CHAPTER - I
INTRODUCTION

1.1 Background of the Study

Banking sector today operates in a dynamic environment, which creates many new facts of problem. This environment is characterized by the presence of large-scale production, resent expression product improvement and diversification, widening if the market and cutthroat competition leaving a narrow margin of profit. Banking Business is becoming more complex because if the cutthroat competition. It operates in dynamic environment, which involves many new forms of management problems. Due to complex environment, management has to carry out its basic function of cost minimization and maximization of profit in an atmosphere of uncertainty. The old technique of monument by intuition is no longer considered dependable on the situation in which the modern management has realized that a slight error in policy decision may mean either losing a business opportunities or going out of competition. A second chance may not come or if it does, it may be costly and risky. It therefore constantly strives to reduce the risk of mistake in decision making by keeping abreast of such quantitative information, which would help to analysis it administrative action. In order to reach judicious decision, it is here that accounting is importance.

Accounting system plays the vital role in the functionary of any corporate organization. Accounting system provides the guidelines for better utilization of available resources so that competitive advantages at this hyper competitive environment can be achieve through various tools and techniques of accounting practices cost accounting management accounting tools have proved beneficial in every aspect of management activities from planning to decision making. It helps managers in overall managerial them by providing information ad helping them in planning, controlling and decision- making.

Cost accounting is a branch of accounting, which developed as a disciple to cope with growing needs of cost conscious entrepreneurs this is the part of creating system that measure costs for the purpose of management decision making and financial reporting. All kind of organization, manufacturing firm, services companies and nonprofit organization need some form of cost accounting. They needed cost account to manage cutthroat competition between manufactures and government control over pricing it become imperative for business enterprises to collect and analyze detailed information about actual cost and their estimates to improve the quality of products and services to remain in competition. It also became necessary to trance cost accurately to each service or product completed or produce hence cost account becomes the absolute necessity for survival and growth of business enterprises.

In this competitive economy management, accounting can be the best technique to improve Banking service in a cheap cost. Management accounting is an exact science. Its usefulness depends to a very great extent upon the intelligent interpretation of the data available. Management accounting is the term used to describe the accounting methods system, and techniques, which coupled with special knowledge and ability assists management it is essentially the application of managerial principle and know how to the planning, development, execution and control of the corporate plans.

It is the presentation of accounting information to formulate the policies to be adopted by management and assists its day to day activities. It helps the management to perform all its functions including planning, organization, staffing directing and control.

Introduction of Banks

The term Bank represents as an institution, which deals with money concepts deposits and advance loans. The concept of modern Bank comes into existence

by the emergence of 'Bank of England'. It was established in 1694 AD, with capital of 1.2 million pound.

The term bank in modern times refers to an institution, which deals with money and accepts deposits and advances loan. It also deals with credit it has the ability to create credit i.e. the ability to expand its liabilities as a multiple of its reserves (Paul, 1996: 6). A sound and developed banking system leads to the economic growth of a country there by accumulation of deposits and lending in trading and productive sector as well as in derived and priority sector supporting government to achieve its economic target.

According to Crowther, "The banker's business is to take the debts of other people to offer his own in exchange and there by create money". Kent defines" A bank is an organization whose principal operation and concerned with the accumulation of the temporarily idle money of the general public for the purpose of advancing to other for expenditure".

Summing up the above definitions, banks are those financial institution that offer the widest range of financial services like credit, saving, payment services and perform the widest range of financial job of any business form in the economy. The diversity of services and functions offered by the bank can be labeled as the key player for the economy.

The concept of banking institution in Nepal was introduce when the first commercial bank 'The Nepal Bank Limited was established in 30th Kartik 1994 B.S. later the Nepal Rastra Bank was established in 2012 B.S. which helps to make banking system more systematic and dynamic during the time. As the time passes the Rastriya Banijya Bank established in 2022 BS in order to play Major role not only in domestic banking but also in the foreign trade, The government followed liberal economic policy in 2040 BS and the government of Nepal amended the commercial Bank act, 2031 B.S. as result of that bank

with joint venture and private ownership were established. The first Bank to be established under joint venture was "Nepal Arab Bank Ltd' in 2041 BS. By the way today there are 30 commercial banks and more than 59 development and 75 finance companies are existing in Nepal.

Introduction of Nepal SBI Bank

Under the company Act, 2021 and commercial Bank Act 2031, Nepal SBI Bank Limited (NSBL) was registered on 28th April 1993(2050.10.16 BS) by the department of Industry. Nepal SBI Bank is a first Indo-Nepal Joint venture Bank in the country. Institutional promoters of this bank are state Bank of India, Karmachari Sunchaya Kosh (Employee Provident Fund, EPF) and Agriculture Development Bank through a memorandum of undertaking signed on the 17th July 1992. The Bank received certificate of commencement of business on the 30th June1993 and the License from Nepal Rastra Bank on the 6th July, 1993. NSBL has its formal inauguration in 7th July 1993. After purchasing of share of Agricultural Development Bank, The state Bank of India hold 55.02%, EPF hold 15% rest 29.98% share is hold by general public.

Nepal SBI has paid up capital of Rs. 1,65,36,24,000 on 13.04.2010. At present bank have one corporate office, 42 Branches and 6 Extension counter with more than 500 staffs.

1.2 Statement of the Problem

Success is not a matter of chance. Profit does not just happening, it is to be planned and managed. Cost accounting helps to analyze the cost and attempts for maximizing output from same cost. It may be helpful for the improvement through minimization of unnecessary cost and maximization of output. Management accounting provides techniques to aid management functions. Poor performance is the outcome of poor management of cost planning, Controlling and decision making. So under prescribed study will try to find out whether the NSBL practice cost accounting and management accounting tools

and techniques to carryout planning, decision making and controlling functions? Other question which will studied are as follows

- How far NSBL is practicing cost accounting tools and management accounting tools?
- Which tools are mostly practiced and which are not practiced till now?
- What are the major difficulties in the application and implementation of management accounting tools in NSBL?
- In which area of service operation, cost and management accounting tools be applied to improve competitiveness of NSBL?

1.3 Objective of the Study

The main objective of this research was to examine and study the practices of cost accounting tools in the NSBL. The specific objective is:

- To study and examine the present practices of cost accounting and management accounting tools in the NSBL.
- To identify the areas where management accounting and cost accounting tools can be applied to strengthen the NSBL.
- To identify the difficulties in applying management accounting tools in NSBL.
- To, recommend NSBL with the suggestion through the information extracted from the study.

1.4 Importance of the Study

Obviously every research is carried out for any possible benefit to the concerned parties like the researches, the organization of which research is done or any other parties. This study is significant in the following ways.

- It examines the application of cost accounting & management accounting tools in NSBL.
- It explores the problem and potentialities of NSBL accounting system. It will be useful to the potential shareholders.

- It provides information on the application of the various cost accounting and management accounting tools.
- Last but not least, it provides literature to the researcher who wants to carry on the further research in this field.

1.5 Limitation of the Study

The limitations of the study are as below:

- The study is concerned with cost accounting & management accounting tools it doesn't consider the economic and financial aspect of the bank.
- The study bases on primary and secondary data, for secondary data like annual report of bank, Journal published as well as unpublished thesis work, and for the primary data informal interview with higher authorities and questionnaire are used.
- The study is focused only on NSBL, thus the findings might not be applicable to other Bank in Nepal.

1.6 Organization of the Study

The overall study is group into five key chapters, which are introduction, literature review, research methodology, presentation, analysis and interpretation data and summary, conclusion and recommendation.

Chapter - I Introduction

This chapter briefly explains about Nepal SBI Bank Limited. The introduction covers the role of cost and management accounting, statement of problem, research objectives, and significance of the study, limitation of the study and assumption of the study.

Chapter - II Literature Review

Entering to this chapter the significant and relevant literature and various studies are reviewed, it contains the conceptual framework and past research

literature on profit planning and control, Cost Accounting, CVP analysis and Management accounting.

Chapter - III Research Methodology

In the third chapter, it deals with the research methodology to be adopted for the study consisting research design, sources of data, Gathering procedure, statistical and accounting tools and technique.

Chapter - IV Data Presentation and Analysis

The fourth chapter deals with presentation analysis and interpretation of data. It consist analysis of questionnaires, analysis of cost accounting and management accounting system.

Chapter - V Summary, Conclusion and Recommendations

The last chapter concern with the summary of the four previous chapters. In this chapter attempt made to draw out the conclusion of overall study. Offer various suggestion and recommendations.

CHAPTER - II
LITERATURE REVIEW

Banking sector today operates in a dynamic environment which creates many new facts of problem. This environment is characterized by the presence of large scale production, research expansion, product improvement and diversification, widening of the market and cut-throat competition leaving a narrow margin of profit. Due to complex environment management has to carry out its basic function of cost minimization and maximization of profit in an atmosphere of uncertainty the old technique of management by intuition is no longer considered dependable on the situation in which the modern management has realized that a slight error in policy decision may mean either losing a business opportunities or going out of competition. A second chance may not come or if it does, it may be costly and risky. It therefore constantly strives to reduce the risk of mistake in decision making by keeping abreast of such quantitative information, which would help to analysis it administrative action in order to reach judicious decision. It is here that accounting is of importance. Management therefore constantly strives to reduce the risk of making mistake by looking for and analyzing relevant information by which it helps to take judicious decision and direct the administration better (Shrestha, 1996:12).

2.1 Cost Management

Cost management identities collates measures classifies and report information that is useful to manager and other internal users in cost ascertainment planning controlling and decision making, Thus cost management aims to produce and provide information to internal users and personnel working in the organization.

Developing information within cost management requires that one should be aware about cost structure of a business enterprise. Manager should know how to ascertain costs of different activities, process, services, and any other costing objects. Financial accounting does not deal with those costs and those costs are no found on the financial statements however, knowledge about these costs is essential to help manager in productivity enhancement strategic, planning and total quality management. By nature, cost management includes both management accounting information system as well as cost accounting.

2.2 Cost Accounting

Cost accounting measures & reports financial & other information relate to the organization's acquisition or consumption of resources. It provides information for both management accounting & financial accounting (Horngren, Foster and Dates, 1997: 2).

Cost accounting is that branch of the accounting information system, which records measures & reports information about costs. A cost is a sacrifice of resources. Costs are reflected in the accounting system by of cash processes to pay cash at a future date & the expiration of the value of assets. The primary purpose of cost accounting is cost ascertainment & its use in decision- making & performance evaluation. Accounting system provides data by outsiders, such as shareholder of creditors to evaluate the performance of the management & make investment decision. They are said to be used for financial accounting purpose. When cost data are used in the organization to evaluate the performance of operations, activates, personnel etc. as the basis of decision making they are said to be used for management accounting purposes for instance in a manufacturing business. The cost of products sold & on hand includes the total expenditure on materials labors & the other production costs. Each of these costs must first be measured than accumulated & finally distributed to the working process, finished goods & costs of goods sold. Consequently the amount of profit reported by a manufacturing company

depends on the accuracy of its cost calculation. Thus cost accounting is useful for performance appraisal (Khan & Jain, 1999:6).
Cost accounting also helps in planning. Planning is a process of setting goals & allocating resources to achieve these goals. The expected financial outcome of planning is expressed in terms of budgets. A firm can increase its profits in two ways I) by increasing unit sale price (ii) by reducing costs (Khan & Jain, 1999:7).

Cost accounting measures cost in accordance with the plans & needs of business management. Costs must be based on relevant facts competently observed & significantly measured to enable management to make valid decision. Cost accounting is means to an end not an end in itself (Matz and Usry, 1972:41).

Cost accounting is an orderly process of using the principles of general accounting to record the costs of operating a business in such a manner that, with data of production & sales, the accounts may be used by management to ascertain production & distribution costs, both per unit & total of one or all the products manufactured or services rendered & the costs of the various other function of the business for the purpose of securing economical efficient & profitable operation (Lawrance, 1955:1).

Cost accounting furnishes information about cost inventories cost of sales, distribution cost sales & profits or each or the several lines of products manufactured. This information is or can be extended or detailed to each of the cost or orders that make up a product. Cost accounting also furnishes information in detail about expenses in relation to the operating function of the business. Thus with a cost system, the cost of operating a department or conducting any other activity of the business can be know explicitly & in detail (Lawrance, 1955:1).

Such information is useful because it is often possible to increase output, derive more efficient methods. Reduce costs & increase profits. Thus, cost accounting serves a useful purpose because it assists in expansion and increase production, in providing complete & reliable records of business transaction. It about the internal transaction of a business than can usually be secured from a general accounting system alone (Lawrance, 1955:1).

In a planning phase, cost accounting deals with the future. It helps management to budget the future or predetermine material costs, wages & salaries & other costs of manufacturing & marketing products. These costs might be used to set price or to assist in disclosing the profit that will result with the existence of these costs & expenses. Considering competition & other economic condition, cost information is also provided to assist management with problems such as product pricing, capital expenditure decisions, expansion of facilities or increased sales or production, make or buy decisions or purchases or lease decision (Matz and Curry, 1972:9).

Broadly speaking the functions of cost accounting can be grouped under the following three heads:

- Ascertainment & analysis of cost and income by production function and responsibility.
- Accumulation and utilization of cost data for control purpose to have the minimum possible cost consistent with maintenance of quality. This objective is achieved through fixation of targets as containment of actual, comparison of actual with targets, analysis of reasons of deviation between actual targets and the standards and reporting deviation to the management for taking corrective action.
- Providing useful data to the management for taking decisions (Mitz and Usry 1977:18).

2.2.1 Cost Accounting in Management

Cost accounting a branch of accounting has developed because of limitation of financial accounts. These limitations will be apparent from the advantages of costing. Costing has been defined as classifying, recording and appropriate allocation of expenditure for the determination of the costs of product or service and for the presentation of suitable assessed data for the purpose of control and guidance of the management. It includes the ascertainment of the cost of every order. It deals with the cost of production, selling and distribution.

Now a days, the function of accounting is the same as that of the nervous system in a human being, just as nerves convey news of happenings to the mind, it is the duty of the account division to collect all information, analyze it into what is ordinary and what is extra- ordinary and draw the attention of management to everything that was not in the ordinary course or was not expected. Also, management need detailed but significant data and information about the various alternative courses of action so that decision made is correct, future planned action is a necessity and significant information must be collected for the formulation of plan. If accounting, it becomes management accounting (Shukla, 19990:1191).

Cost accounting is an integral part of the management process. It is regarded as a tool of management. It provides the management with detailed record of the data relating to product or operations of activities. Cost accounting refers to the process of determining the cost of product of activity (Manankarmi, 2003:2).

Cost Accounting has the Following Features

It is a process of accounting for costs.

- It records, income and expenditure relating to production of goods and services.
- It provides statistical data on the basis of which future estimates are prepared and quotations are submitted.
- It is concerned with cost ascertainment and cost control.

- It establishes budgets and standards so that actual cost may be compared to find out deviations or variances.
- It involves the preparation of right information to the right person at the right time so that it may be helpful to the management for planning control and decision-making.

In a planning phase cost accounting deals the future. It helps management to budges future or predetermines material cost wages and salaries and other cost of manufacturing and marketing products. There costs might be used to set price or to assist in disclosing to profit that will result with the existence of these costs and expenses. Considering competition and other economic condition, cost information is also provided to assist management with problems such as product pricing, capital expenditure decisions, expansion of facilities or increased sales or production make or buy decision or purchase or lease decision (Nata and Curry, 1972).

2.3 Management Accounting

Management accounting is an exact science. Its usefulness depends to a very great extent upon the intelligent interpretation of the data made available (Shrestha, 1992:12).

Management accounting is the term used to describe the accounting methods, systems and techniques, which coupled with special knowledge and ability assists management to maximizing profit or minimizing losses. It is essentially the application of managerial principle and know the planning, Development, Execution and Control of the corporate plans (Batty, 1982: 1).

Management accounting systems provides information to assist managers in their planning and control activities. Management accounting activities include collecting, classifying, processing, analyzing and reporting information to manager. Unlike the financial accounting information prepared for external

constituencies such as investors, creditors, suppliers and tax and regulatory authorities. Management accounting information should be designed to help decision making within the firm. Therefore the scope of management accounting extends beyond traditional measures of the costs and revenues from the transactions that have already occurred to include also information on sales. Backlogs, unit quantities, price demands and capacity resources and extensive performance measures based on physical or non-financial measures (Kaplan and Atkinson, 1998:1).

Management accounting is the presentation of accounting information to management to formulate the policies to be adopted by the management and assists its day to day activities. It helps the management to perform all its functions including planning, organizing, staffing directing and control. It presents to management the accounting information in the form of processed data which it collects form financial accounting (Paul, 1994: 1).

Generally speaking, any accounting which renders valuable information to help management may be called management accounting. It is the form of accounting which enables a business to be conducted more efficiently. Management accounting is the presentation of accounting information in such a way as to assist management in the action of policy and day to day operation of undertaking. It is concerned with the presentation of accounting information and not with its preparations. Thus emphasis is laid down on the two aspects in management accounting.

- To present the accounting information in proper way before the management.
- Such accounting information being placed in a way as to assist management in its operations and functions (Gupta, 1995: 2-3).

Accounting has two aspects, one is "of management" and the other is "for management" accounting of management is a post decision exercise involving

a proper record of transactions and its emphasis is on the various aspects of such transaction as: formalism, periodicity, legality, centralization and accuracy. Accounting helps management to take managerial decisions. It supports the administration and plays a positive role in helping true administration to decide on the allocation of resources and to measure performance. Truly management accounting can be defined as accounting for by and of management. It is an interpretative function (Shrestha, 1996:8).

Management accounting is that branch of the accounting information system of business enterprises, which uses accounting information for planning, controlling and decision making. It uses partly financial accounting but mostly cost accounting (Khan and Jain, 1993:9).

In ordinary language "Management Accounting is used to describe the modern concepts of accounts as a tools of management in contrast to the conventional annual or half yearly account prepared mainly for information of proprietors, the object being to so expand the financial and statistical information s to shed light on all phases of the activities of organization (Goyal and Man Mohan, 1997: 5).

2.4 Cost Accounting and Management

Management requires adequate systematic and useful cost data and reports to manage business entities and to achieve business objectives. The useful information provided by cost records and reports. In cost accounting assists management in performing the following important tasks.

- Cost accounting helps in determination and analysis of cost of departments, process, jobs, products, sales territories, sales order etc. this advantage is not available to manufacturing companies alone. In fact, the analysis of cost and income can be made in almost all type of organization profit or non-profit.

- Cost accounting helps management in controlling cost which is probably the most important objective of every business firm. Cost accounting facilitates this task through accumulation and utilization of cost data regarding different products, activities or function. Each cost should be examined in the light of service or benefit obtained so that management can keep cost of the lowest possible point.
- Cost accounting helps management to make pricing decision, product mix (Short term & long term) decision and profit volume decisions.
- Cost accounting helps in making special cost studies and investigations which are vital to management in formulating policies and plans directed towards profitable operation.
- Cost accounting system and participated in the formulation and execution f budgets and standards. Cost information for managerial decision making and planning is the most important justification of a sound cost accounting system.

2.4.1 Cost Accounting and Management Accounting

Management accounting is very closely linked to cost accounting. So closely in fact that it is difficult to say where cost accounting ends and where management accounting begins. Cost accounting simply aims to measure the performance of a departments good and services however management accounting is much more compared to it.

Management accounting and cost accounting are different in their objective the primary objective of cost accounting is to ascertain the cost of production as well as to control the same after careful analysis where as management accounting aims to supply the accounting information to the management for taking proper decision. In cost accounting accounts are prepared according to predetermined standards and budget. But in management accounting reports are submitted to the management accounting reports are submitted to the management after measuring the various between actual performance and

budgets. As a result past error and defects may be rectified and there efficiency is improved (Paul, 1994:8).

In spite of the differing parameters of cost accounting and management accounting, cost accounting is generally indistinguishable from what is known management or managerial accounting both these accounting systems are closely linked as they use common basic data and reports to a significant degree. Much of the information used to prepare accounting statements and reports in cost accounting utilize the same and also additional data to prepare budget. Performance reports, control report, data analysis for decision making planning and control purpose.

2.5 Cost Accounting and Financial Accounting

Both financial and cost accounting are the branches of accounting whose main object is to provide information systematically and scientifically so that it may serve the purpose of management for policy formulation and controlling and to provide necessary protection to the outsiders.

Financial accounting provides information about the business in a general way. It tells about profit and loss financial positions of the firm. It classifies records and analysis the transaction in a subjective manner (.e. according to nature of expenses). Where as cost accounting records the expenditure in an objective manner (i.e. according to the purpose for which the costs are incurred). The cost are reported in aggregate in financial account where as cost are broken down on a unit bases in cost accounts.

Financial accounting follows the double entry system for recording classifying and summarizing business transaction. Cost accounting is not based on the double- entry system. The data under cost accounting is not based on the double.

2.6 Evolution of Accounting in Nepal

The history of account keeping in Nepal by government is very old. Mandev 1st the king of Nepal in Lichhavi period had circulated first coin called Mananka coin" during the period 464-491 A.D. Similarly king Mahendra Malla had circulated the coin named "Mahndra Mally" in Malla period of Nepal. This seems to be the main step to record the national transactions in a proper way and manner. It is said that a few number of financial transactions used to be performed in Lichhavi and Malla periods. It proves there was a certain form of accounting to record transactions (Auditor General's Office, 1962:1).

Written records of accounting have been traced back after 1 8th centuries in Nepal. After the unification of the nation in 1768 (1825 B.S.) by the great king Prithivi Naravan Shah, the chief of the district level soldiers used to keep the accounts of the government offices (Gin, 1994: 155).

In 1814 a book called "laidhadda" was created for recording things about land management (Kitab Byabastha) another book called 'Mothdhadda" was used. These two records were important steps in the history of accounting in Nepal. Again, after a long gap in 1868 (1925 B.S.) an office called 'Kitab Khana" was established for recording the salaries paid to government personnel which is still in use. In the process of development of accounting in 1879 (B.S. 1936) Kharidar Gunawanta a senior official that time propounded 'Syaha Shrestha Pranali" which was an advanced form of accounting and used up to 1965-66 fiscal year. A "Faram Shresta Pranali" was introduced in 1911(1968 B.S.) especially to use in Terai Region (Thapa, 1994: 71).

After the over thrown of Rana Regime, the first budget system was started in Nepal in 1951 (21st Magh 2008 B.S). The auditor general office was established in 1959. Before it, there was a Kumari Chowk, and office to do the audit jobs. In 1960 (2017 B.S) the "Bhuktani Shresta Pranali" was adopted

which was little bit based on the double entry book-keeping-system. In 1960 (20th Magh 2017B.S.) account committee was formed to study and analyze the problems of accounting in Nepal. After detailed study of 288 days the Committee made a report to introduce a new accounting system. His Majesty the king Mahendra recognized it in 1961 AD (on 2nd Chaitra 2018B.S) and it became a new accounting system of H.M.G of Nepal. But it was put into practice only from the fiscal year 1962/63 AD for the budget appropriation and from 1974/75 AD for the revenue it is used.

Currently financial accounting based on double entry book keeping is followed for recording transition in government ministries, department and offices. Besides, controlled accounting seemed to be used through the implementation of budgetary system since 2008 BS in Nepal. Budgeting practice is nothing but implementation of management accounting technique to plan revenue and control expenditure. Since 2008 B.S, faint practice of management accounting seemed in Nepal

2.7 Concept of Costs

Cost in its general sense is whatever resources we are supposed to spend to get goods or a service is known as cost, in another word, it is the amount of resources given up in exchanges for some goods or services. The resources given up are expressed in monetary terms. We can defined as "the amount of expenditure (actual or notional) incurred on or attributable to a given thing or as certain the cost of a giving thing".

Thus cost is that which is given or is sacrificed to obtain something. The cost of an article consists of actual outgoing or ascertained change incurred in its production and sale. Cost is a generic term and it is always advisable to quality. The word cost show exactly what is means e.g. prime cost factory cost, sunk cost etc. cost is also different from value as cost is measure in terms of money where as value is measured in terms of usefulness or utility of an article.

Cost may be defined as the sacrifice or given up of resources for a particular purpose cost is frequently measured by monetary units that must be paid for goods and services cost are initially recorded in elementary from then these costs are grouped in different way to help manager make decision such as evaluating subordinates and sub units of the organizations expanding or deleting equipments to aid decision manager want the cost of something. This something is called a cost objective or cost object which may be defined as activity for which a separate measurement of cost is desired (Horngeren, 1991: 64).

Cost is the sacrifice made, usually measured by the resources given up to achieve a particulars purpose. An important issue is both managerial and financial accounting is the timing with which the cost of acquiring assets or services is recognized as expenses. An expense is defined as the cost incurred when an asset is used or sold for the purpose of generating revenue (Hilton, 2002: 36).

Accountant, economist, engineers, and others facing cost problems have developed cost concepts and cost terminologies according to their needs basic concepts should be stated in the terms in which it has become generally familiar. The committee on cost concept and standards of the American accountancy Association wrote. "Cost is a foregoing measured in monetary terms, incurred or potential to be incurred to achieve specific objective" in tentative set of broad accounting principles for business enterprises cost are defined as an exchange price a forgoing, a surface made to secure benefit. In financial accounting the forgoing a surface made to secure benefit. In financial accounting the forgoing or sacrifice at date of acquisition is represented by a current or future diminution in cash or other assets (Matzusry, 1972: 42).

Hence amount of resource in terms of resource in terms of monetary value or money, worth to be given up or foreign while acquiring goods or using services

is something which keeps value to the business and it is treated as expenses while it is used to generate revenue.

Use of Cost Data

The collections, presentation and analysis of cost date should serve the following as essential uses or aims.

- Planning profit by means if budgets.
- Controlling cost via responsibility accounting
- Measuring annual or periods profit including inventory costing
- Assisting in establishing selling price and a pricing policy.

2.7.1 Cost Behavior and Cost Classification

Cost behavior is the nature of cost in relation to the activity levels; it implies the relation between cost and activity. How a given cost fluctuates or not with the fluctuations in activity volume is cost behavior. Determination of cost behavior is one of the primary and most essential functions of management for its managerial functions i. e. planning, controlling and decision-making.

Cost behavior is the relationship between cost and activity is the relevant function of planning control and decision making. In order to plan operation and prepare budget managers need to predict the costs that will be incurred at different levels of production and sales. To control the costs of providing commercial service in bank executives need to have a feel for the cost that the bank should incur at various level of commercial service activity. In deciding whether to add a now intensive core unit, a hospital's administration needs to predict the cost of operating the new unit at various levels of patient demand (Hilton, 2006: 274).

There are different methods available for cost classification. But a suitable basis to allocate cost into fixed or variable is on the basis of its behavior or variability. On the basis of cost behavior cost can be classified into three types as.

- Variable cost
- Fixed cost
- Mixed costs (Semi variable or semi fixed)

- **Variable Costs**

A cost that varies proportionately with the variation in volume of activity level is known as variable costs. A variable cost per unit remain fixed where as total variable cost keeps on fluctuating with activity level, unless otherwise mentioned labor costs, material costs and other costs of direct nature are example of variable cost.

Variable cost are the cost that tends to very in direct proportion or in one to one relationship to changes, in production activity, sales activity or some other measures of volume or cost driver. The cost of these inputs increase, decrease in volume or cost driver (Foster and Dator, 1999: 29).

Variable cost shows the following characteristics

- Total variable costs are proportionately related to operator activity levels.
- Variable cost per unit are fixed
- Variable costs can be regulated and controlled in the same responsibility center and in the short run as well.
- Cost that changes proportionately in total but remains fixed per unit is variable.

- **Fixed Costs**

Fixed costs are costs associated with those inputs which do not vary with those inputs, which do not vary with change in the volume of output of activity within a specified range of activity or output (relevant range). Fixed costs thus remain constant whether the activity increase or decrease within a relevant range. Like other costs, fixed cost is subject to change over a period of time. As fixed. Costs are unaffected by volume changes, any increases in volume implies that the cost will be allocated to greater number of units consequently

fixed costs per unit will became progressively smaller as the volume increases and vice versa (Kalpan and Atkinson, 1998).

Some key features of fixed costs are as follows:

- Total fixed costs are constant.
- Fixed costs are either capacity cost or the time costs or the committed cost.
- Fixed costs are regulated and controllable under top management.

Fixed cost may be any of the following types.

Committed Fixed Costs

Committed fixed costs are those that relate to the investment in plant equipment and the basic organizational structure of a firm. Examples of such costs include depreciation, property taxes; insurance salaries of personal etc. committed fixed costs are long term in nature and can't be reduced to zero in short- term. Even if operations are interrupted or out- back the committed fixed cost will continue unchanged.

Discretionary Fixed Costs

Discretionary fixed costs arise from annual decision by management to spend in certain areas. Examples of discretionary fixed costs would include advertising hospitality, employee training research and management development programs. Thus discretionary fixed costs are determined by management as part of the periodic planning process in order to meet the organization goals.

Step Fixed Costs

Step fixed costs remain constant over a wide range of activities but jump to a different amount for activity levels outside that range. Step fixed costs are fixed for a short range of activities. Indeed all fixed costs are step costs, because

none of the cost remains the same for and infinite level of output. Beyond the relevant range of activity all fixed costs jump upward.

- **Semi Variable Costs/ Mixed Costs**

All cost which are neither perfectly variable nor absolutely fixed in relation to volume changes are semi-variable cost. Semi-variable cost is also known as mixed cost as they consist both of fixed costs and variable cost. The fixed component of mixed cost consist the cost of providing capacity where as variable component is caused by using the capacity. The first part won't be affected by the changes in activity, ideally, semi-variable costs should be bifurcated into fixed and variable cost control and decision, making assume that costs are either variable or fixed (Khan and Jain, 1993: 151-152).

2.7.2 Cost Segregation

The methods prescribed for segregating mixed costs are:

i. High Point, Low Point Method (HPLP)

As the name suggest by this method consider two level of activity, to bifurcate the cost. It considers the output at different level i.e. high or low points is compared with the amount of expenses incurred at these different periods.

$$\text{Variable Cost} = \frac{\text{Cost (HP} - \text{LP)}}{\text{Activities (HP} - \text{LP)}}$$

ii. Least Squares Regression Method

One of the popular methods for segregation of mixed cost into variable and fixed cost is least squares regression method. Regression is an equation that dependent variable Y based on selected value of the independent variable X. the technique that is used to develop the equation for a straight line and to make these predictions is called regression analysis. Regression line is and equation that defines the relationship between two variables. It is based on the

mathematical technique of fitting and equation with the help of a number of observations. The liner equation can be assumed as:

y = a+ b_x and the various sub- equation shall be

$\sum Y$ =na+b $\sum Y$

$\sum XY$ = a$\sum X$ +b$\sum x^2$

Unit variable cost and fixed cost can be computed by using the following formula.

Variable Cost/ Unit (b) = $\frac{N\sum xy - \sum x \sum y}{N\sum X^2 - (\sum X)^2}$

Fixed Cost = $\frac{\sum y - b\sum x}{N}$

Where,

A = fixed cost

B = Unit Variable Cost

N = No. of series

Y = Production Units

= Sum of variable

iii. Analytical Method

This method also known as "Degree of variability" technique because the geneses of this method lies in measuring the extent of variability of costs on a careful analysis of each item to determine how for the cost varies with volume: variable overheads under this method computed as follow.

Variable Overhead = Budgeted Mixed Overhead × Degree of Variability

2.8 A Brief Review of Management and Cost Accounting Tools

Management accounting as a quantitative approach helps to discharge functions like planning, organizing, staffing, direction and control properly and efficiently (Paul, 1994:5).

Tools and techniques provided by Management accounting to discharge functions like; planning, controlling and organizing can be identified as such;

Cost Concepts and Classification

Cost may be defined as the sacrifice or giving up of resources for a particular purpose. Cost is frequently measured by monetary units that must be paid for goods and services. Costs are initially recorded in Elementary from. The these costs are grouped in different ways to help managers make decisions such as Evaluating subordinates and sub units of the organizations Expanding or deleting Equipments. To aid decisions managers want the cost of something. This something is called a cost objective or cost object which may be defined as any activity for which a separate measurement of cost is desired (Horngreen, 1991: 65).

2.8.1 Cost Classifications

Cost classification is the process of grouping costs according to their common characteristics. The same cost figures sometimes can be classified according to different ways of costing depending upon the purpose to be achieved and requirements of particular concern. The important ways of classification are: (Jain and Narang, 1992:1.97-1.48).

- By nature or clement
- By functions
- As direct or indirect
- By variability
- By controllability
- By Normality

- By capital
- Or Revenue
- By Time
- According to planning and control
- For managerial decision

In management accounting with the purpose of assisting managers in managerial task, costs are classified on the following ground (Garrison, 1985:27).

2.8.1.1 Cost Relating to Income Measurement

- **Product Cost**

The costs which are better matched against products than they are against period of time are product cost. Cost of this type consists of the costs that are involved in the manufacturing of goods and include direct material, direct labor and manufacturing overhead. These costs are viewed as "Attaching to units of products as the unit sales takes pace. At that time, the costs are released expenses and matched against sales Revenue (Garrison, 1985: 30).

- **Period Cost**

Period costs are costs, which vary with the passage of time and not with volume of production. Rent, insurance, salary type expenses vary with time period (Khan and Jain, 1993: 144).

- **Absorbed Cost and Unabsorbed Cost**

Fixed cost help create value in the product. The benefit of fixed cost will lapse with the passage of time and must be absorbed by the Revenues of that period. The part of fixed cost which is absorbed during the Revenue of the particular period is known as absorbed cost. Absorbed cost is those cost which, been charged to production. Cost which remains uncharged is known unabsorbed cost (Moore and Jacdicke, 1972: 363-69).

- **Expired and Unexpired Cost an Expired**

An expired cost is one, which cannot contribute to the production of future Revenues. In contrast unexpired cost is one which can contribute to the production of future Revenue are unexpired cost e.g. of unexpired cost is inventory, which can be old in subsequent years and will influence total Revenues (Khan, 1993: 195).

- **Joint Product Cost and Separable Cost**

Joint product costs are the cost of a single process or a series of procession that simultaneously produce two or more products of significant sales value. Such costs are not attributable to different individual products until after a certain stage of production known as the split off point. Separable costs that can be attributed exclusively and wholly to a particular product, process, division or department (Horngreen, 1991: 118).

2.8.1.2 Cost Relating to Profit Planning

Profit planning is quite concerned with decision-making. Planning deals with the future. Future costs are relevant cost in profit planning. The relevant cost concepts are;

- **Fixed Cost**

Fixed costs are costs associated with those inputs, which do not vary with changes in volume of output or activity within a specified range of activity or output (Relevant Range). Fixed cost thus remains constant whether activity increases or decreases within a relevant range. Like other cost, fixed cost is subject to change over a period of time. As fixed costs are unaffected by volume changes any increase in volume implies that the costs will be allocated to greater number of units consequently fixed cost per unit will become regressively smaller as volume increases and vice versa (Kaplan and Atkinson, 1998:13).

) **Variable Costs**

Variable costs are the cost that tends to vary in direct proportion or in one to one relationship to changes in production activity, sales activity or some other measures of volume or cost driver. The cost of these inputs increase! Decrease in proportion to increase/ decrease in volume or cost driver (Horngreen, Foster and Datar, 1999: 29).

) **Semi Variable Cost / Mixed Cost**

All cost which are neither perfectly variable nor absolutely fixed in relation to volume changes are semi variable cost. Semi-variable costs are also known as mixed cost as they consist both of fixed costs and variable cost. The fixed component of mixed cost consist the cost of providing capacity, where as variable component is caused by using the capacity. The first part won't be affected by the changes in the volume/ activity. But the later part will be affected by the change in changes in the ideally, semi- variable costs should be bifurcated into fixed and variable activity. Cost as the functions of profit planning. Cost control and decision, making assume that costs are either variable or fixed (Khan and Jain, 1993: 151-152).

) **Methods of Mixed Cost Segregations**

The methods prescribed for segregating mixed costs are:

- **The Two Point Method (High – Low Method)**

As the name suggest by this method consider two level of activity, to bifurcate the cost. It consider the output at different levels i. e. High or low points is compared with the amount of expenses incurred at these different periods (Jain and Narang, 1992: 2.226).

- **(B.4.ii) Least Square Method**

This method follows regression equation to segregate mixed cost into fixed and variable (Khan and Jain, 1993 157).

- **Analytical Method**

This method also known as "degree of variability technique because the genesis of this method lies in measuring the extent of variability of costs on a careful analysis of each item to determine how far the cost varies with volume; variable overheads under this method computed as follow. Variable overhead budgeted mixed overhead x degree of variability (Brown and Howard, 1969: 249).

- **Future Costs**

Future costs are relevant costs in profit planning function of Management. Those costs which are reasonably expected to be incurred at some future date as a result of a currant decision are called future costs based on expectation. Future cost is controllable within a management, Future cost can be planned for and planned to be reduced if they are too high, this is not possible with historical cost.

- **Budgeted Cost**

When an operating plan involving future cost is accepted and incorporated formally in the budget for a specific period, such costs get converted to what may be referred to as budgeted costs. Budgeted costs are important elements in that they provide the basis for measuring the actual performance of different cost centre and therefore constitute an important input of responsibility accounting (Khan and Jain, 1993: 159).

2.1.8.3 Cost Concept for Control

- **Responsibility Cost**

Cost, which is incurred due to the responsible person of the responsibility center, is responsibility cost, this helps to localize the responsible person for the cause of cost when actual cost exceed to budgeted cost. For e.g. purchase manager will be responsible for the purchase cost will be accountable incase

actual cost exceed budgeted cost. The budgeted cost is repaired by the head of management known as manger, and over which he has control to incur (Khan and Jain, 1993: 160).

- **Controllable and Non-Controllable Cost**

An item of cost is controllable if the amount of cost incurred. In a responsibility center is significantly influenced by the actions of the manager of the responsibility center otherwise it is non controllable (Antony and Welsh, 1977: 451).

- **Direct and Indirect Cost**

Different types of cost in a responsibility can be categorized as direct and indirect, costs, which can be traced into the particular department or products are direct cost. Those cost which are not allocated into any particular department product or units is indirect cost. Indirect cost is the common cost. E.g. salary of the manager is the cost is the common cost for all the departments. Such cost should be allocated to different units, subunits, departments and product as per the activity (Cost driver) (Decoster, 1979:10).

2.1.8.4 Cost for Decision Making

Cost for decision makings are:

- **Relevant/ Irrelevant Cost**

Cost which is influenced by a decision is a relevant cost and hence is important for decision makers cost which is not affected by a decision is irrelevant cost. Such a cost is of no relevance to decision makers. These costs should be ignored while making decisions, committed fixed cost are irrelevant that of additional fixed cost are of relevant. Relevant cost in true sense is incremental cost. Most of the variable cost is relevant cost for decision maker (Khan and Jain, 1993: 162).

- **Differential Cost (Incremental / Decremented Cost)**

Any cost that is present under one alternative but is absent in whole or in part under another alternative is known as differential cost. Differential cost is also known as incremental cost. Any cost which increases between the alternatives are incremental cost while which decreases is detrimental cost. Both

incremental and decrement costs are relevant in decision-making purpose (Garrison, 1985: 43).

� **Out of Pocket Cost and Sunk Cost**

Cost, which requires current or future cash expenditure as a result of a decision, is labeled as an out of pocket cost, in contrast, those cost which have already been incurred in the past and will not require any current cash expenditure is sunk cost. Sunk cost is the result of the past commitment. They should be ignored while making decision while out of pocket cost is relevant for decision making purpose. Mostly sunk cost deserves fixed behavior while out of pocket cost deserves the variable behaviors. But in some situations, sometimes- sunk cost might be of variable while out of pocket cost ear to be fixed (Decoster, 1979: 10).

⁾ **Opportunity Cost and Imputed Cost**

An opportunity cost can be defined as the potential benefit that is lost or scarified when the choice of one course of action requires the going up of an alternative course of action. Opportunity cost is not usually entered on the books of organization but it is a cost that must be expertly considered in every decision that a manager makes has some opportunity cost attached to it. In short, every alternative course of action facing a manager has a mixture of good and bad feathers. In rejecting a course of action, the good features must be given up along with the bad. The net good features of a rejected alternative become the opportunity costs of the alternative that is selected (Garrison, 1985:44).

2.8.2 Cost Allocation and Apportionment Methods

2.8.2.1 Method of Allocation

There are two popular methods of allocating the cost of service department. They are:

- **Step Method**

It provides for allocation of a departments cost to other service departments as well as to producing departments in a sequential manner. The sequence begins with the department that provides the greatest amount of service to other departments. After its costs have been allocated, the process continues step by ending with the department providing the least amount of services to other service departments.

- **Direct Method**

Direct method of cost allocation ignores the costs of services between departments and allocates all service department costs directly to producing department (Horngreen, 1991:328).

2.9 Product Costing Method

Two popular methods drawn for product costing are variable costing (Direct/ Marginal using) and Absorption costing (Fixed costing). Variable costing and absorption costing are not the system of costing like process, Operating batch costing rater they are the tools or techniques of product costing (Khan and Jain, 1999: 345).

2.9.1 Variable/ Direct Costing

Variable costing more accurately perceived as direct costing or marginal costing as it applies only the variable production cost to the product. This costing approaches that manufacturing overhead is reared as an expire cost to be immediately changed against sales not as an unexpired cost to be held back as invented changed against sales later as a part of cost of goods sold. Further more the costing approach to the inventorying of cost is not confined to only

material and labor. It also includes on indirect cost the variable manufacturing overhead as a part of product cost (Horngreen, 1991:539).

2.9.2 Absorption Costing

Contrast to variable costing. Absorption costing assumes that fixed along with the variable cost constitutes to the product cost. It absorbs all cost necessary to product. It considers fixed manufacturing overhead as a part of product cost (Horngreen, 1991: 539).

Absorption costing is more widely used than variable costing However, the growing use of contribution approach in performance measurement and cost analysis has 1e3reasing use of direct costing for internal reporting purposes.

2.10 Cost- Volume –Profit Analysis

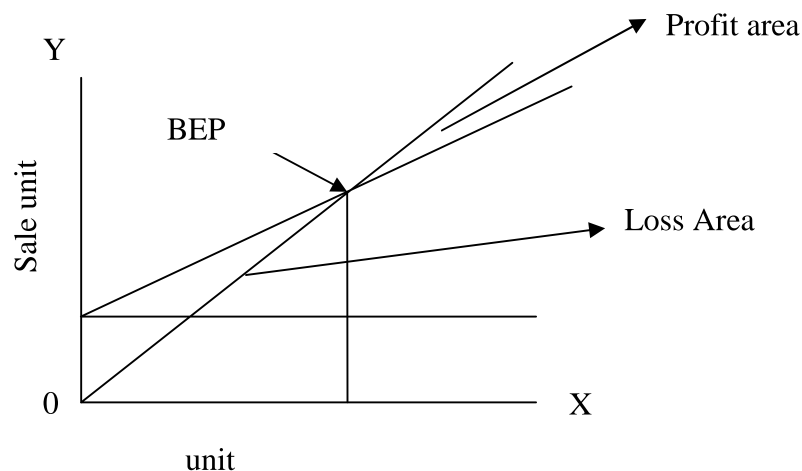
Managers often classify costs as fixed or variable when making decisions that affect the volume of output. The manager wants to know such decisions will affect costs and revenue. They realize that many factors in addition to volume of output will affect costs. Yet, a useful staring point in their decision process is to specify the relationship between the volume of output and costs and revenues.

The managers of profit seeking organizations usually study the effects of output volume to revenue (sales), expense (costs) and net income (net profit). This study is commonly called cost- volume- profit (CVP) analysis. The managers of non profit organizations also benefit from the study of CVP relationships, why? No organization has unlimited resources, and knowledge of how costs fluctuate as volume changes helps managers to understand how to control costs (Horngren, Sundern and Stratton, 2004: 470).

Cost- volume profit analysis is a management tool to show the relationship between the elements of profit planning. Profit planning is the function of the

selling price of produce, demand, variable costs, fixed costs, faces, etc. the whole picture of profit planning is associated with cost- volume profit interrelationships. A popular technique to study cost- volume profit relationships is break- even Analysis. Break even Analysis is concerned with. The study of revenues and costs in relation to sales at which the firm's revenues and total costs will be exactly equal or the net income will be zero.

It is a 'No profit no loss' situation. This point is a cornerstone of profit planning. This can be explained, through cost-volume-profit graph as follows.



CVP analysis is a supplementary tool of profit planning it tells many things about the relationship between the business variables. Total variable costs are proportionate to the sales volume; whereas the total fixed costs remain unchanged within the relevant range of the output levels. That is why net incomes are not in proportion to sales knowing this relationship; one can assess the profit at forecasted lowest volume.

Contribution margin is the excess of sales revenue over variable costs. So, contribution margin means how much is left from sales revenue, after covering variable expense that is contributed toward the covering of fixed expensed and then toward profit for the period. Contribution margin is used first to cover the fixed expenses, and then wherever remains after the fixed expenses are covered

goes toward profit if the contribution margin is not sufficient to cover the fixed expenses, then a loss out for the period.

BEP analysis is just one part of the entire cost volume- profit concept. Yet it is always taken as an important part of profit planning as it gives the planner many insights into the data with which he or she is working. Profit planning of each firm begins with BEP analysis. Up to the breakeven point sales volume, firms earn nothing: profit begins only after the BEP. Each unit sold beyond the BEP contributes towards profit. Beyond BEP, fixed cost does not increase. Therefore each unit sold beyond BEP given profit equal to CMPU.

The margin of safety (MOS) is the excess of budgeted (or actual) sales over the break even volume of sales. It states the amount by which sales can, drop before losses begin to be incurred in an organization MOS ratio indicates how safe the future of the firm is the higher the MOS the safer is the firm. For example, 25% MOS ratio of a company states that the sales can drop by 25% of the budgeted sales of the next year before losses begin to be incurred.

2.11 Budgeting

The various activities within a company should be co-ordinate by the preparation of plans of actions for future periods. These detailed plans are usually referred to as budgets (Drury, 2000).

A budget is a detailed plan expressed in quantitative terms that specifies how resources will be acquired and used during a specific period of time. The procedures used to develop a budget constitute a budgeting system (Hilton, 2003).

A budget is the detailed plan outlining the acquisition and use of financial and other resources over some given time period. It represents the plan for the future expressed in formal quantitative terms. The act of preparing a budget is

called budgeting. The uses of budget to control firm's activities are known as budgetary control (Garrison, 1985:297).

Budgeting as a tool of planning is closely related to the broader system of planning in an organization. Planning involves the specification of the basic objectives that the organization will pursue and the fundamental policies that will guide it (Khan and Jain, 1993:573).

A budget is a numerical plan of action, which generally covers the area of revenues and expenditures. A budget is a quantitative expression of a plan of action and an aid to co-ordination and control. A budget may be formulated for an organization as a whole or for its sub-units. Budgets, basically, are forecasted financial statements- formal expressions of managerial plans. They are targets that encompass all phases of operations including sates, production, purchasing and manpower and financing.

Planning: A Core Management Functions

Forecasting, planning and budgeting are often the most focused things in the mind of an entrepreneur struggling to keep his company going. Planning is the cornerstone of effective management and a vital part of good planning is budgeting. Is the first essence of management and all other functions are performed within the framework of planning. Planning means deciding in advance what is to be done in future planning starts with forecasting and predetermination of further events.

During the planning process, managers attempt to agree on company goals and objectives and strategies to achieve them. Planning is the process of developing enterprise objectives and selecting future courses of action to accomplish them. It includes.

- Establishing enterprise objectives
- Developing an analysis of the environment in which they are to be accomplished

- Selecting a course of action to accomplish the objectives
- Initiating activities necessary to translate plans into action.
- Re- planning to correct current deficiencies.

2.11.1 The Budgeting Process

The main objective of a business firm is to make an excess of revenue over expenses so as to maximize profits. But is not a matter of dream or chance. There are no magic formulas of boosting the figure of profit overnight. Budgeting, if followed properly, can increase the chances of making profits within the given environment. A systematic budgeting should encompass the following procedures.

- Evaluating the business environment
- Setting objectives
- Setting specific goals
- Identity potential strategies
  - Market penetration
  - Market development
  - Product development
- Communicating the planning guidelines
- Developing the long- term and short term plans.
- Implementation of budgets
- Periodic performance reporting and follow up.

2.11.2 Elements of Budget

The essential elements of budgets are:

- **Plan**

The first ingredient of a budget is its plan. A plan is an expression partly of what the management expects to happen an partly of what the management intends to happen (Fregmen, 1976: 157).

- **Operations and Resource**

A budget is a mechanism to plan for the firm's operations and resources. The operations are reflected in revenues and expenses, the planning of the various assets and the sources of capital to finance these assets (Khan & Jain, 1993:57).

- **Financial Terms**

Budgets are relates to a specified period time, usually one year. If it is not relating time horizon, it will be meaning less. Planning merely for a given amount will not constitute a budget unless a time dimension is added (Welsch, 1992).

- **Comprehensiveness**

A budget is comprehensive. It includes all the activities and operations of an organization. It covers the organization as a whole and not only some segment and these are integrated into an overall budget for the entire organization. The overall budget is referred as master budget.

- **Co-ordination**

Budgets are prepared for the different components, segments, divisions, facts, activities of an organization so to take care of the situation and problems of each component. The budget for each of the components is prepared in harmony with each another. This is called co-ordination (Copeland and Dascher, 1978: 35).

2.11.3 Zero Base Budgeting

Zero-Base Budgeting, every budget is constructed on the premise that every activity in the budget must be justified. It starts with the basic premise that the budget for the next year is zero and that every expenditure, old and new, must be justified on the basis of its costs and benefit. The discipline of zero-base budgeting takes a what it says is begin with where you are and establish a business usual and budget for the next year in the same way and with the same

things you would do if you were not concerned about constraints and total justification.

Zero- based budgeting (also known as priority-based budgeting) emerged in the late 1960: as an attempt to overcome the limitations of incremental budgets. This approach requires that all activities are justified and prioritized before decisions are taken relating to the amount of resources allocated to each activity. Besides adopting a zero-based approach zero-base budgeting (ZBB) also focuses on program or activities instead of functional departments based on line items, which a feature of traditional is budgeting (Drury 2000).

2.11.4 Activity- Based Budgeting

Activity- based costing can lead to improved decision making. Activity- based costing principles extend budgeting. Activity- based budgeting focuses on the outs of activities to produce and sell products and services. It separates indirect costs into separate homogeneous activity cost pools. Management uses the coupé and effect criterion to identify the cost drivers for each these indirect cost pools. To manage costs more effectively organizations that have implemented activity- based costing (ABC) have also adopted activity based budgeting (ABB). The aim of ABB to authorize the supply of only those resources that ware need to perform activities required to meet the budgeted production and sales volume,

Four key steps in Activity- Based Budgeting are:

- Determine the budgeted costs of performing each unit of activity at each activity area.
- Determine the demand for each individual activities activity based on the budgeted production
- Compute the costs of performing each activity.
- Describe that budget as the costs of performing various activities.

ABB Involves the Following Stages.

- Estimate the production and sales volume by individual products and customers.
- Estimate the demand for organizational activities.
- Determine the resources that are required to perform organizational activates.
- Estimate for each resource the quantity that must be supplied to meet the demand.
- Take action to adjust the capacity of resources to much the projected supply.

2.12 The Master Budget: A Network of Inter- Relationship

A complete set of financial plan for a business firm is often called the master budget. The master budget consists of many functional budgets including a sales budget, a production budget, a purchase budget, an expenses budget, equipment purchase budget and a cash budget. One all of these budgets are completed, the master budget for the entire firm is prepared when all budgets have been prepared, and the budgeted profit and loss account and balance sheet provide the overall picture of the planned performance for the budget period. The types of budgets or profit plans depend upon the natures of the business entity. The master budget is a networking consisting of many separate budgets that are interdependent. A master budget normally covers three areas: operational sectors budget, cash budget and budgeted financial statements.

2.12.1 Sales Budget

A sales budget is a detailed schedule of expected sales for the coming period. It is usually expressed in both amounts and units. Once the sales budget has been set, a decision can be made on the level of production that will be needed to support sales and the production budget can be set well. The sales budget is constructed by multiplying the expected sales in units by the sales price. Generally, sales budget is accompanied by computation of expected cash

receipts for the forthcoming budget period. This computation is needed to assist in preparing the cash budget of the year. Expected cash receipts are composed of collections on sales made to customer in prior periods plus collection on sales made in the current budget period (Garrison, 2000).

Sales budget is the starting point in the preparation of the comprehensive master budget. All the other plans and budgets are dependent upon the sales budget. The budget is usually presented both in units and dollars of the sales revenue or sales volumes. The preparation of a sales budget is based upon the sales forecast. A variety of methods are used to forecast the sales for the planning period.

2.12.2 Production Budget

After the sales budget has been repaired, the production requirements for the production requirements for the forth-coming budget period can be determined and organized in the form of a production budget. The production budget is an estimate of the quantity of goods to be manufactured during the budget period. In developing a production budget, the first stage is to formulate policies relative to inventory levels. The next step is to determine the total quantity of each product that is to be manufactured during the budget period the third step is to schedule this production to interim periods. Production budget is the initial step in budgeting manufactured during the budget period third step is to schedule the production to interim periods. Production budget is the initial step in budgeting manufacturing operations.

Planned Production Units = Planned Sales Units + Desired Ending Finished Goods Inventory Units- Beginning Finished Goods Inventory.

2.12.3 Direct Material Budget

After production needs have been computed, a direct material budget should be prepared to show the materials that will be required in the production process.

Sufficient raw materials will have to be available to meet production needs and to provide for the desired ending raw materials inventory. However, some quantity of material requirement will already exist in the form of a beginning raw materials inventory. The remainder will have to be purchased from a supplier. This budget specifies the planned quantities of each material, by time, by product, and by using responsibility.

Planned Material Consumption = Planned Production Units x Standard Raw Material Usage per Unit of Output.

2.12.4 Raw Material Purchase Budget

Direct materials are essential for production and must be purchased each period in sufficient quantities to meet production needs and to confirm to the company's ending inventory policies. The materials budget specifies the quantities and timing of each raw material needed, therefore a plan for material purchase must be developed. The purchase budget-specifies the estimated quantities to be purchased and the estimated cost for each raw material and the required delivery dates.

Planned Purchase Units = Planned Material Consumption + Desired Ending Inventory of Raw Material – Beginning Inventory of Raw Materials

2.12.5 Direct Labor Budget

Planning and controlling labor costs involve major and compels areas: (1) manpower needs, (2) Recruitment (3) Training (4) job evaluation and specification (5) performance evaluation (6) Union negotiations and (7) wage and salary administration. A comprehensive profit planning and control program should incorporate appropriate techniques and approaches applicable to each problem area. Careful planning and realistic control of long-term and short term labor costs will benefit both the company and its employees.

The direct labor budget is also developed from the production budget. Direct labor requirements must be computed so that the company will know whether sufficient labor time is available to meet production needs. By knowing in advance, the company can develop or plan to adjust the labor force as the situation may require. Direct labor by the number of direct labor-hours required to produce a single unit, many different types of labor may be involved. If so then the computation should be made of the type of labor needed. The hours of direct labor resulting from these computations can then be multiplied by the direct labor cost per hour to obtain the budgeted total direct labor cost.

2.12.6 Direct Labor Hour Budget

Total DLH Required = Planned Production × Standard Time Required Per Unit of Output.

No. of Labors = Total Labor Hours Required ÷ Working Hours Per Person Per Month.

Total Direct Labor Costs = Total Direct Labor Hours Needed × Wage Rate Per Hour

2.12.7 Manufacturing Overhead Budget

Manufacturing overheads are the part of the total production cost, which is not directly identifiable with specific products or jobs. Manufacturing overheads include many dissimilar expenses; therefore, they cause problems in the allocation of these costs to products. There are two distinct types of responsibility centers in most manufacturing companies, production and service. Responsibility for the operation of each department should be classified separately in the chart of accounts used by the cost accounting department; finally, the expenses of each department should be planned and controlled separately.

The manufacturing overhead budget provides a schedule of all costs of production other than direct material and direct labor. These costs should be broken by cost behavior as variable and fixed for budgeting purposes and a

predetermined overhead rate should be developed. This rate will be used to apply manufacturing overheads to the units of product throughout the budget period.

2.12.8 Selling and Distribution Expenses Budget

The selling and administrative expense budget contains a listing of anticipated expenses for the budget period that will be incurred in areas other than manufacturing. Selling and distribution expenses include all costs related to selling, distribution and delivery of products to customer. In many companies, this cost is a significant percentage of the total expenses. Careful planning of such expenses affects the profit potential of the firm.

2.12.9 Administrative Expenses Budget

Administrative expenses include those expenses other than manufacturing and distribution. They are incurred in the responsibility centers that provide supervision of and service to all functions of the enterprise, rather than in the performance of any one function. Because large portions of administrative expenses are fixed rather than variable, the notion persists that they cannot be controlled. Aside from certain top manager's salaries, most administrative expenses are determined by management decision.

2.12.10 Cost of Goods Sold Budget

The cost- of goods-sold budget clearly distinguishes the total costs of goods manufactured and cost of goods sold from the value of inventory. Indeed, it tells us how much of the costs of goods manufactured should be expensed this year and how much cost should be carried to the next year with the inventory. The cost of goods- sold budget facilitates the making of the income statement and the balance sheet.

2.12.11 Cash Budget

Any company, no matter how big of small, moves on cash, not on profits. You cannot pay bill switch profits, but only in cash. In the end you need to have

enough money to pay your obligations or you will go out of business. On these grounds the cash budget is one of the most important schedules prepared during the budgeting process because, without cash a company cannot survive.

A cash budget is developed after all the operational budgets and capital expenditure out days has been accomplished. A cash budget show the planned cash inflows, outflows and ending position by interim periods for a specific time span. Most companies should develop both long term and short term plans about their cash flows. The short term cash budget is included in the annual profit plan. A cash budget, basically, includes two parts.

- The planned cash receipts
- The planned cash disbursements.

Planning cash inflows and outflows gives the planned beginning and ending cash position for the budget period. Planning the cash inflows and outflows will include (1) the need for financing probable cash deficits or (2) the need for investment planning to put excess cash to profitable use.

The Primary Purposes of the Cash Budget are:

- Providing managers with advance notice of the resources at their disposal and the results they are expected to achieve.
- Providing targets useful in evaluating departmental performance.
- Providing warnings of potential cash shortages by time period.
- Establishing the need for financing and / or the availability of idle cash for investment.

2.12.12 Pro-Forma Income Statement

The final step in master budgeting is the development of budgeted or pro forma financial statements for the period. These statements reflect the results that will be achieved if the estimates and assumptions used for all previous budgets actually occur. Such statements allow the management to determine if the

predicted results are acceptable for the period. If the predicted results are not acceptable, the management has the opportunity to change and adjust items before beginning the period (Taibom, Barfield and Kinney, 1993).

The budgeted income statement is one of the key schedules in the master budget. It is the document that tells how profitable operations are anticipated to be in the forth-coming period. After it has been prepared, it stands as a benchmark against which subsequent company performance can be measure (Garrison, 2000).

2.12.13 Pro-Forma Balance Sheet

Beginning with the current balance sheet and adjusting it for the data contained in the other budgets develop the budgeted balance sheet (Garrison, 2000). The balance sheet is the final document in the master budget and even in financial record keeping. The balance sheet shows the final or ending balances of all the account titles. So it can be said a list of the remainder balance of all assets, liabilities and equities.

2.13 Management Control Systems and Responsibility Accounting

2.13.1 Management Accounting Control System

Management consists of the basic functions of planning decision- making and control. Control is function of management that ensures the proper implementation of plans and policies to achieve to organizational objective. Management control systems, Focus on motivating managers for the sake of enhancing total profitability of the organization.

Control involves the process of establishing results and performance targets measuring performance and providing rewards or punishments based on an employee's ability to achieve the performance target. A management control system is a logical integration of techniques to gather and use information to

make planning and control decisions, to motivate employee behavior, and to evaluate performance. The purposes of a management control system are

- To clearly communicate the organization's goals.
- To ensure that managers and employees understand the specific actions required of them to achieve organizational goals.
- To communicate results of actions actors system adjusts to changes in the environment (Horngren, Sundem and Stratton, 2004).

2.13.2 Responsibility Accounting

Responsibility Accounting is a system of dividing an organization into smaller units, each of which is to be assigned particular responsibilities. These units may be set up in the form of divisions, segments, departments, branches, product lines etc. each department comprises individuals who are responsible for particular tasks or managerial functions. The managers of the departments should ensure that the people in their departments are doing well to achieve the goal. Responsibility Accounting refers to the various concepts and tools used by managerial accountants to measure the performance of people and departments in order to ensure the achievement of the goals set by the top management.

In today's complex environment, it is almost impossible to control a big organization centrally, Responsibility accounting is a process is a process of decentralization under which the authority and the responsibility are delegated to the respective responsibility centre. It is a concept of dividing an organization into subunits so that a manager of the unit could be made accountable for the given job. Responsibility accounting collects and reports planned and actual accounting information about the inputs outputs of responsibility centers.

Process of Responsibility Accounting

- Identifying the responsibility centers.
- Delegation of authority and responsibility or decentralization

- Controllability of the object.
- Establishing performance evaluation criteria

2.14 Standard Costing

Standards may be defined as measured quantities, which should be attained in connection with some particular operation or activity. Stated in terms of a test of efficiency, a standard is a test of efficiency, a standard is a precise measure of what should occur if the performance is efficient (Khan and Jain, 1993:631).

Historical costing is not an effective method of exercising cost control because it does not provide yardstick with which actual performance may be compared. Historical costing is not preceded by planned costs which are a must for effective cost control planned cost or standard cost is a predetermined cost based on technical estimates for material, labor and overhead for a selected period of time and for a prescribed set of working conditions. It is determined in advance. Of production of what should be the cost, when standard costs are used for the purposes of cost control, the technique is known as "standard costing". Therefore standard costing is preparation of standard costs and applying them to measure the variations from standard costs and analyzing the causes of variations with a view to maintain maximum efficiency in production. This technique is complementary to the actual costing or historical costing system. The system of standard costing can be useful in all types of industries but it is more commonly used in industries producing standardized products, which are repetitive nature (Jain and Narang, 1992: 55).

2.15 Controls through Standard Cost

In attempting to control costs, Managers have two types of decisions to make decisions relating to prices paid and decisions relating to quantities used. Manages are expected to pay the lowest possible prices, consistent with the quality of output desired, in attaining the objectives of their firm. In attaining these objectives, angers are expected to consume the minimum quantity of

whatever resources they have at their common, again consistent with the quality of output desired. Breakdowns in control over either price or quantity will lead to excessive costs and to deteriorating profit margins. Managers could personally examine every transaction that takes place to control price paid and quantity used, but this would be an inefficient use of management time, thus the answer to the control problem use in standard cost (Garrison, 1985:353).

2.16 Setting Standard Cost

The setting of standard costs is more an art than a science. It requires the combined thinking and expertise of all persons who have responsibility over prices and quantities of inputs. In a manufacturing setting, this would include the managerial accountant, the purchasing agent, the industrial engineer, and production supervisors and line managers.

The beginning point in setting standard cost is rigorous look at past experience. The managerial accountant can be of great help in this task by preparing data on the cost features a prior year's activities at various levels of operations. A standard for the future must be more than simply a projection of economics patterns, changing demand and supply characteristics, and changing technology (Garrison, 1985: 354).

Most Widely Used Standard

Standard fall into one of two categories: either ideal or practical

2.16.1 Ideal (Perfection) Standard

Ideal or perfection standard is the expression of the absolute minimum costs possible under the best, conceivable conditions using specifications and equipment. No provision in made for wastage, spoilage, machine break known and he like. This approach maintains that the resulting unfavorable variances will constantly remind managers of the perpetual need for improvement in all phases of operations. These standards might have an adverse effect on

employee's motivating and they tend to ignore unreasonable goals (Jain and Narang, 1992: 234).

2.16.2 Practical (Currently Attainable) Standards

Currently attainable standards are costs that can be achieved by a specified level of effort. Allowances are made for normal spoilage, waste and non-productive time. The level of effort specified for the standards various from company to company. There are two interpretations of practical standard. The first interpretation has standard set just tightly enough so that employees regard their fulfillment as highly probable if normal effort and diligence are exercised.

The second interpretation of the practical standard is that standards are set tightly. That is employees regard their fulfillment as possible though unlikely. Standard can be achieved only by very effort operation (Horngreen, 1991:217).

2.17 Analysis of Variance

Control is very significant function of management. Through control, management ensures that performance of the organization confirms to its plans and objectives. Analysis of variances is helpful in controlling the performance and achieving the profits that have been planned (Fremgen, 1976: 250).

The derivation of the actual cost or profit or sales from the standard cost or profit or sales is known as variance.

When the actual cost is less than standard cost or actual profit is better than standard profit, it is known as favorable variances and such a variance is usually a sign of efficiency of the organization. On the other hand when actual cost is more than standard profit is called unfavorable variances and is usually an indicator of inefficiency of the organization. The favorable and unfavorable variances are also known as credit and debit variances. Variances of different items of cost provide the key to cost control because they disclose whether and to what extent standards set have been achieved.

Variances can be classified into controllable variance and uncontrollable variances. If a variances due to inefficiency of cost center, it is said to be controllable variances, such as variances can be corrected by taking a suitable action. On the other hand uncontrollable variance does not relate to an individual or department but arises due to external reason like increase in prices of materials (Jain and Narang, 1992: 5.239).

2.18 Capital Budgeting

Capital budgeting is the process of making those long-term planning, decision for investments. It is decision making and control tool that focuses primarily on projects or programmers whose effects span multiple time periods (Horngreen, Foster, and Datar, 1999:779).

Capital budgeting is the process of planning and controlling the strategic (long-term) and tactical (short-term) expenditure for expansion and contraction of investment operating (fixed) assets (Welsch, Hilton and Gordon, 1992:394).

Capital budgeting is the planning to expenditure whose return stretches themselves beyond a one-year time interval. It is the process of deciding whether or not to commit resources to a project whose benefits would spread over several time periods. It considers proposed capital outlays and their financing. The main exercise involved in capital budgeting is to relate the benefits to costs in some reasonable manner which would be consistent with the project maximizing objectives of the business. Capital budgeting decision is the most important areas of managerial decisions as they involve more extended estimation and prediction of things to more requiring a high order of intellectual ability of their economic analysis. Heavy spending on capital assets since the Second World War has stimulated a genuine and lively interest on the part of economist's financial analysis, and accountants in managerial approaches to capital budgeting decisions (Goyal and Man Mohan, 1997:100-107).

Capital expenditures are investments because they require the commitment of research today to receive higher economic benefit (i.e. profit) in future. Capital expenditures become expenses in the future as their related goods and services are being used to rash higher future profits from future revenues to achieve future cost savings the related future expenses such as, depreciation expenses are identified with the future periods when the capital addition are used for their intended purposes. Therefore capital expenditure involve two planning and controlling phases (a) investment (b) Expenses. A major issue in planning capital expenditure is the problem of ensuring that company has the capacity to produce acquire for be able to deliver the goods and services that will be needed to meet its sales and services plan. A major issue in controlling the actual expenditure of funds is the problem of ensuring that the actual expenditure are consistent with the plans and that funds are available when the expenditure are incurred (Welsch, Hilton and Goden, 1992:394).

Conceptually capital budgeting has three aspects. It ranks various proposals by measuring their profitability before considering the cost of capital in descending order, uses the company's minimum desired rate of return (average cost of capital) as the cut off point for determining whether projects should be accepted or rejected. In doing so, the limitation imposed by top management decision on the total volume of investment to be made has also to be taken into account. Though these three aspects are inter wined it is extremely difficult to weave them together in one harmonious whole so, that the way may be passed for optimum investment decision (Goyal and Man Mohan, 1997:101).

2.18.1 Techniques of Capital Budgeting

More proposes for projects are at the threshold of the business firm comparing to its ability and willingness to finance some proposals are good, other are different and yet other poor. A screening process has to be devised for finding out the real content of such proposals method of differentiating them should be developed (Goyal and Man Mohan, 1997).

For this purpose numerous methods of measuring the economic value of an investment can be found. The methods of appraising capital expenditure proposal can be classified into two broad categories.

- Unsophisticated or traditional methods.
- Sophisticated or time adjusted methods.

The latter are, more popularly known as discounted cash flow techniques as they consider the time factor.

The first category includes

- Payback period (PBP)
- Average rate of return (ARR)

The second category includes

- Net present values method (NPV)
- Internal rater of return (IRR)
- Profitability index (PI)

i) Pay Back Period (PBP)

The payback period method is the traditional method of capital budgeting. It is the simplest and perhaps the most widely employed quantitative method for appraising capital expenditure decisions. This method answers the questions: how many years will it take for the cash benefit to pay the original cost of an investment, normally disregarding salvage value? Cash benefit here represents cash flow after tax (CFAT), ignoring interest payment. Thus PBP measures the number years required for the CFAT to pay back the original out lay required in a investment proposal.

$$PBP = \frac{\text{Investment}}{\text{Constant Annual Cash Flow}}$$

One of the most commonly used methods of capital budgeting is the payback technique. This method poses the question: 'How long will if take to recover the investment?"

PBP Decision Rule

The payback period method requires a benchmark above which you reject investments and below which you accept them. Managers simply state the acceptable limit to the payback period; however this benchmark payback period is objective.

The project having the shortest payback may be assigned rank one, and the project with the longest pay back would be ranked the last. The term 'mutually exclusive' refers to proposals out of which only one can be accepted with the exclusion of others. Obviously, projects with a shorter payback period will be selected (Khan and Jain, 1996).

Rationale of Pay Back

The payback period is important to a company experiencing liquidity problems. A long payback period usually means a low rate of return. Payback is a measure of risk because the longer it takes to get your money back, the greater the risk that you may not get the money.

Limitation of Payback

- Payback has two very serious errors. The first is that it tells nothing about the profitability of the investment. It ignores the size of cash flows after the payback period.
- The second serious error of the payback method is that it ignores the timing of the expected future cash flows and so ignores the time value of money. This can lead to poor decisions.

ii) Accounting Rate of Return (ARR)

The accounting rate of return (ARR) method of evaluating a proposed capital expenditure is also known as the average rate of return method. It is based upon accounting information rather than on cash flow. There is no unanimity

regarding the definition of the rate of return. There are a number of alternative methods for calculating the ARR.

Accounting Rate of Return = $\frac{\text{Average Annual Expected Income}}{\text{Average Book Investment}}$

ARR Decision Rule

With the help of the ARR, the financial decision-maker can decide whether to accept or reject an investment proposal. According to the ARR, as an accept-reject criterion, the actual ARR will be compared with a predetermined or a minimum required rate of return or cut off rate- a project will quality to be accepted if the actual ARR is higher than the minimum desired ARR. Otherwise, it is liable to be rejected (Khan and Jain, 1996).

iii) Net Present Value (NPV)

Net present value (NPV) method is a discounted cash flow approach to capital budgeting that discounts all expected future cash flows to the present using a minimum desired rate of return. To apply the net present value (NPV) method to a proposed investment proposal a manager first determines some minimum desired rate of return. The minimum rate is called the required rate of return, hurdle rate, discount rate, or cost of capital. Then all expected cash flows from the project are discounted to the present, using this minimum desired rate. If the sum of the present values of the cash flow is zero, or positive, the project is desirable and if negative it is undesirable. When choosing among various investments, the one with the largest net present value is the most desirable (Hongren, Sundern and Stratton, 2004).

This method requires the determination of three items for a project

- Initial cash outflow
- Future net cash inflow and
- Minimum required rate of return

Net present value (NPV) method requires that all cash flows associated with new investment proposal be discounted at a predetermined weighted average cost of capital.

NPV Decision Rule

The decision rule for a project under NPV is to accept the project if the NPV is positive and reject if it is negative. Zero NPV implies that the firm is in a dilemma as to accepting or rejecting the project. However, in practice, it is rare the project is accepted as such a situation simply implies that only the original investment has been recovered. As a decision criterion this method can also be used to make a choice between mutually exclusive projects on the bases of the NPV method the various proposal are be ranked in the order of the net present values. The project with the highest NPV will be assigned the first rank, followed by others in descending order (Khan and Jain 1996).

iv) Discounted Payback

A major limitation of payback is that it does not take the time value of money into account however; this limitation can be over come through the use of a discounted payback. The NPV criterion leads to an acceptance of a project as long as its NPV is at least zero. If a project complies with this requirement then if does pay back within the discounted pay back criterion period. Thus the discounted payback is not more than a shortened version of NPV. Instead of calculating the project's NPV over the whole of its life, the NPV is effectively calculated up to some specified cut off point.

v) Internal Rate of Return (IRR)

IRR technique is also known as yield-on-investment marginal efficiency of capital marginal productivity of capital, marginal efficiency of capital rate of return, time adjusted rate of return and soon on. Lime the present value method, this method also considers the time value of money by discounting the cash streams. The basis of discount factor however is different is both cases of the

present value method, the discount rate, usually the cost of capital, and it is determinates are external to the proposal under consideration. The IRR on the other hand, is based on facts, which are internal to the proposals, in other words, while arriving at the required rate of return for finding out the present values, the cash flows, inflows as well as out flows are not considered but the IRR depends entirely on the initial out lay and the cash proceeds of the projects, which are being evaluated for acceptance or rejection it is therefore, appropriately referred to as an internal rate of return.

The internal rate of return IRR (r) is the discount rate that equals the aggregate present value of CFAT with the aggregate present value of cash outflows required for a new investment. The project will be accepted only if IRR exceeds the cost of capital (k). Symbolically is determined as per the equation.

The IRR of a project is the rate of discount, which produces a zero NPV.

IRR Decision Rule

The IRR decision rule is that only project with an IRR greater than or equal to some predetermined 'cut-off' rate should be accepted. This cut-off rate, also called the cost of capital is usually the market rate of return on similar risky projects. All other investment project opportunities should be rejected.

If the projects are independent, NPV's are positive and IRR, of the projects are greater than the cut-off rate, all projects may be accepted depending on the fund availability. All projects with a negative NPV and smaller than cut-off rate IRR's are rejected. But in case of mutually exclusive projects, must be accepted and only one can be accepted, only the project with the highest NPV and IRR is desirable.

vi) Profitability Index (PI)

The profitability index (PI) or benefit cost ratio is a time-adjusted capital budgeting technique. It is similar to the NPV approach. The PI approach

measures the present value of return per Rupee invested, while the NPV is based on the difference between the present value of future cash inflows and the present value of cash outlays. Profitability index may be defined as a ratio, which is obtained by dividing the present value of future cash flows by the present value of cash outlays

$$PI = \frac{\text{Present Value of Cash Inflow (TPV)}}{\text{Present Values of Cash Outflow (NCO)}}$$

PI Decision Rule

If the PI value exceeds one, the proposal is worth accepting. When profitability indeed equals one (s), the firs is indifferent to the projects. When the profitability index is greater, equal to or less than one, the net present value is grater equal or less than zero respectively. In other words, NPV will be positive when the profitability index is greater than one; and will be negative when the profitability index is less than one thus, the NPV and profitability index approaches give the same results regarding the investment proposals.

Capital Budgeting Under Risk and Uncertainty

A capital budgeting decisions is based on the benefits derived from the project. These benefits are measured in terms of cash flows. The estimation of future returns is done on the basis of various assumptions. The actual return in terms of cash inflows depends on a variety of factors such as price, sales volume, and effectiveness of the advertising campaign, competition, cost of raw materials, manufacturing costs and so on each of these in turn depends on other variables like the state of economy, the rate of return inflation etc. the accuracy of the estimates of the future returns and therefore the reliability of the investment decision would largely depend upon the precision with which these factors are forecast. What sever technique is followed for forecasting precisely actual return can never tally to estimation? As a result actual results vary from the estimation. This variation is technically referred to as a risk. The term 'risk with and investment' can therefore be defined as the variability in the actual return

emanating from a project in future over its working life in relation to the estimated return as fore cast at the time of initial capital budgeting decision (Hongren, Foster and Data,1999).

Risk exists when the decision-maker is in a position to assign probabilities to various outcomes. Uncertainty exists when the decision maker has no historical data from which to develop a probability distribution and must make intelligent guesses in order to develop a subjective probability distribution.

The capital budgeting decision for starting a new product will have more uncertain returns than the one involving the expansion of an existing one. Further, the estimates of returns from cost-reduction type of capital budgeting will be subject to a lower degree of risk, than the revenue expanding capital budgeting project.

2.19 Decision Making

Decision- making is one of the most crucial tasks of management. Manager is constantly faced with problems of deciding what products to sell, what production methods to use, whether to make or buy component parts, what prices to charge, what channels of distribution is to use, whether to accept special orders at special prices and so forth. In decision-making, cost is always a key factor. The cost of one alternative must be compared against the cost of other alternatives as one step in the decision-making process. To be successful in decision making, managers must have tools at their disposal to assist them in distinguishing between relevant and irrelevant cost so that latter can be eliminated from the decision frameworks (Garrison, 1985: 539).

As management is the practice of consciously and continuously shaping formal organization, the art of decision making central to doing that. Decision making is the process of identifying and selecting course of action to some a specific problem (Stoner, Freeman and Gilbert, 2000: 239).

As cost is the key factor for decision, the cost general can be classified as relevant and irrelevant from decision perspective. All the cost which are avoidable or which changes with the change in alternatives are relevant and vice versa. The following cost such as;

- Variable cost which changes
- Opportunity cost
- Avoidable cost
- Differential cost are

The relevant cost where as,

- Sunk cost
- Committed cost are

Irrelevant from decision-making perspective (Khan and Jain, 1993:830).

2.19.1 Decision Situation

Various sorts of decision situation, which managers have to make, are:

2.19.1.1 Sales Volume Related Decisions

Such decisions cover:-

- **Special Order**

One decision situation relates to increase in sales volume outside the normal marketing pattern. Typical examples of such type of sales are acceptance of special sales do not affect the normal sales. The accept- reject decision would be based on the incremental contribution.

In case, the special sale would affect the future sales volume and/ or selling price, the opportunity cost in terms of lost revenue will also be relevant to decision making (Khan and Jain, 1993: 831).

- **Disposing of Inventories**

Pricing decisions must consider the relative marketability of inventories. Due to damage or lack of demand, inventory mayn't be saleable through normal

marketing channels or under normal operating conditions. In such cases, incremental analysis is appropriate for decision making as all prior costs of producing acquiring inventor are sunk costs and therefore irrelevant to the decisions (Khan and Jain,1993:831).

- **Loss Leaders**

Sometimes an item may be deliberately priced soo low that the firm has to suffer loss in the expectation that additional sales will be generated, which will offset the loss. Such sales are referred to as loss leaders (Chat Field, Neilson and Denis, 1983:389).

2.19.1.2 Sell Now or Further Process Decisions

Short- term incremental analysis also applies to sell or further process decision situations. When an item of production passes through various processes, it is saleable at different stages/ point. In deciding at what stage to sell the product the two critical variables are; (a) identification of sunk cost and (b) calculations of incremental returns at various sales alternatives. All costs whether fixed or variable, incurred before the sell or process further point, should be treated as sunk and therefore irrelevant costs. The incremental return relevant to the decision is the difference between the costs that are incurred beyond the decision point and the revenues. If however the fixed resources would remains idle as a result of not processing the product further and if they could be diverted to some other use, opportunity cost would also become relevant to the decision analysis (Garrison, 1985: 557).

2.19.1.3 Make or Buy Decision

Many firms have to choose between manufacturing certain components themselves or acquiring them from outside suppliers. Incremental analysis provides solution to this kind of decision problems. The relevant information is the committed/avoidable costs if the firm has adequate idle capacity to make the component. This is so because the firm wouldn't be required to incur fixed

costs to produce the components. If, however, there is need to enlarge the capacity of lost contribution will be relevant to the decision analysis (Honoree, 1991:136).

2.19.1.4 Addition/ Elimination of Product Lines/ Divisions/Shifts/ Departments

When the firm is divided into multiple sales outlet, products lines, divisions, departments, it may have to evaluate their individual performances to decides whether or not to continue operations of each of these segments or add a new segment. The decision criterion would be the segment margin. The segment margin equals segments contribution margin less fixed costs that are directly traceable to that segment (Garrision, 1985:495).

2.19.1.5 Short- Term Use of Scare Resource

Incremental analysis can also be used to allocate resources that are limited in quantity. This requires that alternative courses of action be compared in a way that takes resources availability into account. The decision criterion in such a situation is the contribution margin per unit of the key factor. This will maximize the total contribution of the firm (Horngreen, 1991: 136).

2.19.1.6 Joint outputs of Common Processing Operations

A decision faced by the management is whether to sell joint outputs at the spilt-off point or process them further. The decision criterion should be to choose the alternative which will maximize the total contribution of the various joint products to the common processing costs. As the common processing costs before the split-off point are sunk cost that have already been incurred to create the joints products they are irrelevant and will not be considered in the decision making. The only relevant cost will be the additional common. Processing costs a related short-term decision involves selecting an alternative processing plan for join products when the proportion of the output from the common processing cost can be varied (Horngreen, 1991:141).

2.20 Pricing of the Product and Services

Many firms who produces substitute production like the competitors doing have no pricing problem at all. For their product, market prices already exist. They cannot charge more than the market Price, no need of calculated of pricing for the product as they simply facing problem of pricing decisions.

Pricing decision are decision that manager make about what to charge for the products and services they deliver. The pricing of product is not just marketing decision or a financial decision, rather it a decision touching on all aspect of a firm's activities and as such of affects the entire enterprise for pricing decision, economists have their own view while accountant has their own perspective. Economic theories indicate that companies acting optimally should produce and sells units until the marginal revenue equal marginal cost. The market price is the price that creates a demand for these optimal numbers of units. But cost accountant has different perspective regarding pricing decisions. They consider cost as the key factor to pricing decision of the standard product. The ways of pricing special product are:

2.20.1 Cost Plus Pricing

In pricing standard product, it should be recognized that selling prices should be sufficient enough to cover every type of cost in the long run (Garrison, 1985: 504).

One of the common approaches to the pricing of standard product is to employ some type of cost plus pricing formula (Gordon, Cooper, Falk and Miler, 1981:23).

The approach in cost plus pricing is to compute cost and then to add predetermined mark-up to arrive at a target-selling price. There are two approach of computing cost in the cost plus pricing.

- Absorption approach
- Contribution approach

Under absorption approach in cost pricing while computing the cost both variable and fixed manufacturing overhead are taken into consideration. Then add some mark-up to the cost and thus arrive at target selling price.

Under contribution approach in cost plus pricing to compute the cost, only the variable manufacturing overhead are taken into consideration and then to add some mark up percentage enough to cover fixed manufacturing overhead, selling and administrative overhead target selling price (Horngreen, Foster and Datar, 1999: 133-436).

Determining the Mark-Up- Percentage

One of the crucial elements in cost plus pricing is "Mark-Up- Percentage". This Mark-Up should be enough to recover the buried cost and desired profit. To determine the desired mark-up percentage, manager can use the return on investment (ROI) approach as a base. Under absorption approach of cost-plus pricing, the Mark-up percentage is computed as such; (Garrison, 1985:506-509).

$$\text{Mark-up \%} = \frac{\text{Desired Return on Assets Employed} + \text{Administrative Expenses}}{\text{Volume in Units} \times \text{Unit Cost of Manufacture}}$$

Under Contribution approach, Mark up % is computed as such:

$$\text{Mark-up \%} = \frac{\text{Desired Return on Assets Employed} + \text{Fixed Cost}}{\text{Volume in Units} \times \text{Unit Variable Expenses}}$$

2.20.2 Target Cost Pricing

A target pricing is the estimated price for a product or service that potential customers will be willing to pay. This estimate is based on an underwriting of customer's perceived value for a product and competitor's responses. A target operating income per unit is the operating income that a company wants to earn on each unit of a product sold. The target price leads to target cost. A target cost per unit is the estimated long-run cost per unit of a product that when sold

at the target price enables the company to achieve the target operation income per unit. Subtracting the target operating income per unit from the target price derives target cost per unit.

Developing target prices and target cost requires the following.

- Develop a product that satisfies the needs of potential customer.
- Choose a "target price" based on customer's perceived value for the product and prices completions charge and a target operating income per unit.
- Drive a target cost per unit by subtracting the target operating income per unit from the target price.
- Perform value engineering to achieve target cost (Horngreen, Foster and Datar, 1999: 430).

2.20.3 Variable Cost Pricing

Under variable cost pricing method, pricing of the product is determined by adding mark up to the variable expenses, the conditions under which a price based on variable cost is appropriate are as follows:

- When capacity idles exists.
- When operating under distress conditions and
- When faced with sharp competition on particular orders under a competitive bidding system.

2.20.4 Full Cost Pricing

Contrast to variable cost pricing, full cost pricing takes into account both product and period cost, reaching to the selling price. Under this approach total cost including fixed manufacturing cost is taken into account and then add mark up and thus arrive at selling price (Garrison, 1985: 516-517).

2.20.5 Transfer Pricing

Transfer pricing is the principal tools of financial control in decentralized organization (Kaplan and Atkinson, 1998: 442). A transfer price is the price on submit of an organization charges for a product or services supplied to another subunit of the same organization. The transfer price creates revenue for the selling subunit and a purchase cost for the buying subunit, affecting operating income numbers for both subunits. The operating income can be used to evaluate the performance of each subunit and to motivate managers.

Methods of Transfer Pricing

Methods of determining transfer pricing are:

i. Market Based Transfer Prices

Subunit of an organization may choose to use to the price of the similar product or service publicly listed in say, a trade journal. Also, subunits may select, for the internal price the external price that a subunit charges to outside customers.

ii. Cost-Based Transfer Prices

Subunit may choose a transfer price based on the costs of producing the product in question. Examples include variable manufacturing costs, include all production costs, as well as costs from other business functions such as research and development design, marketing, distribution and customer service. The cost used in cost-based transfer price can be actual costs or budgeted costs.

iii. Negotiated Transfer Prices

In some cases, subunits of a company are free to negotiate the transfer price between them and then to decide whether to buy and sell internally or deal with outside parties. Subunits may use information about costs and market prices in these negotiations but here is no requirement that the chosen transfer price bear any specific relationship to either cost or market-price data. Negotiated transfer prices are often employed when market prices are volatile and change occurs constantly. The negotiated transfer price is the outcome of a bargaining process between the selling and the buying divisions.

2.20.6 Different Pricing Practices and Cost Management Methods in Various Countries

Surveys of financial officer of the largest industrial companies in several countries indicate similarities and differences in pricing practices across the globe. The use of cost based pricing appears to be more prevalent in the united states than in Ireland, Japan and United Kingdom some Japanese survey indicate that market-based target pricing practices vary considerable among industries. While a majority of Japanese companies is assembly type operation large electronics and automobiles use target costing for pricing, it is far less prevalent in Japanese processes type industries (e.g. Chemicals, Oil and Steel). Japanese companies use value engineering more frequently and involve designed more often when estimating costs. When costs are used for pricing decision the pattern is consistent overwhelmingly companies across the globe use full costs rather than variable costs (Horngreen, Foster and Dater 1990:455).

Use of the direct method of allocating support department cost is widespread, almost 50% of the firm use direct method for allocution of joint cost to production department. Approximately 30-40% of companies usage variable costing in their accounting system and absorption costing for external reporting or for tax reporting. Most common problem reported by companies using variable costing was the difficulty of classification cost into fixed and variable categories.

2.21 Review of Previous Research Work

Researches in the area of cost accounting practices in Nepalese context are not made. But many researches have been made in the area of cost volume profit analysis, practices of management accounting in Nepalese context and profit planning and control. As CVP analysis and management accounting and profit planning covers some of the aspects of cost accounting researches made on

these areas are taken into consideration for the sake review to examine how CVP analysis, management accounting and profit planning and control practices in Nepalese companies.

An attempt is made here to review some of the researches, which have been submitted in CVP analysis and practices of management accounting and profit planning and controlling.

Ramji Prasad Adhikari (1998) conducted research in topic *"Accounting Practices in Nepalese Small Industries"*. This research of Adhikari was mainly centered with the current practice of accounting system in small industries excluding service industries.

The remarkable findings of this research are as follows.

- Many small businesses however not always use the complete books keeping cycle and use a single entry book keeping system. Instead of the double entry system of journals and ledgers.
- They use a cash register, they don't record the income and expenditure until the cash is received and paid.
- Many small business firms don't prepare profit and loss account and balance sheet.
- Most of the small entrepreneurs have been facing costing and pricing problem.
- Most of the entrepreneurs feel difficulty to allocate the fixed overhead on different product line.
- Cost accounting in smaller enterprises had not been practiced yet.
- Budgeting system is also not practice yet.

As a whole the study find out that the most of the small entrepreneurs have lack of accounting concepts.

Sagar Sharma (2002) had conducted a research entitled *"Management Accounting Practices in Listed Companies of Nepal"* he has focused his study to examine and study the practice of management accounting tools in listed companies of Nepal. Sharma's research study is based only on primary data. In his study he has pointed out various findings and recommendation, which are as follows:

- Different types if management accounting tools which are taught in the colleges are not found applied by the listed companies of Nepal.
- Management accounting is to help manages in overall managerial activities by providing information and helping in planning, controlling and decision making
- Nepalese listed companies are infant stage in practicing of management accounting tools such as capital budgeting, annual budgeting, cash flow ratio analysis, zero based budgeting, activity based costing, target costing and value engineering.
- Most of the companies doesn't have practice of hiring external export at the time of preparing budget.
- Companies are recommended to apply management accounting tools to fit with global environment.

Madhav Rijal (2005) has conducted a thesis in the title *"Cost Volume Profit Analysis as a tool to measure effectiveness of Profit Planning and Control: A Case Study of NEBICO Pvt. Ltd."* had conducted a research. The study period had covered five accounting periods. His some of the essential findings and recommendations were as follows:

- The company cost is high in proportion than fixed cost in total cost, which contributes for lower contribution.
- The company has higher fixed costs (i.e. high salary and wages, technical and computer fees, depreciation, interest, provident fund and subsidies).

- In Nepalese manufacturing company, especially in NEBICO there is no any plan to reduce cost. There is lack of effective cost control programs of techniques.
- The profit trend of the company is not satisfactory. As compared to profit, proportion is very low with fluctuated trend.
- The company has no detailed of any systematic expenses plan. The fixed, variable and mixed expenses plan is the necessary elements for profit planning and control.
- In the company, there is no effective inventory policy. The inventory management, raw material handling and controlling system are not efficient and effective.
- The board of directors is the main authority in price fixing and it directly interferes to price of biscuit and confectionery products.
- NEBICO Pvt. Ltd. hasn't proper practice on segregation the cost in to fixed and variable or controllable and uncontrollable.
- There is not proper co-ordination among production, administration, distribution, inventory and sales department.
- NEBICO Pvt. Ltd. has not been utilized its capacity properly.
- Lack of information and extra cost burden are the main reasons behind not practicing such tools.

Dharma Raj Shrestha (2006) had conducted a research in topic *"Cost Volume Profit Analysis of Commercial Bank''* a case study of Himalayan bank limited the time period covers by this research was seven year from FY 055/056 to FY 061/062 The data and necessary information were collected by using both method. In this research Shrestha had pointed out the various findings some remarkable finding were as follows.

- CVP analysis has not practiced yet
- There is no practice of segregating cost into fixed and variable. The costs are roughly classified and that classification is not scientific and appropriate.

- There is no complete and comprehensive budgeting system.
- Margin of safety is very high than BEP sales. It means well performance of bank.

Krishna Bahadur Karki (2006) has conducted a research on *"Management Accounting Practice in Joint Venture Bank of Nepal"* The data and other necessary information were collected by using primary sources and secondary sources of data. In his research Karki has pointed out various findings and recommendation some remarkable findings were as follows:

- Most of the Bank used capital budgeting ratio analysis, annual budgeting tools for planning controlling and decision making.
- All of the bank practiced profitability index and net present value method to analysis long term investment decision. Some of the bank practiced pay back period method.
- Must of the bank used past trend method to make cost and revenue budget and recommended to practice zero based, market survey and statistical tools.
- Only some of the Bank segregates joint cost into fixed and variable cost. Most of Bank has not practiced any segregation method.
- Almost all the Banks followed "Going rate pricing" method for pricing product and services.
- Transfer pricing was not practicing in any Bank of Nepal.
- All of the Bank practiced master budget and annual budgeting for essential operational activities properly.

Naba Raj Dawadi (2008) has conducted a research on *"A Study on the Cost Structure of Hama Iron and Steel Industry"* in the study Dawadi has tried to examine and analyze the cost structure followed by Hama Iron and steel industry and to provide valuable suggestions to use the scientific technique for betterment of the Industry.

The time period of the study is 5 year from F. Y. 2058/059 to 062/063. For the collection of data and information for the analysis, Dawadi has used both primary and secondary sources. Some of the remarkable findings from the study are listed below.

- Hama steel has been facing high costing problem in production and distribution.
- The industry has not practiced the scientific classification system of cost.
- Cost estimation and control mechanism seems to be ineffective.
- It has practiced the market based pricing system.
- The cost of Hama Steel is in increasing tread.

2.22 Research Gap

There is a gap between the present research and the pervious researches. Previous researches conducted on profit planning and control and cost volume profit analysis, Covered only the budgeting practices and measuring managerial efficiency. The previous research on practice of management accounting tools examined the practice of management accounting tools in the various companies of Nepal which includes Bank finance, insurance manufacturing, Trading Hotel and other companies. The previous research does not study the cost accounting practices in a private sector bank. Thus to fill up those gap the current research is conducted. This research is the analytical and case study research on a particular entity. It is based on primary and secondary data. It examines the current practice of cost and management accounting tools in Nepal SBI Bank Ltd. etc. It has disclosed the reason about the tools which aren't practiced by the bank and suggested to apply accounting tools.

CHAPTER – III

RESEARCH METHODOLOGY

In this chapter efforts have been made to present and explain the specific research design for the sake of attaining the research objectives. It includes research design Nature of data, data gathering procedure.

3.1 Research Design

As per the nature if study survey and analytical design was followed with descriptive approach.

3.2 Sources of Data

Data were mainly collected from the primary sources and secondary sources. Primary data were collected through questionnaire, interview and discussions. Secondary data were collected from the annual report, auditor reports and unpublished reports of a Bank.

3.3 Data Gathering Procedure

As the study was based on primary data and secondary data, primary information was collected by developing scheduled questionnaire and distributing it to the chief of account department of Bank. To get more reliable information discussion were also conducted with chief operating officers information collected in this way was noted down to use during analysis and interpretation of data. Secondary data were collected from the annual reports and the unpublished document of Bank.

3.4 Data Processing Procedure

Data collected from questionnaires were in raw form. They were classified and tabulated in the required form. Descriptive research design was used to analysis. Major finding were based on the analysis and interpretation of data.

CHAPTER - IV
DATA PRESENTATION AND ANALYSIS

4.1 Introduction

The basic objective of the study is to examine the present practice of cost and management accounting in Nepal SBI bank limited and identify the area where management accounting and cost accounting tools could be applied to strengthen the bank. The chapter presents the analysis and interpretation of the data.

To meet the objective primary data were collected from its corporate office (Hattisar) and Durbar Marg branch. Questionnaires were distributed to chief operating officer (COO), to other officer and assistant of account department. All together 13 questionnaire were distributed out of them 12 were received with almost same answer. Besides the questionnaires discussion were made with whom questionnaires were distributed and to whom questionnaire were not distributed to get more information about the present practice of cost accounting and management accounting tools those views are also includes in this chapter. Secondary data were collected from bank's various annual reports and unpublished reports and official website of the bank.

Raw data were properly processed, tabulated, and analyzed. They were presented in various tables. Tables were developed based on question asked. Open-ended opinions were arranged in a descriptive ways.

4.2 Percentage Analysis of Management Accounting Practice

Table 4.1

Percentage Analysis of Management Accounting Practice

S.N.	Tools	No of population	No of practioner	%
1.	Cost segregation into fixed and variable	12	-	-
2.	Break even analysis	12	-	-
3.	Standard costing	12	6	50
4.	Long term budgeting	12	3	25
5.	Annual Budgeting	12	12	100
6.	Responsibility accounting	12	-	-
7.	Capital Budgeting	12	12	100
8.	Ratio analysis	12	12	100
9.	Cash flow	12	12	100
10.	Activity based capital	10	-	-
11.	Pricing interest ration fixing deviation	12	8	67
12.	Zero based budgeting	12	-	-

The above table 4.1 shows practice of management accounting tools in Nepal SBI bank Limited. Practicing the tools like capital budgeting Ratio analysis cash flow and annual budgeting to carry out different managerial activities with standard costing, long term budgeting and pricing decision is practicing partly. The tool, like cost segregation, break even analysis, responsibility accounting, activity based costing and zero based costing are not practice in the bank.

The main reasons of not practicing these tools were respectively.

- Lack of knowledge about tools
- No information about the tools
- No uses of tools in their respective department
- Lack of resources (Expert human resources)
- High cost quite expensive

Table 4.2

Method of Segregating Mixed Cost into Fixed and Variable in Nepal SBI Bank Limited

S.N.	Methods	No of Population	No of Practioner	%
1.	High/ low method	12	-	-
2.	Regression method	12	-	-
3.	Average method	12	-	-
4.	Analytical method	12	-	-
5.	Other	12	-	-

The above table 4.2 shows the practice of segregating mixed cost into fixed and variable in the Nepal SBI bank limited. From the table it is clear that there no practice of segregation of cost. We found that major difficulties in the application are these tools are purely a statistical tool which required manpower expertise in statistic. Due to lack of expertise it has not been practice in NSBL. NSBL was not found ready to hire statistical expert to segregate the mixed cost.

Table 4.3

Base for Budget Preparation in Nepal SBI Bank Limited

S.N.	Methods	No of Population	No of Practioner	%
1.	Based on Past estimates	12	12	100
2.	Based on Past Actual	12	12	100
3.	Zero Base Budgeting	12	-	-
4.	Activity Base Budgeting	12	-	-
5.	Other	12	-	-

The above table shows the base of Budget preparation in Nepal SBI bank limited. From the table it is obvious that Nepal SBI bank used past actual expenses and past budget estimate for the preparation of next year budget. It does not follow zero base budgeting and Activity base Budgeting due to the lack of knowledge of about these tools.

While preparing budget it was based on certain base. Along with some base, other environmental factor needs to be taken into consideration so that budget could be effectively implemented into practice.

Table 4.4

Budget Preparation System in Nepal SBI Bank Limited

S.N.	Budget prepared by	No of Population	No of practioner	%
1.	Centered Management Committee	12	12	100
2.	Outside Experts	12	-	-
3.	Account department	12	-	-
4.	Other	12	-	-

The above table shows the budget practiced in the NSBL. From the table it is clear that central management committee prepared the budget from that we can know that there not a participatory management in Nepal SBI Bank Limited.

Practice of hiring outside exports for preparing budget was nil, Bank does not believe the outside experts. Bank used it own manpower, it also co-ordinate with department head and branch manager.

Regarding preparation of budget information were collected from different departments and finally submitted to the central management committee and base on that information, budget preparation task was carried on.

Thus from the survey it was found that preparation of the budget is made by central management committee.

Table 4.5

Budget Practice in Nepal SBI Bank Limited

S.N.	Types of Budget	No of Population	No of Practioner	%
1.	Cash budget	12	-	-
2.	Annual Budgeting	12	12	100
3.	Long term budgeting	12	3	25
4.	Overall master Budget	12	-	-

The above table 4.5 shows the practice of types of budget in the NSBL. From the study it finds that annual budgeting is well practiced in Nepal SBI bank limited. Long term budget were prepared only by some on top level it obvious that 25% of respondent practiced long term budget. And from our discussion it was found that long term budget is prepare only for operating profit.

NSBL was not found interested in preparing long term budget because at one hand it was time consuming and need lots of exercise. On the other hand future was so uncertain that budget might not lead the activities all the time. In some circumstance, budget need to be kept at bay and intuition as well as judgmental decision should be used to carry out the activities. So long term planning did not keep any meaning in organization although long term budget is the road map for peak.

Table 4.6

Practice for Pricing Product Services in the NSBL

S.N.	Methods	No of Population	No of practioner	%
1.	Cost based pricing	12	4	33
2.	Going rate pricing	12	12	100
3.	Target return on investment	12	12	100
4.	Activity base pricing	12	-	-
5.	Other	12	-	-

The above table 4.6 shows the pricing practice in Nepal SBI Bank limited. From the table it is clear that all the pricing decision is carrying on going rate pricing and Target return on investment method simultaneously. Somehow 33% of respondent also practice cost base pricing. There was not practice of activity cost pricing in NSBL due to lack of knowledge about tools.

Table 4.7

Practice of Transfer Pricing in Nepal SBI Bank Limited

S.N.	Types of Budget	No of Population	No of practioner	%
1.	Market price based	12	-	-
2.	Cost based	12	-	-
3.	Negotiated pricing	12	-	-
4.	Other	12	-	-

The above table shows the practice of transfer pricing in the bank. From the table it is clear that none of the respondent practice transfer pricing. From this we can generalized that NSBL has not been practicing transfer pricing.

The main reason behind not practicing transfer pricing in bank was they directly rendered service to the customer rather than department to department. As there did not arise any option whether to render service to internal department or outside customer, there was no place for transfer pricing.

Table 4.8

Cost and Revenue Estimation in Nepal SBI Bank Limited

S. N.	Types of Budget	No of Population	No of practioner	%
1.	Past trend analysis	12	12	100
2.	Zero base budgeting	12	-	-
3.	Judgmental analysis	12	4	33
4.	Market survey	12	-	-
5.	Other	12	-	-

The above table 4.8 shows the practice of cost and revenue estimation in Nepal SBI bank Ltd. from the table it is clear that 100% of the respondent practiced

past trend analysis simultaneously 33% of the respondent also practice judgmental analysis to forecast cost and revenue of the bank.

From the study, it was found that "past trend analysis" was always used technique and zero base budgeting and market survey are not used in NSBL. The main reason behinds not practicing these tools was lack of information and recognizance about the format and the way of developing it.

Table 4.9
Practice of Capital Budgeting Tool in Nepal SBI Bank Limited

S. N.	Tools	No of Population	No of practioner	%
1.	Pay Back period (PBP)	12	8	67
2.	Average rate of Return (ARR)	12	8	67
3.	Net present value (NPV)	12	12	100
4.	Internal Rate of Return (IRR)	12	-	-
5.	Profitability index	12	12	100
6.	Other	12	-	-

The above table 4.9 shows the present practice of capital budgeting tools in it is obvious that net present value (NPV), profitability index (PI) are well practiced in NSBL and average rate of return (ARR), payback period (PBP) are also used, 67% of the respondent use these tools also, but we internal rate of return is not practice in NSBL.

Practice of capital budgeting tools depends on job nature of the respondent. In purchasing asset they practice net present value method, and in credit analysis they used net present value, payback period, profitability index and average rate of return.

Table 4.10
Tools Practiced in NSBL for Measuring and Controlling the Overall Performance

S. N.	Tools Practiced	No of Population	No of Practioner	%
1.	Profit and loss made by Bank	12	12	100
2.	Budgetary control	12	12	100
3.	Standard cost	12	-	-

4.	Ratio Analysis	12	12	100
5.	Cash flow Analysis	12	12	100
6.	Other	12	-	-

The above table 4.10 shows the tools practiced by the Nepal SBI Bank for measuring and controlling the overall performance from the table it is clear that tools like budgetary control, P/L made by bank, Ratio analysis, cash flow analysis are always used.

On going through interview with various executive, NSBL give emphasis on budgetary control for measuring and controlling the overall performance of the organization. Top level management study budget variance by comparing actual achievement and sated budget and often make a decision on the base of variance study. In every six month bank organize the budget review meeting and the meeting analysis the budget variance and suggest the recommendation.

Besides above management accounting tools, NSBL practice other various method in its day by day operational activities. From the discussion with senior staff of the bank we found that NSBL use FIFO method for issues and valuation of inventory. NSBL doesn't maintain inventory budget, it doesn't follows economic order quantity (EOQ) model. Bank follow the just in time purchasing method.

On going through interview with head of account department it was known that the major expenditure for NSBL was operating expenditure and administrative expenditure. There was no occurrence of joint cost among the department. Besides, department wise expenditure, were included under administrative head, so allocation of joint cost did not keep any meaning in NSBL.

4.3 Analysis of Open- End Opinions of Management Team

Open- ended questions were asked and discussion were made to the various staff of the bank under the study to take their opinions to identify the difficulties in applying cost and management accounting tool and suggestion

for the application of such tool. Some key opinions which were considered to be working are cited here.

Regarding the difficulties in application of management accounting tools the opinion of various officers is:

- Cost accounting tools like classification of cost into fixed cost and variable cost allocation of joint cost into department were not in cognizance to top level management. The major difficulties in the application of it were that it was purely a statistical tool which required expert in statistic.
- In the application of breakeven analysis technique it was difficult to determine major activities to compute contribution major per activities or profit volume ratio in service sector (Bank).
- Management accounting tools like; zero base budgeting activity base budgeting target costing were not in the cognizance of the management lack of information of such tools caused difficulties in the application of these tools.
- Regarding the application of "Responsibility Accounting" NSBL found it difficult to apply because they do not have enough knowledge about the tools.
- Regarding estimation or forecasting of cost and revenue NSBL found difficulties in applying "market survey method" because it was quite vague time consuming and expensive too.
- In case of decision making due to the external forces, pressure group decision could not be made based on management accounting principles.
- Due to limited market, bank was found to make expenditure in a limit most of the product and services were not new and innovative bank could not make expenditure for innovation. There were no research and development program in the Bank. Due to these reasons was not in the situation to hire outside expert to apply new management accounting technique in the bank.

- From the opinion of various officer and manager of the bank, it become clear that the main reason of not implementing manage accounting tools was due to lack of information and cognizance about the tools besides these limited market nature of business size of business and cost burden were other factors causing difficulties in the implementation of the tools.

4.4 Major Findings

On the basis of comprehensive analysis of the data the study has following findings can be drawn.

- NSBL has not adopted the scientific classification of cost. It is due to the nature of organization cost classification is widely practiced in manufacturing and trading company.
- Bank has not practiced any cost segregation method for segregation of mixed cost into fixed and variable cost. Regarding allocation of joint cost among different department and units was not found.
- Bank has not practiced break even analysis due to the problem in segregation of mixed cost into fixed and variable cost.
- While examining the tools practices in NSBL for planning controlling and decision making it was found that capital budgeting cash flow, ratio analysis and annual budgeting accounting tools were used in NSBL. Activity based costing, standard costing, long term budgeting and zero base budgeting were unused tools in NSBL.
- Regarding long term investment decision making and fixed assets purchase decision making bank mostly practiced profitability index (PI) and net present values (NPV) technique of capital budgeting but for the analysis of credit portfolio NSBL used pay back period (PBP), average rate of return (ARR) net present value (NPV) profitability index (PI) method.

- To carryout operational activities properly banks mostly practiced annual budgeting, it also prepared long term budget but it doesn't cover wide area it only cover operating profit, deposit and loan and advance.
- While preparing budget NSBL prepared it on the basis of past actual and past estimate and activity base budgeting. The reason behind not practicing these budgeting was lack of information and cognizance about the format and the way of developing environmental factors should also consider at time of preparing budget.
- While examining the budget preparation system it was found that central management committee (CEMEC) prepared the budget while preparing budget head of department and branch manager can only advice but they were not participate in decision making. There was no practice of taking consultancy service of outside experts.
- For pricing the product and services NSBL follows going rate pricing and target return on investment besides this cost based pricing was also followed.
- NSBL was not practicing transfer pricing because of the nature and scope of the business.
- While examining cost and revenue estimation we found that NSBL follows the past trend analysis and judgmental practice of market survey in bank was nil.
- Regarding performance measurement and control, most of the decision is taken on the basis of budgetary control most of the decision is taken on the basis budgetary control with analysis of budget variance. It also follows profit and loss criteria, ratio analysis and cash flow NSBL widely depends on its budgetary control. But it doesn't use standard costing for measuring and controlling the overall performance.
- From the open end analysis it was found that the major difficulties for application of new advance management tools were respectively;
  - Lack of information
  - Lack of cognizance about the tools

- Lack of expertise and
- Trend of follow- up past trend.

CHAPTER - V
SUMMARY CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Management effectively achieves organizational objective through the efficient use of scarce resources in a changing environment future is uncertain. It creates risk. To reduce risk the only reliable weapon is good management.

Bank that carryout the economic activities are the backbone of the economy. Their activities impact the economy in one way or the other. Every organization has limited resources. To utilize the limited resources in a better way different tools and technique have been developed. Among the various tools and techniques, cost and management accounting tools have been proved beneficial in different aspect of management activities. The main objective of cost and management accounting is to help manage in overall managerial activities by providing information and helping in planning controlling and decision making.

The main objective of the present study is to examine the present practice of cost and management accounting tools in Nepal SBI Bank limited to identify the area where both accounting tools can be applied to strengthen the bank.

As per the nature of study descriptive and analytical research design is followed with survey. Data collected from questionnaire and various reports of bank information is tabulated as per requirement of the study.

From the study it is found that cost accounting tools are not fully applied in the bank. It may by the nature of organization but so how it is used in various unit of bank. Management accounting tools such as Capital Budgeting, Annual Budgeting Budget Variance are used in the bank practice of tools like Zero

Base Budgeting, Activity Based Budgeting, Activity Costing were not found, lack of information and extra cost burden are the main reason behind not prating such tools.

5.2 Conclusion

Different types of cost accounting and management accounting tools which are taught in the colleges are not found applied by Nepal SBI Bank. It shows the gap between theory and practice. Bank has not practice scientific classification of cost. Accounting tools like capital budgeting, budget, ratio analysis, cash flow are in practice but application of now tools of management accounting are not in Nepal SBI bank, practice of hiring outside expert for carrying at different in practice activities is not found. Thus it can be concluded that Nepal SBI Bank is in infant stage in practicing management accounting tools. Management are in concept that management accounting is similar to financial accounting. New tools and techniques such as Zero Base Budgeting, Activity Costing, Target costing, Break Even Analysis, Cost Behaviors Analysis, have been developed around the globe but practice of it is almost nil in Nepal SBI bank Limited. Lack of information and cognizance about management accounting tools are the main factors causing problem in the application of such tools.

5.3 Recommendations

As Nepal is processing towards globalization and who is the member of WTO, NSBL should fit with the global environment. Best fit managerial strategies should be developed. Manager should think in a global perspective. Information should be updated. For better utilization of the limited resources and achieving goal through cutthroat competition application of management accounting tools can be of great help. Thus the following recommendations based on the findings of the research study are.

- To strengthen the competitiveness of NSBL and to carry managerial activities the use of management accounting tools is recommended. For planning activities. Tools like budgeting, cost volume profit analysis can

  be used. For controlling activities tools like budgetary control, variance analysis can be use. For decision making marginal analysis can be used. While implementing recommended to analyze cost and benefit of the tools
- To implement the tools congenial environment is a must. For this sake a separate management accounting department should be established with in a bank management accounting and cost accounting experts should be hired.
- NSBL should practice cost classification and cost allocation for increasing efficiency of cost and control unnecessary costs each of the cost should justify through cost benefit analyze.
- NSBL should prepare short term midterm and long term periodic costing plan by using different statistical tools which will help to reach it objectives.
- Applications of management accounting tools need internal and external information so that they can be informative throughout the time about every aspects of management skill should be updated with the every change taking place around the external environment skill can be developed through training.
- Interaction between academician and bank is must bank can benefit from academicians knowledge about new tools and techniques of cost and management accounting.
- Bank activities should not overly depend upon the traditional tools of management accounting such as past trend analysis, for the smooth operation of the activities, we recommend to use target costing activity costing and zero base budgeting.
- While preparing budget and planning activities bank should hire professional expect.

- Budget preparation should not be based on " past actual" and " past estimates" Along with these environmental factors should also be taken into consideration it is because what happened in the past might not occur in the future
- NSBL should practice allocation of joint cost among the departments divisions and units so that cost consumption rate per division department or unit can be ascertained which help in decision making regarding cost proper allocation of joint cost is a must in NSBL.
- While estimating cost and revenue for future period NSBL should not be based on " past trend" only what happened in past might not happen in future so far in past might not happen in future so far the estimation, tools like "zero base" market survey and statistical tools should be practiced helps the bank to teach to correct estimation.

Out of the total profit made each year some portion of it should be allocated for research and development program so that new tools and techniques can be developed and adopted in the bank.

BIBLIOGRAPHY

Books:

Agrawal, G.R. (2001). *Organization and Management in Nepal.* Kathmandu: M.K. Publishers.

Anthony, R.N. & Welsch, G.A. (1977). *Fundamentals of Management Accounting*. Illinois Richard D Irwin Homewood.

Bajracharya, Ojha, Goet and Sharma (2004). *Managerial Accounting*. Kathmandu: Asmita Publishers and Distributors.

Batty, J. (1982). *Management Accounting*. Plymouth: The English Language Book Society and Macdonald and Evans Ltd.

Benke, R.L and Eulard, J.D. (1980). *Management Accounting*. Taxes: Business Publication Inc. Plans.

Bhandari, D.R. (2005). *Banking and Insurance Principle and Practice*. Kathmandu: Ayus Prakshan.

Brown, J.L. & Howard, L.R. (1960). *Principles and Practice of Management Accounting.* London: McDonalds and Evans Ltd.

Chadwick, L. (1996). *The Essence of Management Accounting*. New Delhi: The Prentice Hall of India

Chat Field, M. &Neilson, D. (1983). *Cost Accounting*. New Delhi: Harcourt Brance Jovanovich.

Copeland, R.W. & Dascher, P.E. (1978). *Managerial Accounting*. New York: John Wiley and Sons.

Decoster, D.T. (1979). *Management Accounting: A Decision Emphasis*. New York: John Wiley & Sons.

Dongol, R.M. & Prajapati, K. (2001). *Accounting for Financial Analysis and Planning*. Kathmandu: Taleju Prakashan

Drucker, P.F. (1968). *The Practice of Management*. New York: PAN

Fregmen, J.M. (1976). *Accounting For Managerial Analysis.* Illinois: Richard D. Irwin Homewood.

Garrision, R.H. (1985). *Managerial Accounting*. Texas: Business Publication Inc. Plan.

Giri, T.P. (1994). *Accounting Practices*. Kathmandu: Ekta Publication.

Gitman, L.J. (1979). *Principle of Managerial Finance*. New York: Harper & Raw.

Gordon L.A. Cooper R, Falk N. & Miller, D. (1981). *The Pricing Decision*. New yourk: National Association of Accountants.

Goyal, S.N. & Mohan, M. (1997). *Management Accounting.* Agra: Shahitya Bhawan Publication.

Gupta, S.C. (1997). *Advanced Accounts*. New Dehlhi: S. Chand & Company.

Helfert, E.A. (1972). *Techniques of Financial Analysis*. USA: Hmewood III Richard D Irwin.

Hilton, R.W. (1997). *Managerial Accounting*. USA: McGraw-Hill Inc.

Horngreen, C.T., Foster, G. & Darae, S.M. (1999). *Cost Accounting, a Managerial Approach.* New Delhi: Prentice Hall of India Pvt. Ltd.

Horngren, C.T., Sundem, G.L. & Stratton, W.O. (2004). *Introduction to Management Accounting. (12th edition).* New Delhi: Prentice Hall of India Pvt. Ltd.

Jain, S.P. & Narang K.L. (1993). *Advanced Accounting*. New Delhi: Kalyani Pubklishers.

Jain, S.P. & Nargan, K.L. (1992). *Cost Accounting Principle & Practice*. New Delhi: Kalyani Publishers.

Joshi, P.R. (2001). *Research Methodology and Statistical Practices*. Kathmandu: Buddha Academic Publishers & Disturbers Pvt. Ltd.

Kaplan, R.S & Atrkinson, A.A. (1998), *Advances Management Accounting*. New York: Printice Hall International.

Khan, M.Y. & Jain, P.K. (1993). *Management Accounting*. New Delhi. Tata McGraw-Hill Publishing Co.

Khan, M.Y. & Jain, P.K. (1996). *Financial Management*. New Delhi: Tata McGrawl-Hill Publishing Co.

Luce, R.D. & Raiffa, H. (1957). *Games & Decision*. New York: John Wiley & Sons.

Meigs, W.B (1972). *Accounting. The Basis for Business Decision*. New York: Mcgrawl- Hill.

Moore, C.L. & Jackdick, R.L. (1972). *Managerial Accounting*. Chicago: South Western Publishing Company.

Shrestha, N.K. (1996). *Management Accounting*. New Delhi: Tata McGrawl-Hill Publishing Company Limited.

Thapa, R. B. & Rawal D.B. (2010). *Principle & Practices of Nepalese Banking*. Kathmandu: Buddha Academic Publishers Distribution Pvt. Ltd.

Thapa, S.K. (1994). *Accounting In Nepal*. Kathmandu: Ekta Publication.

Van Horne, J.C. (1998). *Financial Management & Policy*. New Delhi: Prentice Hall Of India. Pvt. Ltd.

Welsch, G.A. Hilton, R.W. & Gordn, P.N. (1992). Bu*dgeting Profit Planning & Controlling.* New Delhi: Prentice Hall of India Pvt. Ltd.

Journals, Reports and Articles:

Asian Development Bank (2000). *Governance: Sound Development Management*, Kathmandu.

Banking and Financial Statistics; Vol 44, Mid Jan 2005

HMG/N Auditor General Office (1962). *Manual of Accounting.* Kathmandu.

Nepal SBI Bank Limited (2066/67). *Annual Reports*. Kathmandu.

Thesis:

Adhikari, R.P. (1998). *Accounting Practices in Nepalese Small Industrial*. An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Karki, K.B. (2009). *Management Accounting Practice in Joint Venture Bank of Nepal*. An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Rijal, M. (2005). *Cost Volume Profit Analysis as a tool to Measure effectiveness of Profit Planning & Control*. An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Sawadi, N.R. (2008). *A Study on Thesis Cost Structure of Hama Iron & Industry*. An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Sharma, S. (2002). *Management Accounting Practices in listed Companies of Nepal*. An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Shrestha, D.R. (2006). *Cost Volume Profit Analysis of Commercial Bank*. An Unpublished Master Level Thesis Submitted to Faculty of Management, T.U.

Website:

www.nepalsbi.com.np

www.nrb.org.np

APPENDIX
QUESTIONNAIRE

Please kindly tick ( ) which you have practice of the management accounting tool in your bank from the following mentioned question. Your small export plays vital role

Q No.1 would you kindly tell which of the following mentioned management accounting tools are practiced in Nepal SBI Bank?

S.N.	Management Accounting tools	Practice	
		Yes	No
1	Cost segregation into liked and variable		
2	Break even analysis		
3	Standard costing		
4	Budgeting long term		
5	Budgeting annual		
6	Responsibility Accounting		
7	Capital budgeting		
8	Ratio analysis		
9	Cash flow statement		
10	Activity Based costing		
11.	Pricing interest ration fixing deviation		
12.	Zero based budgeting		

Q . No. 2 If your company has not practiced any of above-mentioned tools what may reasons.

(a) Lack of expertise

(b) High cost quite expensive

(c) No information about the tool

(d) Other, please specify

Q No. 3 What technique does the company practice to segregate the mixed cost into variable and fixed

(a) High low point method

(b) Regression method

(c) Average method

(d) Other please specify

Q No. 4 What technique does the company practice for cost and revenue estimation

(a) Past trend analysis

(b) Zero base budgeting

(c) Market survey

(d) Judgmental analysis

(e) Other lease specify

Q No .5 Who prepares the budget

(a) Centre management committee

(b) Outside experts

(c) Accounts department

(d) Other please specify

Q No. 6 What type of the budget does your company practice.

(a) Cash budget only

(b) Annual Budget

(c) Long term Budget

(d) Overall Master Budget

Q No. 7 What technique does the company practice for pricing product service and fixation of interest rate

(a) Cost based pricing

(b) Going rate pricing

(c) Target return on investment pricing

(d) Activities based costing pricing

Q No.8 What transfer pricing technique is practiced in your company?

(a) Market price based

(b) Cost based

(c) Negotiated

(d) Other please specify

Q No. 9 While purchasing fixed assets or making long term investment decision which of following capital budgeting tools are practiced ?

(a) Payback period (PBP)

(b) Average rate of return (ARR)

(c) Internal rate of return (IRR)

(d) Other, please specify

Q No. 10 How does the company measure and control the over all performance with in accounting years

(a) Profit loss made by the company

(b) Budgeting control

(c) Standard costing

(d) Ratio analysis

(e) Other, please specify

Q No .11 On what basis, does your company prepare budget

(a) Based on past budget estimates

(b) Based on past actual

(c) Zero base

(d) Activity base

(e) Other please specify