital in an attempt to allow for the riskiness of projects. The extra percentage is know as the risk premium. This method as well as simple to use but the selection of a suitable risk premium always poses problem. Thus, it may be highly subjective.

FINITE HORIZON

Is the simplest of all to apply, for example project result beyond a certain period should be given (e.g 10 years).

2.2 THEORETICAL FRAMEWORK

2.2.1 Agency Theory

Agency theory was developed by Jensen and Meckling in 1976. They suggested a theory of how the governance! of a company is based on the conflicts of interest between the company' owners (shareholders), its managers and major providers of debt finance (institute of chartered of Accountants of Nigeria, 2014)

During the 1960s and early 1970s, economist expected risk sharing among individuals or groups. This literature described the risk-sharing problem as one that arise when cooperating parties have different attitudes toward risk. Agency theory broadened this risk-sharing literature to include the so-called agency problem that occurs when cooperating parties have different goals and division of labour (fenfen & mecking 1976; Ross, 1973) specifically, agency theory is directed at the ubiquitous agency relationship, in which one party (the principal) delegate work to another (the agent), who performs that work. Agency theory attempts to describe this relationship using the metaphor of a contact (fensen & Mecking, 1976)

2.2.2 Information theory

Information theory was initially introduced in 1948 by claude Shannon. The first half of the 20th century brought about a revolution in how humans think about information. Claude Shannon (the father of modern information theory) was at the forefront of this revolution His landmark 1948 paper, a mathematical theory of communication. Was the first paper to formally describe a communication system in which information plays a contrast role concepts such as the capacity of an information channel, uncertainty of a source and the optimal rate of information transmission in a noisy environment revolutionized how we think about information. These concepts laid the groundwork for much of the technology and the optimal rate of information transmission in a noisy environment revolutionization we think about information. According to Shannon, the problem of communication is that of reproducing at one point either exactly or approximately, a message detected at another point. Frequently the message have meaning that is they refer to or are correlated according to some system with certain physical or conceptual entities

2.3 EMPIRICAL FRAMEWORK

According to Anthony (1989) and Sharman (2003), the management accountants, using the management accounting system including the performance measurement system, support manufacturing and influence the manufacturing decisions in order to align them with the company´s general strategy. Pantamee, Abubakar and Umar (2008), in their study on the relevance of management accounting information towards decision making in Nigerian manufacturing industry stated that “good decisions are to be made by management section using management accounting information, short-term tactical decision like: Make or buy decision, elimination of unprofitable product, allocation of scarce resources between competing product or departments, acceptance or rejection of an offer etc. All these are to be made by management using managerial costing techniques as a management accounting tool. In a study conducted by Al-Raber, Abu-Taber, Alaryan and Ayaman (2015), on the role of

accounting information system in enhancing human resource management cycle in Jordanian Islamic banks, it was established that accounting information plays a significant role in some human resource management functions such as hiring functions, training functions, performance evaluation functions and compensation functions.

In a study on the impact human resource accounting information on managerial decisions (Pekin, 1988), the results of a field experiment designed to assess the impact of human resource accounting (HRA) information on layoff decisions made by managers was analysed. The findings of this study are similar to the earlier studies; human resource accounting information does make a difference in personnel layoff decisions and enables managers to increase their level of confidence regarding decisions of this sort.

Another study in the subject area maintains that accounting must be considered in the realm ofmanagement strategies. According to Dunkovic, Juric and Nikolic (2010), activity based cost management using conventional accounting methods, as well as current approaches such as target cost systems, customer lifetime value and computer supported measurement techniques must be used to measure the performance of especially customers, suppliers and competitors.

Adela, Crina, and Anuța (2008) in their study on means for measuring the quality of the accounting information, it was concluded that accounting system and especially managerial accounting provide useful information for decision making. Information is the product of accounting and that means that the quality of accounting information influences the quality of decisional process that will influence the customers' satisfaction. Adela *et al* (2008), further went ahead to state that "the development of accounting information to support marketing decisions making in hotels offers opportunities to improve the quality of decisions made

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 HISTORICAL PROFILE OF NIGERIAN BOTTLING COMPANY

The Nigeria Bottling Company plc (NBC) was incorporated in Nov. 1951, as a subsidiary of the A.G Leventis Group with franchise to bottle and sell coca-cola products in Nigeria, from a humble beginning as a family business, the company has grown to become a predominant bottler of non-alcoholic beverages in Nigeria, responsible for manufacturing and sale of over 33 different coca-cola brands. Other popular brands of beverages produced by the company are Eva water, five alive fruit juice and the newly introduced burn energy drink.

The company presently has 13 bottling facilities and over 80 distribution ware houses located across the country. Since production started, NBC plc has remained the largest bottler of non-alcoholic beverages in the country in terms of sales volume, with about 1.8 billion bottles sold per year, making it the second largest market in Africa.

Today, the company is part of the coca-cola Hellenic bottling company (CCHBC), one of coca-cola company's largest anchor bottlers world-wide. CCHBC operates in 28 countries, serving 540 million consumers and selling over 1.3 billion unit cases of beverages annually. The company recently embarked on a restructuring exercise to expand further it's market share and growth profit. It invested in a new state of the art can filling and packing line at the Apapa plant. The plant has since begin to produce the first soft drink can that is wholly packaged in Nigeria. This is an addition to new bottling planting Abuja delivery facilities.

3.2 METHOD OF DATA COLLECTION

The main sources of data collection for this study are both primary and secondary source. The primary source: involved administration of questionnaire and interview of personnel in the case study (NBC) Nigeria Bottling company. The secondary source; The secondary source data were obtained from all relevant literature in relate field, the study was conducted with a view to providing concrete evidence of the validity of effect of investment appraisal techniques on management decision making of the manufacturing company.

3.3 POPULATION AND SAMPLING

Since the case study is employed to conduct the research, the population of this research works therefore, consists of the staff of Nigeria Bottling Company Plc Ilorin.

However, efforts were focused mainly on management staff that involve in decision making.

3.4 SAMPLING TECHNIQUES

Random sampling or judgment sampling techniques is the best way of drawing samples based on the researcher's knowledge of the population. As a result of this suggestions random sampling techniques was adopted to sample twenty five (25) staff of the Nigerian Bottling Company Limited Ilorin.

3.5 METHOD OF DATA ANALYSIS

The researcher employed the use of simple techniques of data analysis like tables, percentages and measure of central tendency such as means, for purposeful analysis, response to the different sections or parts of the questionnaire were analyze in frequency and percentages.

Hypothesis testing was done using the student distribution as 5% alpha level or 95% level of confidence. The formula for:

T= Distribution is given by;

$$T_{cal} = \frac{n(x-v)}{S}$$

The degree of freedom is calculated as n-1, where:

T cal = T – Distribution calculated

N = number of observation

X = sample mean $\frac{\Sigma FX}{NXi}$

U = population mean $\frac{\Sigma Xip}{n}$

S = standard deviation.

Source; Adebayo and Nwosu (2023)

Formula for calculating student's t-distribution where standard deviation is unknown. It should be noted that the standard deviation (s) is calculated as follows:

$$S = \sqrt{\frac{\Sigma(X-X)^2}{n}}$$

The degree of freedom is obtained as n-1 when n is the number of observation or sample size.

Research Hypothesis

1. Hi: NPV affects management decision making
   Ho: NPV does not affect management decision making.
2. Hi: IRR affect management decision making
   Ho: IRR does not affect management decision making
3. Hi: Payback period does not affect management decision making
   Ho: Payback period affect management decision making.
4. Hi: ARR affect management decision making
   Ho: ARR does not affect management decision making
5. Ho: Profitability index does not affect management decision making.
   Hi: Profitability Index affect management decision making.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 DISCUSSION OF THE ANALYSIS

In this chapter, effort was made to analyze the data collection from field study through administration of questionnaire. They were analyzed using percentage means and the student of analysis were discussed and interpreted.

Questionnaire were asked on investment appraisal techniques on management decision was tested and the acceptance or rejection of the hypothesis, indicates whether their affect or not. To easy follow up of this work, descriptive statistics such as tables of frequently and percentage were used to describe responses.

Analysis of demography data were done in sub-heading such as age distribution of respondents, management level, salary grade, length of service educational qualification and of course the department division of the organization that the subject matter of this work directly relates or effects.

AGES DISTRIBUTION OF RESPONDENTS

Individual personal level of maturity at handling matters appropriately depends on a greater extent on his/her age, as it is obvious that the older, a person is, the more matured he/she will be. However, there is range of human ages that fall into these categories.

Undoubtedly too, old people may not be too good in this regard. Therefore, observation of age distribution respondents to the questionnaire of this research work seeks to study whether the age structure of these falls in the categories of people that are likely to give objectives and dependable answers.

TABLE 1: AGE DISTRIBUTION

VARIABLE	FREQUENCY	PERCENTAGE %
Below 30 yrs	-	-
31 – 35 yrs	4	20
36 – 40 yrs	10	50
41 – 45 yrs	6	30
46 yrs & above	-	-
Total	20	100

Source: Field Study 2023

The analysis above indicate that 4 (20%) of the respondents age fall between 30 – 35 yrs, 10 (50%) for age category falls between 41 – 45 years. This implies that the age structure of staff in Nigeria bottling company limited, Ilorin. Is such that the staffs are neither too young nor too old. On the average therefore, the age distribution falls in the category of the people that are likely to give objective and reliable answers to the questionnaire questions.

MANAGEMENT LEVEL

The quality of any investment appraisal techniques on management decision making depends on the level of management that is in charger. However, attempt was made here to see the type of management level that are involved in investment appraisal techniques on management decision making in Nigerian Bottling Company Limited, Ilorin.

TABLE 2: MANAGEMENT LEVEL

VARIABLE	FREQUENCY	PERCENTAGE %
Top	16	80
Middle	4	20
Lower	-	-
TOTAL	**20**	**100**

Source: field study 2023

Out of the total respondents 16 (80%) consist of the top management level and they are those that are involved in investment appraisal techniques on management decision making Nigeria Bottling company whole 4 (20%) are the middle management level is exempted.

SALARY GRADE

The salary grade of a particular staff depends on his/her qualification, position held, length of service etc. the more one earns the more he/she part salary grade attempts to observe the quality expected from the staff based on what they earn.

TABLE 3: SALARY GRADE

VARIABLE	FREQUENCY	PERCENTAGE %
1 – 7	4	20
8 – 13	12	60
14 – 15	3	15
15 above	1	5
TOTAL	**20**	**100**

Source: Field 2023

Salary grade bracket 1-7 respondent 4(20%) of the respondents 12 (60%) consist of bracket 8-13, 3 (15%) falls between 14-15 and only 1 (5%) stands for salary grade of 15 and above. It can be deduced from the above table that majority of the respondents fall within 8-13 salary grade bracket. This could be done to the fact that employee have not stayed long on the job to have been due for promotion to higher salary grade caliber of staff majority but with the intelligent quotient of the employees together they can achieve.

LENGTH OF SERVICE

Leaning curve theory stipulates that when a repetitive table is being performed over a long time, cumulative of a product is doubled and the average time spent on each unit reduces at a constant rate. This is to suggest that the longer one stays on a particular job, the more dexterous he/she becomes. To

this extent, the length of service of the employees in the organization will be a good indicative of the level of experience they would have acquired over years handling the task properly for the organization.

VARIABLE	FREQUENCY	PERCENTAGE %
Below 5 years	3	15
5 – 10 years	3	15
11 – 15 years	10	50
16 – 20 years	4	20
21 years and above	20	100

Source: Field 2023

The table above indicate that 3(15%) of the respondent have 80 for less than 5 years in the organization 3 (15%) respondent staff in 5-10 years of experience bracket 10(50%) are those staff that fall between the range of 11 – 15 years. Logically, this implies that the employees here one firms of experience or the other saying of services distribution shows that the staffs are likely to have the necessary experience to handle the table satisfactory.

EDUCATIONAL QUALIFICATION

Knowledge seems to be the most important things that allows every other thing to be done more important thing particularly job, he/she might not be able to learn quite a number of technical and technical if he/she is not educated. Educational therefore, suggest who is who one job and what can be accomplished by such one.

VARIABLE	FREQUENCY	PERCENTAGE %
SSCE/NECO/GCE	-	-
NCE/ND	-	-
HND/B.SC	16	80
MSC/MBA	4	20
TOTAL	**20**	**100**

Source: Field 2023

16(80%) of the respondents to the questionnaire have first degree (i.e. either HND or B.SC) while 4(20%) are those that have either M.SC or MBA. This indicates that respondents have not less than HND or B.SC educational qualification to be able to understand the subject matter of the research topic and hence provide appropriate answer to the questionnaire question.

DEPARTMENT DIVISIONS

Organizations are usually sub-divided into various units which could be termed departments or divisions. These unit are charged with different task. It is imperative therefore, to ensure that the unit (s) that the subject matter of the research topic directly relative are engaged in filling the questionnaire so that the desired answer can be obtained.

VARIABLE	FREQUENCY	PERCENTAGE %
Financial/accounting	8	40

Research/development	12	60
Others	-	-
TOTAL	**20**	**100**

Source: Field 2023

From the above table, it can be seen that 8(40%) respondents from the financial accounting division while 12(60%) respondent from research / development division in the organization. This is due to that fact that the subject matter majority related to the financial/accounting and research/development division of the case study. The distribution of respondents from the two divisions also indicates that the responses to be obtained is likely to be objectives.

SECTION B: ANALYSIS OF THE RESEARCH QUESTIONS ON THE MANAGEMENT DECISION MAKING OF THE MANUFACTURING COMPANY

Simply percentage was also employed in analyzing data. In this section and each variable in the section awarded for assigned values as follows.

VARIABLE	**FREQUENCY**
Yes	5
No	4
Indifference	3

Source: Field 2023

QUESTION 1: Research and Development Department are they the originator of capital expenditure proposal your company?

TABLE 7:

VARIABLE	**X**	**FREQUENCY**	**XY**	**PERCENTAGE**
Yes	5	15	75	75
No	4	2	8	10
Indifference	3	3	9	15
Total		20	92	100

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f} = \frac{92}{20} = 4.6$

From the above, it can be depicted that 15(81%) of the respondents agreed, 2(9%) disagreed and 3(10%) were indifferent as to whether research and development are the originator of capital expenditure proposal. With the finding, it can be conducted that research and development are the originator of capital expenditure proposal.

QUESTION 2: OPERATION AND PRODUCTION DEPARTMENT, ARE THEY RESPONSIBLE FOR WORKING THE PRACTICAL DETAILS OF PROPOSAL PROJECT?

TABLE 8:

VARIABLE	**X**	**FREQUENCY**	**XY**	**PERCENTAGE**

Yes	5	13	65	65
NO	4	3	12	15
Indifference	3	4	12	20
Total		20	89	100

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f} = \frac{89}{20} = 4.5$

From the above, it can be shown clearly that 13(65%) of the respondent agreed that operation and production department is responsible for working, the practice detail of proposal project.

TABLE 9:

VARIABLE	**X**	**FREQUENCY**	**XY**	**PERCENTAGE**
Yes	5	18	90	90
NO	4	-	-	-
Indifference	3	2	6	10
Total		20	96	100

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f} = \frac{96}{20} = 4.8$

Concerning whether or not all types of capital expenditure proposal subjected to formal financial evaluation 18(90%) of the respondent agreed and only 2(10%) were indifference. This implies that to a greater extent, the organization subject all types of capital expenditure proposal to formal financial evaluation.

QUESTION 4: DO YOU EXPLICITLY CONSIDER RISK AND UNCERTAINTY IN THE ANALYSIS OF CAPITAL PROJECT?

TABLE 10:

VARIABLE	**X**	**FREQUENCY**	**XY**	**PERCENTAGE**
Yes	5	12	60	60
NO	4	2	8	10
Indifference	3	6	18	30
TOTAL		**20**	**86**	**100**

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f} = \frac{86}{20} = 4.3$

12(60%) of the respondents agreed 2(10%) disagree while 6(30%) were indifferent as to whether or not the organization explicitly considered and uncertainty in the analysis of capital project.

QUESTION 5: DO YOU CONSIDER INFLATION WHEN ANALYZING INVESTMENT DECISION?

VARIABLE	X	FREQUENCY	XY	PERCENTAGE
Yes	5	18	90	90
NO	4	-	-	-
Indifference	3	2	2	10
Total		20	92	100

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f}$ = $\frac{92}{20}$ = 4.6

Analysis from table above indicate that in relation to whether or not the organization consider inflation when analyzing investment decision 18(90%) of the respondents agreed and 2(10%) disagreed inflation when analyzing investment decision.

QUESTION 6: DO YOU OCCASSIONALLY FACE WITH FUND CONSTRAINT WHILE MAKING INVESTMENT DECISION?

VARIABLE	X	FREQUENCY	XY	PERCENTAGE
Yes	5	15	75	75
NO	4	3	12	15
Indifference	3	2	6	10
Total		20	93	100

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f}$ = $\frac{93}{20}$ = 4.7

From the above analysis whether or not the organization occasionally faced with fund constraint while making investment decision 15(75%) strongly agreed 3(15%) disagreed while only 2(10%) of the respondents were indifferent as to whether investment decision. It can be deduced that therefore that the organization occasionally face with find constraints while making investment decision.

QUESTION 7: DO YOU THINK INVESTMENT APPRAISAL TECHNIQUES HAVE EFFECT ON MANAGEMENT DECISION MAKING?

VARIABLE	X	FREQUENCY	XY	PERCENTAGE
Yes	5	15	75	75
NO	4	2	8	10
Indifference	3	3	9	15
Total		20	92	100

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f}$ = $\frac{82}{20}$ = 4.6

From the above table 13, it can be depicted that 15(75%) strongly agreed whether investment appraisal techniques have effects on management decision making 2(10%) disagreed while 3(15%) were

indifference. It will be expedient therefore to conclude that investment appraisal techniques have effect on management decision making in Nigeria Bottling Company Limited, Ilorin.

QUESTION 8: DOES THE ORGANIZATION USED ANY INVESTMENT APPRAISAL TECHNIQUES FOR IT'S PROJECT?

VARIABLE	X	FREQUENCY	XY	PERCENTAGE
Yes	5	18	90	90
NO	4	-	-	-
Indifference	3	2	6	10
Total		20	96	100

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f}$ = $\frac{96}{20}$ = 4.8

As regard whether or not the organization used any investment appraisal techniques for it's projects from the above analyzing 18(90%) agreed while 2(10%) of the respondents were indifference, it can be generalized that the organization used investment appraisal techniques for it's project.

QUESTION 9: THE RESULT OBTAINED FROM VARIOUS INVESTMENT APPRAISAL TECHNIQUES STRICTLY ADHERED TO BY THE MANAGEMENT

VARIABLE	X	FREQUENCY	XY	PERCENTAGE
Yes	5	17	85	85
NO	4	-	-	-
Indifference	3	3	9	15
TOTAL		**20**	**94**	**100**

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f}$ = $\frac{94}{20}$ = 4.7

The intention here is to verify whether the result obtained from the various investment appraisal techniques strictly adhered to by the management, it can be seen from the table 15 above 17(85%) were indifference. It can therefore be deduced that the result obtained from various investment appraisal techniques strictly adhere to by the management.

QUESTION 10: ALL INVESTMENT APPRAISAL TECHNIQUES DOES NPV IS CONSIDERED MOST DESIRABLE?

VARIABLE	X	FREQUENCY	XY	PERCENTAGE
Yes	5	15	75	75
NO	4	2	8	10
Indifference	3	3	9	15
TOTAL		**20**	**92**	**100**

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f}$ = $\frac{92}{20}$ = 4.6

From the above table, it can be depicted that 15(75%) of the respondents agreed 2(10%) disagreed and 3(15%) were indifferences as to whether or not of all investment appraisal techniques NPV is considered most desirable with the finding. It can be concluded that all investment appraisal techniques NPV is considered most desirable.

QUESTION 11: DOES NPV AFFECT MANAGEMENT DECISION MAKING?

VARIABLE	X	MIDPOINT	FREQUENCY	FX	PERCENTAGE
Yes	1-6	3.5	12	42	60
NO	7-14	10.5	3	31.5	15
Indifference	15-20	17.5	5	52.5	25
TOTAL			**20**	**126**	**100**

Source: Field 2023

Mean (X) = $\frac{\Sigma fx}{\Sigma f}$ = $\frac{126}{20}$ = 6.3

From the above table, it can be deduced that 12(60%) agreed, 3(15%) disagreed and 5(25%) were indifference as to whether does NPV affect management decision making. With the finding, it can be deduced that NPV affect management decision making.

4.3 TEST OF HYPOTHESIS

The analysis of responses to each question on the questionnaire will be related to the relevant research hypothesis as this stage in order to determine the acceptability of a particular research hypothesis or otherwise 95% level of significant is used for the purpose of this work in order to arrive at a reasonable conclusion. The student t-distribution.

(T) Test is denominated by formula

$$T\ cal = \sqrt{n}\frac{(X - u)}{X}$$

The degree of freedom is calculated as n – 1

Where:

T cal = t – distribution calculated

N = Number of observation

X = Sample mean $\frac{\Sigma fx}{Nxi}$

U = population mean $\frac{\Sigma Xi}{n}$

S = Standard deviation

$$\frac{(\Sigma fx)2}{\Sigma f} - \frac{(\Sigma fx2)}{\Sigma f}$$

Where: df represent degree of freedom i.e. df = n – 1

N – represent number of respondent

DECISION RULE

T – Cal > t = table reject Ho

T = cal < t = table accepted Ho

Where t – cal is calculated t – distribution through the above formula t – tab represent t arrived from the statistical table.

1. The null hypothesis denoted by Ho
2. The alternative hypothesis denoted by Hi

The null hypothesis is the one that will be tested, it is hypothesis with assumption that there is a relationship between two variables in the hypothesis.

HYPOTHESIS

Ho: NPV does not affect management decision making

Hi: NPV affect management decision making

VARIABLE	X	MIDPOINT	FREQUENCY	FX	$(FX)^2$
Yes	5-20	17.5	5	52.5	2756.25
No	7-14	10.5	3	31.5	992.25
Indifference	1-6	3.5	12	42	1764
Total			20	126	5512.5

$X = \frac{\Sigma fx}{\Sigma f} = \frac{126}{20} = 6.3$

$S.D \sqrt{\frac{\Sigma fx2}{\Sigma f} - \left(\frac{fx^2}{\Sigma f}\right)}$

$\sqrt{\frac{5512.5}{20} - \frac{126}{20}}$

$\sqrt{275.63 - (6.3)2}$

S.D = 15.36

$t = N\sqrt{\frac{(x - n)}{S}}$

$\sqrt{20\ \frac{(63 - 20)}{15 - 36}}$

$20\ \frac{(- 13.7)}{}$

$$= \frac{15.36}{\sqrt{\frac{274}{15.36}}}$$

$$= \sqrt{17.84}$$

Student t = 4.22

Student t = 4.22 while T. table = 2.093

From the table t – table is less than t – calculation.

Therefore, we accept alternative hypothesis.

Hi which says NPV affect management decision making and reject null hypothesis.

Ho which says NPV does not affect management decision making.

CHAPTER FIVE

5.0 SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 SUMMARY

This study aimed at providing general review of investment decision making process in manufacturing companies.

The review of difference literatures (chapter 2) depicted the various appraisal techniques that are available to evaluate the desirability of investment expenditures capital investment decision normally represented the most important decision that a firm makes because a substantial proportion of a firms resources a committed to actions that are likely to be irrevocable and this also makes it in operative for the firm to plan it's investment appraisal programmes very carefully. Therefore, it is revealed that investment appraisal is a way of resources in a convenient and compensable manner.

Chapter three highlighted the various way through which the data for this study were obtained.

Chapter four presented the quantitative and descriptive analysis of the findings.

5.2 SUMMARY AND FINDING

Based on the literature review in chapter two and the data analysis in chapter four, the findings are summarized below:

1. The study confirms that most investment decision are originated by the marketing research and development department.
2. All the types of capital expenditure proposal are subjected to formal financial evaluation.
3. Risk and uncertainty are explicitly considered and certainty equivalent cash flows methods in mostly used to incorporated the effect.
4. Negligence of the affect of inflation cash distant the desirability of investment proposal.
5. Of all investment appraisal techniques, NPV is considered not desirable.
6. The study revealed that the attributable theoretical justification for the use of various investment criteria are achieved in practice provided that the effects of taxation risk uncertainty and inflation are fully considered.

5.2 CONCLUSION

Based on the report of the study, the need for sound evaluation of investment proposal can seen that firm that fails to plan very well for it's investment expenditure has planned to fail it's objectives.

It has much as most investment decision is not likely to be reversible; there is greater need to apply sound investment appraisal techniques.

Many findings revealed that despite the theoretical justification of discounted cash flow techniques. (IRR and NPV) firms use other non discounted cash flow techniques (Accounting rate of return pay back period).

This is probably due to the simplicity of the techniques. By and large, the most desirable techniques is net present value (NPV) because it is consistent with the shareholders wealth maximization objectives.

All along the objectives of the study has been to examine the effectiveness of the appraisal techniques on management decision making of the manufacturing company and it was found that almost all investment decision are subjected to through evaluation using any of the appraisal techniques.

However, the choice of which project to implement before others in the list does not follow a given order, one would have thought more profitable projects would have been implemented before less ones but capital constraint and technical difficulty may be call for the reverse.

5.3 RECOMMENDATIONS AND SUGGESTION

In view of the observation and conclusion made in the preceding sections of the following recommendations save made.

1. It is suggested that the firms should as a good practice subject every investment proposal to formal financial evaluation.
2. Invest proposal should be made using any techniques that allows for the time value of money because of the reality of inflation and uncertainty.

BIBLIOGRAPHY

ADENIYI A.A. (2004): *An insight into management accounting, Lagos:* (value publishing).

ACCA (1998): *Cost and management accounting study and revision manual* / T. Lucey, London: D.P. Publisher.

BANJOKI, S.A. (1996): *Production and operation management* (Widow publishers Ltd).

COLE G.A. (1996): *Management theory and practice, 5th Edition* (British publisher)

COLLIN DURY (1992): *Dictionary of accounting great Britain*: Dury Collin.

COLLIN DURY (1995): *Management and cost accounting,* (International Thompson Business Plc).

FAME AND MILLER (1992): *The theory of finance, Hinsdale*; Dryden Press.

LAWAL TAOFEEQ (2003): *Some publisher's aspect of material management synthesis approach*, Lagos; Solace publisher.

PANDEY (1999): *Financial management,* 8th Edition New Delhi; Vikas Publisher House.

QUESITONANIRE

Analysis of the demography of the respondents.

Instruction:- please tick the appropriate boxes and fill where necessary in the space provided below.

1) Sex: male ( ) Female ( )
2) Age distributor:- 31-35 ( ) 36-40 ( ) 41-45
3) Educational qualification: SSCE/NECO/ GCE ( ) HND/B.sc
   ( ) MSC/MBA ( )
4) Department division: financial accounting ( ) research/development ( ) others ( )
5) Marital status: single ( ) married ( )

SECTION B

INSTRUCTION:- USE THE FOLLOWING OPTION TO ANSWER THE QUESTION BELOW.

Yes (y), No (N), please tick the appropriate option in your own view.

6) Research and development Department are they the originator of capital expenditure proposal of your company? Yes ( ) No ( )
7) Does the organization used any investment appraisal techniques for it's project? Yes ( ) No ( )
8) The result obtained from various investment appraisal techniques strictly adhered to by the management? Yes ( ) No ( )
9) All investment appraisal techniques does NPV is considered most desirable? Yes ( ) No ( )
10) Operation and production department, are they responsible for working the practical details of proposal project? Yes ( ) No ( )