MANAGEMENT ACCOUNTING PRACTICES IN Nepal
(With special reference to Joint Venture Banks)

A THESIS

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DECLARATION

I hereby declare that the work reported in this thesis entitled "Management Accounting Practices in Joint Venture Banks in Nepal" submitted to R.R.M.Campus is my original work done in the form of partial fulfillment of the requirement for Master's Degree in Business Studies (MBS) under the supervision of Mr. Binod Shah

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This research studies “**Management Accounting Practice in Nepal” (with special reference to Joint Venture Banks)** is a partial fulfillment of the requirement. This research study **“Management Accounting Practice in Nepal”(with special reference to Joint Venture Banks)** is a partial fulfillment of the requirement for Master's Degree of Business Studies (MBS). This study has focused on the practice of modern management accounting tools and techniques in the Joint Venture Banks in Nepal. Though Management accounting is an emerging discipline of accounting in modern business age, whatever the accounting tools and techniques which have been developed are accepted as the inevitable managerial tools for effective and rational decision making. In this context, an attempt has been made in this thesis to give the clear picture on the present practice of management accounting tools and techniques in Joint Venture Banks in Nepal.

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Researcher

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ABBREVIATION

ABB	=	Activity Based Budgeting
ABC	=	Activity Based Costing
ARR	=	Average Rate of Return
CFAT	=	Cash Flow after Tax
CVP	=	Cost-Volume-Profit
DLH	=	Direct Labour Hour
EBL	=	Everest Bank Limited
FIFO	=	First In First Out
FY	=	Fiscal Year
GDP	=	Gross Domestic Product
HBL	=	Himalayan Bank Limited
IRR	=	Internal Rate of Return
JVB	=	Joint Venture Bank
LIFO	=	Last In First Out
MA	=	Management Accounting
MIRR	=	Modified Internal Rate of Return
NABIL	=	Nepal Arab Bank Limited
NBBL	=	Nepal Bangladesh Bank Limited
NBL	=	Nepal Bank Limited
NGOs	=	Non-government organizations
NPV	=	Net Present Value
NRB	=	Nepal Rastra Bank
PBP	=	Payback Period
PI	=	Profitability Index
PSCB	=	Public Sector Commercial Bank
RBB	=	Rastriya Banijaya Bank
ROI	=	Return on Investment

SCBL	=	Standard Chartered Bank Limited
ZBB	=	Zero Based Budgeting

Chapter One

1. Introduction

1.1 Background of the study:

Nepal is one of the least developed countries of the world. It lies between the two largest countries India and China. Most of its economy is based on agriculture. Economic status of our country is growing very slowly. More than 40% people are till under the poverty line and per capita income of Nepalese people is only us $240 (World Bank Report 2006). The structure of GDP is 40% from agriculture 21%form industry & 39% from service sectors. The agriculture plays dominant role in the Nepalese economy. Although being agro based country, the non agricultural sectors should be given top priority.

Prosperity and progress of a country largely depend on growth and development of various sectors such as economic, social culture, industrial and technology, agricultural and financial which requires huge amount of investment financial sectors are a medium through which scattered saving, invest-able resources are converted in to actual investment. Financial sectors collect fund from savers and supplies to fund requiring areas.

A bank is an organization whose principal operations are concerned with the accumulation of the temporarily idle money of the general public for purpose of advancing to other for expenditure. The banking system of every country plays a sequential role in the smooth functioning of an economy. Bank plays vital role for effective mobilization of internal resources. The main objective of the bank is to collect the idle scattered resources of the economy and to mobilize in productive sectors. Commercial banks are established to provide financial and other services primarily to commercial sectors and occasionally to industrial and agricultural sectors.

Joint venture is the joining of forces of two or more parties for the purpose of carrying out a specific operation i.e. in industrial and commercial investment, productive or trade. By this definition any agreement between two or more than two parties for specific purpose is called joint venture.

Accounting system plays the vital role in the functioning of any corporation organization. Accounting system provides the guide lines for better utilization of available resources so that competitive advantage, at this hyper competitive environment, can be achieved thought various tools and techniques of accounting practice. Management accounting tools have proved beneficial in every aspect of management activities from planning to decision-making.

Banking business is becoming more complex because of the cut throat competition. For smooth running of banking sector, the only reliable option is good management which protects organization from the unexpected and painful happening. The performance of a well managed organization is high as compared to the organization which has poor management. Management accounting is the term used to describe the accounting methods, systems and techniques which coupled with special knowledge and ability; assists management in maximizing profit or minimizing losses.

1.1.1. Role of Management Accounting:

A business enterprise today operates in dynamic, multifaceted and complex environment which involves many new management problems. Management has to carry out its basic function of profit maximization and cost minimization in an atmosphere of uncertainty. Due to the complex environment, the old technique of management by inspection are n longer considered dependable in a situation in which the modern management has realized that even light error in policy decision may cause rather losing a lot of business opportunities or going out of competition. A second chance may not come or even of does, it may be costly and risky. It, therefore, constantly staves to reduce the risk of mistake in decision making by keeping abreast of such quantitative information which would help analyze its administrative action in order to reach judicious decision. Management, therefore, constantly staves to reduce the risk of making mistakes by looking for and analyzing relevant information of means of which it hopes to take judicious decision and direct the administration in an efficient manner.

Management accounting is the term used to describe the accounting methods, systems & techniques which coupled with special knowledge and ability, assist management in minimizing losses. It is essential for the application of management “Principles and technical know how” to the planning, development, execution and control of corporate plan. Developing a financial structure and ensuring that the optimum use of business resources is just as vital as the marketing and production. Without adequate finance and regulation of the necessary funds there is little hope of success. For most of the companies, therefore Management accounting in the appropriate form is absolutely vital (Batty 1982. 2).

The need of quantitative facts for the performance of planning, control, co-ordination, motivation and organization has been non-recognized by management. Those quantitative facts should not only be related to the past or present but should also indicate the future trend. Management accounting has to play a crucial role in all these areas (Gupta 1995:8)

Management accounting information serves major role in organization. It enhances decision making, guides strategy development and focuses efforts related to improving organizational performance and evaluating the contribution and performance of organizational units and member. (Kaplan & At Kinsten 1998:12).

It was realized that management accounting techniques is helpful not only to commercial institution, business houses but also it has much to offer to the civil service administration in terms of controlling cost forecasting expenses and helping to increase the overall productivity. The role of accounting has changed to reflect prioritization in government expenses. Hence, zero based budgeting has been adopted which is nothing more than management by objectives (MBO) through financial management. This intelligence arm, the role of accounting in the government has been providing a base for the allocation of fund, measurement of achievements and prioritization of expenses.

Management accounting would make its greatest contribution by helping management of business concern to set out on a high economic level by maintaining control over multifarious and complex activities. This may not be true because the accounting is at elbow of management in the role of servitor. It is because it has assumed the role to alter ego through the processes and techniques of management accounting if properly applied, management is not merely informed and it is encountered for action. Its thinking is provided with standard of reference vehicle of judgment and forms in which to express these judgments and to bring changes. Thus, management accounting has to be regarded as an integrate part of personality of management (Gupta 1995:8-9).

1.1.2. Financial Institutions of Nepal

The types of financial institutions presently operating banking transaction in Nepal are as follows:

Types	No. of Institutions
Commercial banks	25
Central Bank	1
Finance Companies	78
Development Banks	59
Micro credit development banks	11
Co-operatives	19
Non-government organization (NGOs)	46

Total	194

(Source: Banking & Financial statistics (NRB), Mid-July 2007.)

1.1.3. Meaning of Commercial Banks

In general, bank means an institution that accepts deposits in different accounts and provides loans of different types. Many changes have taken places in the functions of as bank from the initial stage of its development to present day.

Generally, we understand, bank means commercial bank which provides banking services to the public by accepting deposit, advancing loans and other social service of functions. Banks are those financial institutions that offer the widest range of financial service, especially credit; saving and payments service and perform on the widest range of financial functions of any business firm in the economy.

The commercial bank is the oldest form of bank. This type of bank was initially established to provide short term loans to the traders. Hence this bank is called commercial banks. There is considerable change in the original form of commercial bank. The following definitions will clear about commercial bank.

According to Prof. Kinely, “Bank is an establishment which makes to individuals such advances of money or other means of payments as may be required and safely made and to which individuals entrust money or means of payment not required be them for use”.

According to commercial banks act 1974,”A commercial bank means bank which deals in exchanging currency, accepting deposits, providing loans and doing commercial transaction” Principally speaking a commercial bank accept deposits and provides loans primarily to business firm there by facilitating the transfer of funds in the economy.

The commercial bank is a great institution that conducts the payment mechanism of a country. The individuals and institutions make payments to each other through the mechanism of commercial bank. The commercial bank plays a vital leading role in the smooth operation of an economy. It makes available all financial service to individuals and institutions. To conclude in the words of Dudley G. Luckett, “From the view point of both the banker and public the essence of the commercial bank can best be captured if it is thought of as a department store of financial services”.

There are four main function of commercial bank which has been laid down by American institute of banking. They are:

a) Receiving and handing deposits
b) Handling payments for its clients
c) Granting loans and investment
d) Aviating money by extension of credit.

The sector in Nepal started with the establishment of Nepal bank Ltd (1937). Today there are seventeen commercial banks in operation. The commercial banks in Nepal can be categorized into two groups- domestic commercial bank and joint venture commercial banks. The public sector commercial bank includes two old banks – Nepal Bank Limited and Rastriya Banijaya Bank.

1.1.4. Joint venture Bank in Nepal

There is no long history of the development of financial institution in Nepal. In Nepal commerce, industry, businesses were in pity condition before introducing the modern banking in 1937. The banking in Nepal has started in real sense with the establishment of Nepal bank LTD in 1937. Rastriya Banijaya Bank was established as a fully government owned commercial in 1996. In order to initiate industrialization government of Nepal has given due emphasis for development of industrial sector. The government continues to maintain its efforts to follows liberal and market oriented economy policy for encouragement to private participation and gradual privatization of public sector companies (Annual report , 2008 NABIL Bank). Consequently different private sector and joint venture bank have been established.

Before the establishment of Joint Venture Banks, there were few banks operating in Nepal. There has been sustainable growth in the number of joint venture bank in Nepal since nineties. Because of the liberalization policy of 1980, there are operating six Joint Venture Banks out of 25 commercial banks. They are NABL Bank Ltd, Standard Chartered Bank Nepal Ltd, Himalaya Bank Ltd, Nepal SBI Bank Ltd, Nepal Bangladesh Bank Ltd and Everest Bank Ltd.

1.1.5. Contribution of Banking Sector in the economy of Nepal.

The modern complex economic system can't function without bank. The banking sector facilitates the personal transaction such as deposit and remittance of money and lending and borrowing of money. It has made easier to develop agriculture, industry and trade. The bank helps in mobilization and allocation of scarce resources, which are essential for economic development.

Nepal is a small developing country. It is land locked and largely mountainous country. About 83% of the total land out of 147181 square kilometer is covered by rugged hills and mountains. Nepal has a late start in development. Service sector is getting important in Nepalese economy. They contribute more than 40% in GDP of Nepal (Agarwal, 2005:163).

Financial institutions are important sources of employment in Nepal. More than 75000 people are employed in this sector representing 0.8% of economically active population (Agarwal, 2005:2003). Commercial Bank plays a vital role in development of Nepalese economy. They are the vital medium for monetary policy transmission. The stability and profitability of commercial banks including joint-venture banks depends over the sound management of assets and liabilities. The total assets/liabilities ration of commercial Bank went up 5.9% in comparison to higher increment of 16.4% impervious year. The responsible factor for lower rate of growth in such rations included the decline in borrowing form Nepal Rastra Bank and the significant decline in other liabilities on the source side due to the lower profit, and the lower rate of increase in loans and advances, and other assets in the uses side. Total deposit of commercial bank increased by 15.38% (38835.7 million in mid July 2007) compared to Rs. 252409.8 million in mid July 2005) Liquid fund increased by 22.9% (Rs. 9 billion in the review year and aggregated Rs. 50.4 billion as at mid July 2004.

1.1. Statement of the problem:

Banking and financial sector are backbone of whole economy, Different types of banks are operating their financial activities and contributing the national economy of the country. The Commercial bank of Nepal can be categorized as public sector commercial bank and private sector commercial banks. The public sector commercial banks including Nepal Bank Ltd and Rastrirya Banijaya Bank have been managed by foreign professional management team due to allegedly inefficient management, where as private sector commercial banks, including Joint Venture Banks are seen as operating well from their establishment. Among the private sector commercial banks, most of the Joint Venture Banks are running theirs operations smoothly. Their experiences in international banking prompt and computerized services, professional attitude are the factors for their rapid progress. They have been growing from weakness and inefficiency of domestic public sector commercial banks. The private sectors commercial banks, especially the joint-venture banks have succeeded to capture a remarkable market share of Nepalese banking sector or financial sector in relatively short period of time.

Success is not a mater of chance. Profit does not just happen. It is to be planned and managed. Management Accounting provides various tools and techniques to aid management function in an efficient manner. Poor performance is the outcome of poor planning, controlling and decision making. Yet a question is arise do the Joint Venture Banks of Nepal practice management accounting tools and techniques to carry out planning, controlling and decision making functions? If they do, what kinds of tools are used? To find the correct answer of this question hereby it is necessitated to conduct a research.

The study tries to arise the following research questions:

1. How far joint venture bank are practicing management accounting tools?
2. Which accounting tools are mostly practiced and which are not practiced till now?
3. What are the major difficulties in the application and implementation of management accounting tools?
4. In which areas of Joint Venture Banks can management accounting tools be applied to improve the competitiveness?

1.2. Objectives of the study

The main objective of this study is to examine and study the practice of management accounting tools in the commercial banks, especially Joint-Venture banks of Nepal. The specific objectives are:

1. To study and analyze the present practice of management accounting tools in the Joint Venture Banks of Nepal.
2. To identity the areas where management accounting tools can be extensively applied to strengthen the bank in commercial activities.
3. To recognize the problems faced by Joint-Venture Banks in Nepal in practicing management accounting tools.
4. To make necessary recommendation to overcome the difficulties in the application of management accounting tools in Nepalese Joint-Venture Banks.

1.4 Significance of the study:

Since very few systematic studies of management accounting practice in banking sectors in Nepal have been conducted, it of hoped that the proposed study would prove to be a great landmark in studying practice of management accounting tools and problem's in the application of such tools. This research study focuses on the study of the practice of management accounting tools in Joint-Venture Banks of Nepal. This study is significant in the following ways;

1. It analyzes the management accounting tools used in banking sector of Nepal.
2. It provides information on the application of the tools under different circumstances and encourages the use of management accounting tools in decision making.
3. It explores the problems and potentialities of Joint Venture Banks as well as commercial banks. It will be useful to the potential investors, lenders, policy makers, managers and stakeholders of the banks.
4. Last but not least, it provides literature to the researches who want to carry on further research in this field.

1.5 Hypothesis

To make proposed research specific, precise and purposeful, hypothesis has been posed related to the dependency and independency of Joint Venture Banks in practicing management accounting tools Hypothesis means presumption or qualitative statement of the population parameters which may or may not be true. In order to make proper decision about the qualitative statement of population testing of hypothesis technique is used. Only two of management accounting tools, Activity Base Budgeting (ABB) and Net present value (NPV) have been taken for hypothesis testing.

Hypothesis 1:

Null hypothesis (H_0): There is no significant relationship between the ownership of banks and practicing of Activity Based Budgeting as a management accounting tool (Practicing of Activity Base Budgeting and the ownership of banks are independent)

Alternative hypothesis (H_1): There is significant relationship between the ownership of banks and practicing of activity bases budgeting as a management accounting tool (Practicing of Activity Based Budgeting as a management accounting tool and the ownership of banks are dependent)

Hypothesis 2:

Null hypothesis (H_0): there is no significant relationship between ownership of bank and practice of NPV as a management accounting tool (practicing of NPV as a management accounting tool and ownership of bank are independent)

Alternative hypothesis (H_1): There is significant relationship between the ownership of bank and practicing of NPV as a management accounting tools. (Practicing of NPV as a management accounting tool and ownership of bank are dependent)

Hypothesis 3

Null hypothesis (H_0): $\mu = \mu o$ i.e. There is no significant different between whole commercial banking industry and Joint Venture Bank in term of practicing average number of management accounting tools and techniques. (In other words the average no of management accounting tools practiced in whole commercial banking industry and that practiced in Joint Venture Banks are equal)

Alternative hypothesis (H_1): $\mu > \mu o$ (Right tailed test) i.e. the average no of management accounting tools practiced in Nepalese sample Joint Venture Banks is greater than the average no of accounting tools practiced in Nepalese commercial banking industry as a whole.

1.6. Limitation of the study:

This study has completed within a certain period. So the study would not be a regular or long time study. The main limitations of the study are as follows:

1. The study focuses on management accounting practice and does not consider the other aspects of the banks.
2. The study pay attention to the practice of selected management accounting tools only.
3. This study focuses on the Joint Venture Banks of Nepal. Thus the findings might not be used to other sectors, banks and financial companies of Nepal

1.7 Organization of the study

This study has been divided in to five chapters. They are:

1. Introduction
2. Review of literature
3. Research methodology
4. Data Presentation and analysis
5. Summary, conclusion and recommendations

The introduction chapter covers background of the study, role of management accounting, statement of the problem, research hypothesis, research objectives, and significance of the study and organization of the study.

The second chapter focuses on review of literature. It contains thud review of conceptual framework and past research.

The third chapter deals with the research methodology adopted for the study and consists of research design, sources of data, data collection procedure, population and sample, research variables and data processing procedure.

The forth chapter deals with presentation, analyses and inter presentation of data. It consists of testing of hypotheses and major findings of the research.

The last chapter covers summary, conclusion and recommendation bases on the study.

Chapter Two

2. Literature Review:

2.1 Meaning and Definition of Management Accounting:

Accounting refers to the process of identifying, recording, classifying, summarizing, analysis and interpretation and communication of the financial transaction in terms of money. Primarily the main objective of accounting was to ascertain the result and financial position of business activities of particular period. But nowadays the scope of accounting has been increased with increase in the competition and business companies. So that accounting is also important to meet the needs of parties like government, creditors, suppliers, customers etc.

Generally, accounting can be used for both purposes. To take internal decision, employees, departmental managers and workers can use accounting information. Likewise external stakeholders lime government, suppliers, creditors, financial institutions etc use accounting information. Management accounting is the presentation of accounting information 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 and, staffing, directing and controlling.

Management accounting is concerned with supplying relevant information to managers at appropriate time; enable them to make decision in organization. Ity is the process of accounting which generates accounting information form financial accounting and cost accounting and provides essential accounting g information to all the concerned departments. Some of the important definitions related to management accounting are as follows:

Management accounting is used to describe the modern concept of account as a tool of management in contrast to the conventional manual or half yearly account prepared mainly for information as to shed light on all phases of the activities of organization.(Goyal and Mon Mahon, 1997:5)

Management accounting is concerned with the accounting information that is useful to management (Robert Anthony) "management accounting information for planning and controlling the operations of business."

From above mentioned definitions, it can be concluded that management accounting is the process of identifying, measuring, analyzing, interpreting, and communicating accounting information to concerned department to meet organizational goals.

2.2 Origin and Evaluation of Management Accounting:

The period from 1900 to 1950 was the high time in the development of management accounting because sample resources were conducted to evolve e new techniques in this discipline during that time. The wide use of management accounting has come in to practice recently. Precisely speaking, it has been developed between 1930's and 1960's. A new school of management accounting thinking that has come to be knows as the information economic approach. This new approach extended the user decision model approach. This new approach viewed management accounting system as representatives for new information. Recent development in the theory of the firm and of economic Recent development in the theory of the firm and of economic equilibrium with private information have led to new insights in to the control role of accounting information when designing contracts between owners and managers and between senior managers and subordinate managers. The traditional tools of management like product costing, budgeting and performance evaluation have been augmented and updated with contemporary approaches such as activity based costing, customer profitability analysis, value chain analysis, target costing and strategies cost management. (Kaplan and Atkinson, (1998:4-10)

There is no such commonly accepted father and the data assigned to the beginning of management accounting discipline unlike the double entry system which is said to be introduced by the Venice merchant Luca Pacioli in 1994. Management accounting covers the area of revenues and expenditures which need to be planned and controlled for the optimization of resources availed on the business. Management of revenue and expenditures has become a prime concern since the early stages of human civilization. But in business sector, the origin of modern cost management system goes back to the nineteen century. The application of management system goes back to the nineteen century. The application of management accounting idea for cost minimization and revenue maximization is a recent development which can be attributed to the time only after the 1900's industrial revolution, factory system, mass production, competition and consumerism compelled to think about some new ideas for cost reduction, quality conformation and consumer satisfaction for survival in cutthroat competition in business. Management accounting was thought of as a sure shot to help in this regard.

2.3 Functions of Management Accounting:

The functions of management accounting may be described as follows:

1. **Information and Data collection:**

   Management accounting information system is used to produce and store data relating the internal operation of a company and external environment.

2. **Data analysis and interpretation:**

Management accounting is more concerned with the analysis and interpretation of data which has opened up new direction for its use by management. It is concerned with record of past achievement, maintenance, of values, fixation of responsibilities and basis for assessing the future development.

3. **Identification and modification of relevant information:**

Management accounting supplies the accounting data required for the decision making and planning process which enables us to retain only the relevant information.

4. Proving information for planning and decision making:

Planning is the creative aspect of management job. It is carried out by management accounting through the processing of budgeting Management accounting provides relevant information for decision-making.

5 Facilitation management control:

Management accounting enables all accounting effort to be directed towards control of an enterprise. This is made possible through budgetary and standard costing, which are integral part of management accounting.

6. Satisfaction of informational needs:

Management accounting has system of processing data in a way that yields information for the top level management.

7. Use of qualitative information:

Management accounting does not restrict itself merely to financial data for helping management in the decision making process and frequently draws up on sources, other than accounting for such information as it capable of being readily convertible in to monetary terms.

2.4 Objectives of Management Accounting:

a. **Providing information for planning and decision making:**

It provides information to the manager for the decision making and planning in revenue and cost projection of organization. This information includes financial and non financial data to help managers with strategic planning and decision making.

b. **Motivating manager and employees:**

To motivate managers and employees is also an important purpose of management accounting. This motivates managers to achieve the organizational goal by communicating the plan, providing a measurement of how well the plan was achieved and prompting an explanation of deviations from the plan.

C. Monitoring:

It is also an important objective of management accounting. This allows the firm to evaluate its financial and internal performance, customer satisfaction and innovation compared to its goals, its own past records and that of other similar firms.

D. Assessing the organization's Competitive position:

Management accounting continually assess how an organization compares with the competitive position and work with the other managers to ensure organization's long term competitiveness.

E. Controlling:

The next objective of management accounting is to assist managers in directing and controlling operation through its attention in their function.

2.5Management Accounting in Nepalese perspective:

Management accounting is a new thing and it is still in a developing stage in the context of Nepal. The decisions that take place are usually based on the intuition of the strategic manager. It can be said that there role of management accounting is yet to be recognized by Nepalese corporations.

Nepal is a landlocked country situated between two largest countries with a huge rapid growth in business, industrial sectors, and the country has been trying to develop its economy. Due to serious political instability for a long time, security problem has emerged, multinational companies are hesitating to come and establish their subsidiaries here. Nepalese investors are also not very interested to invest within the country. The existing companies are running in traditional approach with autocratic leadership as the majority of the people are illiterate and in poverty and the rapid change in technology and the globalization of the market have become the real challenges today. Even then as the people and the investors have been able to understand the opportunity and the huge market availability in the neighboring countries and through out the globe after the country's sentry in the WTO, the functions and importance of management accounting has been realized by the business people and companies. Thus there is still plenty of scope for management accounting to be practiced by the Nepalese companies.

2.6. Brief Profiles of Joint Venture Banks of Nepal

Joint venture is the joining of forces of carrying out two or more parties for the purpose of carrying out of a special operation i.e. industrial and commercial investment, productive and trade. By this definition any agreement between two or more than two parties for special purpose is called joint venture. Before establishment of Joint Venture Banks, there were few banks operating in Nepal. Bank in true sense started with the establishment of Nepal bank limited (1994 B.S.) which is also known as the first commercial bank of Nepal. The first joint venture bank of Nepal is Nepal Arab bank limited (NABIL Banks).

2.6.1 NABIL Bank

NABIL Bank, the first joint venture bank in Nepal was incorporated on 11th May 1984 as a Nepal Arab Bank Limited under the company Act 1964 This bank established by the joint venture investment of Dubai Bank Limited and Nepalese promoters But later, the ownership of Dubai Bank Limited was transferred to emirate Bank International Limited which is currently managing NABL. It has 100 millions rupees authorized capital, 50 millions rupees issued capital and paid up capital has been 30 millions rupees.

2.6.2. Standard Chartered Bank

The second bank established in joint investment was the Standard Chartered Bank Nepal Limited. This bank was established n 19th December 1964. Its head office is in Katmandu and has been incorporated since 30th January 1987. On 31st July 2000, Standard Chartered Bank Limited concluded the acquisition of ANZ Grindlays Bank Limited by the Australia and NewZealand Baking Group Limited with this acquisition, 50% share of

Nepal Grindlays Bank limited previously owned by ANZ Grindlays are new owned by Standard chartered Grindlays Bank limited leading to the name change the bank to Standard Chartered Bank Nepal Limited with effective from July16,2001.

2.6.3. Himalayan Bank Limited

Himalayan Bank Limited was established in 1992 under company Act 1964. It has been financed by founder shareholders (A class) sharing 51%, Habib bank of Pakistan 20%, Habib bank of Pakistan 20%, Karmachari sanchaya kosh 14% and public of 15%. The bank has Rs. 120 millions authorized and Rs 60 millions issued capital. It is the first JVS having domestic ownership more than 50%.

2.6.4. Nepal Bangladesh Bank

Nepal Bangladesh Bank, a Joint Venture Bank with International Finance and Commercial Bank LTD of Bangladesh was established in 1993 under the company Act 1964. The Bank is managed by IFIC Bank Limited. It has been financed by IFIC to the 50% of total 20% by Nepalese promoters and 30% by public. The bank started its operation on 6th June 1994. The bank's authorized capital and paid up capital are Rs 240 millions and 60 millions respectively.

2.6.5. Nepal SBI Bank Limited

Nepal SBI Bank Limited was registered under the company Act 1994. This is the joint venture of State Bank of India and Nepalese promoters. This bank is managed by State Bank of India under the joint venture and technical service agreement signed with Nepalese promoters viz, employment provident found and Agriculture Development Bank Nepal. Shareholding pattern of the bank is 50% share owned by State Bank of India and Nepalese promoters, 20% by government organization and 30% by general public. The bank stated its banking operation on 8th July 1993.

2.6.6. Everest Bank Limited (EBL)

EBL was established in 1992 under the company Act 1964. It is also a joint venture commercial bank with foreign partner United Bank of India Ltd. Later on, it is managed by Panjab National Bank Ltd India. They hold 20% equity shares of this bank, 50% shares are held by the promoters and 30% shares by the general public.

2.7. Joint Venture Banks of Nepal

List of Joint Venture Banks

S.N.	Name	Operation date (A.D)	Head Office
1	NABIL Bank Limited	1984/07/16	Kantipath, Kathmandu
2	Nepal Standard Chartered Bank Limited	1987/01/03	Naya Baneswore, Kathmandu
3	Himalayan Bank Limited	1993/01/18	Thamel, Kathmandu
4	Nepal SBI Bank Limited	1993/07/07	Hattisar, Kathmandu
5	Nepal Bangladesh Bank Limited	1993/06/05	Naya Baneswor, Kathmandu
6	Everest Bank Limited	1994/10/18	Lazimpat, kathmandu

(Sources: Banking and Financial Statisties, mid, August 2007, No.47 NRB)

2.8. A short review of management account tools:

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

Tools and techniques provided by management accounting to discharge management functions can be defined as follows;

2.8.1 Cost allocation and apportionment methods:

There are three methods of allocating the cost of service department they are:

- **Direct allocating:**

The direct method is the most widely used method allocating support department cost. This method is very simple. There is no need to predict the usage of support department services by other support departments.

- **Step down allocation:**

This method requires the support the support department to be ranked (sequenced) in the order the step down allocation is to proceed. Difference sequences will results in difference allocations support department cost to operating departments. A popular step-down sequence begins with the support department costs to operating departments.

- **Reciprocal allocation method:**

The reciprocal allocation procedure is however more complicated, where many service cost centers service each other. This method allocated costs by explicit including the mutual services provided among all support departments. Conceptually the direct method and step down method are less accurate than the reciprocal method when support department provide services to another reciprocally.

2.8.2. Cost-Volume-Profit Analysis (CVP Analysis)

CVP analysis is the process of studying the relationship between costs, volume and profit with a given change in cost or volume. It is used to determine the profit planning process of the firm. According to Blucher Chen and Lynch "CVP analysis is based on an explicit model of the relationship between three factors costs-revenues and profit and how they change in a predictable way as the volume of activity changes".

Cost volume profit analysis is a systematic method of examining the relationship between the changes in activity (i.e.output) and changes in total sales revenue, expenses and net profit. As a model of these relationships

CVP analysis simplifies the real word condition that a firm will face. Like most models which are abstractions from reality, CVP analysis is subject to a number of underlying assumptions and limitations, nevertheless, it is a powerful tool for decision making in certain situations.

Cost Volume profit Analysis examines the behavior of total revenue, total costs, and operating income as changes occur in the output level, the selling price, the variable cost per unit, and/or the fixed cost of product.

2.8.3. Product/Service Costing Method

Two popular methods drawn for product costing are full costing (Absorption costing) and variable costing (Direct costing). Variable costing and absorption costing are not the systems of costing like process, operation batch or job costing rather they are the tools or techniques of product costing. (Khan and Jain 199:345)

- **Direct costing/Variable costing:**

This is a method of separating costs between variable and fixed costs for product costing. Under this method only variable manufacturing costs are charged on the product. Variable costing is that method of inventory costing in which all variable manufacturing costs are included as inventorial costs. They are instead treated as costs of period in which they are incurred.

- **Absorption costing:**

Contrast to variable costing, absorption costing assumes fixed along with variable cost constitutes to the product costs. It absorbs all costs necessary to production. It considers fixed manufacturing overhead as a part of production costs. (Horn green 1991:539)

2.8.4.Budgeting for planning control:

A budget is the quantitative expression of a proposed plan of action by management for a future time period and is aid to the coordination and implementation of the plan.

The various activities within a company should be coordinated by the preparation of plans of actions for future period. These detailed plan are usually referred to as budgets

A budget is a quantitative expression of a plan of action and an aid to coordination and control. A budget may be formulated for an organization as a whole or for its sub units. Budget basically is forecasted financial statement the formal expression of managerial plan.

Planning: a core management functions:

Planning is the cornerstone of effective management and a vital part of good planning is budgeting. Planning is the first essence of management and all other functions are performed within the framework of planning. Planning means deciding in advance that is to be done in future. Planning involves the specification of the basic objectives that the organization will pursue and the fundamental polices that will guide it. Planning should include qualitative narratives of goals and objectives and means of accomplishments. it includes:

- Setting enterprise objectives
- Developing and analysis of the environment
- Selecting a course of action
- Re-planning to correct current deficiencies

2.8.4.1 The Budgeting Process

The main objective of a business firm is to maximize profit. But it is not a matter of dream or chance. There is no magic formula of boosting the figure of overnight. Budgeting if followed properly can increase the chance of making profit within the given environment. A systematic budgeting should encompass the following procedures.

1. Evaluating the business environment
2. Setting objective
3. Setting specific

4. Identify potential strategies
5. Communicating the planning guidelines
6. Developing the long term and short term plans
7. Implementation of budgets
8. Periodic performance reporting and follow up

2.8.4.2 Element of budget

The essential elements of budgeting are:

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

Financial Terms : Budget are prepared in financial terms i.e in term of monetary value such as rupee , dollars and so on , it is because monetary units is a common denominator (Welsch 1992.84)

Specific Future period: A budget relates to a specified period of time, usually one year, If is not related to time horizon, it will be meaningless. Planning merely for a given amount will not constitute a budget unless a time dimension is added.

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

Co-ordination: Budgets are prepared for the different components segments, division, facts and activities of an organization so as to take care of the situation and problem of each component.(Copeland, R.W. and Dresher, 1978:35)

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 there are integrated in to an overall budget for the entire organization.(Garrison,1985:303)

2.8.4.3 The Master Budget

Budget is a comprehensive and coordinated plan for operations and resources of enterprises expressed in the financial terms for achieving organizational objectives. It is a mechanism to plan future activities to realize the expectations of the firm. The master budget consists of many functional budgets including a sales budget, a production budget, a purchase budget, an expenses budget, equipment budget and a cash budget. Once all these budgets are completed the master budget for the entire firm is prepared. The types of budget or profit plan depend up on the nature of the business entity. The master budget is a net working consisting of many separate budgets that are independent. A master budget normally covers three areas i.e. operational sector budget, cash budget and financial statement.

- **Operating budget:**

Operating budgets are concerned with the process of preparing the budgets of each operation/activity like production, sales, purchase etc of organization. It includes:

- Sales Budget:
- Production Budget
- Direct Material Budget
- Raw Material Budget
- Direct Labor Budget
- Manufacturing Overhead Budget
- Cost of Goods sold Budget
- Selling and Distribution Expenses Budget
- Cash Budget
- Administration Expenses Budget

Selling and Distribution Budget

Fundamentally, the top marketing executive has a direct responsibility for planning the optimum economic balance between sales budget , the advertising budget and the distribution expenses budget. Therefore profit planning and control views sales, advertising and distribution expenses as one basic problem rather than as three separate problems. All these expenses must be systematically planned by the responsibility center.

Selling and distribution expenses includes all cost related to selling, distribution and delivery of product to customers. In many companies this cost is a significant percentage of the total expenses.

Administration expenses budget

Administration expenses include those expenses other than manufacturing and administration. They are incurred in the responsibility. They are incurred in the responsibility center that provide supervision of and service to all functions of the enterprise, rather than in the performance of any one function. Because large portion of administration expenses are fixed rather that variable, the notion persists that they can not be controlled. Asides from certain top managers salaries, most administrative expenses are determined by management decisions.

Cash budget

Cash budgeting focuses on cash outflow and related financing. Cash budgeting is an attractive way to plan and control the cash flow, assess cash needs and effective uses of excess cash. Therefore it is very important in all types of enterprises. A cash budget is developed after the all operational budget and capital expenditure outlays have been accomplished. A cash budget shows the planned cash inflows, outflows and ending position by interim period for a specific time span. Most companies should develop both long term and short term plans about their cash flows. A cash budget basically includes two parts-the planned cash receipts and the planned cash disbursements. Planning cash inflows and outflows gives the planned beginning and ending cash position for the budget period.

Planning of cash inflows and outflows gives beginning and ending cash position for the period. It will also indicate (1) need for financing probable cash deficits (2) need for investment planning to put excess cash to profitable use.

The main objectives of cash budget are as follows:

1. Give the probable cash position at the end of each period
2. Providing target useful in evaluating department performance
3. Providing warning of potential cash shortages by time period
4. Establish the need of for financing and the availability of idle cash for investment
5. Preserve liquidity
6. Indicate the availability of cash discounts

Budgeted income statement

The final step in master budgeting is the development of budgeted financial statement for the period. These statements reflect the results that will be achieved if the estimates and assumptions used for all previous budgets actually occur. The planned income statement is concerned with determining the total of the planned period. it is to be prepared under accrual basic rather than cash basis of other preceding budgets. The income statement will be complete after addition of the interest expenses, which is computed after the cash budget, has been prepared.

Budgeted balance sheet:

Beginning with the current and adjusting it for the date contained in the other budget develop the budgeted balance sheet: (Garrison, 2000) Budgeted balance sheet is concern with forecasting total assets and properties and capital and liabilities of the company by time period. The balance sheet shows the final or ending balance of all the account titles.

2.8.5.1 Activity based budgeting (ABB)

Activity Based Budgeting (ABB) completes activity based costing (ABB) by focusing on the costs of activities required for production and sales. Activity cost is the ratio of resources consumed by an activity to the output obtained from the activity. ABC attempts to trace costs to product/service instead of arbitrarily allocating them. In this approach costs are separated in to homogeneous costs pools and cost drivers. ABB budget finds the cost of doing certain activities.

Activity Based budgeting forecasts workload bases on customer's requirements. The aim of ABB is to authorize the supply of only these resources there were needed to perform activities required to meet the budgeted production and sales volume.

The steps involved in activity based budgeting are follows:

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

2.8.4.5. Zero Based Budgeting (ZBB):

For the preparation of the budget based must be established. Generally suitable chances for the next budget period for the changes in the activity level and costs are incorporated in the current year's budget. This is called incremental budget. It has many deficiencies. So that the alternatives is to use zero based budgeting (ZBB) system. The Chartered institution of Management Accounting, London (CIMA) has defined "the ZBB as a method of budgeting whereby all the activities are reevaluated each time , a budget is set discrete levels of each activity are evaluated and combination to match funds available……" ZBB is prepared assuming the budget is being initiated for the first time (ignoring the budget of previous year.) The budget makes a personal for allocation of funds.

Zero based budgeting is also known as priority-based budgeting and emerged in the late 1960's 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 based budgeting (ZBB) also focuses on program or activities instead of functional department based on line items, which a feature of traditional is budgeting.

The three stages of ZBB are:

- A description of each organizational activity in a decision package
- The evaluation of these packages and ranking them.
- The allocation of the available resources.

2.8.5. Standard Costing: control of direct material and direct labor

Standard costs are pre determined costs, It is an estimation of cost for future reference. It is based on technical estimate for materials, labor and overhead for a selected period of time and nature of work. Standard cost helps to control the actual cost of materials, labor and overheads. A standard is always futuristic. Standard costing is the process of the preparation and the use of standard costs, their comparison with actual costs and the analysis of variance to their causes and point of incidence.

Control of cost is one of the most important objectives of costs and management accounting and can not be achieved without some standard against which the actual one can be compared. The use of standard costs increases costs consciousness among management and employees and can improve business profit by providing base for performance evaluation.

The technique for application of standard cost is known as standard costing. It is the preparation of standard cost and applying them to me assure the variation between standard cost and actual cost. Standard cost for the given job is the predetermined cost to complete the job as per specifications. Standard costing is a system before starting the production and then comparing this with the actual cost of job after completing the production. The difference between the predetermined or standard cost and the actual costs is termed the "variance".

2.8.5.1. Application of standard costing:

A standard cost is measure of acceptable performance, established by management as a guide to certain economic decisions. It is, in short, a reflection of what management thinks a cost ought to be. Establishment of standard cost is most urgent for the purpose of decision making in the realm of product costing, pricing, cost estimation, and cost control. Standard costs are definitely superior for judging the quality of performance of the purchasing department, for establishing the selling prices of the products it, and for planning the cost of a future period.

In the absence of standard data, the following management functions would be quite tough or just subjective.

- **Pricing decision:**

Pricing in a competitive market is a choice between the pressure of covering the each outlay of the products to be supplied and competitors' price for the product. The price should be less than or at least equal to the competitors price at the same time and must cover the cash the cash outlay for the product.

- **Budgeting:**

Budget is an account of what will happen in future. Budgets are the numerical plans of action for specific period. While developing direct material, direct labor and manufacturing expenses budgets we need the quality of each king of input per unit of output.

- **Economic decisions:**

Comparing the cost of alternatives like whether to accept or reject a special order, to further process or to introduce a new product line, make or to but etc. need the cost estimation under each alternatives.

- **Cost control:**

Cost control has the objective of the production of the required quality at the lowest cost attainable under existing conditions. Effective control requires detailed standards to show how much of each material should be used, how much labor is required for each operation. Standard enables the management to make periodic comparison of actual costs with standard costs in order to measure performance and to take action to maintain control over costs.

2.8.5.2. Standard costing process:

Standard costing process is a very effective tool for controlling element of cost like direct material; direct labor etc. controlling is the process of comparing actual results with the planned objectives and determining where judgment should be made. The management control process encompasses the given steps:

1. Setting standards
2. Actual performance measurement
3. Variance analysis
4. Compute variances for each reason
5. Point out the reason of variance
6. Corrective action

2.8.6. Management Accounting Control System and responsibility accounting

2.8.6.1 Management accounting control system

Management is the process of planning, decision making and control. Control is the management function that ensures the proper implementation of plans and polices. Management control system focus on motivating manager for the sake of enhancing total profitability of the organization. Control involves the process of establishing results and performances targets measuring performances and providing reward or punishment based on employees' ability to achieve the performance target. Control procedures are implemented for reasons of effectiveness, efficiency, and utilization.

A well-designed management control system aids and coordinates the process of making decisions and motivates individuals throughout the organization to act in accordance with the decisions. It also facilitates forecasting revenue and cost-driver level, budgeting and measuring and evaluating performance, (Horngren, Sundem and stration, 2002)

Management accounting system plays a dominant role in cost control, profit making and the non profit making organizations. It is because the monetary measure meets the requirements of wide range of dissimilar activities using a common measure. The objectives of management control system are:

- To communicate results of actions across the organization
- To ensure that the management control system adjust to change in the environment
- To clearly communicate the organization's goal
- To ensure that manager and employees understand the specific actions required of them to achieve organizational goals

2.8.6.2. Responsibility Accounting

Responsibility accounting to the various concepts and tools used by managerial accountants to measure the performance of people and department in order to ensure the achievement of the goals set by the top management. It is a system of dividing an organization in to smaller units, each of which is to be assigned particular responsibilities. These units may be set up in the form of divisions, segment, departments, branches, product line, etc. Each department comprises individual who are responsible for particulars task or managerial functions.

Responsibility accounting is a concept of that views the organization in parts or sub-systems rather that to view it in total or as a single system. It refers to an accounting system that provides information to top management about the performances of organization sub-units.

Process of Responsibility Accounting

- Identifying the responsibility centers
- Delegation of authority and responsibility or decentralization
- Controllability of the object
- Establishing performance evaluation criteria

Responsibility accounting collects data and reports planned and actual accounting information about the inputs and outputs of responsibility centers.

Responsibility accounting involves:

- Determining how challenging the financial targets should be
- Determining how much influence managers should have in the setting of financial targets
- Distinguishing between those items which managers can control and for which they should be held accountable and those item over which they have no control and for which they are not held accountable.

2.8.7. Pricing decision

The determination of selling prices is an important decision in most of the companies and one to which accounts normally make a significant contribution. Pricing is a difficult and complex subject. Price has a determined role in market success and the success of any business firm mainly depends on the market success. Once the product gets success or failure in the market, it establishes a corner stone for the firm's future. In this regard, one of the most important long terms strategic decisions management and services. This decision has a direct impact on financial position, profitability, and cash flow of the company and is often difficult and costly to change after it is put in to effect.

Pricing decisions are the decision that managers make about what to charge for the products and service deliver. The pricing of a product is not just a marketing decision or a financial decision, rather it is a decision touching on all aspects of a firm's activities and as such it affects the entire enterprise. As the price charged on product largely determine the quantities that customers are willing to purchase, the setting of both low and high prices dictates the inflow of revenues consistently failing to cover all the costs of the firm and then in the long run, the firm can not survive.

The pricing decisions arise in virtually all types of organization. Manufactures set prices for the products they manufacture, merchandising companies set prices for their goods, service firm set price for such service as insurance policies, train tickets, theme park, admissions and bank loans. Also nonprofit organization often set prices, for example government unit price vehicle registrations, park user fees and utility service. (Hilton, 2000)

For pricing decisions, economists have their own view while accountants have their own perspective. Economic theory indicates that companies acting optimally should produce and sell units, until the marginal revenue is equal marginal costs. The market price is the prices that create a demand for these optimal numbers of units.

2.8.7.1. Full cost (Absorption cost pricing)

Under this system of pricing, selling price is determined by adding certain percentage of marks up on total production cost of goods and services. The total cost includes all manufacturing cost as well as fixed manufacturing cost for determination of selling price. In long run price must cover all cost and normal profit margin. Full cost pricing covers all variable costs, fixed as well as required level of mark up. It provides a justifiable price that tends to be perceived equitable by all parties.

2.8.7.2. Variable cost pricing

Some firms use variable cost pricing for determination of selling price of the products. It is also known as marginal cost pricing or contribution margin pricing. Using variable pricing the firm sets it price to maximization contribution to cover fixed cost and profit margin.

In this system mark up is added either on total variable manufacturing costs or total variable costs.

2.8.7.3. Strategic pricing for new products

Strategic pricing of new product is an especially challenging problem for management. Pricing a new product is harder than pricing a mature product because of the magnitude of the uncertainties involved. New products entail many uncertainties. There are two widely differing strategies that a manufacturer of a product can adopt.

- Penetration pricing
- Skimming pricing

The decision between skimming and penetration pricing depends on the types of product and involves trade-off price versus volume. Skimming pricing results in much slower acceptance of a new product, but higher unit profits. Penetration pricing results in greater initial sales volume, but lower unit profits. (Bajracharya, Ojha, Goit, Sharma, 2004:727)

2.8.7.4. Cost-Plus Pricing

One of the common approaches to the pricing of standard product is to employee some types of cost plus pricing formula. Cost plus pricing formula add a mark up to some version of cost, typically either total variable cost or total absorption cost. The cost plus pricing formula establish a starting point in setting prices. Then the price setter must weight market conditions, likely actions of competitors and general business conditions. Thus effective price setting requires a constant interplay of market consideration and cost awareness.

CPP sets the price of a product or service at an amount equal to its standard manufacturing cost plus a "normal" mark up. This mark up is intended to cover marketing and administration costs and net profit before tax. Such a pricing approach often is called cost plus pricing, because the price is equal to cost plus a mark up. Depending on how cost is defined, the mark up percentages may differ. Several different definitions of cost, each combined with different mark up percentages can result in the same price for a product or service.

Selling price per unit= Cost per unit of the cost Base + Mark up

or

Selling price per unit = Cost per unit of the cost base+   Cost unit of the cost ×Mark up percentage

Costs have different meaning for different purposes. Cost per unit can be seen in many facts. Costs may stand for,

- Total costs
- Total variable costs
- Total manufacturing costs
- Variable manufacturing costs

Determination of mark up

One of the crucial elements in cost plus pricing is "mark up percentage". This mark up should be enough to recover the hidden cost and desired profit. To determine the desire mark up percentages, manager can use the return on investment (ROI) approach as a base. Under absorption approach of cost plus pricing, the mark up percentages is computed as such. (Garrison, 1985)

The mark up percentage can be ascertained applying the following general formula,

$$\text{Mark up percentage} = \frac{\text{Cost uncovered by the cost base+Desired profit}}{\text{Cost per unit of the cost base} \times \text{Normal volume}}$$

$$\text{Desired Profit} = \text{Total Invested Capital} \times \text{Required Return on Investment}$$

2.8.7.5. Activity Based costing (ABC)

It is a technique of allocating manufacturing overheads to product using multiple application rates and a wide variety of cost driver in multi-products firm. An activity-based costing (ABC) system does measures the extent to which each product line driver's costs in the key production support activities. An activity based costing (ABC) system can be particularly helpful as a product design engineers try to achieve a product's target cost. ABC enables designers to break down the production cost improvement in particulars activities to bring a new product's projected cost in line with its target cost.

The following steps are taken for making pricing decision under ABC pricing.

- Identifying the majors activities in the organization
- Determine the cost driver for each major activity
- Determine the cost driver rate
- Calculate total cost based on cost driver
- Add mark up on total cost and determine selling price

2.8.7.6. Transfer Pricing

When one division of an organization provides goods and services to another division it charges prices to the division. Transfer prices are the amounts charged by one division of an organization for goods and services that is supplied to another division of the same organization. The transfer pricing is a revenue to one division on the return of providing goods and services where as it is a cost to another division for acquiring of goods and services.

A transfer pricing is the price one subunit of an organization charges for products or services supplied to another subunit of the same organization. The transfer price creates revenue for the selling subunits 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. (Horn green, Foster, and Dater, 1999)

It can be pointed out that the segment managers are most likely to be highly motivated and thus perform best when they are held responsible only for those factors over which they have controlled. If some of their costs or revenues are arbitrarily assigned to them, they are likely to regard the return on capital used as an unfair evaluator. In a decentralized company which has substantial interdivisional sales, the appropriate price for such sales, is thus of great concern to the division managers and to the top management. The price of interdivisional sales will affect the selling division's sales and the buying division's costs. The sales itself, of course, will not have any direct effect on company profit, because its effects on one division's costs is exactly offset by its effect on another division's revenue. The transfer price policy, however can greatly affect company profits indirectly by influencing the decisions of the division managers. (Lynch, 1983)

Decentralization: The first essence in transfer pricing

The downward delegation of the decision making authority to subunits managers is called decentralization. The degree to which a company is decentralized depends on top management philosophy and the unit managers abilities to perform independently. Decentralization provides the opportunity for the managers to develop leadership qualities, creative problem solving abilities and decision making skills.

Goal congruence in transfer pricing

To exercise the divisional autonomy, the managers must maintain the goal congruence. Goal congruence means to be benefited unanimously doing an action. In case of a decentralization business organization, the divisional managers are free to decide whether to buy inputs from inside the organization or from outside and in order business matters like accepting or rejecting orders. In setting the transfer price, goal congruence must be maintained. The transfer price should be in the best interest of the whole organization as well.

Methods of transfer pricing

General transfer pricing rule.

Transfer Price = Additional outlay Cost per unit incurred because of goods are transfer + Opportunity cost per unit to the organization because of the transfer

Outlay costs will include the direct variable costs of the product or service and any other outlay costs that are incurred only as result of the transfer. The second component in the general transfer pricing rule is the opportunity cost incurred by the organization as a whole because of the transfer. (Hilton, 1999)

1. Negotiated transfer price:

To bargain or to discuss with a view to reach an agreement is negotiation. The negotiated transfer price is the outcome of a bargaining process between the selling and the buying divisions. Under this approach the division managers make a critical discussion to set a reasonable transfer price in the best interest of the division and the company as a whole. They may start with external market price first. Then they may try to explore the economies or cost savings under inter company transfers. A negotiation is made to split the benefit from cost savings between the transfer and buying divisions.

2. Transfer pricing in the service industry

Besides manufacturing business organizations service industry firms and nonprofit organization also use transfer pricing when service are transferred between responsibility centers. In banks, for examples, the interest rate at which depositors funds are transferred to the loan department is a form of a transfer price. At Tribhuvan University, if a student in the institute of engineering takes a course in the faculty management, a transfer price can be set to be charge to the institute of engineering for the credit hours of instruction provided to the student by the faculty of management. (Bajrachraya, Ojha, Goit and Sharma, 2004:736)

3. Cost based transfer pricing

The transfer price can be determined on the basis of the cost of product in producing department. The cost used in cost based transfer price can be actual costs or budgeted costs. As the definition of product cost goes to variable cost or full cost (Absorption cost). It applies to the determination of transfer price as well.

i. Variable cost based transfer price: In this method only the variable costs i.e. direct material, direct labor and variable factory overhead are taken in to consideration as the transfer price.

ii. Full cost based transfer pricing: Generally most of the popular transfer price method is full cost transfer pricing scheme. Under this method, cost is taken as recovery of full cost.

4. Market based transfer pricing

Transfer pricing based on market value of the product or service is known as market based transfer pricing. Market based transfer pricing is appropriate when both buying and selling divisions are operating at full capacity. Both the buying and selling divisions can buy and sell at market price.

2.8.7.7. Target cost pricing

Most of the companies set the price of new product to earn sufficient revenue to cover all costs and desired profit. Target price is based on target costing. Target costing is a method of determining the cost of product based on target price that customers are willing to pay. It is based on an underwriting of customers perceived value for a product and competitors' response. A target operating income per unit is the operating income that a company wants to earn on each unit of product sold. Under this method product cost is calculated by deduction anticipated profit from anticipated selling price.

2.8.7.8. The time and material pricing

Under the time and material pricing approach, the company determines one charge for the labor used on a job and another charge for the materials. The labor typically includes the direct cost of the employee's time and charge to cover various overhead costs. The material charge generally includes the direct cost of the materials used in the job plus a charge for material handling and storage. (Hilton, 2000)

2.8.7.9. Pricing for competitive bidding and special orders

The two or more companies submit scaled bids (prices) for a product, service or project or a potential buyer. The buyers select one of the companies for the job on the basis of the bid price and the design specification for the job. Competition bidding complicates a manager's pricing problem, because now the manager is in direct completion with one or more competitors. If all the company submit bid offer for the roughly equivalent product or service, the bid price becomes sole criterion for selecting the contractor. The higher the price (bids), the greater will be the profit on the job if the firm gets the contract. However the higher price also lowers the probability of obtaining the contract to perform the job.(Bajrachrya, ojha, Goit and Sharma, 2004:723)

2.8.8. Managerial use of Financial Statement Analysis

First of all we need to discuss about financial statement and report before discussing financial analysis. Financial statement represents the overall economic personality of business firm in hand to date. Financial and operating information is available from many sources, including daily newspaper. Various regulations of in different countries required the issuance of annual reports and govern their content. Financial information is provided to add investors in assessing the risk and return of the potential investment. The financial report of a company is prepared periodically, generally annually. This gives a complete account of the financial health of the company.

The major parts of a financial statement may,

- The income statement
- The balance sheet
- The statement of cash flow
- The statement of retained earning

The income statement tells us about the operating results of a particular accounting period, say a month or a year. The balance sheet reflects the company's solvency. It shows the position of all assets, liabilities and equities to date. The statement of cash flow tells us from what kinds of activities were the cash and cash equivalents received and where those were applied. The statement shows the cash inflows and cash outflows of a company over a period of time. The statement of retained earning shows how the net income of period were appropriated or distributed. The statement shows the change in retained earning between the beginning and the end of the period.

The above mentioned statement and report are required for different purposes. According to statement, it is necessary to analysis the statement and report to know the positive and negative strength or weakness of business. So that financial analysis indicates the analysis of financial statement and reports to know the financial reality and work performance of business in short the financial analysis tries to analysis the question like,

- Do the investors realize the profit the firm?
- Do they want to purchase the share of the firm?
- Is the earning of the firm enough?
- Does the firm utilize is assets fully effectively?
- Is the firm in the paying condition for current liabilities?
- What are the sources for long term financial investment in firm or what is the capital structure of the firms?

2.8.8.1. Ratio Analysis

An analysis of financial statement with the help of ratio may be termed as ratio analysis. It is a numerical relationship between two variables of financial statement, which should be served some meaningful purpose. When this definition of ratio is explain with reference to the items show in financial statements then it is called accounting ratio. So the ratio is the measurement of quantitative relationship between two or more item of financial statement connected with each others. A ratio can show a relationship between two items on the same financial statement or between two items on different financial statement (e.g. balance sheet and income statement). Ratio analysis is a tool of scanning the financial statements of the firm. Through this, one comes to know in which area of the operation the organization is strong and in which areas it is weak.

Categories of accounting ratios:

1. **Liquidity analysis**

Liquidity analysis measures the short term solvency position of the firm. Suppliers and creditors use liquidity analysis to assess the risk level and ability of a firm to meet its current obligations. Satisfying these, obligation requires the use of the cash resources available as of the balance sheet date and the cash to be generated through the operating cycle of the firm. The concept of liquidity relies on the classification of assets and liabilities in two current and non-current categories. The traditional definition of current assets and liabilities is based on a maturity period of less than one year or (if longer) the operating cycle of the company. Liquid assets include:

- Cash and cash equivalents
- Marketable securities
- Account receivable
- Inventories
- Prepaid expenses

The three categories of current liabilities are:

- Short-term debt
- Account payable
- Accrued liabilities

The first three ratios to be described compare different measures of the present level of each resource with the present level of obligations.

$$\boxed{\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}}$$

]

The Quick/Acid test ratio defined as:

$$\text{Current Expense Ratio} = \frac{\text{(Current Assets-Inventory-Prepaid}}{\text{Current Liabilities}}$$

Similarly,

$$\text{Cash Ratio} = \frac{\text{Cash + Marketable Securities}}{\text{Current Liabilities}}$$

The current and quick ratio assumes that the current assets will eventually be converted in to cash. Realistically, however, it is not anticipated that firm will actually liquidate their current assets to pay down their current liabilities. Certain level of inventories and receivable as well as payables and accruals (which finance inventories and receivable) are always needed to maintain operations. If all the current assets and liabilities are liquidated then, in effect, the firm has ceased operations. Rather it is assumed that the process of generating inventories, Collecting, and receivables and so on is ongoing. These ratios therefore measure the "margin of safely" provided by the cash resources relative to obligations.

2. Asset Management/Activity Analysis

Activity ratios describe the relationship between the firm's level of operations (usually defined as sales) and the assets needed to sustain the activity. This can also be used to forecast a firm's capital requirements (both operating and long term). Increase in sales will require investment in additional assets. Activity ratio enables the analyst to forecast these requirements and to assess the firm's ability to acquire the assets needed to sustain the forecasted growth.

Operating assets management

- **Inventory turnover:**

Inventory turnover ratio indicates whether the investment in inventory is efficiently used or not. It checks the efficiency of inventory management.

$$\text{Inventory} = \frac{\text{Cost of goods sold}}{\text{Average Inventory}}$$

- **Receivable turnover and average number of days outstanding:**

When computing receivable turnover, care should be taken to include only trade receivable, excluding the receivable related to financing and investment activities. Adjustment may also be necessary if the firm has sold receivable during the period.

Long term assets management

The ratio measures the efficiency of utilizing fixed assets, total assets and capital employed towards contribution of sales. Analysis of these ratios must consider changes in its level over time that can be a function of a number of subtle factors.

3. Profitability Analysis:

Profitability is an indicator of efficiency of the business organization profitability ratio measures the management overall efficiency as shown by the return generated from sales and investment. There are two areas for judging profitability;(1) Relationship in the income statement that indicate a company's ability to recover costs and expenses,(2) Relationship of income to various balance sheet measures that indicates the company's relative ability to earn income from the assets employed. The first measure is the profit margin and second one is the return on investment. The stakeholders' primary concern is the profitability measure of the firm. The market strength analysis is especially important for investors while analyzing information about a company. These ratios are also known as stock market ratios, investment ratios or market test ratios. The ratios under this category are as follows:

Profitability in relation to sales:

$$\text{Net Profit margin} = \frac{\text{Net Profit}}{\text{Net Sales}} \times 100$$

$$\text{Gross Profit margin} \ \frac{\text{Gross Profit}}{\text{Net Sales}} \times 100$$

$$\text{Operating cash flow margin} = \frac{\text{Cash from operating activities}}{\text{Net Sales}} \times 100$$

Profitability in relation to Investment:

$$\text{Return on assets or ROI} = \frac{\text{Net income + Interest expenses}}{\text{Average total assets}} \times 100$$

$$\text{Return on common shareholders equity} = \frac{\text{NI-Preferred stock dividend}}{\text{Average common equity}}$$

Profitability in relation to Common Shareholders:

$$\text{Earnings per share} = \frac{\text{Earning after tax-Preferred dividend}}{\text{No. of ordinary share}}$$

$$\text{Dividend per share} = \frac{\text{Ordinary dividend paid to Ordinary Shareholders}}{\text{No. of ordinary share}}$$

$$\text{Price earning ratio(P/E Ratio)} = \frac{\text{Price per Ordinary}}{\text{Earning per share}}$$

Dividend payout ratio:

Dividend payout ratio measures the proportion of earning per share which is paid out as dividends.

$$\text{Dividend pay out ratio)} = \frac{\text{Net dividend per share}}{\text{Net earning per share}} \times 100$$

Net worth per share:

Net worth per share is the value of net tangible assets attributable to one ordinary share.

$$\text{Net worth per share} = \frac{\text{Ordinary share capital + Reserve-Intangible assets}}{\text{No of ordinary share outstanding at balance sheet date}}$$

$$\text{Cash flow per share} = \frac{\text{Cash from operations after taxes}}{\text{Ordinary shares outstanding balance sheet date}}$$

$$\text{Dividend yield} = \frac{\text{Gross dividend per share}}{\text{Ordinary share price}}$$

ırposeful and systematic presentation of information in the financial statements by developing relationship between one figure with other in order to measure the profitability, liquidity, solvency, operational efficiency and growth potentiality of the business organization. In financial statement analysis, remember that standards for comparison vary by industry and financial analysis must be carried out with full knowledge of specific industry characteristics. Analysis must be sure that their companies are valid especially when the comparisons are of items for different periods of different companies.

4. Ling-Term Solvency Analysis

Long term solvency analysis helps to test long term solvency position of the firm. It shows the relationship between debt and equity financing in a company. This ratio includes long term debt to equity ratio, total debt to total assets ratio and interest coverage ratio.

Good financial performance requires an appropriate balance of debt and equity financing. In addition to deciding how much debt is appropriate, a firm must choose how much to borrow in the short term, e.g. account payable and some bank debt, and how much to borrow by issuing bonds or other long term debt. Short term debt must be repaid refinanced. Lenders prefer healthy, profitable borrowers, not troubles ones.

Trading on the equity

Long term investments are usually financed by long term financing, long term debt and stockholder's equity. The long term financing is often called capital structure of corporations.

Trading on the equity (also referred to as using financial leverage, leveraging or in the United Kingdom, gearing) means using money borrowed at fixed interest rate to try to enlarge the rate of return on common shareholders from trading on the equity. The costs are interest payments and benefits are the larger to the common shareholders.

Debt Ratio

Debt ratio is a of long term solvency of a firm. A high debt ratio is a symbol of more volatile incomes in relation to the charges in general economy. Two important factors should be noted (1) the trend over time in the proportion of debt to equity and (2) the relative debt levels themselves.

Debt Contract Restrictions

Long term creditors often impose restrictions on the borrowing company's ability to incur additional debt as well as on dividend payment to protect themselves. The debt covenants that control these activities are often expressed in term of working capital, cumulative profitability and net worth. It is, therefore important to monitor the maintenance of various ratios to ensure that their levels are in compliance with the debt covenant specifications.

2.8.8.2 The statement of cash flows

Cash is a life blood of any organization. Without cash no business activities can be taken place. Cash flow statement provides relevant information about the cash receipts and cash payments of an enterprise during a period. Cash flow information is widely used by investors, analysts, creditors, managers and others.

The statement of cash flows is now a standard feature of financial reporting in a number of countries and is required in addition to the balance sheet and profit and loss statement. From 1988, companies in United States have been required to present statement of cash flows. Beginning of 1992, British companies are required to publish cash flow information. Nepal company act 2053 also made mandatory to present cash flows statement along with balance sheet and income statement.

The statement of cash flows is an important financial statement in term of providing information for investor and creditors. It shows how the accrual accounting information is converted in to cash based information and arranges the information so that investors and creditors better understand the cash effects of a company's operating, investing and financing activities. The cash flow statement information helps to assess the solvency of a business and to evaluate its ability to generate positive cash flows in future periods, pay dividends and finance growth.

2.8.8.3. Uses of the Cash Flow Statement

Cash flow statement is an important tool which provides information to its users about the ability of the enterprises to generate cash and its utilization. The main objectives of cash flow statement.

1. Management use:

Management is the first to see the information contained in the statement of cash flows. Management would like to see that the amount of net cash provided by operations should be adequate to support the currently planned business operation and capital expenditures. With the study of the statement of cash flows management can see the effects of it are its past major policy decision in financial terms.

2. Creditor's use

Creditors might be interested to know whether the firm would be able to pay its due obligations from the cash obtained from operating activities. Creditors can see the liquidity position in this regard.

3. Stockholder's use

They can see whether net cash provided by operations comfortably covers the dividend payments cash flow from normal operations should continue to increase. The company should be able to invest in its future by making capital expenditure to modernize its productive facilities.

2.8.8.4. Presentation of cash flow statement

An enterprise present its cash flows from operating, investing and financing activities in a manner, which is most appropriate users to assess the impact of these activities on the financial position of the enterprises and the amount o fits cash and cash equivalents. This information may also be used to evaluate the relation among those activities.

1. Operating activities

Cash from operating activities represents the transactions entering in to the determination of net income. Cash from operating activities involve producing and delivering goods and providing services. Cash flows from operating activities includes receipts from customers for sales of goods and services (collection from debtors). Cash outflows from operating activities include payments to purchase of materials and for services, payment to employees for services and payment made to government for taxes.

Examples of cash flows arising from operating activities are:

- Cash receipts from the sales of goods and rendering of services
- Cash receipts from royalties, fees, commission and others revenues
- Cash payment to suppliers for goods and services
- Cash payment to and on behalf of employees
- Cash payment and refunds of income taxes unless they can be specially identified financing and investing activities
- Cash receipts and payments from contracts held for dealing or trading purposes
- Cash receipts and cash payment of an insurance enterprises for premiums and claims, annuities and others policy benefits

2. Investing activities

Investing activities involves making and collecting loans and acquiring and disposing of fixed assets. Cash inflows from investing activities are receipts from of shares, debenture or similar instruments of other enterprises. Cash outflows under investing activities are purchase of share and debenture of other enterprise, purchase of fixed assets etc. Examples of cash flows arising from investing activities are:

- Cash payment to acquire property, plant and equipment, intangibles and other long term assets. These payment include those relating to capitalized development costs and self-constructed property plants equipment
- Cash receipts from sales of property, plants and equipment, intangibles and others long term assets
- Cash payments to acquire equity or debt instruments of other enterprises and invest in joint venture (other than payment for these instruments considered to be cash equivalents or these held for dealing or trading purposes)

2. Financing activities

Cash from financing activities represents the transactions such as borrowing, repaying borrowed amounts, equity capital, or making distribution to owners. Examples of cash flows arising from financing activities are:

- Cash proceeds from issuing shares or other equity instruments
- Cash payment to owners to acquire or redeem the enterprise's shares
- Cash proceeds from issuing debenture, loans, notes, bonds, mortgage and others short or long term borrowings
- Cash repayments of amounts borrowed and
- Cash payments by a lessee for the reduction of the outstanding liability relating to a finance lease.

2.8.9. Long term investment decisions

Investing decisions regarding long term assets for increasing the revenue of the organization is known as capital budgeting. It is the process of planning future net cash flows over the life of the project and selecting the best course of action that yields positive net present values. The capital expenditure decision which involve current outlays but are likely to produce benefits over a period of time longer than one year. The benefits may be either in the firm increased revenue or reduction in costs.

Capital budgeting is the process of making those long terms planning decision for investments that focuses primarily on projects or programs whose effects span multiple time periods.

Capital budgeting is the process of planning and controlling the strategic (long term) and tactical (short term) expenditure for expansion and contraction of investment in operating fixed assets.

Capital budgeting is defined as the planning for the promotion campaign and development of available capital for the purpose of maximizing the long term profitability of the firm. It may also be defined as the firm's decision to invest its current funds most effectively in long term activities in anticipation on an expected flow of future benefits over a series of years:

The features of capital budgeting is as follows:

i. A relatively high degree of risk and uncertainty
ii. A long term investment
iii. Potentiality of large anticipated benefits
iv. Effect of time value of money
v. Bulk amount of investment

Steps of capital Budgeting

While, the cash flow of the invested project is evaluated the following steps should be implemented in the process of capital budgeting.

1. Estimating the project's net cash flows
2. Measurement of benefit of the investment
3. Evaluation of risks associated with the investment

2.8.9.1. Estimating the project's net cash flows

Cash flow generally indicates cash outflow. The key point in investment analysis is to focus exclusively on the differences in expected future cash flows those results from implementing a project. All cash flows are treated as the same whether they arise from operation, purchase of sale of equipment or investment in or recovery of working capital. The opportunity cost and the time value of money are tied to the cash flow in or out of the organization and not to the sources of the cash.

Estimating of the net cash flows in an investment project should cover;

- The initial investment (start-ups) costs
- The cash flows over the running life of the project
- Terminal cash flows at the end of the project

2.8.9.2 Relevant information for investment decisions

Capital budgeting decisions requires information relating to annual revenues, terminal cash flows, annual operating expenses, tax rates and initial investment costs. Due to the project in consideration, all these cash flows should be the incremental. The cash flows which do not affect the present cash flows either in term of outlays or benefits are irrelevant.

- Don't forget the incidental effect
- Take care of the overhead costs
- Don't count interest expenses twice
- Take cash flow not net income
- Depreciation expenses is relevant
- Working capital is relevant
- Cash flows in replacement cases
- Only the differential cash flows are relevant

2.8.9.3 Investment project evaluation techniques

Investment projects evaluation techniques is not step involved in capital budgeting process. More proposes for projects are at the threshold of business firm comparing to its ability and willingness to finance some proposals are good, other are different and yet others poor. A screening process has to be devised for finding out the real content of such proposals. Methods of differentiating them should be developed.

Capital budgeting evaluation techniques can be classified in to two categories.

- Traditional (Non-discounted) technique
- Modern (Discounted) technique

Non-discounted technique includes:

- Accounting Rate of Return (ARR)
- Payback period(PBP

Discounted technique includes:

- Net Present Value (NPV)
- Internal Rate of Return (IRR)
- Profitability Index (PI)

1. Accounting Rate of Return (ARR)

Accounting rate of return is the ratio of net income (net profit after tax) to the average investment or investment only, it is also known as average rate of return. It is simple to calculate and understand data are readily available and consider entire stream of income in calculating profitability.

The accounting rate of return can be calculated as follows:

$$\text{Accounting rate of return (ARR)} = \frac{\text{Average annual net profit after tax}}{\text{Average investment}}$$

ARR decision rule:

With the help of ARR, 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 minimum required rate of return or cut off rate. A project will qualify to be accepted if the actual ARR is higher than the minimum desired ARR, otherwise it is liable to be rejected.)

2. Payback period (PBP)

The number of years required for the proposals cumulative cash flows to be equal to its cash outflows is known as payback period. It can also be defined as the year required covering its costs by its income. The project which provides its return in the smallest period of time is considered as the highest ranking project. One of most commonly used methods of capital budgeting is the payback techniques. This method poses the question, "how long will it take to recover the investment?"

$$\text{Payback period} = \frac{\text{Investment}}{\text{Constant annual cash flow}}$$

PBP decision rule:

The payback period can be used as a decision criterion to accept or reject investment proposal. Application of these techniques is to compare the annual payback with a predetermined payback i.e. the payback set up by the management in term of the maximum period during which initial investment must be recovered. If the actual payback period is more than the predetermined payback, the project will be rejected.

The project having the shortest pay back may be assigned rank one, and the project with the longest payback 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, project with a shorter payback period will be selected.

Rational of Payback Period:

The payback period is important to a company experiencing liquidity problem. 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.

3. Net Present value (NPV)

Net present value is the net benefit at present value of an investment. It is the net differences between present value of cash outflows and present value of cash inflows. NPV is discounted cash flows approach to capital budgeting that discounts all expected future cash flows to the present using a minimal 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 projects are discounted to the present, using this minimum desired rate. If the sum of the present values of the cash flows is zero, or positive, the projects are discounted to the present, using this minimum desired rate. If the sum of the present values of the cash flows is zero, or positive, the project is desirable and if negative it is undesirable. When choosing from among several investments, the one with the largest net present value is the most desirable.

NPV method requires that all cash flows associated with new investment proposals be discounted at a predetermined weighted average cost of capital.

Net present value = Total present value- Net cash outlay

NPV decision rule:

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. As decision criterion, this method can also be used to make a choice between mutually exclusive projects. The project with the highest NPV will be assigned the first rank, followed by other in the descending order. (Khan and Jain, 1996)

4. Discounted Payback (DPB)

Payback period does not consider the time value of money which is its limitations. To overcome this limitation discounted payback period can be used. DPB is defined as the number of years required to recover the investment outlay on the present value basis. It considers the time value of money.

5. Internal Rate of Return (IRR)

IRR is defined as the interest rate (discount rate) that equates the present value of expected future cash flows or receipts, to the initial cash outlay. IRR is also called the discounted cash flow rate of return, and so on. Like the present value method, this method also considers time value of money by discounting the cash streams. The basis of discount factor however is different in both cases. In the case of present value method, the discount rate, usually, the cost of capital, and its determinants are external to the proposal under consideration. The IRR on the other hand, is based on facts which are internal to the proposals. Internal rate of return is usually the rate of return that a project earns. It is that rate which gives the project NPV zero.

IRR decision rule

The projects 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. The project will qualify to be accepted if the IRR exceeds the 'cut off' rate (k). If the IRR and required rate of return are equal the firm is indifferent as to whether to accept or reject the project. If the projects are independent, NPVs are positive and IRRs 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, IRRs are rejected. In case of mutually exclusive projects, where a project must be accepted and only one can be accepted, only the projects will the highest NPV and IRR is desirable.

6. Profitability Index (PI)

PI is the ratio of the project value of expected net cash flows over the life of the projects to the new investment. Moreover, profitability index is the gross present value per rupee of investment outlay. Profitability index may be defined as a ratio, which is obtained by dividing the present value of future cash inflows by the present value of cash outlays.

Mathematically,

$$PI = \frac{\text{Present value of cash inflows}}{\text{Present value of cash outflow}}$$

Profitability is the discounted cash flow benefits cost ratio. It is similar to the NPV approach. This method is also known as the benefit cost ratio because the numerator measures benefits and denominator costs.

PI decision Rule:

PI index greater than one is accepted and less than one is rejected. When profitability index equals one (I), the firm is indifferent to the projects. NPV will be positive, when the PI 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 investments proposals. The selection of the projects with the profitability index method can be made on the basis of ranking too. The highest rank will be given to the project with the highest PI followed by others in the same order.

2.8.9.4 Capital Budgeting under Risk and Uncertainty:

Risk is one condition a decision maker may face. Uncertainty and risk describes the conditions most financial managers face. Generally the management does not prefer higher risky project. If other things being equal, a firm would be well advised to accept a project which is less risky and reject those project which involve more risk.

The capital budgeting decision is based on the benefits derived from the project. These benefits are measured in term of cash flows. The estimation of future returns is done on the basis of various assumptions. The actual return in term of cash inflows depends on a verity of factors such as price, sales volume, effectiveness of the advertising campaign, competition, cost of raw materials, manufacturing costs and so on, each of these in turn depends another variables like the state of the economy, the rate of return, inflation etc. The accuracy of the estimates of the future return and therefore the reliability of the investment decision would largely depend up on the precision with which these factors are forecasted. Whatever techniques are followed for forecasting precisely actual returns can never tally to the estimation. As a result actual result vary from the estimation. This variation is technically referred to as a risk The term risk with an investment can therefore be defined as the variability in the actual returns emanating from a project in future over its working life in relation to the estimated return as forecast at the time of initial capital budgeting decision.

The decision situation with reference to risk analysis in capital budgeting decision can be divided in to:

i. Uncertainty
ii. Risk
iii. Certainty

In conclusion, risk with reference to capital budgeting results from the variation between the estimated and actual returns. The greater the variability between two is considered as highly risky project and lower the variability between the two is considered as lower risky project.

Various techniques for risk analysis

1. Traditional techniques
   - Risk adjusted discount rate
   - Certainty equivalent co-efficient
   - Sensitivity analysis
2. Statistical techniques
   - Assignment of probabilities
   - Standard deviation
   - Co-efficient of variance
   - Decision tree

2.8.10 decision regarding alternatives in Business Operation

Decision making is that function under which the management is involved in selecting a best alternative from among the several courses of action available. Decision making is a logical approach to solving problems. In business, when evaluating alternative courses of action, manager should select the alternative that provides the highest incremental benefit to the company.. In some instances, all the alternatives results in incremental losses, and the managers must choose the one that causes the smallest incremental loss.

Decision making is more of an art and less of a science. Not only is the world growing more complex and uncertain at a faster and faster pace, but the old decision making models are also failing, and we expect their failure to accelerate as well. Accounting information can improve, but can be perfect, an management’s understanding of the consequences of various resources allocation decisions. To the extent that accounting information can reduce the management's uncertainty about the economic facts, outcomes and relationship involved in various courses of action, such information is valuable for decision making purposes and necessary for conducting business. (Bajaracharya, Ojha, Goit and Sharma, 2004:619)

While making decisions in business, managers should be economically rational. Long-term profit maximization is the core of business decisions. Therefore, financial feasibility is the prime determinant in selecting in the best alternative. The course of action, which maximizes profits by increasing revenues and minimizing costs, is considered as the most economic one. Opportunity costs which are the benefits foregone in the next best alternative, must be countered in the alternative to be undertaken.

2.8.10.1 Steps of Decision Making.

Decision making is the art of selecting the best alternative among the various alternatives available to solve a given problem. In case of business the best alternative is one which likely to provide maximum profits and involve a minimum cost without violating the social responsibilities. The following are the steps involves in the process of rational decision making.

- Define the problem
- Identify the problems
- Collect relevant information
- Make differential revenue/cost analysis
- Consider the opportunity costs
- Qualitative factors
- Management report (Bajaracharya, Ojha, Goit and Sharma, 2004:623)

2.8.10.2 Types of Decisions

There are various types of decisions which are as follows:

1. Decision to drop or continue a product line
2. Decision to accept a special order/offer
3. Decision to make or buy
4. Replacement of assets decision
5. Decision of leasing vs. buying

6. Decision to further process joint production

2.9. Practicing of Management Accounting Tools around the world

2.9.1 Different pricing practice and cost management methods in various countries

Survey of financial officer of the largest industrial companies in several countries indicates similarities and differences in pricing practices across the globe. The use of cost base pricing appears to be more prevalent in the United States than in Ireland, United Kingdom and Japan.

Some Japanese survey data indicates that market based target pricing practices vary considerable among industries. While a majority of Japanese companies in assemble-type operation use target costing for pricing. It is for less prevalent in Japanese process-type industries. Japanese companies use value engineering more frequently and involve designers more often when estimating cost. (Honreen, Foster and Datar, 1999:455)

Dashes indicates information was not in survey (Honreen, Foster and Datar, 1999:841)

	United States	Australia	Canada	United Kingdom	Taiwan	Poland
Sensitivity analysis	29%	57%	59%	63%	-	10%
Increase the required rate of return	18%		31%	42%	61%	13%
Shorten payback period	17%	-	24%	34%	72%	25%
Estimate probability distribution of future cash flows	12%	11%	18%	15%		13%
Compare optimistic and pessimistic forecasts		63%				
Make subjective non quantitative assessment	54%	37%	29%	22%	69%	4%
Make no adjustments	37%		10%		-	-

(Source: Adapted from Sullivan and Smith, "Capital Investment justification"

The surveys indicates that the specific methods managers use vary among countries. A common feature, however, is that managers appear to favor simpler methods (for example, sensitivity analysis, shortening, the payback period, increasing the required rate of return, and subjective, no quantitative assessment) rather than more sophisticated techniques (for example, estimating the probability of future cash flows: (Hongrenm, Foster, Dater, 1999:841)

2.10. A brief Review of some previous research study

The previous research studies related to management accounting practice in Nepalese context are found very few. However, most of the research studies have been made in the area of profit planning and control in Nepalese context. Profit planning and control also covers some of the aspects of management accounting so that for the review of previous research studies these researches are also taken in to consideration to examine how profit planning and control is practiced in Nepalese companies. Out of these research studies some selected researches have been submitted as a review.

2.10.1 Mr. Makshinda Thapa (2001): Mr Thapa has conducted a research entitled profit planning media printing business: a case study of Gokhapatra sanstha . His major concern in this research is the examination of adaptation of profit planning and control programs in the corporations. The time period was covered by his research is five year from FY 052/053 to FY 056/057. The data and other necessary information are collected through secondary sources of data. In his research, Mr. Thapa has pointed out various findings and some remarkable findings are as follows.

- GPS is not properly following every steps of budgeting
- No proper planning technique is followed
- Failure due to inadequate forecasting system

Capital budgeting practices is not proper since it lacks project evaluation techniques such as PBP, IRR, NPV and PI

2.10.2 Mr. Sagar Sharma (2002): Mr. Sharma had conducted a research entitled "Management accounting practice in Listed Companies of Nepal" . He has focused his study to examine and study the practice of management accounting tools in the listed companies of Nepal. His research is based on primary data stratified random sampling with proportionate allocation of percentages is followed to draw the sample. The major finding and recommendations pointed by him are as follows.

- Nepalese listed companies are in the infant stage in practicing of management accounting tools such as capital budgeting , cash flow statement , ratio analysis , Zero base budgeting , activity – based costing , target costing and value engineering .
- Different types of management accounting tools which are taught in the college aren't found applied by the listed companies of Nepal.
- Management accounting is to help managers in overall managerial activities by providing information and helping in planning, controlling and decision –making.

As Nepal is proceeding towards globalization , and has got the membership of WTO , companies are recommended to apply management accounting tools to fit with the global environment .

2.10.3 Mr. Manoj Kumar Banerjee (2004): Mr Banerjee has conducted a research study entitled "Inventory management of manufacturing public enterprises in Nepal". Necessary information has been collected from both primary and secondary sources. He has covered five years data starting from FY 2054/055 to 2058/059 for the purpose. The overall objectives of the research are to analyze the inventory management practices in manufacturing public enterprises. He pointed out various findings in his research study. Some of them are as follows:

- Public enterprises were practicing store control devices such as bin card, store ledger but ABC technique was not used.
- Manufacturing public enterprises do not have systematic method to predetermine the target for future activities for the particular products
- Public enterprises are investing a huge amount of money in inventory than the other current assets. They are generally suffering from overstock

They are not succeeded to maintain a proper balance between the purchase, inventory, production and sales.

2.10.4 Mr . Bipeen kumar Adhikari (2005): Mr. Adhikari had conducted research on the topic management accounting practice in Nepal. He had focused his study mainly on the application of management accounting in Nepalese manufacturing and non – manufacturing companies. The data and other necessary information were collected from both the primary and secondary sources. In this research Mr. Adhikari had pointed out various findings .Some remarkable findings were as follow.

- Nepalese manufacturing and non –manufacturing companies are in infant stage in practicing new management accounting tools and techniques.
- While preparing budget theirs was no practice of taking consultancy service and hiring outsides experts are nil except a few manufacturing companies.
- To carry out operational activities properly, companies mostly practiced preparation of master budget.

2.10.5. Mr. Narayan Prasad Acharya (2006): Mr. Achrya has conducted a research entitled "Management Accounting Practice in Nepalese Public enterprises". He has focused his study to examine the contemporary practice of management accounting in Nepalese public enterprises. His research is based on primary data collected on the basis of stratified sampling technique. In his study 38 Nepalese public enterprises, Industries and financial institution including RBB and NBL are included. He pointed out various findings and recommendation in his study. Out of them some remarkable findings are,

- Practicing process of management accounting tools in manufacturing and service enterprises are slightly different and major MA related decision are not depending up on the MA tools and techniques
- Role of government on pricing decision is significant
- Traditional approaches of concerned authorities are becoming a prime barrier for proper application of management accounting tools in Nepalese public enterprises.

2.10.6 Mr. Lila Raj Baral (2007): Mr. Baral has conducted a research study on the topic "Management Accounting Practice in Commercial Banks of Nepal". His main focus of the study is the current practices of Management Accounting in Commercial Banks of Nepal. Necessary information and data were mostly collected from primary sources. He has pointed out various findings in his study. Some of them were as follows.

- In Nepalese commercial banks, four management accounting tools are practiced in average.
- Management accounting tools like standard costing and zero base budgeting were least in practice while others management accounting tools were widely practiced in Nepalese commercial banks.
- The commercial banks of Nepal were in infant stage with respect to the application of modern management accounting tools
- The main reason for not practicing some modern management tools is to given to be back of knowledge about the tools.

2.11. A Research Gap:

In this study, some previous researches are selected for review. Most of the selected researches have been conducted on profit planning and control by covering only budgeting practice in different companies. So there exists a gap between current research and previous research. Only few previous researches are related to Management accounting practice. Out of them, Mr. Sagar Sharma's research is concerned with the practice of Management accounting tools and techniques in listed companies of Nepal only. Sharma's study does not show any specific picture of application of Management accounting tools and techniques in Nepalese Joint Venture Banks. Likewise, Mr. Beepin Kumar Adhikari's research is concerned with practice of those tools and techniques in Nepalese Manufacturing and Non-manufacturing companies. This study does not show the specific picture in the application of Management accounting tools and techniques in Nepalese Joint Venture Banks also. Similarly Mr. Lila Taj Baral's study is somehow related to the application of Management accounting tools in Nepalese Banking sectors covering seventeen commercial banks. Hence this research is concerned with the practice of Management accounting tools in whole Nepalese commercial banks. However, it does not give specific picture tools in Nepalese Joint Venture Banks. Besides these researches, this current research is especially related to the application of Management accounting tools and techniques in Nepalese Joint Venture Banks. This research study includes 6 Joint Venture Banks of Nepal and mostly based on primary data. So that, outcome given by this study is nearly cent percent valid. It has disclosed the reason about the tools and techniques, which are not in practice in the Nepalese Joint Venture Banks and has been suggested to apply those tools and techniques for better planning, controlling and decision making.

Chapter Three

3. **Research Methodology**

Research methodology mainly deals with the method of Research, which are used within the research period. It is a systematic way to solve the research problems. It describes the method and process applied in the entire aspects of the study.

Methodology refers the various steps that are generally adopted but a researcher in studying his/her research problem along with the logical behind of it.

The methodology followed for the study is as, Research design, data collection procedure, population and sample, and use of statistical tools.

3.1 Research Design:

A research design is an overall framework or plan for the collection and analysis of data. It is the overall operational pattern of framework if the project that stipulates what information is to be collected, from which sources by what procedure. Specifically speaking, research design describes the general plan for collecting, analyzing and evaluating data after identifying. It will ensure that the information obtained is relevant to the research questions and that it will be collected by objective and economical procedures.

The main purpose of the research design is to provide answers to research questions and to control variance.

There are many types of search design, but here the historical and descriptive research design has been followed.

3.2. Data collection procedure and Source

Data has been mainly collected from primary sources. Primary data is collected through questionnaire, interview and discussion. Secondary data has also been used as per requirement.

A schedule of questionnaire with "fourteen tick mark" and two open-end questions has developed and distributed. To check whether questions were understood or not by the respondents, questionnaires were distributed to two different banks for pre-test. After receiving positive responses from them the questionnaire were distributed to the rest of the bank afterwards.

3.3 Population and Sample

All the commercial banks of Nepal are considered as the total population. Out of them six Joint Venture Banks which are in existence till now represents the target population for research study.

3.4 Data processing procedure:

Data collected from questionnaire in raw form are classified and tabulated in the required form. Simple arithmetic percentage tool is used for analysis. Statistical tool like chi-square (x) and t-test are also used to test the hypothesis. Major finding are based on the analysis and the interpretation of the data.

3.5 Major management accounting tools

The major management accounting tools included in this research are Budgeting, Standard Costing. Ratio Analysis, Cost-Volume-Profit Analysis, Capital Budgeting, Activity Bases Budgeting, Zero Base Budgeting, Responsibility Accounting, Cash Flow Statement and Pricing Techniques.

3.6 Statistical procedure

Simple percentage is used as a arithmetic tool to analyze the data. Chi-square (χ^2) test and t-test are applied as statistical tool to test the hypothesis. For the test of hypothesis, commercial banks were categorized into two groups.

i. Public Sector Commercial Bank
ii. Privet Sector Joint Venture Banks

Standard Chartered, NABIL Bank, Himalayan Bank, Nepal SBI Bank, Everest Bank and Nepal Bangladesh Bank have been put under joint venture Bank where as Rastriya Banijaya Bank and Nepal Bank Limited have been put under public sector commercial Banks.

Chapter Four

4. Presentation and Analysis of Data

4.1 Introduction

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The main objective of conduction research study is to examine and study the present practice of management accounting tools and techniques in Nepalese Joint Venture Banks. Besides this, to identify the future perspectives of management accounting tools' application and to scrutinize the major difficulties in the application of management accounting tools in Nepalese Joint venture Banks are also its objectives. For achieving the specific objectives of this study, this chapter includes the presentation, analysis and interpretation of data.

Mainly this research is based on primary sources of information and required data had been collected from the respective Joint Venture Banks preparing a questionnaire schedule. For this study all the Joint Venture Banks with head office in Katmandu valley are taken as a target population. Fourteen tick marks and two open -end questions were included in the questionnaire.

Collected raw data have been properly processed, tabulated and analyzed. To complete this study necessary tables are prepared according to subject matter of questions. The major findings of the research study are based on analysis and interpretation of data. The information collected through open-end questions is arranged in this chapter in a descriptive way. The statistical tool chi-square (x) and t-test are used to test the hypothesis. Three different hypotheses have been tested.

4.2. Analysis of management accounting tools in practice.

Table-1:

Practice of Management Accounting Tools in Joint Venture Banks

S.N.	Management Accounting Tools	No of Population Banks	No. of Sample Banks	No. of Practicing Banks	Percentage (%)
1	Cost Segregation in to fixed and variable	6	6	2	33
2	Responsibility Accounting	6	6	2	33
3	Standard Costing	6	6	0	-
4	Cash flow Statement	6	6	4	67
5	Break Even Analysis	6	6	4	67
6	Pricing decision	6	6	2	33
7	Activity based budgeting	6	6	4	67
8	Zero base budgeting	6	6	1	17
9	Capital budgeting	6	6	4	67
10	Ratio analysis	6	6	6	100

(sources: Appendix1)

From the above table 1, we come to know that 33% of Nepalese Joint Venture Banks segregate cost in to fixed and variable, 100% Joint Venture Banks of Nepal Practice Ratio Analysis, 33% use Responsibility accounting, 67% cash flow statement and 67% use Break even analysis. Similarly. 33% of them use Pricing decision and 67% use capital budgeting. Likewise, 67% of Nepalese Joint Venture Banks practice Activity Based Budgeting and 17% are practicing Zero base budgeting. None of them is practicing standard costing.

Table-2:

No of Joint Venture Banks of Nepal practicing one or more management accounting tools.

Number of management accounting tools (x)	No of Banks (f)	fx	fx2
1	0	0	0
2	0	0	0
3	2	6	18
4	1	4	16
5	1	5	25
6	1	6	36
7	0	0	0
8	1	8	64
9	0	0	0
10	0	0	0
	N=6	∑fx=29	∑fx2=159

(Source: Appendix -1)

Average No. Of management accounting tools:

$$\text{Per bank} = \frac{fx}{\mathbf{N}}$$

$$= \frac{29}{6}$$

$$= 4.83 \text{ i.e. } 5(\text{Approx})$$

Table 2 represents that the no of Joint Venture Banks of Nepal practicing one or more MA tools. From the table 2, we found that five management accounting tools are applied in a bank on an average. Similarly, it shows that two banks use more than the average no of management accounting tools, two banks use sell than the average number of MA tools and one bank uses exactly five management accounting tools.

Table-3

Base for Budget preparation in Joint Venture Banks of Nepal:

S.N.	Base for Budget	No. of population Banks	No. of sample Banks	No. of practicing Bank	Percentage
1.	Actual expenses of previous year	6	6	5	83
2.	Past budget	6	6	2	33
3.	Activity based budgeting	6	6	4	67
4.	Zero base budgeting	6	6	1	17
5.	Other (if any)	6	6	-	-

(Source: Appendix-2)

The above table represents base for budget preparation in Joint Venture Banks of Nepal. From this table, we come to know that 83% of Joint Venture Banks of Nepal prepare their budget on the basis of actual expenses of previous year, 33% Joint Venture Banks prepares budget taking a base to the activity base budgeting and 17% Joint Venture Banks prepares budget on the basis of zero base budgeting. We also come to know that some Joint Venture Banks of Nepal follow the market trend for preparing budget.

Table - 4

No. of Nepalese Joint Venture Banks taking one or more base for preparing budget

No of base for budget(x)	No of banks (f)	Fx
1.	2	2
2.	2	4
3.	2	6
	N=6	∑fx=12

(Source: Appendix-2)

Average no of base for budget preparation per bank(x)

$$= \frac{fx}{\mathbf{N}}$$

$$= \mathbf{12/6}$$

$$= 2$$

Above presented table no. 4, shows that a Joint Venture Banks of Nepal uses two bases for its budget preparation on an average. Out of six Joint Venture Banks, two banks uses only one budget base for preparing their budget, two banks use exactly two bases for preparing their budget and remaining two banks apply three bases for budget preparation.

Table-5

Types of budget practiced by the Joint Venture Banks of Nepal

S.N.	Types of budget	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	Cash budget	6	6	-	-
2.	Operational budget only	6	6	1	17
3.	Overall master budget	6	6	3	50
4.	Long term budget	6	6	-	-
5.	Annual budget	6	6	5	83
6.	Others	6	6	-	-

Above table 5 shows the types of budget practiced by the Joint Venture Banks of Nepal. From this table we found 17% of Joint Venture Banks practice operational budget, nearly 83% of Joint Venture banks practice annual budget and 50% of them practice overall master budget.

Table–6

Nepalese Joint Venture Banks and their budget preparing system

S.N.	Budget preparing system	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	Budget committee	6	6	-	-
2.	Planning department	6	6	1	17
3.	Chief of finance	6	6	3	50

	department				
4.	Outside experts	6	6	-	-
5.	Others (if any)	6	6	2	33

(Source: Appendix-4)

Other includes: – Chief executive officer

- Planning strategy department

Above presented table no. 6 represents Nepalese Joint Venture Banks budget preparing system. In the above table, it can be seen that in 50% of the bank the chief of finance department prepare the budget in 17% banks, planning department prepare the budget and in 33% banks, other methods are used for preparing budget. None of Joint Venture Banks hire the outsides experts for preparing the budget. Similarly, budget committee is not formed in any of the joint venture bank in Nepal.

Table-7

Methods of segregating mixed cost in fixed and variable in the joint venture bank of Nepal

S.N.	Methods	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	Average method	6	6	1	17
2.	High low point method	6	6	-	-
3.	Analysis method	6	6	2	33
4.	Regression method	6	6	-	-
5.	Graphical presentation method	6	6	-	-
6.	Others (if any)	6	6	-	-

Table -8

The period covered in budget of Joint Venture Banks of Nepal.

S.N.	Time Period	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	Short term budget (1 year or less)	6	6	6	100
2.	Medium term (3 years)	6	6	-	-
3.	Long term budget (5 year or more)	6	6	1	17

Above table-8 represents the period covered in budget of Joint Venture Banks of Nepal. From this table, we come to know that, 100% or all Joint Venture Banks are practicing short term budget. Only 17% banks use song term budget as well. Medium term budget practicing Joint Venture Banks are nil.

Table-9

Methods of allocating joint costs practiced by Nepalese Joint Venture Banks

S.N.	Method of allocating Joint	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	Transaction base	6	6	5	83
2.	Others	6	6	-	-

In the above table, the method practiced for segregating mixed cost into fixed and variable cost in the Joint Venture Banks is presented. This table clarified that 33% of the Joint Venture Banks use analysis method for segregating mixed cost into fixed and variable and 17% of them use average method for this purpose. It is also found that none of Joint Venture Banks are practicing high low point method, regression method and graphical presentation method. The reason for not practicing such methods in banking sectors is normally not necessary like the trading business and manufacturing industry.

Table-10

Cost and revenue estimation techniques practiced by Joint Venture Banks in Nepal

S.N.	Cost and revenue estimation techniques	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	Market survey	6	6	2	33
2.	Past trend analysis	6	6	4	67
3.	Zero base budgeting	6	6	1	17
4.	Judgmental analysis	6	6	4	67
5.	Others	6	6	-	-

(Sources: Appendix-3)

Cost and revenue estimation technique by Joint Venture Banks has been presented in above table-10. From the table it comes to know that nearly 67% of Nepalese Joint Venture Banks are practicing past trend analysis for their cost and revenue estimation. Similarly the same percent (i.e.67%) of them are practiced judgmental analysis and 33% and 17% of

Joint Venture Banks is Nepal are practicing market survey and zero base budgeting respectively to estimate their cost and revenue.

Method of inventory valuation practiced by Joint Venture Banks of Nepal

Table-11

No. of Joint Venture Banks and number of cost and revenue estimation technique

No of Cost and revenue estimation techniques (x)	No of Banks (f)	Fx
1	2	2
2	3	6
3	1	3
	N=6	fx=11

(Sources: Appendix-3)

Average no of cost and revenue estimation techniques practiced by a Nepalese Joint Venture Banks given by,

$\bar{x} X \frac{fx}{N} X \frac{11}{6} X 1.8333$ i.e. 2

Above table 11 reflects that on an average two techniques of cost and revenue estimation are applied by Nepalese Joint Venture Banks. Out of 6 Joint Venture Banks of Nepal, 2 banks practice only one technique, 3 JVB practice exactly average no of techniques (i.e.2) for estimating cost and revenue. Similarly one bank uses more than average no of techniques for estimation of their cost and revenue.

Above presented table represents the methods of allocating joint cost practiced by Nepalese joint Venture Banks. From the table, it is cleared that 83% of joint Venture Banks of Nepal (i.e. out of 6 JVB, 5banks) are practicing transaction method for allocating joint cost. According to the opinion of bank managers and chief accountants, the major expenditures. There was no occurrence of joint cost so that no questions arise of allocating joint cost among the departments.

Table-12

Pricing/interest rate fixing techniques practiced by Joint Venture Banks in Nepal

S.N.	Pricing techniques	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	Full cost base pricing	6	6	3	50
2.	Going rate pricing	6	6	2	33
3.	Variable cost base pricing	6		-	-
4.	Target return on investment policy	6	6	1	17
5	Activity base costing	6	6	2	33

Above table 12 reflects the pricing/interest rate fixing techniques practiced by Joint Venture Banks in Nepal. The table shows that 50% of Nepalese Joint Venture Banks practice full cost base pricing and 33% of them practice Going rate pricing. Similarly 33% of them practice activity based costing and 17% Joint Venture Banks practice target return on investment policy. Likewise, none of them use variable cost based pricing.

Probability distribution for future cash flow while evaluating capital investment. Likewise higher internal rate of return and shorten payback period are not in use in the Joint Venture Banks of Nepal for this purpose.

Table-13

For periodic

S.N.	Inventory valuation method	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	LIFO	6	6	-	-
2.	FIFO	6		2	33
3.	Weighted average	6	6	-	-
4.	Others	6	6	-	-

Above table-13 represents the methods of inventory valuation practiced by Joint Venture Banks in Nepal under periodic basis. This table reflects that nearly 33% of Joint Venture Banks in Nepal use FIFO method of inventory valuation under periodic basis. None of them use LIFO, weighted average method for inventory valuation.

Table-14

For perpetual

S.N.	Inventory valuation method	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	LIFO	6	6	2	33
2.	FIFO	6	6	1	17
3.	Weighted average	6	6	-	-
4.	Others	6	6	-	-

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Table-15

Methods of Risk adjustment techniques while evaluating capital investment practiced by Joint Venture Banks in Nepal

S.N.	Risk adjustment methods	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	Increase the rate of return	6	6	1	17
2.	Higher internal rate of return	6	6	-	-
3.	Sensibility analysis	6	6	4	67
4.	Estimation for probability distribution for future cash flow	6	6	1	17
5	Shorten payback period	6	6	-	-
6	Others	6	6	-	-

In the 15, risk adjustment methods practiced by Joint Venture Banks of Nepal have been presented. This table shows nearly 67% of Joint Venture Banks in Nepal practice sensitivity analysis, 17% of them use increase the rate of return and 17% of them use estimation of

Table-16

No of risk adjustment techniques practiced by the Joint Venture Banks in Nepal

No of risk adjustment techniques (x)	No of Banks (f)	Fx
0	2	0
1	2	2
2	2	4
	N=6	fx=6

(Sources:Appendix-6)

Average no of risk adjusted techniques practiced by Nepalese Joint Venture Banks is given by,

$$\bar{x} \, \mathrm{X} \frac{fx}{N} \, \mathrm{X} \frac{6}{6} \, \mathrm{X} 1$$

From above table, it is cleared that an average one risk adjustment techniques is practiced by Nepalese Joint Venture Banks. No of banks using average no of risk adjustment technique is two. Similarly no of banks using more than average no of risk adjustment is also two and two banks use none of the risk adjustment technique for capital investment purpose.

In above table 14 represent the methods of inventory valuation practiced by Joint Venture Banks in Nepal under perpetual basis. This table reflects that nearly 33% of Joint Venture Banks in Nepal use LIFO and 17% of them FIFO methods of inventory valuation under perpetual basis. None of them use weighted average method for inventory valuation.

According to some banks managers, methods of inventory valuation for banking sector are not relevant for very small inventory items like stationary and so on.

Table-17

Capital budgeting techniques practiced by Joint Venture Banks in Nepal

S.N.	Capital budgeting techniques	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	Payback period(PBP)	6	6	2	33
2.	Average rate of return (ARR)	6	6	-	-
3.	Net present value (NPV)	6	6	4	67
4.	Internal rate of return (IRR)	6	6	1	17
5	Profitability index(PI)	6	6	-	-
6	Modified internal rate of return	6	6	-	-
7	Others	6	6	1	17

(Sources: Appendix-7)

The capital budgeting techniques practiced by Joint Venture Banks of Nepal is presented in the above table17. It is found from the table that 67% of Nepalese Joint Venture Banks practice Net present value (NPV) method for capital budgeting purpose. The percentages of Banks using payback period (PBP) for the purpose is 33% Similarly both internal rate of return and others techniques are used by 17% Joint Venture Banks of Nepal for capital budgeting analysis purpose. But none of them are practicing Average rate of return (ARR), Profitability index (PI) and Modified internal rate of return (MIRR) as a capital budgeting techniques.

Table-18

No of capital budgeting techniques practiced in Joint Venture Banks in Nepal

No of capital budgeting (x)	No of Banks (f)	Fx
0	1	0
1	2	2
2	3	6
	N=6	fx=8

(Sources: Appendix-7)

Average no of capital budgeting techniques practiced by joint venture bank in Nepal is given by,

$$\bar{x} \, X \frac{fx}{N} \, X \frac{8}{6} \, X 1.3333 \quad \text{i.e. } 1$$

From the above calculation we fund that on an average; only one capital budgeting technique is practiced by the Joint Venture Banks in Nepal. Two Joint Venture Banks use average number of capital budgeting technique. Three Joint Venture Banks in Nepal use more than average number (i.e.2) of capital budgeting techniques and one of them is not practicing the capital budgeting techniques.

Table-19

Year ending overall performance measuring and controlling techniques practiced by Joint Venture Banks in Nepal

S.N.	Performance measuring and controlling techniques	No. of population banks	No. of sample banks	No. of practicing banks	Percentage %
1.	Standard costing	6	6	-	-

2.	Profit/loss made by banks	6	6	6	100
3.	Ratio analysis	6	6	5	83
4.	Activity base costing	6	6	-	-
5	Budgetary control	6	6	6	100
6	Cash flow analysis	6	6	3	50
7	Others	6	6	-	-

(Sources:Appendix-5)

The table 20 represents the year ending overall performance measuring and controlling techniques practiced by Joint Venture Banks in Nepal. This table clarifies that 100% of Joint Venture Banks in Nepal measure and control overall performance of their banks on the basis of profit or loss made by banks and budgetary control. Similarly 83% and 50% of them respectively practice ratio analysis and cash flow analysis techniques to measure and control the overall performance of their banks at the end of the year. From the table, it is found that none of the Joint Venture Banks in Nepal use standard costing and activity base costing to measure and control the overall performance of the banks.

Table-20

No of year ending overall performance measuring and controlling techniques practiced by Joint Venture Banks in Nepal

No of performance measuring and controlling techniques (x)	No of Banks (f)	Fx
1	0	0
2	1	2
3	2	6
4	3	12
	N=6	fx=20

(Sources:Appendix-5)

Average no of year ending overall performance measuring and controlling techniques practiced by joint Venture Banks in Nepal is given by,

$\bar{x} = \frac{fx}{N} = \frac{20}{6} = 3.333$ i.e. 3

From this calculation it is found that on an average three techniques are practice to measure and control the overall performance of Joint Venture Banks of Nepal at the end of the year. This table shows that one joint venture bank in Nepal uses less than the average number of year ending overall performance measuring and controlling techniques. Whereas 2 Joint Venture Banks exactly use the average number of year ending overall performance measuring and controlling techniques. Majority of the banks i.e. 3 Joint Venture Banks in Nepal practice more than the average number of year ending overall performance measuring and controlling techniques.

4.3. What benefits can be achieved if management accounting tools and techniques are applied effectively in every Joint Venture Banks in Nepal?

The open-end question was asked relating to the application of management accounting tools and techniques and achieving benefits from it to the respondent banks. in this context some, discussions were made with the respondent banks managers, financial controllers and / or account managers to seek their opinions. They agreed upon the fact that management accounting tools are to be effectively applied in every Joint Venture Banks as well as other kinds of banks for effective management information system, cost control of banks and accurate and timely decision making. On the basis of their opinions, the following benefits can be achieved by application of management accounting tools in Joint Venture Banks in Nepal,

- Accurate accounting
- Better risk management
- Proper analysis of the position of the banks

- Rational decision making
- Higher profitability
- Consistent financial information
- Helpful in cost, benefit analysis
- Control or eliminates wastages of resources
- Perfect financial status to the stakeholders
- Useful for trend analysis
- Quality services to the customers
- Regulate the banking activities
- Provides premises for the future planning

4.4 Are there any problems in the applications of management accounting tools in joint Venture Banks in Nepal? If so what are they?

The respondents were in favor of benefits in the application of management accounting tools in Joint Venture Banks in Nepal. They also viewed that there are various causes which are creating difficulties in the application of management accounting in Nepalese Joint Venture Banks. They raised the main causes like this, lack of sufficient knowledge, lack of management accounting experts, lack of management's commitments. Besides these, some others causes of the basis of their (respondents') opinions are,

- Lack of knowledge about accounting tools
- Lack of proper human resources management
- Not availability of accurate information
- The application of some management accounting tools are difficult because it increase the costs and banks are not in a position to meet such kinds of extra costs
- There is no willingness of bank management
- Economic environment is not suitable

- Due to external forces decision making could not be made on the basis of management accounting principles

4.5 Hypothesis Test

Hypothesis 1:

Null hypothesis (H_0): There is no significant relationship between the ownership of bank and practice of Net Present Value (NPV) as a management accounting tool (i.e. the ownership of bank and practice of NPV as management accounting tool are independent)

Alternative Hypothesis (H_1):There is significant relationship between the ownership of bank and practice of NPV as a management accounting tool (i.e. the ownership of and practice of NPV as a management accounting tool (i.e. the ownership of and practice of NPV as a management accounting tool are dependent)

Test Statistics: under(H_0)

For 2x2 contingency table,

$$x^2 = \frac{N(ad - bc)^2}{(a+b)(c+d)(a+c)(b+d)}$$

Where, N= Total no. of observation

2 × 2 Contingency Table

Ownership of Banks	Practice of NPV		Row Total
	Yes	No	
Public	a 0	b 2	2
Joint Venture	c 4	d 2	6
Column total	4	4	8

Since, first cell frequency is zero which is less than 5; we should apply Yates correction for calculating x^2. For this, add 0.5 to cell frequency a (i.e.0) and adjusting the remaining frequencies by fixing row total and column total. Thus adjusted 2x2 contingency is presented in the following table.

Ownership of Banks	Practice of NPV		Row Total
	Yes	No	
Public	a 0.5	b 1.5	2
Joint Venture	c 3.5	d 2.5	6
Column total	4	4	8

Now $$x^2 = \frac{8(0.5 \times 2.5 - 1.5 \times 3.5)^2}{(0.5+1.5)(3.5+2.5)(0.5+3.5)(1.5+2.5)}$$

$$= \frac{128}{192} = 0.667$$

$$x^2 = 0.667$$

Degree of freedom (d.f.)=(r-1) (c-1)=(2-1) (2-1) =1

Tabulated value of x^2 at 5% level of significant for 1 d. f is 3.841

Decision

Since calculated value of x^2 (i.e. 0.667) is less than tabulated value of x^2 (i.e. 3.841), at 5% level of significant for 1 d. f., null hypothesis is accepted. This means, there is no significant relationship between the ownership of banks and the practice of NPV as a management accounting tool. In other words, the ownership of banks and the practice of NPV as a management accounting tool are independent.

Hypothesis: 2

Null Hypothesis (H_1): There is significant relationship between the ownership of bank and practice of ABB as a management accounting tools (i.e. the ownership of bank and the practice of ABB as a management accounting tools are dependent.) ownership o bank and practice of NPV as management accounting tools are independent

Alternative Hypothesis (H_1): There is significant relationship between the ownership of bank and practice of NPV as a management accounting tool (i.e. the ownership of and practice of NPV as a management accounting tool are dependent)

Now $\chi^2 = \frac{N(ad-bc)^2}{(a+b)(c+d)(a+c)(b+d)}$

Where: N = Total no. of observation

2x2 Contingency Table

Ownership of Banks	Practice of ABB				Row Total
	Yes		No		
Public	a	1	b	1	2
Joint Venture	c	4	d	2	6
Column total		5		3	8

Since, first cell frequency is one which is less than 5; we should apply Yates correction for calculating x2. For this, add 0.5 to cell frequency a (i.e.) and adjusting the remaining frequencies by fixing row total and column total. Thus adjusted 2x2 contingency table is presented in the following table.

Ownership of Banks	Practice of ABB				Row Total
	Yes		No		
Public	a	1.5	b	0.5	2
Joint Venture	c	3.5	d	2.5	6
Column total		5		3	8

Now $$x^2 = \frac{8(1.5 \times 2.5 - 0.5 \times 3.5)^2}{(1.5+0.5)(3.5+2.5)(1.5+3.5)(0.5+2.5)}$$

$$= \frac{32}{180} = 0.178$$

$$x^2 = 0.178$$

Degree of freedom (d.f.)=(r-1) (c-1)=(2-1) (2-1) =1

Tabulated value of x^2 at 5% level of significant for 1 d. f is 3.84

<u>Decision</u>

Since the tabulated value of x^2 (i.e. 0.178) is less than tabulated value (i.e. 3.84), null hypothesis is accepted. This means there is no significant relationship between the ownership of bank and practice of ABB as a management accounting tool. In other words, the ownership of bank and the practice of ABB as a management accounting tool are independent.

Hypothesis: 3

Null Hypothesis (H_0): $\mu = \mu_0$ There is no significant different between whole commercial banking industry and Joint Venture Bank in term of practicing average number of management accounting tools and techniques. (In other words in whole commercial banking industry and that practiced in Joint Venture Banks are equal)

Alternative Hypothesis (H_1): $\mu > \mu_0$ (Right tailed test) i.e. average no of management accounting tool practiced in Nepalese sample Joint Venture Banks is greater than the average no of accounting tools practiced in Nepalese commercial banking industry as a whole.

Test Statistics: under H_o,

$\mu = 4$, (Sources: Baral, page-79)

Sample size (n) = 6

$fx^2 = 159$ and $fx = 29$ (Sources: Table-2)

$$t = \frac{\bar{X} - \mu}{\sqrt{\frac{s^2}{n}}}$$

where,

$$= \frac{5-4}{\sqrt{\frac{3.8}{6}}}$$

sample variation (s^2)

$$= \frac{1}{0.795}$$

$$= \frac{1}{n-1}\left[\sum fx^2 - \frac{\left(\sum fx\right)^2}{n}\right]$$

= 1.258

$$= \frac{1}{6-1}\left(159 - \frac{(29)^2}{6}\right)$$

= 3.8

Degree of freedom (d.f)=n-1=5

α =5% =0.05

The tabulated value of t for 5 d. f. at 5% level of significant of right tailed test is 2.015 (This is the value of t for 5d.f. at 10% level of significant for two tailed test)

Since the calculated value of t (i.e.1.258) is less than the tabulated value of t(i.e. 2.015), it is significant and H_0 is accepted. Which means that the average no of management accounting tools practiced in whole commercial banking industry and that practiced in Joint Venture Banks are equal.

4.6 Major Findings

From the presentation and analysis of information and data, the major findings are as follows.

1. One the basis of analysis, the application of management accounting tools in Joint Venture Banks in Nepal for planning, controlling and decision making, it is found that Ratio Analysis, capital budgeting, Activity Base Budgeting, Break Even Analysis and Cash Flow Statement are widely practiced representing 100%, 67%,67%,67%,67% of 6 sample Joint Venture

Banks respectively. Likewise Cost Segregation, Responsibility Accounting, Pricing Decision and Zero Base Budgeting are also used in Nepalese Joint Venture Bank in Nepal representing 33% ,33%, and 17% respectively. But the management accounting tools i.e. standard costing is not practiced.

2. With regard to no. of Joint Venture Banks in Nepal practicing one or more management accounting tools, it is found that on an average 5 management tools are practiced in Nepalese Joint Venture Banks. Out of total sample number of Joint Venture Banks, 50% banks did not meet the average no of tools, while nearly 17% met exactly average no of management accounting tools and remaining 33% banks are practicing more than average no of management accounting tools.

3. For preparing Budget, actual expenses of previous year and Activity Base Budgeting are widely used as the base in the Joint Venture Banks, representing 83% and 63% respectively. Past Budget and Zero Base Budget are also used some where as a base for preparing budget representing 33% and 17% respectively. It is focused that some Joint Venture Banks see the market trend for preparing budget.

4. On an average, two bases are taken for preparing budget in Joint Venture Banks in Nepal. Out of 6 sample banks, nearly 34% banks take more than average no of base for preparing their budget. Similarly nearly 33% banks meet exactly average no of bases. And the same percentages of banks (i.e.33%) use less than average no of bases for preparing their budget.

5. With regard to the types of budget practiced by the Joint Venture Banks, 83% Nepalese Joint Venture Banks prepare annual budget, 50% of them prepare overall master budget and only 17% JVB prepare operational budget. It is found that long term budget is not prepared in Joint Venture Banks in Nepal.

6. In the context of budgeting preparing system of Joint Venture Banks in Nepal, it is found that in 50% of Nepalese Joint Venture Banks, chief of finance department prepares budget. In 33% Joint Venture Banks, chief executive officer as well as strategy and planning department is involved in preparing budget. Similarly in 17% Nepalese JVB planning department prepare budget. It is also found than in Nepalese JBV, the involvement of outside experts and budget committee are almost nil for budget preparing system.

7.To segregate the mixed cost in to fixed and variable, analysis method is used in 33% Joint Venture Banks in Nepal and Average Method is used in 17% Nepalese Joint Venture Banks. Similarly some respondents viewed that normally no segregation of fixed and variable is required in banking sectors.

8.In the context of time period covered in budget, cent percent Nepalese Joint Venture Banks prepare short term budget (1 year or less) and 17% Nepalese Joint Venture Banks prepare long term budget (5 years or more). It is found that medium term budget is not applied in the joint Venture Banks in Nepal.

9. With respect to allocation of Joint cost, 83% of Nepal Joint Venture Banks allocate their joint cost on the basis of the volume of transactions. And 17% banks do not have any practice of allocating joint cost. The respondent banks managers, finance officers argued that as no joint cost occurred in the banking sector so that no question arises of allocating joint cost among the department.

10. For department price/Interest rate, 50% Joint Venture Banks in Nepal adopt Full Costing Based Pricing technique, 33% joint Venture Banks adopt going rate Pricing and Activity Based Costing and only 17% Joint Venture Banks use Target Return on Investment Policy.

11. While analyzing cost and revenue estimation techniques practiced by Nepalese Joint Venture Banks, it found that 67% banks estimate their cost and revenue on the basis of Past Trend Analysis, 67% banks estimate on the basis of judgmental analysis. Similarly 17% Joint Venture Banks in Nepal estimate their cost and revenue on the basis of Zero Base Budgeting.

12. Nepalese Joint Venture Banks applied two techniques of cost and revenue estimation on an average. Out of 6 Joint Venture Banks, 50% JBV practice more than the average no of cost and revenue estimation techniques, while 17% practice less than an average number of cost and revenue estimation techniques.

13.While analyzing, methods of inventory Valuation, 33% Nepalese Joint Venture Banks applied periodic method and 50% Joint Venture Banks applied perpetual method. In periodic method nearly 33% banks adopt FIFO method and none of the banks adopt LIFO and weighted average method.

In perpetual method 33% Joint Venture Banks applied FIFO method and 17% banks applied FIFO method. Similarly, none of them applied weighted method.

14. For adjusting risk while evaluating capital investment, 67% Nepalese Joint Venture Banks practice sensitivity analysis, and 17% of them practice increase in the rate of return and 12% of them practice distribution for the future cash flow. Similarly none of them practice shorten payback period, estimation of probability and higher internal rate of return.

15. Only one method is practiced to adjust risk while evaluating capital investment in Nepalese Joint Venture Banks on an average. While evaluating capital investment, the Nepalese Joint Venture Banks practicing exactly average no of risk adjustment method, less that average no and more than average no of risk adjustment methods were 33%, 33% and nearly 34% respectively.

16. While analyzing capital budgeting techniques practice in Joint Venture Banks in Nepal for purchasing fixed assets or making long term investment decision, it is found 67% banks adopt Net present value (NPV), 33% banks use payback period (PBP) and 17% banks use internal rate of return ((IRR). It also found that none of the Joint Venture Banks adopt profitability index (PI) and modified internal rate of return (MIRR) while making long term investment decision.

17. On an average, only one capital budgeting technique is practiced in Nepalese Joint Venture Banks to make long term investment decision. Out of six sample Joint Venture Banks, 17% banks do not apply any of the capital budgeting techniques where as 33% banks apply exactly average no of such techniques and 50% Nepalese Joint Venture Banks apply more than the average number of capital budgeting techniques while making long term investment decision.

18. For measuring and controlling overall performance of the bank at the end of the year, 100% Nepalese Joint Venture Banks practice profit/loss made by bank, 100% banks practice budgetary control. Similarly 83% of Nepalese Joint Venture Banks practice ratio analysis and 50% banks use cash flow analysis. Till now none of the banks apply standard costing and activity base costing to measure and control the overall performance of the banks at the end of year.

19. In average 3 techniques are practiced to measure and control the overall performance of banks at the end of the year. Out of 6 sample banks, 50% Nepalese Joint Venture Banks use more than average no of techniques, 33% of banks practice exactly average number of techniques and remaining 17% of them practice less than average no of techniques at the end of year for overall performance measurement and controlling.

20. In the context of open end questions, it is found that the majority of the banks managers, financial controllers/or account managers agreed upon the fact that management accounting tools are to be effectively applied in every Nepalese Joint Venture Banks for effective management information system, Cost control, higher profitability, accurate and timely decision making, better and consistent financial information and so on.

21. While analyzing the problems in the application of management accounting tools in Nepalese Joint Venture Banks, various drawbacks identified are as lack of expertise, lack of information about tools, high cost, lack of top management's commitment, NRB's accounting provisions, tax law compliances and so on.

Hypothesis findings:

22. **Hypotheses 1**:

While testing hypothesis 1, the ownership of banks and practice of NPV; it is found that there is no relationship between the ownership of banks and practice of NPV as a management accounting tools. It means the ownership of bank and the practice of NPV as a management accounting tools are independent. In other words the commercial bank which is private (here, Joint Venture Banks) or public, each bank is independent in the context of practicing of NPV.

23. Hypotheses 2:

While testing hypothesis 2, the ownership of the bank and practice of ABB; it is found that there is no significant relationship between the ownership of bank and practice of ABB as a management accounting tool. It means the ownership of banks and practice of ABB as a management tools are independent. In other words, the commercial bank which is Joint Venture or public, each bank is independent in the context of practicing of ABB.

24. Hypotheses 3:

While testing hypotheses 3, it is found that there is no significant different between whole commercial banking industry and Joint Venture

Banks in terms of practicing average no of management accounting tools and techniques. It means the average no of management accounting tools practiced in whole commercial banking industry and that practiced in Joint Venture Banks are equal.

Chapter Five

5. Summary, conclusion and Recommendations:

5.1 Summary:

A business enterprise today operates is a dynamic environment which involves many forms of management problems. The old techniques of management by institution in no longer considered dependable in situation in which the modern management has realized that even a slight error in policy decision may mean either losing a lot of business opportunities or going out of competition. A second chance may not come or even if it does, it may be costly or risky. Management constantly strive to reduce the risk of making mistakes by looking for and analyzing relevant information by means of which it hopes to take judicious decision and direct the administration in a better manner. Managerial skills and competencies are keys for organizational success. Managers play a significant role in facilitating organizational effectiveness. Management principles can be applied at all organizations and at all levels of an organization. It is equally important for the organizations such as commercial, non-commercial and private or public.

The modern complex economic system can not function without bank. It carries out the economic activities. It has made easier to develop agriculture, industry and trade. The banks help in mobilization and allocation of scarce resources, which are essential for economic development. For better mobilization of resources, different tools and techniques have been developed. Among them management accounting tools have proved beneficial in different aspects of managerial activities.

One of the important parts of management is management accounting. Management is the branch of accounting which helps the management to perform all its functions including planning, organizing, staffing, directing and controlling. Management accounting is the integral part of management process and acts as the strategic business partner in support of managerial role in rational decision making.

Whether Nepalese Joint Venture banks are applying managerial accounting tools and techniques or not? Cost segregation, classification, CVP analysis, overall budgeting, pricing, standard costing, activity base costing, responsibility accounting, financial performance analysis, cash flow analysis are the major management accounting tools. Whether Joint Venture Banks in Nepal are applying these tools and getting advantages from the managerial accounting or not? To familiar these facts, this study has been conducted.

To study and examine the present practices of management accounting in Nepalese Joint Venture Banks is the main objectives of this research for non-practicing management accounting tools and difficulties for the proper application of such tools in Nepalese Joint Venture Banks. As per the nature and demand of the study, this research design was followed with descriptive and analytical approach. The research is mostly based on primary data and information. Secondary sources of information have also used as per need. The data had been collected from respective Joint Venture Banks by distributing the scheduled questionnaire. Cent percent of total population has been used as a sample. The collected raw data has been properly processed, tabulated and analyzed. Percentage has been applied to analyze and interpret the findings. The statistical tools chi-square(x^2) and t-test has been used to test the assumptions.

5.2. Conclusion:

Management accounting concept emerged to resolve the complexity that has appeared in today's business decision making process. It is for every level of management because every manager has to be involved in some or other sorts of decision making process. Management accounting is a new discipline and still in developing stage in the context of modern business organization. Different types of management accounting tools and techniques are evolving as a new dimension and that facilitates the management to perform the management functions better covering from planning to control. Various kinds of management accounting tools and techniques are taught in the universities but they were not found to be completely practiced in Nepalese Joint Venture Banks. It shows a vast gap between theory and practice.

The management accounting tools like ratio analysis, capital budgeting, activity base budgeting and break even analysis are widely used in Nepalese Joint Venture Banks. Similarly cost segregation, cash flow analysis, zero based budgeting, pricing decision and responsibility accounting are the least in practice in Nepal Joint Venture Banks. It is also found that the cause of non-practicing standard costing is not applicable for service industry like banking sector. In Nepalese Joint Venture Banks, practices of hiring the outside expert for carrying our different managerial activities are almost nil. Some management accounting tools and techniques were not in practice and some in least practice due to lack of proper/sufficient knowledge about those tools in the Nepalese Joint Venture Banks.

Finally, we conclude that Nepalese Joint Venture Banks are in preliminary stage with respect to the application of modern management accounting tools and yet they are trying to adopt such tools and techniques more and more to cope with the future expected opportunities and challenge to be faced due to the globalization.

5.3. Recommendations:

Management accounting plays a significant role for every type of business and non-business houses. For better utilization of the limited resources and for achieving goals under the circumstances of ruthless competition, application of advanced managerial accounting tools can be of great help. The practice of management accounting tools and techniques in every organization is not only necessary but also compulsion for the better performance of the organizations. It provides a key idea and guidelines and strategies to the management for better performance of management functions.

This research is a small part of management accounting prepared to fulfillment the partial requirements of master degree. From the analysis and interpretation of collected data and information, some findings are extracted. On the basis of these findings, it may be appropriate to give the suggestions and recommendations, although the given recommendations may not be sufficient. On the basis of findings, this research suggest and recommends, although the given recommendations may not be sufficient. On the basis of findings, this research suggests and recommends the followings.

1. For improvement of competitive strength of Nepalese joint venture bank and carryout management activities effectively and efficiently the application of management accounting tools and techniques are recommended. Budgeting, cost estimation, classification and allocation, cost volume profit analysis, can be applied for the planning activities. Similarly variance analysis, standard costing, responsibility accounting, budgeting control, cash flow statement, flexible budgeting can be used for controlling activities. Likewise marginal analysis, differential analysis and environmental analysis can be applied in rational decision-making. The management accounting tools and techniques should be properly implemented by analyzing cost and benefit of such tools.

2. A separate management accounting department should be established within the organization for better implementation of management accounting tools effectively. If it is impossible for them, it can be managed under the existing finance, accounting or planning department. Outsider management accounting expert should be hired for better performance of the organization. Employees training programs should be operated for increasing their efficiency. Consultancy services should be also taken if needed.

3. For Joint Venture Banks, cost segregation and allocation is necessary and it helps management from better planning to control. So it is also recommended to apply cost allocation, segregation and estimation technique properly.

4. Banks are recommended to prepare overall master budget because it is an important management accounting tool for effective implementation. While preparing budget and planning activities, there must be a better co-ordination among various department such as finance department, planning department and company board. If so, budget and planning activities become effective.

5. Budget preparing system followed by only past actual expenses and past budget estimation may not effective because what happen in the past might not be occurred in the future. So along with these, zero base budget, activity base budget and environmental analysis should also be taken in to consideration. Nepalese Joint Venture Banks should be prepared not only short term budget but also prepare the mid-term and long term budget with especial vision, missions goals and objectives for better performances.

6. For long-term investment decision, Nepalese Joint Venture Banks are recommended to practice discounted payback period, net present value, and internal rate of return and Profitability index techniques.

7. Most of the banks are found practicing only past trend analysis to forecast the cost and revenue of the future. However what happened in the past might not occur in the future. So zero base budgeting, Judgmental analysis, engineering analysis and market survey should also be taken in to consideration for estimating cost and revenue of the Banks.

8. A small portion of the profit earned by the banks should be allocated for the research and development programs so that new management accounting tools and techniques can be developed and adopted in the banks.

9. Nepalese Joint Venture Banks should be updated and upgraded with new modern management tools and techniques which are practiced in well operating and best performing banks around the globe. For cost reduction, target costing, value engineering, Kiezen costing, just in time inventory management, total quality management should be practiced. Traditional management accounting tools which the banks are practicing till now are helpful but not sufficient in present competitive market. New methods and techniques of management accounting should be developed and applied. As a result cost can be minimized and better quality as well as reliable services can provide to the customers.

10. By conducting research and development programs, the difficulties and challenges faced by banks in practicing management accounting tools can be identified and solved. So the banks are recommended to recognize the present and future challenges of the banks and should solve the problems through the strong effort of concerned parties.

11. Nepalese Joint Venture Banks should use academician's Knowledge by interacting with them and should conduct mass meeting and seminars as well as discussion programs which are beneficial to understand about the new management accounting tools and techniques. To keep their personnel updated they should conduct different types of training programs tools and techniques. It is recommended that Joint Venture Banks should create such kinds of environment. Similarly top level management should also pay the attention for the implementation of management accounting tools and techniques in their banks effectively.

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Research Questionnaire

You are requested to tick (✓) on the alternatives provided for each question concerning management accounting tools used in your bank.

Your help for academic purpose will be highly appreciated.

Q. No. 1. What kinds of management accounting tools are used in your Bank among the given alternatives for planning controlling and decision making process?

a. Standard Costing [ ]
b. Ratio Analysis [ ]
c. Break-Even Analysis [ ]
d. Cash Flow Analysis [ ]
e. Pricing Decision [ ]
f. Cost segregation in to fixed and variable [ ]
g. Responsibility Accounting [ ]
h. Capital budgeting [ ]
i. Activity based budgeting [ ]
j. Zero based budgeting [ ]

Q. No. 2. What might be the reason, if your bank has not practiced any of above-mentioned tools?

a. Lack of expertise [ ]
b. Quite expensive [ ]
c. No information about such tools [ ]
d. Other, if any (Please specify)………..

Q. No. 3. What techniques does your bank practice for cost and revenue estimation?

a. Judgment analysis [ ]
b. Market survey [ ]
c. Past trend analysis [ ]
d. Zero based budgeting [ ]
e. Other, if any (Please specify)……….

Q. No. 4. Which method is followed for pricing the issue of inventory (store) in your bank?

a. LIFO [ ]

b. FIFO [ ]

c. Weighted Average [ ]

d. Other, if any (Please specify)…………..

Q. No. 5. What techniques does your bank practice for pricing service?

a. Activity based costing pricing [ ]

b. Going rate pricing [ ]

c. Variable cost-base pricing [ ]

d. Target Return on investment policy [ ]

e. Full cost base pricing [ ]

Q. No. 6. What purchasing fixed assets or making long term investment decision which of the following capital budgeting tool is practiced?

a. Profitability index [ ]

b. Net present value [ ]

c. Payback period [ ]

d. Modified internal rate of return [ ]

e. Internal rate of return [ ]

f. Average rate of return

g. Other, if any (Please specify)……………

Q. No. 7. How does your bank adjust for risk while evaluating capital investment?

a. Higher IRR [ ]

b. Increase the rate of return [ ]

c. Sensitivity analysis [ ]

d. Estimation of probability distribution for future Cash flow [ ]

e. Shorten payback period [ ]

Q. No. 8. How your Bank measures and controls the overall performance at the end of the accounting year?

a. Budgetary control [ ]

b. Activity based costing [ ]

c. Ratio analysis [ ]

d. Profit/loss made by bank [ ]

e. Cash flow statement [ ]

f. Standard costing [ ]

g. Other, if any (Please specify)………..

Q.No.9.What technique does your bank follow to allocate joint cost?

a. Transition based

b. Other , If any (please specify………)

Q. No. 10. What technique does your bank practice to segregate the mixed cost in to variable and fixed?

a. Average method [ ]

b. Regression method [ ]

c. Analysis method [ ]

d. High-low point method [ ]

e. Graphical presentation method [ ]

f. Other, if any (Please specify)……………

Q. No. 11. What is the period covered by the budget used in your bank?

a. Long-term budget (5 years or more) [ ]

b. Medium-term budget (3 years) [ ]

c. Short-term budget (1years or less) [ ]

Q. No. 12. On what basis, does your bank prepare budget?

a. Activity base budgeting [ ]

b. Past budget [ ]

c. Zero based budget [ ]

d. Based on actual expenses of last year [ ]

e. Other, if any(Please specify)………

Q. No. 13. What types of budget does your bank prepare?

a. Annual Budget only [ ]

b. Operational budget only [ ]

c. Cash budget [ ]

d. Long-term budget [ ]

e. Overall master budget [ ]

f. Other, if any(Please specify)………

Q. No. 14. Who does prepare the budget in your book?

a. Outside expert [ ]

b. Budget committee [ ]

c. Chief of finance department [ ]

d. Planning department [ ]

e. Other, if any(Please specify)………

Q. No. 15. What benefits can be achieved if management accounting tools and techniques are applied effectively in every Joint Venture Banks in Nepal?

1.)……………………………………………………………….

2.)……………………………………………………………….

3.)……………………………………………………………….

Q. No. 16. Are there any problems in the application of management accounting tools in Joint Venture Banks in Nepal? If so, what they are?

1.)……………………………………………………………….

2.)……………………………………………………………….

3.)……………………………………………………………….

Name of the Bank:……………….……………………………

Address of the Bank:…………………..………………………

Designation of the Respondent……………..…………………

Appendix-1

S. N.	Management Accounting Tools	HBL	NABIL	SCB	NBB	EB	SBI	**Total**	NBL	RBB	**Total**
1.	Cost Segregation into fixed and variable	1	1	-	-	-	-	**2**	1	-	**1**
2.	Responsibility Accounting	-	-	-	-	1	1	**2**	1	-	**1**
3.	Standard costing	-	-	-	-	-	-	**0**	-	-	**-**
4.	Cash flow statement	1	1	-	1	-	1	**4**	1	1	**2**
5.	BEP Analysis (No profit no loss)	1	1	1	1	-	-	**4**	1	1	**2**
6.	Pricing decision	-	1	-	1	-	-	**2**	1	-	**1**
7.	Activity base Budgeting	-	1	1	1	1	-	**4**	-	1	**1**
8.	Zero base budgeting	-	1	-	-	-	-	**1**	-	-	**-**
9.	Capital Budgeting	1	1	1	1	-	-	**4**	1	1	**2**
10.	Ratio analysis	1	1	1	1	1	1	**6**	1	1	**2**
	Total	**5**	**8**	**4**	**6**	**3**	**3**	**29**	**7**	**5**	**12**

Practice of Management Accounting Tolls in Joint Venture Banks in Nepal

PSCB = Public Sector Commercial Bank

-Not practiced

1 Practiced

Appendix-2

Basis for preparation of Budget in JVB in Nepal

	Joint Venture Banks	PSCB

S.N.	Base for Budget Preparation	HBL	NABIL	SCB	NBB	EB	SBI	**Total**	NBL	RBB
1.	Actual expenses of previous year	1	1	1	1	1	-	**5**	1	1
2.	Past Budget	-	-	-	-	1	1	**2**	1	-
3.	Activity base Budgeting	-	1	1	1	1	-	**4**	-	1
4.	Zero base Budgeting	-	1	-	-	-	-	**1**	-	-
5.	Others (if any)	-	-	-	-	-	-	-	-	-
	Total	**1**	**3**	**2**	**2**	**3**	**1**	**12**	**2**	**2**

PSCB = Public Sector Commercial Bank

1 Practiced

- Not Practiced

Appendix-3

Cost and revenue estimation techniques applied by Joint Venture Bank of Nepal.

		Joint Venture Banks							PSCB		
S.N.	Techniques	HBL	NABIL	SCB	NBB	EB	SBI	**Total**	NBL	RBB	**Total**
1.	Past trend analysis	1	-	1	-	1	1	**4**	1	1	**2**
2.	Market Survey	-	-	-	-	1	1	**2**	1	-	**1**
3.	Judgmental Analysis	-	1	1	1	1	-	**4**	1	1	**2**
4.	Zero base Budgeting	-	1	-	-	-	-	**1**	-	-	**-**
5.	Others(if any)	-	-	-	-	-	-	**-**	-	-	**-**
	Total	**1**	**2**	**2**	**1**	**3**	**2**	**11**	**3**	**2**	**5**

-Not practiced

1 Practiced

Appendix-4

Budget preparing system in JVB in Nepal

		Joint Venture Banks							PSCB		
S. N.	System of Preparation Budget	HBL	NABIL	SCB	NBB	EB	SBI	**Total**	NBL	RBB	**Total**
1.	Budget Committee	-	-	-	-	-	-	**-**	-	1	**1**
2.	Planning Department	-	1	-	-	-	-	**1**	1	-	**1**
3.	Chief of Finance	1	-	-	1	1	-	**3**	-	-	**-**
4.	Outside Experts	-	-	-	-	-	-	**-**	-	-	**-**
5.	Others(if any)	-	-	1	-	-	1	**2**	-	-	**-**
	Total	**1**	**1**	**1**	**1**	**1**	**1**	**6**	**1**	**1**	**2**

*All the Department does if the Finance Department compiles it.

**Chief executive officers

Appendix-5

Methods used to measure and control overall performance at the end of the year in the Joint Venture Bank in Nepal

		Joint Venture Banks							PSCB		
S. N.	Tools	HBL	NABIL	SCB	NBB	EB	SBI	**Total**	NBL	RBB	**Total**
1.	Profit and Loss	1	1	1	1	1	1	**6**	1	1	**2**
2.	Budgetary Control	1	1	1	1	1	1	**6**	1	1	**2**
3.	Standard Costing	-	-	-	-	-	-	**-**	-	-	**-**
4.	Ratio Analysis	1	1	1	1	-	1	**5**	1	1	**2**
5.	Cash Flow Statement	1	1	-	1	-	-	**3**	1	-	**1**
6.	ABC Costing	-	-	-	-	-	-	**-**	-	-	**-**
7.	Others(if any)	-	-	1	-	-	-	**-**	-	-	**-**
	Total	**4**	**4**	**3**	**4**	**2**	**3**	**20**	**4**	**3**	**7**

- Not practiced

1 Practiced

Appendix-6

Risk adjustment techniques while evaluating Capital Budgeting practice in Joint Venture Bank in Nepal

		Joint Venture Banks							PSCB		
S. N.	Tools	HBL	NABIL	SCB	NBB	EB	SBI	**Total**	NBL	RBB	**Total**
1.	Increase RR	-	-	-	1	-	-	**1**	-	-	-
2.	Higher IRR	-	-	-	-	-	-	-	-	-	-
3.	Sensitivity Analysis	1	1	1	1	-	-	**4**	1	-	**1**
4.	Estimation of prob. distribution	-	1	-	-	-	-	**1**	1	1	**2**
5.	Shorten PBP	-	-	-	-	-	-	-	-	-	-
6.	Others(if any)	-	-	-	-	-	-	-	-	-	-
	Total	**1**	**2**	**1**	**2**	-	-	**6**	**2**	**1**	**3**

- Not practiced

1 Practiced

Appendix-7

Capital Budgeting/Long-term investment decision techniques practice in Joint Venture Bank in Nepal

		Joint Venture Banks							PSCB		
S. N.	Tools	HBL	NABIL	SCB	NBB	EB	SBI	**Total**	NBL	RBB	**Total**
1.	PBP	1	-	1	-	-	-	**2**	-	1	**1**
2.	ARR	-	-	-	-	-	-	-	1	-	**1**
3.	NPV	1	1	1	1	-	-	**4**	-	-	-
4.	IRR	-	1	-	-	-	-	**1**	-	-	-
5.	PI	-	-	-	-	-	-	-	-	-	-
6.	MIRR	-	-	-	-	-	-	-	-	-	-
7.	Others(if any)	-	-	-	-	-	1	**1**	-	-	-
	Total	**2**	**2**	**2**	**1**	-	**1**	**8**	**1**	**1**	**2**

- Not practiced

1 Practiced