CHAPTER – 1

INTRODUCTION

1.1 Background of the Study

Public enterprises were established as a strong means of development after the Second World War in developing countries. Such enterprises were established in developed countries from the Eighteenth Century. However, in the developing countries, constrained with the scarcity of capital and professional skills, the significance of such enterprises was evidently even greater, so in these countries, right from the infrastructural and service areas to the production and even distribution sector, public enterprises were established. It was believed that the government should play a predominant role in national economic development especially in those developed and developing countries cast in the socialistic pattern. With this view, public enterprises were established in production, distribution, and even in business sectors.

Here, an effort has been attempted to understand the Management Accounting Practice in the Nepalese Public Enterprises. To understand it more precisely and convey information for further use of this research, different sectors of Nepal such as; Industrial Sector, Trading Sector, Service Sector, Social Service Sector and Financial Sector are undertaken for study and analysis. Nepal is a landlocked country. It is also known as Himalayan State. After 1956, Nepal started planned economic development and gave effort to obtain rapid economic growth. Then the development of modern industries in the public sector started with planned economic development. In our country, various manufacturing companies have been established and developed through government plans. At present, the 12th plan is running. But due to the poor performance, negative return, lack of the efficiency, inefficient in management government has emphasized on privatization, so that public enterprises could be competitive, effective and profitable.

Public enterprises that carry out economic activities are the important elements of the economy and also backbone of the country. Nepalese public enterprises are the foundation of modern industrialization. The primary goal of public enterprises is to contribute for the economic and social improvement for the broader environment. To fulfill these goals, it requires some resources like man, money, material, machinery, information and technology, these resources are limited. Main problem underlie in better utilization of available but scarce resources in such a way that competitive advantage can be achieved. To overcome these problems, various tools and techniques have been developed. Among various tools and techniques, management accounting tools have proved itself as a beneficial in every aspect of management activities from planning to decision making and control. The main objective of the management accounting is to help manager in overall managerial activities by providing proper information in time and helping them in planning, controlling and decision making processes.

1.2 Meaning and Definition of Public Enterprises

The term PE can easily be understood by separating into ‘public’ and ‘enterprise’. Where the term public is concerned with ‘public ownership’ which implies that major decision would rest on distinct social criteria by the exclusion of any personal interest. Similarly, the surplus would not accrue to private group or individuals and it involves social accountability. Likewise, the term ‘Enterprises’ as business enterprises implies that the government expects a return on the capital invested in public enterprises and goods and services are made available for a price, which may be adjusted from time to time to cover the cost of inputs. The business character is more likely to be found in the area of economic activities such as industrial trading, services, social, utilities, financial areas etc.

Public enterprises have been considered as a key operational instrument to achieve the twin ideas of economic planning and development. Planned economy is the method evolved by the socialist for achieving rapid economic development. An important part of the socialist doctrine is the ownership of means of production and distribution by the state. Thus ownership of property has remained the main plank of socialist thought.

Public enterprise is an institution operating a service of an economic character on behalf of the government, but as an independent legal entity, largely autonomous in its management, through responsible to the public through government and parliament and subject to some direction by the government, public enterprise is equipped on the other hand with independent and separate funds of its own and the legal and commercial attributer of the commercial enterprise.

Incorporating few of the economist's definition, meaning of Public Enterprises become more precise:

Public enterprises is a corporate body created by legislature with defined powers and functions and financially independent, having a clear cut jurisdiction over a specified area of a particular type of commercial activities.

Public enterprises is an institution operating a service of an economic or social character on behalf of the government, but as independent legal entity, largely autonomous in its management, through responsible to the public, through government and parliament and subject to some direction by the government, equipped on the other hand with independent and separate funds of its own legal and commercial attributer of a commercial enterprise. (Joshi, 2006:2)

Finally, those enterprises, which are partially or wholly owned and controlled by government, are known as public enterprises. PEs is the back bone of economic and industrial development of developing countries. Public enterprises have been granted operating and financial autonomy so they are autonomous in their state of affairs and personnel issues. On the other hand, they are funded by public fund and in capital investment decisions and the interest of public welfare and national policy issues. Government and parliament have controlled to keep accountable towards public through government and parliament. Moreover, public enterprises have an operating flexibility similar to private enterprise and social motives as government policy towards social welfare, thus, it is liked to say that balancing autonomy and accountability to the foundation of emerging public enterprise in the country.

1.2.1 Public Enterprises in Nepal

It is well known fact that public enterprises have been established for the purpose of socio-economic development of the country. So, public enterprises in Nepal constitute a vital instrument for the socio-economic development of the country. It enjoys a strategic and crucial position in our mixed economy. They have been established in many sectors for the overall development of the country with different goals and objectives. Since 1956, Nepal has witnessed growth and development of public enterprises. Nepal Government has to play a vital role in the development of the country for the purpose, makes massive investment to create necessary infrastructure and run some of the large manufacturing industries to the people. [Shrestha.P.2009: 16]

Moreover, public enterprises were established in public services, industry, trade, finance and other sectors to create the infrastructure for basic services; and also because the private sector was seen as inefficient in important areas; the capital investment capability was low, and because technical know-how development was still in a very primary stage. After Nepal Bank Limited was established in 1954 as a public enterprise, other such enterprises like Nepal Industrial Development Corporation and Royal Nepal Airlines Corporation also came into being. In the industrial sector also, industries like the Janakpur Cigarette Factory, Birgunj sugar Mill, and Bansbari Leather Shoe Factory were established in 1961. Subsequently, banks business sector, telecommunication, electricity and water supply in the service sector; cement, bricks, medicines and textiles in the industrial sectors came into existence.

Nepal started its planned economic development since 1956 with launching of first five-year plan. Since then the number of public enterprises has been increased substantially in the various field of national economy. There were 64 public enterprises before privatization program of Government of Nepal and now there are 37 public enterprises. [Statistical Year Book 2011/2012, Government of Nepal/ Central Bureau of Statistics]

Public enterprises can be classified as follows.

i. Manufacturing enterprises.
ii. Commercial enterprises.
iii. Financial enterprises.
iv. Public enterprises
v. Service enterprises

The major role and objective of public enterprises in Nepalese Economy are:

- To promote self sufficiency,
- To accelerate the rate of economic growth,
- To develop of infrastructure,
- To success of economic planning,
- To balanced regional development,
- To supply of essential commodity,
- To contribute to government’s revenue,
- To generate employment opportunities,
- To attain social justice and social welfare,
- To Strengthen economic stability,
- To initiate research and development activities,
- To provision of public utilities,
- To maintain economic stability.

(Source: mof.gov.np, journals)

In public enterprises in Nepal, the objectives are mainly social welfare and commercial in case of fulfilling the social obligation. Basically, most of the PEs objectives are social welfare profit is less important at the same time there is also commercial obligation. In this case the corporation should earn profit also. Therefore, management accounting is the most important part of every institution to meet objective regardless of they are manufacturing or non manufacturing enterprises and public or privatize enterprises.

1.2.2 Development of PEs in Nepal

Public enterprises were established in service, social service, industrial, trading, finance and other sectors for to develop infrastructure and provide basic services to the people. The evolution of PEs in the world has no longer history. During the 18th century, a concept was developed like problems of poverty and unemployment may be solved by the government intervention in the economy. In that period, most of the developing country had adopted the laissez fair policy in the economy. After intervention by the government, the economy was rapidly increased during the 20th century. The concept of the PEs has been developed from the “socialist thought” after the great depression of 1929. The main impact to the PEs was the 2nd world war which had played vital role to the increasing rate for the development of PEs. But in the context of Nepal, industrialization has started very late than the other developing countries.

In Nepal, after the establishment of “council of industry” in 1936, the first modern industry was Biratnagar Jute Mill which was established by J.V. with Indian entrepreneurs [Joshi, 2006:104]. Nepal Bank Limited was established as a first public enterprise in 1994 BS for the financial activities of government and nation.

Nepal entered the era of planned development from 1956 then after the country has accumulated a rich experience of formulating and implementing the no of developments plans.

As stated in budget speech of FY 2010/11, a high level Committee on Public Enterprises Reform Recommendation has been constituted. This Committee is preparing its final report. After receiving Committee's report, government will review the status of PEs that has to be privatized or liquidated or to be kept in operation. Taking appropriate decisions on time shall be a great challenge for the government. [MOF, Economic Survey, 2011]

The table shows the growth of PEs in different planned periods.

Development of PEs in Nepal

Table No: 1.1

S.N	**Period**	**Total Number Establishment**	**Remarks**
1	Prior to 1956	1	
2	First plan (1956-1961)	8	
3	No plan period (1961-1962)	11	
4	Second Plan (1962-1965)	22	
5	Third Plan (1965-1970)	34	
6	Fourth Plan (1970-1975)	61	
7	Fifth Plan (1975-1980)	59	
8	Sixth Plan (1980-1985)	54	
9	Seventh plan (1985-1990)	63	
10	No plan period (1990-1992)	62	
11	Eighth plan (1990-1997)	46	
12	Ninth plan (1997-2002)	43	
13	Tenth plan (2002-2007)	36	
14	Eleventh plan (2007-2010)	36	
14	Twelfth Plan (2010-2013)	37	
Sources: MOF, Corporation Coordination Division, 2011/2012			

1.2.3 Classification of Nepalese PEs

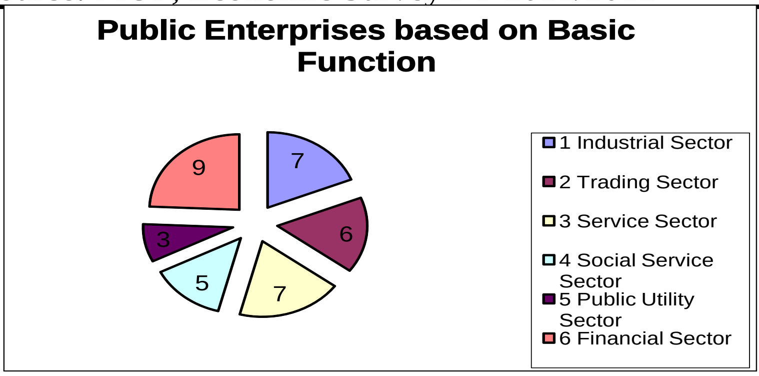
MOF has classified the PEs in different group on the basis of function performed by the enterprises are given below:

Table No: 1.2

S. No	Sector	No	Remarks
1	Industrial Sector	7	
2	Trading Sector	6	
3	Service Sector	7	
4	Social Service Sector	5	
5	Public Utility Sector	3	
6	Financial Sector	9	
Total		37	

Source: MOF, Economic Survey FY 2011/2012

Figure : 1.1



The total numbers of the PEs falling on different sectors are as under:

1. Industrial Sector:

a) Herbs Production and Processing Company

b) Hetauda Cement Industry Ltd.

c) Janakpur Cigarette Factory

d) Dairy Development Corporation

e) Nepal Drugs Ltd.

f) Udayapur Cement Industry Ltd.

g) Nepal Orind Magnesite Pvt. Ltd.

2. Business Sector:

a) Agricultural Inputs Company

b) National Seeds Company

c) National Trading Ltd

d) Timber Corporation of Nepal

e) Nepal Food Corporation

f) Nepal Oil Corporation Ltd

3. Service Sector:

a) Nepal Transit and Warehouse Co. Ltd.

b) Nepal Engineering Consultancy services Ltd.

c) Nepal Airlines Corporation Ltd.

d) National Productivity and Economic Development Centre Ltd.

e) Industrial District Management Ltd.

f) National Construction Company Ltd.

g) Civil Aviation Authority of Nepal

4. Social Sector:

a) Janak Education Materials Centre Ltd.

b) Nepal Television

c) Cultural Corporation

d) Gorkhapatra Corporation

e) Rural Housing and Settlement Development Company

5. Public Utility Sector:

a) Nepal Drinking Water Corporation

b) Nepal Electricity Authority

c) Nepal Telecom Company Ltd

6. Financial Sector:

a) Rastriya Banijya Bank

b) Agricultural Development Bank

c) Nepal Industrial Development Corporation
d) Rastriya Beema Sansthan
e) Nepal Stock Exchange
f) Karmachari Sanchaya Kosh
g) Citizen Investment Trust
h) Hydroelectricity Investment and Development Co.
i) Deposit and Credit Guarantee Corporation Ltd.

1.2.4 Challenges of PEs in Nepal

Nepal is a developing country. Moreover, politically instability and mass poverty are crippling this country with a very nominal economic growth ratio. The role played by public enterprises in social and economic development as well as providing goods and services in a regular basis is important. The government of Nepal has established PEs with different objectives. Besides fewer of them, PEs themselves are not able to perform as per expectation. This is might be due to the various challenges that PEs are facing. The major challenges PEs are facing detailed below:

- Most of PEs is running at loss showing negative net worth. PEs have not provisioned fund to meet liabilities. Also, unfunded contingent liabilities continuously growing financial burden to the government.

- There is no uniformity in work performance, job specialty and working environment in PEs. Profit making corporations are providing financial facility in different forms, by one way or other. Even the PEs operating above the break-even point are providing gratuity, pension, provident fund and other facilities as per the Act, rules and regulations without establishing reserve and future liability funds. This situation creates indirect and unlimited liability on the part of the government. This is one of the major challenges of the government.
- In view of the important role that PEs plays in the economic development of the country, it has been realized that the PEs needed to be adjust, to be harmonize

and to be align with the system prevalent in the present context of open, liberal and competitive regime. However, the satisfactory performance to meet the goals is yet to be seen.

- PEs often does not prepare annual statement of account on time and audits are delayed. This situation leads to loose people's confidence and thereby making reforms difficult.

- Many year of rigorous loss result keep adding financial liability to the government, whereas the profit making PEs are enjoying all sort of facilities. Even loss making PEs have a tendency of not revealing actual data. As a result, they are ignoring the government's policy on right sizing of staff. Furthermore, lack of practicing the modern information technology and depend upon manual system increases unnecessary overhead cost.

1.2.5 Profitability of PEs in Nepal

It is well known accepted principle that, public enterprises should run on business principles and generate commercial profits. This is accepted accounting practice, where by performance results are gouged in terms of net disposable profits after taxes and costs including the provision or depreciation. [Mathur, 1999: 161]

Profit can be measured from several angels. The most accepted criteria are to look at the percentage of profit tax to capital employed which is measure on return on investment. Generally, an enterprise is sound and efficient which has a good profitability based on its own market standing.

1.3 Statement of the Problem

The down falling trend of public enterprises shows very few public enterprises have proved satisfactory, rest of all being a burden to the government. As a result, In the name of economic liberalization, many of there companies are either being privatized or are in the process of privatization to get rid of the burden. The annual report of financial status of public enterprises, the economic survey 2011/12 conducted by Nepal Government, Ministry of Finance clearly mentions about the inefficiency of public enterprises.

Public enterprise is one of the most important innovations of 20th century. The main objective of creating public enterprise is to secure a combination of public ownership, public accountability and business management for the public benefits. The reasons behind the establishment of public enterprises are basically to accelerate the ratio of economic growth, to build development infrastructure, to make provision of public utility, to supply essential commodities, to generate employment opportunities, to maximize the foreign earnings, to rational utilization of natural resources and to contribute in the national funds.

The overall performance of the public enterprises is not satisfactory. One of the main reasons of poor performance is poor planning, controlling and process of decision making by the management. Management accounting has proved itself as an important tool for effective management process. But whether or not Nepalese public enterprises are practicing Management Accounting tools and techniques to carry out planning, controlling, and decision-making function. If not, what could be the reason and what are the difficulties? In the meantime, if yes, to what extent they are practicing management accounting tools? Which tools and techniques of management accounting are mostly practicing and which are not practicing till now? In which sector of public enterprises can be applied management accounting tools to improve the competitiveness and capacity of the Nepalese Public Enterprises.

1.4 Objectives of the Study

The main objective of this research work is to study and examine the present practices of management accounting in public sectors in Nepal. The specific objectives are as follows:-

1. To study and examine the extent of practice of management accounting tools and techniques exist in public enterprises in Nepal.

2. To identify the major difficulties for applying the management accounting tools in Nepalese companies.
3. To identify the business sector where management accounting tools can be applied to strengthen the public enterprises.
4. To make recommendations to overcome the difficulties applying management accounting tools and techniques in public enterprises in Nepal and other business companies.

1.5 Research Hypothesis

Research hypothesis is an educated guess about the overcome of an empirical test designed to answer a research question. [Wolff & Pant, 2006:430]

To make the research specific, precise and objective, hypothesis are tested related to the dependency and independency of PEs in practicing of MA tools. Broadly the public enterprises are classified into two categories, i.e. manufacturing and service (non- manufacturing) companies for the sake of hypothesis. Industrial sector is kept in manufacturing companies and other remaining sectors are kept in service companies.

For the statistical purpose, the following hypotheses are tested.

Hypothesis: I

Ho: There is no significance difference between the practices of MA tools and techniques in the manufacturing and service companies. (Practice of MA techniques and type of companies are independent)

H1: There is significance difference between the practices of MA tools and techniques in the manufacturing and service companies. (Practice of MA techniques and type of companies are dependent)

Hypothesis: II

Ho: The major accounting related decisions do not depend on the result of management accounting techniques. (Major accounting related decision-making process and management accounting techniques are independent.)

H1: The major accounting related decisions depend on the result of management accounting techniques. (Major accounting related decision-making process and management accounting techniques are dependent.)

1.6 Importance of the Study

The present research might be a new effort for the process of thesis preparation entitled management accounting practice in public enterprises in Nepal. The study is significant in the following ways:-

1. It examines the management accounting practices undergoing in public enterprises in Nepal.
2. It analyzes the problems and difficulties for application of management accounting in Nepalese companies. Therefore, it is useful to the Enterprises and to its respected interest groups such as Finance Managers, Accountants as well as Policy Makers.
3. The research provides information on the application of management accounting tools and techniques under different circumstances. Thus, it will encourage to the authorities for use of management accounting and awareness of the pros and cons in planning, controlling and decision making process.
4. It aids additional secondary data and information to the researcher who wants to carry out further study.

1.7 Limitations of the Study

The present research study has the following limitations.

1. Focus on practice of management accounting tools and techniques only is one of a major limitation. Since, it does not consider the implementation and other impact assessment parts.
2. This study concerned only on the uses of management accounting. It does not consider the economic aspects as well as environmental aspects of the enterprises in which they are operating.

3. This study has focused only on the public enterprises. Therefore, findings may not feasible to the other non public companies or other than public enterprises operating in Nepal.

4. This study has been conducted and pays attention to the practices of management accounting tools and techniques in Nepalese context only. Therefore, it does not address to the Global context.

1.8 Organization of the Study

The present research work (Thesis) is divided into five chapter which are current practices among management students. The titles of these chapters are as follows:-

Chapter I: Introduction

Background information on the subject matter of research undertaking has been presented under this section to provide a general idea of its history. So, this section includes a brief introduction to public enterprises in Nepal, role and objectives of public enterprises in Nepalese economy, challenges of PEs of Nepal, profitability of Nepalese PEs. Likewise statement of the problem, objectives of the study, limitation of the study and comes next followed by research design and methodology.

Chapter II: Review of Literature

These chapters focus on review of literature. It consists of the conceptual framework of MA, brief review of MA tools and techniques, review of related previous studies and research gap.

Chapter II1: Research Methodology

In this chapter, the method employed to gather data and the tools used in its interpretation has been described under the heading , research design, population and sample, data collection, reliability and validity of data, nature and sources of data and research variable with measures and processing and analysis technique of data.

Chapter IV: Presentation and Analysis of Data

This chapter is the one of the most important and core of the thesis. Since, it consists of percentage analysis of MA tools and techniques practice in Nepalese PEs, reason for non-practicing the MA tools and techniques, percentage analysis of affecting factor for the major MA related decision making process in Nepalese PEs, percentage analysis of difficulties for the application of MA in Nepalese PEs and test of hypothesis. Open-end opinion and findings of the research are also including in this chapter.

Chapter V: Summary, Conclusion and Recommendations

This chapter is also important part of the study where major findings has been summarized, conclusion and recommendations suggested and conclusions drawn.

Bibliography

It consists of published and unpublished books, articles, thesis/ dissertations etc, which have been the sources information and used as references.

Appendices

It consists of relevant materials, which are, however not much worth mentioning in the main body of the report. It includes the research questionnaire, names and addresses as of enterprises and name and designation of each respondent and tabulation of responses.

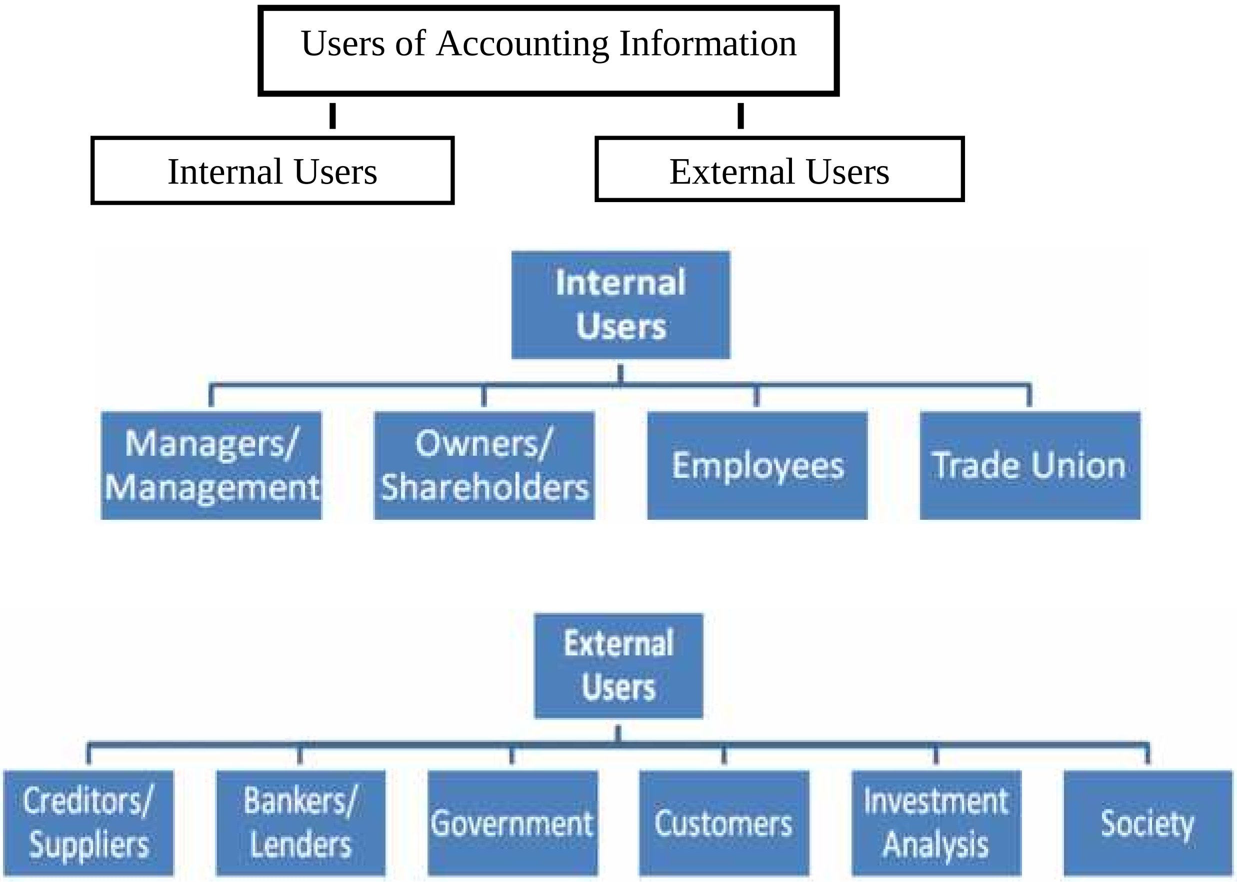
CHAPTER - 2

REVIEW OF LITERATURE

2.1 Conceptual Framework of Management Accounting

2.1.1 Accounting Concept

Accounting has rightly been termed as the language of the business. The basic function of a language is to serve as a measure of communication. Accounting also serves this function. Accounting refers to the process of identifying, classifying, recording, summarizing and interpretation the transaction in terms of money. Therefore, accounting is as art of recording, classifying and summarizing the transaction in financial terms so as to reflect financial of whole transactions. The objectives of accounting are to provide sufficient information to meet the need of the various users at the lowest possible cost. As such the accounting/accounts should aim to provide the right information to the right users/people in the right quantity at the right time and at minimum cost. And the benefit derived from using an information system for decision making must be greater than the cost of operating the system. Generally, the users of accounting information can be grouped into following two categories [Munankarmi 2001:1-2]:



2.1.2 Classification of Accounting

Since any business entity or enterprises involves different aspects of the use of Accounting. For precise understanding accounting has been classified according to the accounting disciplines from where vital information being gathered. They are financial accounting, cost accounting and management accounting

2.1.2.1 Financial Accounting

Financial account is concerned with the recording of financial transactions of the business and provides information in financial terms to parties or people wanting information about the state of the business. It is that part of accounting which employs to communicate the financial information of a business unit. The object of financial accounting is to find out the profitability and to provide information about the financial position of the business concern. [Munankarmi]

2.1.2.2 Cost Accounting

Cost accounting is concerned with the classifying, recording and appropriate allocation of expenditure for the determination of the cost of products or services and for presentation of data for purposes of control and guidance may be appropriate. The main objective of cost accounting is to find out the exact cost per unit of product. [Munankarmi]

2.1.2.3 Management Accounting

“Management Accounting is the application of professional knowledge and skill in the preparation of accounting information in such away as to assist management in the formulation of policies and in the planning and control of the operation of the undertaking”- The Institute of Cost and Management Accounts, London.

2.1.3 Definition of Management Accounting

Any person who is interested in running a venture needs to operate in a complex environment which generally managers do. To operate successfully, he needs to make many decisions at a time. To make sound decision, he needs variety of information either from internal sourse as well as from external sources. Internal sources are such as Finance, Production, Marketing, legal whereas external sources are the market, compititors as government directives etc. More precisely, for example, when a pilot of an airplane fly the plane, he needs various information (altitude, air traffic, distance etc) from control tower to reach the destination.

Moreover, management accounting is concerned with the provisions and use of accounting information to managers within organizations, to provide them with the basis to keep them informed and take business decisions that would allow them to be better equip in further management and control functions. Unlike financial accountancy information, which can be made public with respect to public company, management accounting information is used within an organization (typically for decision-making) and is usually confidential. It is limited to selected personnel only. Generally, to the higher level in the management hierarchy. In other words, it is the process of identifying, measuring, analyzing, interpreting and communicating information to help managers in fulfilling organizational objectives or goals. Thus management accounting can be viewed as the accounting equipment to respond the growing complexities of modern organizational activities while achieving goal.

Some defitions presented according to the different management institutions as well as gurus are hereunder;

According to the Chartered Institute of Management Accountants (CIMA) London, Management Accounting is "the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information used by management to plan, evaluate and control within an entity and to assure appropriate use of and accountability for its resources. Management accounting also comprises the preparation of financial reportsfor non management groups such as shareholders, creditors, regularity agencies and tax authorities.

The American Institute of Certified Public Accountants(AICPA) states that management accounting practice extends to the following three areas: Strategic Management; advancing the role of the management accountant as a strategic partner in the organization. Performance Management; developing the practice of business decision-making and managing the performance of the organization. Risk Management; Contributing to frameworks and practices for identifying, measuring, managing and reporting risks to the achievement of the objectives of the organization.

Management accounting is the presentation of accounting information to formulate the policies to be adapted by the management and assists its day-to-day activities. It helps the management to perform all its function including planning, organizing, staffing, directing and control. It presents to management the accounting information in the form of processed data, which it collects from financial accounting. [Paul: 2009]

Management accounting is concerned with accounting information that is useful to management. [R.N. Anthony]

From the above definition, it is clear that management accounting presents processed information collected from internal and external sources to the management so that they can more effectively plan, make decisions and control operations as and when necessary.

2.1.4 Objectives of Management Accounting

The management of a firm is concerned with the formulation of policies and its execution in managing the whole affairs of the business. Its main objectives are to assist the management for achieving the goal of organization that is maximization of profit. The basic objectives or functions of management accounting can be expressed as follows:

- Providing information to different levels of managers for planning and decision making for the optimum utilization of resources.
- Motivating managers and other employees toward the attainment of the organization goals.
- Assisting managers in directing and controlling operational activities.
- Assessing the organization’s long term competitiveness or survival position and maintaining good relations with external parties also.
- Measuring the performance of activities, subunits, managers and other employees within the organization.
- Helping in interpreting financial information to the managers in analyzing and interpreting different accounting information for selecting the most profitable course of action.
- Reporting to managers about the performance of the organization.
- Budgeting
- Measuring the performance of people, management accounts measure the performance of an organization’s sub-units, such as divisions, products lines, geographical territories and departments. Such measurements help top management decide whether a particular sub unit is a viable economic investment.

) Providing information about the monitoring to the managers to evaluate its financial and internal performance, customer satisfaction and innovation compared to its goals its own post records and that of other similar firm,

2.1.5 Scope of Management Accounting

The scope of management accounting is very wide and broad based and it includes a variety of aspects of business operation. To keep the main aim of helping management in its functions (planning, directing, motivating, and controlling) management accounting knock the doors of related fields in search of information and their analysis. So the scope of management accounting is wide. The main scopes of the management accounting are given below:

a. **Financial Accounting:** Management accounting is closely concerned with the financial accounting because the past or historical data contained in the later and the experience derived there form the basis for future planning and control.

b. **Cost Accounting:** The cost accounting system provides the necessary tools for carrying out such functions efficiently. The tools include standard costing, inventory management, variable costing techniques etc.

c. **Budgetary Control:** Budgetary control means expressing the plans, policies and goals of the firms for a definite period in future. It controls the activities of the business by measuring the variance and inquiring the reasons of such variance so that the adverse variance may not be repeated again in future. So, it is also main important tools of management accounting.

d. **Tax Accounting:** Management accounting takes the help of tax accounting for the computation of taxable income, filing of return, payment of tax and possible tax reliefs as per the income tax act and rules.

e. **Statistical Methods:** Management accounting takes the different statistical methods like; averages, dispersion and skewness, correlation, regression, graphs, charts, diagrams etc for the helping to assist in forecasting and planning.

f. **Mathematical Technique**: Management accounting takes number of mathematical techniques like Linear Programme, Critical Path Method, Programme Evaluation and Review Technique, Net Work Analysis, Queuing And Decision Theory, Simulation etc for the useful in collecting, analysis, interpreting and reporting information in a meaningful manner.

g. **Economics**: The various types of economic theories in the management of business have led to the development of a separate subject for study known as managerial economics. Management accounting takes the help of economics.

h. **Business Law**: Statutory provisions or regulations require due consideration while taking management decisions as business has to operate within legal environment.

i. **Inventory Control**: Inventory is necessary to control from the time it is acquire till its final disposal as it involves large sum. For controlling inventory, management should determine different level of stock that is maximum, minimum and average; the inventory control technique will be helpful for taking managerial decision.

2.1.6 Limitations of Management Accounting

Though management accounting is the term used to described the accounting methods, systems and techniques which, coupled, with special knowledge and ability, assist management in its tasks of maximizing profits or minimizing losses, still its effectiveness is limited by a number of reasons some of the limitations of management accounting are listed as follows:

a. **Difficulty in Installation:** The installation of management accounting system requires restructuring of present organizational structure. This necessitates re-arrangement of the personnel and their activities, framing of new rules and regulation, frequent report etc. there is a possibility of opposition from some quarters or the others within the organization against such change.

b. **Intensive decision:** Decision taking based on management accounting that provides scientific analysis of various situations will be time consuming one. As such management may avoid systematic procedures for taking decision and arrive at decision using intuitive. And intuitive decisions limit the usefulness of management accounting.

c. Development stage: Management accounting is the recent branch of accounting and is still very much in a state of development. So it is faced with the problems of fluidity of concepts, improvement in techniques etc.

d. Based on accounting information: Management accounting is based on data and information provided to supply by financial and cost accounts. As such the correctness and effectiveness of managerial decision will depend upon the quality of data provided by financial and cost accounts. So the effectiveness of management account is limited to the reliability of source of information.

e. Lack of knowledge: Management accounting has a wide coverage and is broad based. For taking decisions based on management should have a through knowledge in different fields such as Accounting Principles, Statistics, Economics, Management Principles, Tax – Laws, Engineering, Psychology etc. lack of knowledge in these fields on the pare of decision-maker naturally limits the usefulness of management accounting.

f. Personal prejudices and bias: The interpretation of financial information may differ from person to person depending upon the capability of the interpreter. Analysis and interpretation of data and information may be influence by personal basis. As such, the objectivity of decision may be affected by personal prejudices and bias.

g. No substitute for management: Management accountingcan give pertinent information, but actions and decisions are the prerogatives of management. They can make even intuitive decisions ignoring information supplied by management accounting.

2.1.7 Management Accounting in Nepalese Perspective

The history of accounting in Nepal began during the reign of Lichhivi period when first king Mandev had circulated the first coin called Mananka during the period 521-562 B.S. Nepal is a landlocked country situated between the two large countries with a huge and rapid growth in business, industrial, and economic sectors, and the country has been creeping and trying to develop its economy. However, the country is under a serious political instability for a long period of time because of which the security problem has emerged, multinational companies are hesitating to come and establish their subsidiaries here. Same reasons hinder Nepalese investors to make investments within the country. Further, most existing companies are still running in traditional approach with autocratic leadership. It is due to the majority of illiterate people, poverty and the rapid changes in technology. Globalization has also impetus to the present real challenges.

Even though, as the people and the investors have been able to understand the opportunity and the huge market availability in the neighboring countries and throughout the global after the country's entry into 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 and it has almost became mandatory to understand and use the same so as to grow and sustain in today's changing and competitive global market.

Management Accounting is a new practice which 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 manger. It can be said that the role of MA is yet to be recognize in Nepalese corporations. However, recently, with the country's entry into the WTO, the functions and importance of MA has been realized by the business people and companies in Nepal too. Accounting associations and institutions are trying to cover the wide range of MA in different business sectors. But lack of information about the tool, traditional approaches of concerned authorities, lack of experts and extra cost burden might be the main reasons behind practicing of such tools. This could be reasons that create interest to the scholar to conduct a research work entitled "Management Accounting practices in Joint Venture Bank of Nepal".

2.2 A Brief Review of Management Accounting Tools

Management accounting reports to those inside the organization for planning, directing and motivating, controlling, decision making and perforation evaluation. It is a part of an organization's management information system. And managers rely on managerial accounting information to plan and control on organization's operations. To perform the managerial function management must be used various tools and techniques from accounting branch. Management accounting as a quantitative approach helps to discharge functions like planning, organizing, staffing, directing and controlling properly and effectively. [Paul, 1945:5]

The main management accounting tools and techniques which is necessary for planning, decision making and controlling can be expressed as follows:

2.2.1 Cost

2.2.1.1 Concept of Cost

Sacrifice or foregoing or resources made for the attainment of specific purpose is known as cost and are measured in monetary terms. Cost are collected, classified, determined, analyzed and controlled keeping in view the very purpose for which it has been incurred. Cost must be paid for production or purchase of goods and services. [Wagle and Dahal, 2004: 2.1]

Management accounting has been started from cost. Managers require cost information for planning, controlling and decision making. The monetary units that must be paid for goods and services generally measure costs. Costs are initially recorded in elementary from e.g. repairs, salaries etc. costs are, then, grouped in different ways to help managers make decision.

2.2.1.2 Cost Accumulation

Cost accumulation refers to the collection of cost data through an accounting system. It can be also described as an act of polling of the cost. Costs are collected from different records (journal, ledgers, and other supporting vouchers) under natural classification such as materials, labor, and rent, insurance or in other forms as guided by the purpose of requirement.

2.2.1.3 Cost Centre

A cost centre may be a department, a division, a branch, a unit, a product, a segment or a person that is authorized and responsible for an expense. A cost centre is that segment of responsibility accounting which records only the cost incurred in the unit or division. The person in charge of a cost centre is held responsible for control of cost of his cost centre. The following are the types of cost centers:

a. Personal cost centre
b. Impersonal cost centre
c. Operation cost centre
d. Process cost centre
e. Production cost centre
f. Services cost centre

2.2.1.4 Classification of Costs

Cost classification is the process of grouping costs according to their common characteristics. In other words, it is the placement of like items together by virtue of their common features. Though costs are identified with cost units, cost centers or cost objectives in general, the same figures can be classified differently depending upon the very purpose or specific requirement of the management.

The costs can be classified different way for different purpose. The following represents the cost classification alsong with the criteria adopted for such classification: [Wagle and Dahal, 2004: 2.2]

A. Criteria: Elements

a. **Materials:** cost involved in all of materials, supplies.
b. **Labour:** cost relating to personnel involved.
c. **Expenses:** all other costs except materials and labour e.g. power, rent, insurance etc.

B. Criteria: Traceability

a. **Direct Costs:** Traceable to or identified with a given cost object easily e.g. direct material, direct labour.

b. **Indirect Costs:** Not identifiable with a given cost object easily e.g. indirect material, indirect labour, indirect expenses or overheads.

C. Criteria: Function

a. **Manufacturing:** Costs involved in manufacturing or production activities.

b. **Administrative:** Costs involved in general administration and control activities.

c. **Selling and distribution:** Cost involved in selling and distribution activities.

d. **Research and development:** Costs involved in innovative activities.

D. Criteria: Variability or Behaviour in Relation to Activity

a. **Variable costs**

b. **Fixed costs**

c. **Semi variable cost or semi fixed or mixed costs**

E. Criteria: Inventorability

a. **Period costs:** costs which are considered to be the general cost of being in the business, i.e. operating expenses. These costs are not included in the inventory valuation and as a result are charged as expenses in the period to which they relate.

b. **Product costs:** Costs which are related to manufacture or purchase of goods and are included in the inventory valuation are product cost.

F. Criteria: Controllability

a. **Controllable costs:** Costs, which can be controlled by a particular level of authority within a time-frame.

b. **Uncontrollable costs:** Costs, which can not be controlled by a particular level of authority within a time-frame.

G. Criteria: Computation

a. **Prime cost:** Total of direct material, direct labour, and direct expenses if any

b. **Conversion cost:** Total of direct labour and manufacturing overheads.

c. **Total cost:** Total of prime cost and overheads.

d. **Unit cost:** Unitized cost ascertained by dividing total cost by the volume of selected activity base.

H. Criteria: Basis for computation

a. **Historical cost:** Costs based on past or recorded figures.

b. **Replacement cost:** Costs based on present replacement value.

c. **Standard cost:** Costs targets set by management systematically.

d. **Pre-determined or estimated cost:** Costs determined in advance of the period for which they are going to be used but are not the target**.**

I. Criteria: Separability

a. **Separate costs:** Costs which can be identified with particular unit.

b. **Common costs:** Costs which are common for two or more products which can produce separately.

c. **Joint costs:** Costs which are incurred in producing products, which must be necessarily, be produced together.

d. **By product costs:** Costs incurred for products, which are distinguished from joint products depending upon the significance of the value of the produced jointly and also the intention of the management.

J. Criteria: Normality

a. **Normal costs:** Costs which are supposed to incur in the normal courses operation and forms of the parts of cost of goods sold.

b. **Abnormal costs:** Costs which are not supposed to incur in the normal course of operation and are charged to the revenue of the period.

K. Criteria: Possibility of determining the right costs

a. **Engineered cost:** Costs for which right or proper cost can be effectively measured establishing input-output relationship through engineering analysis.

b. **Programmed of discretionary costs:** Costs for which right of proper cost can not be objectively measured but depends solely on the management's intention and is therefore a matter of judgment.

2.2.1.5 Cost Allocation

Cost allocation is a process of tracing or re-assigning cost of one product or department to another product or department on the basis of quality of resources consumed to the particular cost centers. The direct cost or components of prime cost pose no problem in intermediate allocation of cost as they are early identified with cost objectives. But the indirect cost (overhead cost) create the problem of allocation because they are not early identifiable was cost objectives. So, they are two methods that can be applied to allocate costs (mainly overheads) which are given below

a. Traditional method of allocating costs.
b. Activity based coasting method of allocating costs.

Whatever may be the method selected for allocation of costs, the following are the three pre-requisites of cost allocation:

a. Accumulation of cost which requires to be allocated.

b. Identification of the beneficiaries or the cost objectives required to share the allocation costs.

c. Selection of an equitable or fair base to allocate accumulated cost among beneficiaries.

The main objectives of cost allocation are to provide information for economic decisions, to motivate managers and other employees, to justify costs or compute reimbursement, and to measure income and assets for reporting to external parties. Different cost allocations may be appropriate for different purpose. [Bajracharya, Ojha, …., 2004:121]

2.2.1.6 Cost Behavior

All costs do not show the same behavior throughout the operation. There exists a relationship between costs and the volume of activity. The cost behavior of a firm consist the relationship proportion of variable fixed and mixed costs. A firm has many fixed costs but few variable cost or mixed costs and vice versa. The relationship between cost and activity is known as cost behavior which affects the managerial functions of planning, controlling and decision making.

1. Variable Cost:

The costs of these inputs increase/decrease in proportion to increase/decrease in volume of cost driver are known as variable cost. In other words, If the activity level increased by 60%, the amount of the variable cost also increased by 60%. Variable cost is total increase but it remains constant it expressed on a per unit basis.

The variable cost includes following costs:

Manufacturing costs: Direct material, Direct labor

Variable portion of manufacturing overhead: Indirect materials, Supplies, power etc.

Variable costs show the following characteristics:-

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

2. Step-variable cost:

Unlike direct materials, the time of maintenance worker is obtainable only in large chunks, rather than in exact quantities. Though indirect labor is also sometimes considered to be a variable cost is doesn't behave in quite the same way as direct materials. A cost that increases or decreases only in response to fairly wide changes in the activity level is known as step-variable costs.

3. Fixed costs:

A cost that remains unchanged in total is known as fixed cost. But the fixed costs per unit do change as activity varies. Fixed costs are sometimes referred to capacity costs. There are various capacity levels like: installed/ manufacture's rated capacity, practical capacity, and normal capacity etc.

Some key features of fixed cost are given below:

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

4. Step fixed costs (Jumping costs):

Some cost remains fixed over wide range of activity level outside that ranged are known as step fixed costs.

2.2.1.7 Cost Estimation

Profits are the excess of revenues over expenses. One major areas of management for proffer planning are cost estimation, cost control and cost management. Management must have some way of estimating fixed and variable costs. Different cost exhibit a variety of cost behavior patterns. Cost estimation is the process of determining how a particular cost behaves. It is a Process of determining the cost of certain levels of output.

Several methods are commonly used to estimate the relationship between cost and activity. Following method might be use to breakdown mixed costs into their fixed and variable elements as well as for the explanation of their relationship.

Following equation can be used to express the relationship between mixed cost and the level of activity. [Wagle and Dahal, 2004]

Y= a+bx

Where, Y = Total cost (mixed cost) a = Total fixed cost

b = Variable cost per activity base x = Level of activity

Following method might be of use to breakdown mixed costs into their fixed and variable elements as well as for the explanation of their relationship.

a. High – Low Point Method

For separating semi variable cost into fixed and variable cost, two level of activity, high and low are taken with their corresponding costs. Therefore, the differences in activity levels are ascertained. The difference in cost between highest and lowest level of activities is divided by the difference in activity of output. The result of division is variable cost per unit. This method assumes that fixed cost tends to remain constant and if there is any change reported. Such changes are only in variable cost. This method is also known as high low method. [Gurung and Dangol, 2004 (2062): 24]

$$\text{Variable cost per activity base (b)} = \frac{\text{High Cost - Low Cost}}{\text{High Units - Low Units}}$$

And,

Fixed cost (a) = Total cost of high activity level – Variable cost per activity Base × High level of activity

Or

a = Total cost of low activity level – Variable cost per activity base × Low level of activity

i.e. Fixed cost per period, a = Y – bx

Where, Y = Total cost (mixed cost) a = Total fixed cost

b = Variable cost per activity base x = Level of activity

b. **Least Square Method (Regression Analysis)**

Least square method is a statistical method. It is a mathematical measure of the average relationship between two or more variable in terms of the original units of the data. It is also more accurate than the high-low method because it takes all the data for analysis rather than two extreme observations, which may not be representative of normal situations. In this method, first of all, variable cost per unit is calculated. After this, the fixed cost and variable cost can be separate by adopting the following formula.

Variable cost per activity base (b) = $\frac{N \sum xy - \sum x \sum y}{N \sum x^2 - (\sum x)^2}$

And, Y-axis intercept i.e. fixed cost per period (a) = $\frac{\sum Y - b \sum X}{N}$

Where, Y = Total Mixed cost (dependent variable)

a = Fixed cost (constant in total)

b = Variable cost per activity base (constant in per unit cost)

X = Level of activity i.e. volume of output (independent variable)

N = Number of observations

2.2.2 Product Costing Method

Profits are the excess of revenue over expenses. For the purpose of profit determination on business, finished and semi-finished goods in a form need a true and fair valuation. Value of the output (finished and semi-finished goods) is known as the inventorial product cost. Rational methods should be required for the proper determination of product cost. The system of product cost determination affects the size of assets and the size of income both. The cost of a product or process and profit there on can be ascertained using the different elements of cost according to any of the following two techniques.

a. Absorption costing method, and

b. Variable costing method.

a. Absorption Costing Method

Absorption costing is also known as full costing, since all types of manufacturing costs are included as product costs. Absorption costing assumes that fixed along with the variable cost constitutes the product cost. It absorbs all costs necessary for production. It considers fixed manufacturing overheads as a part of product cost. Absorption costing system can be determined in under mentioned format. [Wagle and Dahal, 2004: 3.5]

Income Statement under Absorption Costing

Table No. 2.1

Particulare	AmountsRs	AmountRs
Sales revenue (sales units× SPPU)		××××
Less: Cost of goods sold		
Direct Material (Production Units × Cost rate)	×××	
Direct Labor (Production Units × Cost rate)	×××	
Direct expenses (Production Units × Cost rate)	×××	
Variable Mfg. OH (Production Units × Cost rate)	×××	
Fixed Mfg. OH (Production Units × Cost rate)	×××	
Total cost of goods manufactured	×××	
Add: Opening stock (Stock units × total cost rate)	×××	
Cost of goods available for sale	×××	
Less: Closing stock (Stock units × total cost rate)	×××	
Cost of goods sold		×××
Gross margin before adjustment		×××
Add: Over absorbed manufacturing fixed cost		×××
Or		
Less: Under absorbed manufacturing fixed cost		×××
Gross Margin		×××
Less: Non manufacturing costs.		×××
Variable selling & distribution exp. (sales unit× rate)	××× ×××	

Fixed office and administrative	×××	×××
Fixed selling and distribution		×××
Net Income		

b. Variable Costing Method

Variable costing is more accurately perceived as direct costing or marginal costing as it applies only the variable production cost to the product. These costing approaches that fixed manufacturing overhead, which is regarded as an expired cost to be immediately changed against sales not as un-expired cost to be held back as inventory and changed against sales later as a part of the cost of goods sold. Further more the direct costing approach to the inventorying of costs is not confined to only direct material and labor. It also includes the indirect cost the variable manufacturing overhead as a part of product cost. Variable income statement can be determined in under mentioned format. [Wagle and Dahal, 2004: 3.4]

Income Statement under Variable Costing

Table No. 2.2

Particular	Amounts(Rs)	Amount(Rs)
Sales revenue (sales units× SPPU)		××××
Less: Variable manufacturing cost		
Direct Material (Production Units ×	×××	
Cost rate)	×××	
Direct Labor (Production Units × Cost	×××	
rate)	×××	
Direct expenses (Production Units ×	×××	
Cost rate)	×××	
Variable Mfg. OH (Production Units ×	×××	
Cost rate)	×××	

Total variable cost of goods manufactured		×××
Add: Opening stock (Stock units × total v. cost		×××
rate)		×××
Variable Mfg. cost of goods available for sale		×××
Less: Closing stock (Stock units × total v. cost		
rate)	×××	
Variable Mfg. cost of goods sold	×××	
Gross contribution margin	×××	×××
Less: Variable selling & distribution exp. (sales		×××
unit× rate)		
Net Contribution margin		
Less: Fixed costs:		
Manufacturing		
Office and administrative		
Selling and distribution		
Net Income		

2.2.3 Responsibility Accounting

Responsibility accounting focuses on responsibility centers. A responsibility center is a sub unit of an organization under the control of a manager who is responsible for the responsibility center. Responsibility accounting collects and reports planned and actual accounting information about the inputs and outputs of responsibility center. [Khan and Jain, 1994: 432]

Responsibility accounting is a system of dividing an organization into smaller units in the form of divisions, segments, departments, branches, product line etc., each of which is to be assigned particular responsibilities. A responsibility center is a unit of an organization where an individual manager's is held responsibility for the unit's performance. Main responsibility centers are:

- Cost centers
- Revenue centers

- Profit centers and
- Investment centers.

The responsibility accounting system involves the major stages;

- To identify the responsibility centers
- To delegate of authority and responsibility
- To control of the object
- To establish the performance evaluation criteria
- To select of cost allocation basis

[Singh, Ojha and Acharya, 2004: 16.11]

2.2.4 Cost-Volume-Profit Analysis

Profit is a must for the survival and growth of any business entity. But profit does not just happen or improve. They are managed. Management of the profits requires planning, activating, coordinating and controlling of divergent organizational activities bearing direct or indirect effect on profit. Managers often classified costs as fixed or variable when making decisions that affect the column of output. The managers want to know such decisions will affect costs and revenues. They realize that many factors in addition total volume of output will affect costs. Yet, a useful starting point in their decision process is to specify the relationship between the volume of output and costs and revenues. Cost-volume-profit (CVP) analysis serves as a powerful tool in the hands of management for profit planning.

Cost-volume-profit (CVP) analysis examines the behavior of total revenues, total costs, and operating income as changes occur in the output level, the selling price, the variable price per unit and / or the fixed costs of a product. [Horngren, Datar and Foster, 2003:562]

Cost volume profit analysis is the technique of summarizing the effects of changes in an organization's volume of activity on its cost, revenue and profit. Cost-volume-profit analysis applies marginal or variable costing principles while establishing the effect of the future courses of activities on the financial results of the firm. Knowledge of how cost behaves in response to change in volume and how profit behave in response to change in cost and volume helps management to make numerous short-term optional decisions relating to cost control and profit maximization. Answer to questions listed below can be obtained from CVP analysis- [Wagle and Dahal, 2004: 4.2]

- How much sales should be made to avoid loss?
- What should be the sales volume to earn a desired or target profit?
- What will be the profit or loss at the specified level of sales?
- What will be the effect of change in price, cost and volume on profit?
- How will profit be the affected when sales mix is changed?
- What will be the effect of planned expansion on cost-volume-profit relationship?
- Which product is the most profitable and which one is the least profitable?
- Should the sales of p product or operation of a plant be dropped?
- Should the firm be down temporary or not? etc.

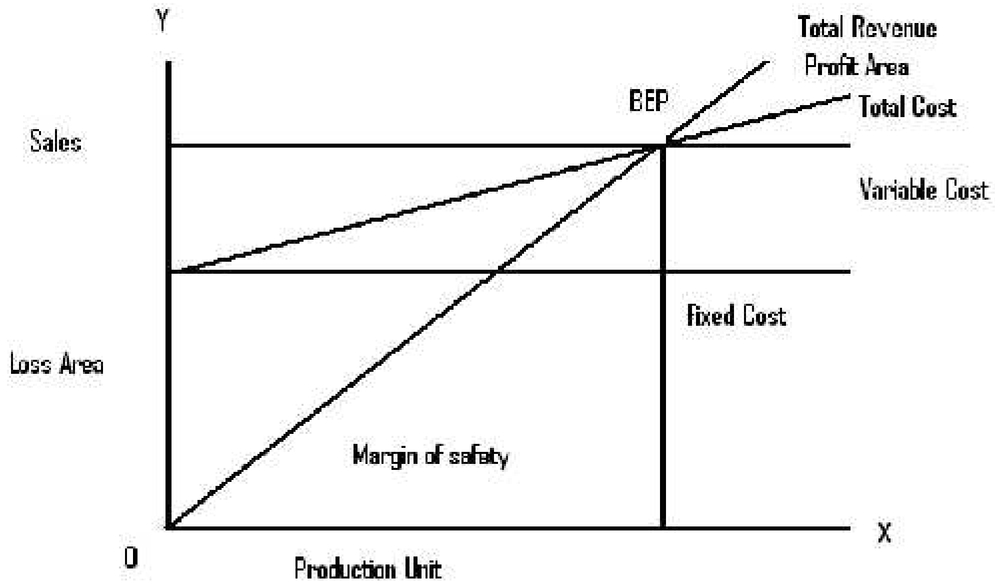
CVP analysis should be used with caution and only as an approximate guide for decision making as it rests upon the various over simplified such as:

- All cost can be segregated into fixed and variable element.
- Fixed cost will remain unchanged and variable cost varies proportionately with activity.
- Single factor affecting costs and revenues are volume.
- They will be no change in technology, production methods, efficiency, and general price level.
- There are no stock level changes i.e. there is synchronization between production and sales.
- There is single product or in case of multi-product, the sales mix does not change.
- Uncertainty does not prevail etc.

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

Fig. 2.1.

CVP Graph



Cost- volume-profit analysis is a supplementary tool of profit planning. It tells many things about the relationship between the business variables. Total variable costs are proportionate to the sales volume; whereas the fixed costs remain unchanged within the relevant range of the output levels. That is why net incomes are not in proportionate to sales. Knowing this relationship, one can assess the profit at forecasted sales volume. Likewise, required sales can be ascertained for the minimum level of profit. [Bajracharya, Goet and Sharma, 2006: 299-300

The most widely known from CVP analysis is the break-even analysis. Break even analysis determines the break even point or a level of sales at which cost and revenue are in equilibrium and net income is zero. Thus break even analysis is a specific way of presenting and studying the inter relationship between costs, volume and profit and is incidental CVP analysis or is often just first step in decision.

Contribution margin is the difference between the sales revenues and variable cost of production. Contribution margin consist the fixed cost and profit. So, contribution margin means how is left from sales revenue, after covering variable expenses that is contributed toward the covering of fixed expenses and then toward profit for the period. Contribution margin is used first to cover the fixed expenses, and then wherever remains after the fixed expenses are covered goes toward profit if the contribution margin is not sufficient to cover the fixed expense, then a loss oculus for the period.

2.2.5 Standard Costing

2.2.5.1 Concept of Standard Cost

Standard cost is a scientifically pre- determined cost, which is arrived at assuming a particular level of efficiency in utilization of material, labor and indirect services. A standard cost should be based on sound technical and engineering studies specified production methods, work-study and work measurement, clearly defined material specifications, and price and wages projections. Thus standard costs are planned cost that should be attained under a given set of operating conditions.

A standard cost is a measure of acceptable performance, established by management as a guide to certain economic decision. It is in short, a reflection of what management thinks a cost ought to be. [Lynch, 1983]

Standard cost is primarily used for the following purposes:

- Establishing budgets.
- Controlling costs and motivating and measuring efficiencies.
- Simplifying cost procedures and expending cost reports.
- Promoting possible cost reduction.
- Basis for establishing bids and contracts for setting selling prices etc.

2.2.5.2 Concept of Standard Costing

Standard costing is most suited to an organization whose activities consist a series of common or repetitive operation. Standard cost provides bases for control suited through variance account. So the standard costing is that technique of applying standard cost whereby costs are computed and subsequently compared with actual cost to find out the difference between the two. The difference between standard cost and actual cost is known as variance. The variances are analyzed to know the causes thereof so as to provide a basis of control.

Standard costing is a pre-determined cost, which is calculated from management standards of efficient operation and the relevant necessary expenditures. It may be used as a basis for price fixing and for cost control through variance analysis. [CIMA, London]

Standard costing system involves the following steps:

Step-1 The setting of standard costs for different elements of costs i.e. material, labor and overhead**.**

Step-2 Ascertaining actual costs.

Step-3 Comparing standard with actual cost to determine the difference between the two known as variances.

Step-4 Analyzing the variance for ascertaining reasons there of.

Step-5 Reporting of these variance and analysis thereof to management for appropriate action, where necessary.

Step-6 Corrective action.

2.2.5.3 Objectives of Standard Costing

The following are the major objective of standard costing:

- To provide a formal basis for assessing performance and efficiency.
- To control costs by establishing standards and analyzing variances.
- To assists in setting budget.

- The standard costs are readily available substitutes for actual average unit costs and can be used for stock and work-in-progress valuation, profit planning and decision-making and as the basis of pricing where cost plus systems are used.
- To provide a basis for estimating.
- To provide target that individual are motivated to achieve.
- To provide guidance on possible ways of improving performance.

2.2.5.4 Variance Analysis

The difference between standard cost and actual cost is called variance. If actual performance meets the standards, the achievement is considered good. Variance analysis is a task of comparing the actual performance with the predetermined performance standards to determine how well the targets have been met. If there is big gab between the actual results and the standards, the performance is considered poor. Normally variance can take two forms, namely

- Favorable variances; and
- Unfavorable variance.

When actual result is better than expected, a favorable (F) variance arises; where they are not up to standard an adverse variance arises. Variance helps to pinpoint the responsibilities for poor result. The expression of this relationship can be seen in the simple formula.

Variance = Actual costs – Standard costs

The favorable and unfavorable variances deserve attention. An unfavorable variance may suggest a condition that may require correction. Favorable variances may suggest an opportunity that management can exploit. Variances, as a control device, are calculated to assign responsibility for deviations form the standard cost and thus to control the cost.

2.2.6 Budgeting for Planning and Control

Developing a budget is critical step in planning any economic activity. This is true for business, for governmental agencies, and individuals. We must all budget our money to meet day-to-day expenses and to plan for major expenditures. Similarly, business of all types and governmental units at every level must make financial plants to carry out routine operations, to plan major expenditures, and to help in making decisions.

A budget is a detail plan expressed in quantitative terms that specifies how resources will be acquired and used during a specified period of time. The procedures used to develop a budget constitute a budgeting system. [Hilton, 2007: 74]

The various activities within a company should be coordinated by the preparation of plans of actions for future periods. These detailed plans are usually referred to as budgets. [Drury, 2006]

The budget is not only a financial plan of actual and anticipated revenues and outlay of the enterprises but is also a documents of detailed programs and policies of action which they desired to pursue in the coming years to raise the level of economic activities. [Ghimire, 2006: 275]

2.2.6.1 Purposes of Budgeting System

Budgets cover the following major activities for the management process. [Wagle and Dahal, 2004: 6.1, 6.2]

a. Planning: Planning is the process by which managers define goals and take necessary steps to ensure that these goals are achieved. [Pant, 2003:111]

b. Facilitating communication: communication is the transmission of information and understanding through the use of common purpose.

c. Facilitating coordination: Coordination is the process of attaching the action of individual member of division in an organization as a whole. It is a part of group work. Budgeting creates a favorable environment to attain the organizational as well as individual goals.

d. Allocating resources: Generally, an organization's resources are limited, and budgets provide one means of allocating resources among competing users.

e. Controlling profit and operations: A budget is a plan, and plans are subject to change. Nevertheless, a budget serves as a useful yardstick with which actual results can be compared.

f. Evaluating performance & providing incentives: Companies actual results with budgeted results also help managers to evaluate the performance of individuals, departments, divisions or entire companies. Since, budgets are used to evaluate the performance; they can also be used to provide incentives for people to perform well.

2.2.6.2 The Budgeting Process

Budget is a comprehensive plan of action prepared for achieving objectives. The main objective of a business firm is to make an excess of revenue over expenses so as to maximize profits. But it is not a matter of dream or chance. There are no magic formulas of boosting the figure overnight. A systematic budgeting should encompass the following procedure; [Welsch, Hilton & Gordon, 2000:73-88]

- Identification and evaluation of external variables
- Development of broad objectives of the enterprises
- Development of specific goals for the enterprises
- Development and evaluation of company strategy
- Executive management planning instructions
- Preparation and evaluation of project plan
- Development and approval of strategic and tactical profit plans
- Implementation of profit plans
- Use of periodic performance reports
- Implementation of follow up

2.2.6.3 Master Budget

The master budget is prepared for specific period and is static rather than flexible. It is the principle output of a budgeting system which is a comprehensive profit plan that ties together all phases of an organization's operations. It is a comprehensive plan, a coordinated set of detailed financial statement of the operating plans and schedule for a short period, usually a year. The master budget or schedule that is interdependent. The measure budgeting is a networking consisting of many separate budgets that are interdependent. A master budget normally consists of following types of budget.

I.) Operating Budget: Operating budget relates to the physical activities, operations of a firm such as sales, production, purchasing, debtors' collection and creditors payment schedule. In specific term an operating budget has the following term:-

a. Sales Budget: A sales budget is a detailed schedule of expected sales for coming period. It is usually expressed in both amounts and units. Once the sales budget has been set, a decision can be made on the level of production that will be needed to support sales and the production budget can be set well. The sales budget is the starting point in preparing the master budget. The sales budget is constructed by multiplying the expected cash receipts for the forthcoming budget period. This computation is needed to assist in preparing the cash budget for the year. Expected cash receipts are composed of collection on sales made in the current budget period. [Garrison, 1985: 306]

Sales budget is prepared from sales forecast. A sales forecast encompasses potential ales for the entire industry as well as potential sales for the firm preparing the forecast. Factors that are considered in making a sales forecast include:

- Past experience in terms of sales volume.
- Prospective pricing policy.
- Unfilled order backlogs.
- Market research studies.
- General economic condition.
- Industry economic condition.
- Movements of economic indicator such as gross national product, employment, prices and personal income.

- Advertising and product promotion industry competition.
- Market shares.

Sales results from prior years are used as a starting point in preparing sales forecast. [Welch, Hilton and Gordon, 1992: 173]

Sales Budget (in Rs.) = Sales units × SPPU

b. **The Production Budget:** The production budget specifies the planned quantity of goods to be manufactured during the budget period. After sales budget has been prepared the production requirement for the forth coming budget period can be determined and organized in the form of a production budget. Sufficient goods will have to be available to meet sales need and proved for the desired ending inventory. The remainder will have to be produced. Thus production needs can be determined by adding budgeted sales units to the desired ending inventory and deducting the beginning inventory from the total. [Horn green, Foster and Datar, 1999:182]

Production Budget (in units) = Sales units + Desired closing inventory
– Opening inventory

c. **Purchase Budget:** Manufacturing Company purchases raw materials for its products to be product. Purchase budget helps to determine the quantity and value of materials required for the budgeted period and also the inventory of materials required to be maintained.

Purchase Budget (Rs) = (Raw material used budget + Desired closing inventory of raw material – opening of raw material) × Cost rate

d. Direct Material Budget: Sufficient raw material will have to be available to meet production needs, and to provide for the desired ending raw materials inventory for the budget period. A direct material budget should be prepared to show the materials that will be required in the production process. The remainder will have to be purchased from suppliers.

Planned material consumption = planned production units× standard raw material usage per unit of output.

e. **Direct Labor Budget:** The direct labor hour budget is also developed form the production budget. Direct labor requirements must be computed so that the company will know whether sufficient labor time is available to meet production needs. Numbers of units of finished product to be produced each period is multiplied by number of direct labor hour required to produce single unit to determine labor hour budget.

Direct labor budget = Production units × Hour rate × Cost rate

f. The Manufacturing Overhead Budget: The manufacturing overhead also known as factory overhead. It is the aggregate of indirect expenses of factory department. It include both variable and fixed manufacturing overhead such as factory rent and rates, lighting and heating, factory power, fuel and insurance, factory salaries, indirect wages and pension, factory stationary and printing etc. In other words, the manufacturing overhead budget should provide a schedule of all costs of production other than direct material and direct labor. A computation shoeing budgeted cash disbursement for manufacturing overhead should be made for use in developing the cash budget.

Manufacturing overhead budget = Production units × VMOH rate
+ Fixed Mfg OH.

g. The Selling and Administrative Overheat Budget: Selling and administrative overhead budget is a significant portion of total expenses plan. It includes both fixed and variable expenses. It includes all costs related to selling, distribution and delivery of products to consumers and an administrative expenses such as clerical wages& excusive salaries, supplies, postage & telephone, sales commission & salaries, advertising & sales service expenses etc.

Selling & administrative overhead budget = Sales units × Rates per
Unit+ Fixed selling exp.

II.) Financial Budget: Financial budgets are concerned with expected cash receipts / disbursement, financial, position and results of operation, the companies of financial budgets are:

a. The Budgeted Income Statement: The budgeted income statement is one of the key schedules in the budget process. It is the document that tells how profitable operations are anticipated to be in the forth-coming period. After it has been prepared, it stands as a bench mark against which subsequent company performance can be measured. (Garrioson, 1985: 3/3.)

b. **The Cash Budgets**: Cash budget is the detail showing cash receipt, cash disbursement and the cash balance. The cash budget is composed if four major sections:

- The receipt sections.
- The disbursement sections.
- The cash excess or deficiency section.
- The financing sections.

The receipt sections of the opening cash balance added to whatever is expected in the way of cash receipts during the budget period and the disbursement section consists of all cash payments that are planned for the budget period. The cash excess or deficiency section consists of the difference between the cash receipts section totals and the cash disbursement section totals. And the financing section provides a detailed account of the borrowing and repayments projected to take place during the budget period.

c. Budgeted Balance Sheet: Beginning with the current balance sheet adjusting it for the data contained in other budget develops the budgeted balance sheet. It shows the expected end of period balance for the organization assets, liabilities and owner's equity, assuming that planned operations are carried out. That is, it is prepared to determine the amount of budget net income on the basis of sales budget, production budget, labor cost budget overhead budget, purchase budget etc. (Garrison, 1985: 3,5)

2.2.6.4 The Budgeting Techniques

a. **Incremental Budgeting:** Most of running enterprises organizations start budgeting for the next year based on previous budgets or the actual results. If the budgets for a given time are based on the budget or actual data of the same unit of previous time, this technique is called the incremental budgeting is to make an increase over the past year figures to given budget allowance for the next year. [Bajracharya, Ojha, Goet and Sharma, 2004: 353-354]

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

c. **Activity-Based Budgeting:** Activity base budgeting focuses on the lots of activities to produce and sell products and services. It separates indirect cost into separate homogeneous activity cost pools. The main aim of ABB is to authorize the supply of only those resources, which are needed to perform activities required to meet the budgeted production and sales volume. The ABB is calculated for the following reasons.

- Determine the budgeted costs of performing each unit of activity at each activity area.
- Determine the demand for each individual activity based on budgeted production, new product development and so on.
- Compute the cost performing each activity.
- Describe the budget as cost of performing various activities.

2.2.7 Flexible Budget & Overhead Cost Control

A flexible budget is one which is designed to provide information as to sales, expenses and profit for different level of activity which may be attained. A budget prepared in a manner so as to give the budgeted cost for any level of activity is known as a flexible budget. A flexible budget is also called a variable budget, dynamic budget, step budget, sliding- scale budget, expense formula budget and expense control budget.

A flexible budget calculates budgeted revenues and budgeted costs based on the actual output level in the budget period. A flexible budget is calculated at the end of the period. When the actual output known: a static budget is developed at the start of the budget period based on the planned output level for the period. [Hongren, Datar and Foster, 2003]

The fundamental function of the flexible budget applies for expenses that are incurred because of the passage of time, output or productive activity or a combination of time and output or activity. Application of fundamental concept of flexible budget means that: [Wagle and Dahal, 2004: 7.1]

Expenses must be identifying as to their fixed and variable components when related to output or productive activity.

Expenses must be reasonably related to output or productive activity.

Output or productive activity must be reliable measurable.

Flexible budget for each expense must be for a specified time period and for a specified relevant range of output or productive activity.

For planning and control purpose, flexible budget must be developed for each expense in each responsibility center in an enterprise,

The flexible budget can be prepared from the three methods that is Multi-activity method (Tabular method), the Formula method and the graphic method. The tabular method is budgeted figures for different activity levels are presented under the relevant range. The levels of activity are generally expressed as production units or sales value etc. Variable cost per activity base and fixed cost is determined at first. While determining the variable and fixed cost, mixed costs are generally segregated by the using high low method of segregation. And the formula method provides a formula for each expenses account in each responsibility center. The formula gives the fixed amount and the variable rate per activity base.

Flexible budget (Budgeted allowance) =Fixed costs + (UVC×Actual activity Level)

Or,

$$Y = FC + UVC \times AL$$

The flexible overhead budget is a primary tool for the control of the manufacturing overhead cost. Any organization uses the flexible budget to determine the level of overhead cost that should have been incurred, given the actual level of activity and then compares the overhead cost in the flexible budget with the actual overhead cost incurred. The first and the fore most thing to define in case of overhead cost control is the appropriate cost driver for the factory overheads. Manufacturing/ Factory overhead is a pool of many different kinds of costs.

The difference between the standard overhead cost specified for the production achieved, and the actual cost incurred is known as overhead variance. The main objective of analyzing the factory overhead variances is to determine whether the total manufacturing overheads are over or under applied in the cost of production for the given level of output. There are several possible approaches to overhead variance analysis out of them one commonly used approach is three- variance analysis.

2.2.8 Decision Regarding Alternatives Choices

Businesses have limited resources at their disposal at any time. One of most important tasks of management is to allocate these resources effectively and efficiently to accomplish the organization’s goals and objectives. For the fulfillment of their goals and objectives, the others management accounting tool is decision making that are useful to tactical decision of management. It is also very important as well as obviously a difficult task.

Decision- making is a process of selecting an optimal course of action from among the alternative courses of actions available in conformity with the objectives of the firm. Decision to be made by management can broadly be categorized as regular or routine or normal and irregular or nor- regular or special. Routine decisions are related to daily affairs and are made repeatedly. Special decisions are made when situations arise and therefore are occasional. [Wagle and Dahal, 2004: 8.1]

Decision making is the art of selecting the best alternative among the various alternatives available to solve a given problem in case of business. So the tactical decision making process involve five steps mention as under:

- Define the problem
- Identify the alternatives possible solutions to the problem
- Identify the predicted cost and benefits associated with each feasible alternative
- Compare the relevant costs and benefits for each alternative
- Select the alternative with the greatest benefits.

2.2.8.1 Types of Decisions

There are so many types of decisions from the accounting point of view. But, here are relating with the following types of decision only:

a. Make or buy
b. Drop or continue
c. Accept or reject a special offer
d. Replacement of assets
e. Sell or further process
f. Leasing or Purchase

a.) Decision to: Make or Buy: Buying is the process of obtaining goods from outside suppliers instead of producing the same goods within organization. Decision on whether to produce components within the organization or to acquire them from outside suppliers are called make or buy decision. A firm produces these goods (i.e. parts and components), if they are not available in the market. Similarly it purchase, if there is no capacity to produce them within organization. But when the both conditions are available at same time, i.e. parts and components are available in the market as well as idle capacity in the factory, a manager should take decision whether to manufacture the parts in the factory or purchase it from outside suppliers. In order to reach at decision, comparative cost analysis is necessary.

b.) Decision to: Drop or Continue: Dropping or continuing of the manufacturing product may face a problem in management. It is always challenging to continue to operate the facilities as long as products or services sold recover variable cost and make a contribution toward recovery of fixed cost. In deciding whether to continue or drop, expected future revenue should be compared with the relevant cost. For this the relevant cost must be separated into variable/avoidable and fixed/unavoidable cost. Certain cost- fixed cost- does not eliminate by dropping facilities, like depreciation, interest, property tax and insurance. These costs continue during complete inactivity also. [Munakarmi, 2004: 352]

c.) Decision to: Accept or Reject a Special Offer: A special order is one of that has been offered for a bulk volume at a reduced price. Opportunity to consider order for a quantity of its regular product at a special price, usually less than that charged to regular customers, frequently arises for a management. When there is idle capacity such an offer may be alternative, the basis of decision making should be the difference that if will make in the overall profit of the company. Essentially, if there is idle capacity, the special order is advantageous if the price amounts exceed out of pocket costs and the opportunity costs. [Bajracharya, Ojha, Goit and Sharma, 2004: 633]

d.) Decision to: Replacement of Assets: Replacement of assets or equipment is a capital investment or long-term decision requiring use of discounted cash flow technique. These techniques are discussed in detail in the chapter titled investment analysis but one aspect of asset replacement decisions, which is to be understood clearly at this stage, is how to treat the book value of old equipment. In deciding whether to replace or keep existing equipment, we must consider the relevance of following commonly encountered items:

a. Cash operating cost of old and new equipment

b. Cost of new equipment

c. Disposal value of old equipment

d. Book value of old equipment

e. Gain or loss on disposal

e.) Decision to: Sell or Further Process: Another special decision area that require managers attention consists of whether to sell the joint product at split- off point or to process some or all products further. Joint products are these products, which are produced in single production process. Joint products have common process and joint cost of production up to split- off point. Cost incurred for common process till split- off point are identified as joint cost where as the cost incurred after split-off points are taken as separable cost. To decide between sell and further processing alternative, the organization should see the effects of alternative on the contribution margin or profit margin of the organization. [Wagle and Dahal, 2004:8.11]

f.) Decision to: Leasing or Purchase: Leasing is a contract between the lesser and the lessee for the hiring of specific assets that allows lessee relating to the legal ownership with the lessor to obtain possession and use of assets in exchange for lease rentals agreed upon. The lease agreement is two types:

a. Operating lease and

b. Financial lease.

Short term (period of the lease being shorter than the economic life of the assets or single period during which the lessor does not recover its investment in assets) and cancelable lease agreement are called operating lease. The cost of maintenance, repairs, insurance and taxes are borne by lessor under an operating lease.

Long term (period of the lease being almost equal to the expected economic life of the assets or single period during which the lessor recovers his investment and usually earns profit as well) and non cancelable lease are financial leases.
In order to purchase the assets, lessee may borrow the funds or use surplus fund. The process of evaluating purchasing alternative varies under these conditions. If the company uses surplus funds to purchase, the tax shield benefit of the company in this condition is less than of under the borrowing condition because interest is tax-exempt item in addition to depreciation expenses. [Wagle and Dahal, 2004: 8.14, 8.15]

2.2.9 Pricing Decisions

When the organization produces the goods and services, it must be needed to set the price for their product. An act of establishing /setting /fixing the price for an organization product or service is called pricing. In others words, pricing is the job or task of assigning exchange volume for goods or services provided by organization. Setting the price for an organization's product is one of the most important decisions a manager faces. It is also one of the most difficult or challenging because it should appeal to the customers; beat competitor; recover cost and provide surplus for survival, further growth and expansion etc. So the organization are price taker (When the price is determine by the market) pricing decision is to be made virtually by all types of firms irrespective of their nature and size. Pricing decision is influenced by number of factors such as market, customer's demand, cost, acting of competition, government policy etc. (wagle and Dahal, 2004:9.1)
Economics theory suggests that under certain assumption the profit maximizing price and quality are determined by the intersectional of the marginal revenue and the marginal cost curves. Actual pricing practices indicates that firm's use "cost based or cost plus" pricing where a 'mark up' for overhead and profit is added to the direct cost. According information's relating to cost plays a vital role in the respect.

2.2.9.1 Cost Based or Cost Plus Pricing Methods

Probably the most easy, simple and widely used method of cost plus pricing is to set the price of product or services at an amount equal to its standard manufacturing cost plus a normal mark up. Such a mark up is intended to cover marketing and administrative costs and net profit before tax. Such an approach is termed cost based or cost plus pricing. It is claimed that cost plus pricing is widely used because it ensures that the selling price is greater than the total cost of a cost based price is greater than the total cost of a cost based pricing formulas have the following general forms: [Wagle and Dahal, 2004: 9.2]

Price = Cost + (cost × mark up percentage)

Cost plus pricing system include:

a. Full cost or total cost or absorption cost pricing.

b. Variable or marginal cost or contribution margin pricing.

c. ABC pricing.

d. Target cost pricing.

e. Return-on-investing (ROI) pricing.

a. Full cost or total cost or absorption cost pricing: Full cost/ total cost/absorption cost pricing uses conventional cost accounting principles to establish the total cost for a product to which is added a mark up to arrive selling price that is, if absorption or total manufacturing cost are taken into consideration, the mark up is intended to cover administrative and marketing costs and net profit before tax. [Munakarmi; 2002:399,400]

Price = Absorption manufacturing costs + (mark up % × absorbed manufacturing cost.)

b. Variable or Marginal or Contribution Margin Pricing: This method of pricing, the pricing of the product or services is determined by the accumulation of variable costs per unit plus a normal mark up. The variable cost thus accumulated, can either be manufacturing or total variable cost. If manufacturing variable costs are taken, the mark up must be sufficient to cover other variable cost.

Price = Total variable cost + (mark up % × Total variable cost)

c. **Activity Based Cost Pricing:** ABC pricing is also a form of cost based or cost plus pricing. It is a method of allocating manufacturing overhead to product using multiple application rates and a wide variety of cost drivers in multi-product firm. Therefore, all overhead cost incurred to carry out various activities should be considered product cost. For successful application of ABC techniques necessitate the following steps:

- Identify the major activities in the organization.
- Determine the cost driver for each major activity.
- Create a cost centre/cost pool for each major activity.
- Trace the cost of activities to products according to a product's demand for activities.

d. **Target Cost Pricing:** Target pricing is based on target costing. Target costing is methods of determining the cost of a product or service based on the price that customer are willing to pay. So in this method of pricing, the firm first of all determines the price at which the product sells so as to attain desired sales volume or market share. From the price thus determined, acceptable profit is deducted for ascertained of targeted cost. [Wagle and Dahal;2004:9.8]

Target cost = Anticipated selling price – Desired profit

e. **Target ROI Pricing:** The price set so as to achieve a given rate of return on invested capital over and above the cost is known as target ROI pricing. ROI is the minimum profit on invested capital that must be earned at least to cover the opportunity cost of capital. [Wagle and Dahal; 2004: 9.7]

Calculation of desired mark up per unit as per ROI:

$$\text{Desired Mark up as per ROI} = \frac{\text{Capital employed} \mid \text{ROI \%}}{\text{No. of units produced (Sales)}}$$

Where, Capital Employed = Owner's equity + Interest bearing debt

(i.e. long-term)

Or

= Fixed assets + net working capital

2.2.9.2 Transfer Pricing

When goods or services are exchanged between various subunits or segments of a decentralized organization, the question arises what monetary values should be assigned to such exchanges or transfer? Unfortunately, there is no single transfer price that will please all the parties involved in transfer, namely- top management, the selling division and the buying division.

A transfer price is the price on subunit of an organization charges for products or services supplied to another subunit of the same organization. The transfer pricing creates revenue for the selling subunit numbers for both subunits. The operating income can be used to evaluate the performance of each submit and to motive managers. [Horngren, Foster & Datar, 1999: 904]

There are various transfer pricing schemes having different bases for computation. So the transfer pricing can be based on:

a. Market Based Transfer Pricing: Transfer pricing based on market value of the product or service is known as market based transfer pricing. Generally, market price is used for determination of transfer pricing of the product. Market based transfer pricing is appropriate when both buying and selling divisions are operating at full capacity. Both buying and selling divisions can buy and sell at market price.[Fago, Gyawali and Subedi, 2003: 9.33]

Transfer price = Market price – selling and distribution expenses.

b. Cost Based Transfer Pricing: If the price can not be determined from market, then the transfer price may be determined from cost based transfer pricing. For these purpose the cost based transfer can be determined from namely variable cost, full cost, full cost plus a mark-up. Some use standard cost and some use actual cost.The actual cost based transfer price passes the inefficiencies of the selling division to the buying divisions with little incentive to control cost. The variable cost based transfer price has an advantage over the full cost or full cost plus a mark-up method when there is idle capacity in the firm. Under the full cost methods, fixed cost of the selling department becomes the variable cost to the buying division.

c. Negotiated Transfer Pricing: It is negotiated between the transferor and transferee units after considering all factors of supply and demand, quality and time of delivery and the price. That is an alternative to setting prices based on rules or formulae, transfer prices could be set by negotiation between the buying and selling divisions. This transfer pricing is most appropriate in situations when there are different selling costs for internal or external sales or where there exists several different market prices.[Munakarmi, 2004: 434]

d. General Transfer Price Rule: The pros and cons of the different transfer pricing methods discussed so far give us an insight into their nature but do not provide an answer on to which model is optimal. From the forgoing discussion it is clear that it is not easy for a single transfer price to motivate managers to make optional decision, provide a reasonable measure of performance and ensure that divisional autonomy is not undermined. So the divisions do agree to a base, some form of competitive market price can be the best approach to the transfer pricing problem. It can be calculated from the following formula: [Wagle and Dahal, 2004: 9.11]

$$\text{Transfer Price} = \begin{array}{l}\text{Additional outlay cost per}\\ \text{unit incurred because}\\ \text{goods are transferred}\end{array} + \begin{array}{l}\text{Oppertunity costs per unit}\\ \text{to the organization}\\ \text{because of transfer}\end{array}$$

2.2.10 Ratio Analysis

Financial statements provide information about firm's position at a point in time as well as its operations over some past period. However, the real value of financial statements lies in the fact that they can be used to help predict the firm's financial position in the future, and to determine expected earning and dividends. Form an investor's standpoint, predicting the future is what financial statement analysis is all about, while from management's standpoint, financial statement analysis is useful both as a way to anticipate future conditions and more important as a starting point for planning actions that will influence the future course of events.

An analysis of the firm's ratios generally is the first step in a financial analysis. The ratios are designed to show relationship between financial statement accounts within firms and between firms. Ratio analysis is designed to show the relationship between financial statements at a given point of time and over period of time. This relationship can be expressed on times and percentage either on one side of the balance sheet/income statement or both sides of balance sheet/income statement.[Shrestha, 2004: 51]

2.2.10.1 Types of Ratios There are various types of ratios which practices shows that ratios can be computed and ground in varieties of ways depending on the figures taken from financial statements, types of analysis and the purpose behind it. Generally, ratios are calculated from the financial statements by the parties such as creditors, investors, financial institutions and management of the firm to know their field or interest. The major groups of ratio analysis can be classified as indicated below: [Wagle and Dahal, 2004: 10.3]

- Liquidity ratios
- Leverage or capital structure ratios
- Activity or turnover ratio
- Profitability ratios

a) Liquidity Ratios: A firm's "liquidity position" deals with the question of how well the firm is able to meet its current obligations. So, the liquidity ratios are provided the quick measure of the liquidity position or the ability of the firm to meet its current obligation. Liquidity ratios are also the indicator of short-term solvency or financial strength of the firm. [Wagle and Dahal, 2004: 10.3,10.4]

Current Ratio: The current ratio is calculated by dividing current assets by current liabilities:

$$\text{Current ratio} = \frac{\text{Current Assets}}{\text{Current Liabilties}}$$

Quick or Acid Test Ratio: The quick or acid test ratio is calculated by deducting inventories from current assets and then dividing the remainder by current liabilities:

$$\text{Quick or Acid test ratio} = \frac{\text{Current Assets Z Inventories}}{\text{Current Liabilties}}$$

b) Leverage or Capital Structure Ratios: Leverage or capital structure ratios show the degree of extent of debt available by the organization and its capacity to serve such debt. The following ratios are incurred under leverage ratio: [Munakarmi, 2004: 468]

Debt Equity Ratio: It is a test of long-term solvency of the firm. Debt equity ratios measure the relationship between the creditorship funds.

$$\text{Debt equity ratio} = \frac{\text{Long Term debts}}{\text{Share holder Equity}}$$

OR

$$\text{Total Debt equity ratio} = \frac{\text{Total Debt}}{\text{Share holder Equity}}$$

Debt to Total Capital Ratio: Debt to total capital ratio is calculated by dividing the long term debt by total capitalization in which includes shareholders equity and long term debts.

$$\text{Debt to total capital ratio} = \frac{\text{Total Debt}}{\text{Total Capital}}$$

Interest Coverage Ratio: It is determined by dividing earnings before interest and taxes (EBIT) by the interest charges. It measures the extent to which operating income can decline before the firm is unable to meet its annual interest costs.

$$\text{Interest coverage ratio} = \frac{\text{EBIT}}{\text{Interest Charges}}$$

Fixed Charges Coverage Ratio: This ratio is derived when income available to meet fixed charges is divided by fixed charges. Fixed charges include interest, annual long term lease obligations and sinking fund payments and the fixed charge coverage ratio is defined as follows:

$$\text{Fixed charges Cov. Ratio} = \frac{\text{EBIT} + \text{Lease Paymenets}}{\text{Lease Payments} + \text{Interest} + \dfrac{\text{Pref. Div.} + \text{Repayment of Loan}}{(1 - \text{Tax Rate})}}$$

c) Activity or Turnover Ratio: Turnover ratios indicate the degree of conversion of assets into sales. The quickest the conversion in conformity with the investment, the more efficient is the management of the assets. The usual ratio computed under this group comprises:

Inventory Turnover Ratio: it explains whether investment in inventories is within proper limits or not. It is defined as cost of goods sold divided by inventories:

Inventory turnover ratio = $\dfrac{\text{Cost of goods sold}}{\text{Average Inventories}}$

Debtors Turnover Ratio: It is the result of credit sales. It helps to increase the sales and on the hand result in tying up of substantial funds of a firm in the form of trade debtors which are expected to be converted into cash within a short time period and hence are included in current assets.

Debtors Turnover Ratio = $\dfrac{\text{Credit sales}}{\text{Average debtors}}$

Fixed Assets Turnover Ratio: It is calculated to study the efficiency with which fixed assets are used and is computed as:

Fixed assets turnover ratio = $\dfrac{\text{Sales}}{\text{Net fixed assets}}$

Total Assets Turnover Ratio = $\dfrac{\text{Sales}}{\text{Net fixed assets}}$

Capital Employed Turnover Ratio = $\dfrac{\text{Sales}}{\text{Capital employed}}$

d) Profitability Ratios:Profitability is the net result of a number of policies and decisions. The rations examined thus far provide some information about the way the firm is operating, but the profitability ratios show the combined effects of liquidity, asset management, and debt management on operating results. The profitability ratios related with sales such as gross profit margin, net profit margin and operating expenses ratio and the also related with the investment analysis such as return on total assets, return on net assets, return on shareholder fund, return on equity, earning per share, dividend per share, dividend payment ratio, earning yield ratio, dividend yield ratio, market value ratio etc. so the profitability ratios are used as a measure to judge the operating efficiency of an organization.

2.2.11 Cash Flow Analysis Cash flow as a phrase that is used to describe both cash inflow and cash flows. It is indicated to show all the cash inflow and outflows of a firm during a period. Cash flows and outflows is one of the major management tasks. The analysis of events and transactions that effects the cash position of company is termed as cash flow analysis. While calculating cash flow statement from income statement, adjustments data for prepaid and outstanding expenses as well as incomes must be convert from accrual basis to cash basis. Cash flow statement should reports the cash flows during the period classifying on operating, investing and financing activities. [Wagle and Dahal, 2004: 11.1, 11.2]

2.2.11.1 Operating Activities

Cash flow from operating activities is primarily derived from the principal revenue producing activities of the enterprise. Therefore, they generally result from the transactions and other events that enter into determination of net profit or loss. It is referred to as working capital, sales, and expenses of the business. It is specially generated form daily internal activities of business such as sales and collection from customers, cash paid to suppliers and employee, cash paid for operating expenses, interest and taxes, short term bank loan, marketable securities etc.

2.2.11.2 Investing Activities

Cash flow from investing activities is generated internally from non-operating activities. On this activities would included investments in plant and equipments or other fixed assets, nonrecurring gains or losses or other sources of cash outside of normal operations.

2.2.11.3 Financing Activities

The separate disclosure of cash flows arising from financing activities is important because it is useful in predicting claims on future cash flows by providers of capital to the enterprise. So the financing activities are those external sources and uses of cash such as lenders, investors, and shareholders that affect cash flow. On these activities, there are included such as a new loan, the repayment of a loan, the issuance of stock and the payment of dividend etc.

2.2.12 Capital Budgeting

A number of factors combine to make capital budgeting decisions perhaps the most important ones financial managers must make. Expenditures incurred for acquisition, expansion and modification of fixed assets; research and the development expenditure for product development and cost reduction; expenditures incurred in compliance to statutory regulation as to labor, social welfare and environmental issues are major forms for capital expenditure The impact of capital budgeting is long term thus the firm loses some decision making flexibility when capital projects are purchased.

Capital budgeting is the process of planning and controlling the long term and short term expenditures for expansion and contraction of investments in fixed assets. A major issue in planning capital expenditures is the problem of ensuring that a company has the capacity to produce, acquire or be able to deliver the goods and services that will be needed to meet its sales and service plan. A major issue in controlling the actual expenditure of funds is the problem of ensuring that the actual expenditures are consistent with the plans and that funds are available when the expenditures are incurred. [Welch, Hilton & Gordon, 2000: 394, 395]

2.2.12.1 Capital Budgeting Procedure

The following represent the procedures involved in capital budgeting:

- Generation of investment proposals
- Estimation of cash flows

- Evaluation of investment proposals based on different methods of screening the

  proposals
- Selection of the proposals based upon the selection criteria
- Continual revaluation of the proposals after their acceptance

[Wagle and Dahal, 2004: 12.1]

2.2.12.2 Capital Budgeting Evaluating Techniques

The capital budgeting evaluating techniques are as follows:

a) Traditional Methods: These are the oldest and simple methods. The traditional methods do not consider the time value of money, they are given below: [Wagle and Dahal, 2004: 12.5,12.6,12.7,12.8]

i. Payback Period: It is defined as the expected number of years required to recover the original investment, is the simplest and, as far as we know, the traditional formal method used to evaluate capital budgeting projects. The payback period can be found using the following formula:

$$\text{PBP} = \begin{array}{c}\text{Year before full}\\ \text{recovery of}\\ \text{original Investment}\end{array} \;\Gamma\; \frac{\text{Unrecovered cost at start of year}}{\text{Total cash flow during year}}$$

ii. Average or Accounting Rate of Return Method: This method is based in accrual based revenues and cash cost, which is not a cash basis analysis:

$$\text{ARR} = \frac{\text{Average Income or Profit or Return}}{\text{Average Investment}} \times 100$$

Where,

$$\text{Average income} = \frac{\text{Total Income or Profit or Return}}{\text{Number of years}}$$

$$\text{Average Investment} = \frac{\text{Original Investment}\,\Gamma\,\text{Salvage value (if any)}}{2}$$

b) Discounted Cash Flow Method: To correct for the major defect of any nondiscounting technique ignoring the time value of money methods were developed to include consideration of the time value of money. The commonly used discounted cash flow methods are:

i) Net Present Value (NPV): Net present value represents the difference between the present value of expected cash outflows and inflows of the investment proposal. To implement this method, we proceed as follows:

- Using the rate of return required by the firm for the computation of the present value of all the cash flows, whether inflows or outflows are associated with a project during its life.
- Sum the cash flows' present values to get the project's NPV
- A project is considered acceptable if its NPV is positive; it is not acceptable if its NPV is negative. If projects with positive NPVs are purchased, the value of the firm will increase; purchasing negative NPV will lower NPV projects.

NPV is computed using the following equation:

NPV = PV of Future CFAT - NCO

$$NPV = \frac{A1}{(1+i)} + \frac{A2}{(1+i)^2} + \frac{A3}{(1+i)^3} + \ldots\ldots\ldots + \frac{An}{(1+i)^n} - A_0$$

$$= \sum_{t=0}^{n} \frac{At}{(A+i)^n}$$

Where,

$A_{0 \text{ to } n}$ = Cash flow in the period 0 to n.

T = Time period

i = Discount rate [Wagle and Dahal, 2004: 12.10]

ii) Profitability Index (PI): The profitability index is the time adjusted capital budgeting techniques. It is similar to the NPV approach. It is the ratio of present value of net cash benefits to the present value of net cash outlay. It measures the present value of return per rupee invested, while the NPV is based on the difference between the present value of future cash inflow and the present value or cash outlays. If the PI is gretar than one, then the project should be accepted but if the PI is less than one then the project should be rejected. [Wagle and Dahal, 2004: 12.12]

$$\text{Profitability Index} = \frac{\text{Present Value of CFAT}}{\text{Net Cash Outlay (NCO)}} \text{ or } \frac{\text{NPV} + \text{NCO}}{\text{NCO}}$$

Or

$$PI = \frac{\frac{A_1}{(1+i)} + \frac{A_2}{(1+i)^2} + \frac{A_3}{(1+i)^3} + \ldots\ldots\ldots + \frac{A_n}{(1+i)^n}}{A_0}$$

$$= \frac{\sum_{t=0}^{n} \frac{A_t}{(A+i)^n}}{A_0}$$

iii) Internal Rate of Return (IRR): The IRR is the rate of return the firm expects to earn if the project is purchased; thus it is defined as the discount rate that equates the present value of a project's expected cash flows to the investment outlay, or cost. As long as the rate of return expected from a project its IRR is greater than the rate of return required by the firm for such an investment, the project is acceptable. The IRR can be computed as: [Wagle and Dahal, 2004: 12.12]

IRR = Discount rate at which PV of annual CFAT = NCO

Or

$$= A_0 - \frac{A_1}{(1+i)} + \frac{A_2}{(1+i)^2} + \frac{A_3}{(1+i)^3} + \ldots\ldots\ldots + \frac{A_n}{(1+i)^n} = 0$$

Or,

$$= \sum_{t=0}^{n} \frac{A_t}{(A+i)^n} = 0$$

The exact rate is found in the following way once the two rates leading to positive and negative net present value are ascertained in the process of trial and error:

$$\text{IRR} = \text{Lower}\,\%\,\Gamma\,\frac{\text{Lower}\,\%\,\text{Value} - \text{NCO}}{\text{Lower}\,\%\,\text{Value} - \text{Higher}\,\%\,\text{Value}} \times (\text{H}\ \% - \text{L}\ \%)$$

2.3 Review of Thesis/Dissertations

In this section the review of thesis relating to management accounting practices have been considered. There were only few thesis/dissertations written on management accounting practices in public enterprises in Nepal when browsed through computer records of thesis reports presented earlier in Tribhuvan University Central Library.

Banerjee, Manoj Kumar -2004

He has entitled "Inventory management of manufacturing public enterprise in Nepal" as a partial fulfillment of the requirements for the degree of master's of business studies. On this thesis, he has included only 4 PEs out of 11. The data has used both the primary and secondary sources. After analyze of the inventory management practices in manufacturing public enterprises, the major findings of his study has been presented below;

a. The Nepalese manufacturing enterprises were purchasing their material from open tender agreement.

b. PEs are practicing store control device such as bin card, store ledger but ABC were not applied.

c. PEs were invested a lot of money to the inventory management but they were suffering from over stocking.

d. He had found that the manufacturing PEs had not systematic method to pre-determine the target for future activities for the particular products.

e. The manufacturing PEs were not succeeded to maintain a proper balance between the purchase, inventory, production and sales.

Mr. Banerjee has provided some recommendations to improve inventory management;

i. Individual branches of PEs should be allowed to set their own target because of people working at the area will have better knowledge of actual situation.

ii. Manufacturing PEs should make an effort to match the target demand target sales and actual supply. It helps to overcome the problem from over stocking.

iii. Low bid price, quality of materials; reliable suppliers as well as transportation agencies should be selected.

iv. Manufacturing PEs should attempt to use the scientific inventory models like EOQ model, ABC model etc.

v. Cost of different factors should be soundly classified and clearly defined.

vi. PEs should be minimizing their administrative expenses. It helps to minimize its selling expenses and price of product and service.

vii. Full authority of responsibility should be given to the concerned departments and unnecessary governmental intervention must be avoided.

Sainju, Sabin Prakash -2003

He has presented entitled "Cash Management in public enterprises in Nepal, a case study of Royal Drugs Limited," presented as partial fulfillment for the requirements of the master degree in the year 2003.

Major findings of his research work were;

a. Company doesn't have any definite policy regarding how much of cash balance to hold each fiscal year.

b. Company has not been forecasting cash balance taking into consideration the sales volume.

c. Company fails to maintain an adequate proportion of cash in its current assets.

d. Cross analyses revealed that company fails to collect receivables from its sundry debtors timely.

e. Company has not been precisely meeting its current liabilities payment.

Mr. Sainju has provided some recommendations to improve cash management system of Royal Drugs Limited;

i. Maintain optimum cash balance every year.

ii. Prepare trial balance.

iii. Prepare cash budget on the basis of cash flow analysis.

iv. Prepare cash flow statements.

v. Determine minimum level of cash balance to hold every year, maintain such minimum level of cash balance as a requirement of precautionary, speculative and compensation motive, besides for daily transactions.

vi. Use extensively financial and statistical tools as per required.

Sharma, Sagar -2002

He has conducted a research work entitled, Management accounting practices in the listed company in Nepal", in partial fulfillment of the requirement for the degree of MBS (TU). He is mainly focused on the present practice of management accounting tools in the listed companies as per Nepal stock exchange. The thesis is based on the primary sources by using a scheduled questionnaire. He has pointed out various findings and recommendations in his research. The remarkable findings and recommendations has been presented as under,

a. For the planning, controlling and decision-making, the MA tools practiced in listed companies were found that the capital budgeting, cash flow statement, ratio analysis, and annual budgeting has widely practiced. The cost segregation, break even analysis, standard costing, long-term budgeting were found slightly practiced but the ABC, responsibility accounting were found unused.

b. For the long-term investment, it was found that the capital budgeting has widely practiced but the risk adjustment

c. t technique were slightly practicing for the investment purpose.

d. It was found that all of the companies had fully measured their performance on the basis of profit and loss account but the other technique such as budgeting control, standard costing, ratio analysis were found slightly practiced.

e. In the context of the master budgeting, almost 87% of listed companies had used the long term planning but the about 90% of listed companies had used short term budget.

f. Cost based pricing techniques were found widely used in practiced.

g. Market base pricing and cost price based transfer pricing techniques were found slightly in practiced for transferred pricing purpose.

h. The past trend analysis of market were found about 100% company in practiced to forecast the future costs of revenue but the market survey and judgment analysis has still found in introduction stage.

i. He has provided some recommendations to improve management accounting system;

j. To implement the MA tools

k. Management accounting information system should be keep for the effective application of MA tools.

l. Interaction must be need

m. The budget and planning activities should be prepared with the help of expert profession

n. To use of zero bases budgeting, market survey and statistical tools for the forecasting purpose.

Kunwar, Naresh (2000)

He has entitled 'A Study on Working Capital Management of Pharmaceutical Industry of Nepal with Special reference to Royal Drug Limited' presented as partial fulfillment for the requirements of the master's of business administration in the year 2000.

Major findings of his research work were;

a. Company is following conservative working capital policy.

b. It is found hat inventory holds the largest portion of current assets.

c. It shows that investment in current asset is high with respect to total assets.

d. The company has not been able to convert current asset quickly in cash in order to meet current liabilities.

e. Overall return position of company is negative, not in favorable condition. It is because of inefficient utilization of current assets, total assets, and shareholder wealth.

Mr. Kunwar has provided some recommendations to improve working capital management:

i. There must be compulsory formulation of appropriate working capital policy not only conservative. Besides, there should be policy to prevent the holding of excessive and inadequate current assets n the company.

ii. It should adopt modern inventory system.

iii. Adaptation of standard and marginal cost techniques will also be a good measure in controlling and classifying the cost as well as for identifying the responsibility centers for the losses.

iv. There should be proper co-operation interaction between different sales agents, production, marketing and sales department during the planning of sales.

v. Positive attitude towards risk through providing training, participation in management etc for the managerial level employees.

Pradhan, Bijaya -1997)

He has entitled “A study of cash management of salt trading corporation Ltd”, as partial fulfillment of the requirements for the degree of master’s of business administration. The thesis was based on the secondary data of the company for the past six years. The major finding of his study has been presented as under;

a. Salt trading corporation Ltd could not make the best use of available cash balance prudently.

b. The cash collection efficiency in this corporation is very low.

c. The collection of trade credit in the corporation is low during the three years of the study period.

d. Management has taken liberal credit policy to sales of goods. Hence the cash and bank balance of the study period is minimum of account receivables.

e. No optimum cash balance is maintained.

Mr. Bijaya Pradhan has provided some recommendations to improve cash management.

i. Efficient management of cash.

ii. Design effective account receivable management.

iii. Adopt effective credit policy.

iv. Maintain optimum cash balance.

v. Prepare cash budget.

vi. Invest in marketable securities.

2.4 Research Gap

There is a vast gap between the present research and previous researches. Most of the previous researches of account have been conducted on profit planning and control by convening the budgeting practices in manufacturing companies, especially in PEs. They were either a case study of particular company or a comparative study of two different companies. A few numbers of researches have been also made in the area of receivable management inventory management, CVPO analysis, financial performance analysis, capital expenditure planning and so on. But these all are only a part of management account. This can not represent the overalls practices of management accounting in Nepalese companies. Most of the dissertations have been prepared based on secondary data and all of the findings are similar to each other. The previous researchers did not disclose which of the management accounting tools are in practices which are not and why. Thus to fill up these gap the current researcher is conducted. This research is a survey type of research which is completely based on the primary sources of data. It examines the current practice of management accounting tools in Nepalese PEs. It has disclosed the reason about the tools which are not practiced by the companies and has suggested to apply new tools such as zero budgeting, activity costing, target costing, ROI pricing, market survey in managerial activities of planning, controlling and decision making.

Mr. Sagar Sharma was conducted a research work entitled “MA practice in Nepalese PEs”. He had used only 27% of total population as a sample for research. The research had only focused to the listed companies in stock exchange. There is great difference between the listed companies and state owned companies. So, this study is completely based on primary sources of information. The samples have been drawn by using the stratified judgment sampling procedure with 58.33% of total population.

This research has clearly describes, which of MA tools and techniques are practicing and which are not practicing till now. The research also discloses the major difficulties for the proper application of MA in Nepalese PEs.

CHAPTER -3

RESERCH METHODOLOGY

3.1 Introduction

Research is defined as human activity based on intellectual application in the investigation of any subject. The primary purpose for applied research is discovering, interpreting, and the development of methods and systems for the advancement of human knowledge on a wide variety of scientific matters of our world and the universe.

Research methodology states the method with which data have been extracted and discuss the tools that have been used in interpretation of such data to fulfill the objectives. The main purpose of this chapter is to focus on different research method and condition, which are used while conducting this study. Every study needs a systematic methodology to show the better results of research. In this study, a Management Accounting practices in public enterprises in Nepal; also needs an appropriate research method.

The procedure to achieve the objectives of the study is research methodology. The objective of this study is to examine the present practice of management accounting and difficulties for application of management accounting tools and techniques in public enterprises in Nepal. The study intended to show the effectiveness of management account in planning, controlling and decision making of government owned business organizations.

The methodology, which has been used in this study consists of design, population and sampling, nature and sources of data, data collection techniques, reliability and validity of the data, the research variables and measures and data processing and analysis procedure followed to achieve basis objectives of this research work.

3.2 Research Design

Research design refers to the systematic framework under which the search is conducted. Research design involves selection of most appropriate method or technique to solve the particular problem under investigation. This research is based on primary source of information. As per the nature of study, specific survey research design has been followed with descriptive analytical as well as quantitative approaches to examine the issue and to achieve the objectives. The survey has naturally pointed only such information, which is related to specific purposes which are to describe current practices and event and to analyze the fact. [Joshi, 2009: 37]

3.3 Population and Sampling

To make the research more reliable all enterprises (which are 37 enterprises in public ownership) has been taken as population. The entire population is divided into business sector (i.e. Industrial sector, Trading sector, Social service sector, Public utility sector and financial sector) from heterogeneous individuals. The Public Enterprises are classified on the basis of functions performed by them. Then a simple judgment sampling procedure is used to draw the sample from each group. In this way 21 PEs has been taken as sample by using stratified judgment sampling for proportionate allocation of population, which represents 58.33% of total population.

The table given below clearly describes the total population, sample and percentage of the sample on total population of the research.

Sampling Procedure

Table no. 3.1

S.N	Business sector	Total Population	Target Population	Sample Draw	Sample %
1	Industrial Sector	7	7	4	57
2	Trading Sector	6	6	4	67

3	Service Sector	7	7	4	57
4	Social Service Sector	5	5	3	60
5	Public Utility Sector	3	3	2	67
6	Financial Sector	9	9	4	45
Total		37	37	21	57

3.4 Nature and Sources of Data

For the reliability and effectiveness of research work true and correct information are essential because information are the life-blood of every research. In order to achieve the objectives of the study, primary data is the main source of this study. But several secondary data have been also used.

Primary information is the original source of this study with prior appointments to the concerned authorities of public enterprises. As per requirement of the study these information have been collected from PEs for meeting the specific objectives through developing the schedule questionnaire. To make the research more specific, personnel interview, discussion, opinion survey, observations have been also conducted.

Secondary data have been also used in this research. To find out the identification, condition, capacity, performance of PEs, such types of data were used.

3.5 Data Collection Procedure

For the reliability and effectiveness of research work true and correct information are essential. In order to achieve the objectives of the study primary information is the original source of this study with prior appointments to the concerned authorities of public enterprises. As per requirement of the study these information have been collected from public enterprises for meeting the specific objective through developing the scheduled questionnaire and distributed it to the concerned authorities like department chief of finance / accounts, manager who was available as well as responsible. Some public enterprises did not feel and show responsibility to provide information. Some public enterprises provided the information kindly showing interest and accepting awareness of the context and to get more information, discussion, personnel interview, observation, opinions survey also conduced with the concerned authorities. But several secondary data have been also used in this research. To find out the identification, condition capacity, performance of public enterprises, such types of data were used. It helped the researcher to get more information.

3.6 Data Processing and Analysis Techniques

The answer received from questionnaire need tabulation and analysis. The data are classified and tabulated with a systematic manner in a frequency distribution form. The data are tabulated into various tables according to the subject's requirement. Processing of data has been done in computer by using Ms. Excel program. Simple percentage tools have been applied to analyze and interpret the findings. Most of the analysis and interpretation are expressed in spectral group of enterprises. PEs individual special practices have been also interpreted in some cases.

3.7 Tools for Analysis

Management Accounting is the process of identifying measuring, analyzing, interpreting and communicating information for searching the goals of the company. To achieve the objectives of company certain management accounting tools must be used. Major management accounting tools such as segregation, estimation, allocation, classification of cost, application of marginal, absorption standard and opportunity costing, applicable of budget, valuation, control and management of inventory, profitability analysis, cost volume profit analysis, analysis of financial statement, cash and funds flow analysis, flexible budgeting, activity based costing, responsibility accounting are the main research variables in this thesis. The other statistical tool like chi – square (x^2) is used to test the hypothesis.

3.8 Reliability and Validity of the Data

The data and information were collected from the primary source to meet the specific objectives of the study. It makes the research work more valid, reliable and objective. The major portion of reliability and validity of data depend upon the interest, level, professionalism, intension, nature, age and capacity of the respondents. The researcher was tried to meet the authentic and prime authorities of the enterprises to get the correct information with personnel discussion, observation and opinion survey. Check and balance types questions were also included in the questionnaire.

CHAPTER -4

PRESNTATION AND ANALYSIS OF DATA

4.1 Introduction

The basic objective of this study as stated in chapter one is to have true insight into the present practice of management accounting in public enterprises in Nepal. This is a survey type of research. To achieve the specific objectives of the research, this chapter presents the presentation, analysis and interpretation of data. Now, in this study the effort has been made to assess and analysis the management accounting practice, to disclose the actual position of management accounting practice in public enterprises in Nepal.

It is survey types of research. So the study is based on the primary source of information. The data has been collecting from the respective public enterprises by developing the scheduled questionnaire. For the facilitating to the study, the enterprises are classified into six different business sectors as per the nature and function performed by the company. Out of the total population about 58.33% has been used as a sample by using stratified judgment sampling.

The table has been developed based on the subject matter of questions. For the analyzing and interpreting of findings, the simple percentage tool has been applied. Most of the analysis and interpretation has expressed in special group of enterprises that is industrial sectors, trading sectors, service sectors, social service sectors, public utility sectors and finance sectors. Individual practices and open-ended operations of PEs have been also analyzed, interpreted and arranged as per requirement.

The statistical tools chi- squire (x^2) has also used to test the hypothesis related to the management accounting. Two different hypotheses have been tested.

4.2 Percentage Analysis of Management Accounting Tools Practice in Public Enterprises in Nepal.

The given table No. 4.1 represents the present practices of management accounting tools in PEs in Nepal. The prime tools of management accounting that is cost correlation, cost volume profit analysis, standard costing, flexible budget and overhead cost control, budgeting annually, budgeting long term, responsibility accounting, ratio analysis, cash flow analysis and capital budgeting has been used in survey to identify the present practice of management accounting in public enterprises in Nepal and also practiced by different business sector which have been expressed in percentage.

In the context of Industrial/ Manufacturing sectors, there is found only fully practiced of annual budgeting. Responsibility accounting and cash flow analysis are the second highest practicing (which is 75%) in industrial sector. Similarly, cost volume analysis and ratio analysis are being practiced by 50% industrial sectors. Capital budgeting is practiced by 25% industrial sectors but standard costing, flexible budget and overhead cost control, long-term budgeting have not found in practicing in industrial sectors.

In case of trading sectors, here is also found fully practiced of only annual budgeting. Where as, cash flow analysis is practicing by 75%. Similarly, responsibility accounting and capital budgeting are practicing by 50% in trading sectors and cost segregation, flexible budgeting and overhead cost control, long-term budgeting and ratio analysis are practicing by 25% in trading sectors. But cost volume profit analysis and standard costing have not found in practicing in trading sectors.

Similarly in the context of service sectors, here is also found fully practicing of annual budgeting. And then, cash flow analysis is practicing by 50% from these sectors. On the same way, cost segregation, cost volume profit analysis, standard costing, responsibility accounting and capital budgeting are being practiced by 25% from service sectors. But here are also not found to practice of flexible budgeting, long-term budgeting and ratio analysis on these sectors.

On the same way in social service sectors, 100% of these sectors are practicing of annual budgeting and the secondly, 67% of these sectors are practicing of responsibility accounting and cash flow analysis. Similarly, cost volume profit analysis, flexible budgeting and overhead cost control and ratio analysis are practicing by 33% from these sectors. But here are also not found to practice of cost segregation, standard costing, long-term budgeting and capital budgeting on these sectors.

In public utility sectors, here are found to fully practice of annual budgeting, cash flow analysis and capital budgeting while cost volume profit analysis and ratio analysis are practicing by 50% on these sectors. Cost segregation, standard costing, long-term budgeting and responsibility accounting have not found in practice on these sectors.

So far in financial sectors, 100% of financial sectors are practicing only the annual budgeting. Long term budgeting, responsibility accounting, ratio analysis and cash flow analysis are practicing by 75% on theses sectors while cost segregation is practicing by 50% on these sectors. Similarly, cost volume profit analysis, flexible budgeting and overhead cost control are practicing by 25% of financial sectors. On these sectors, standard costing and capital budgeting have not found to practice.

In sum up, 100% of total enterprises are practicing the annual budgeting, 71% cash flow analysis, 52% responsibility accounting, 38% ratio analysis, 29% cost volume profit analysis and also capital budgeting, 19% cost segregation and long term budgeting and 14% standard costing and flexible budgeting and overhead cost control have found in practice in Nepalese PEs for the management decision for covering planning and controlling.

Finally, the survey is proved that the widely used tools in Nepalese PEs are annually budgeting and secondly cash flow analysis. And then responsibilityaccounting, ratio analysis, CVP analysis and capital budgeting, and flexiblebudgeting and OH cost control respectively are used in practice which are playing
nominal role to the Nepalese PEs.

Present Practice of Management Accounting Tools inPublic Enterprises in Nepal

Table No. 4.1

S. N	Business Sector		Industrial		Trading		Service		So. Service		P. Utility		Finance		Total No/%
	Management Accounting Tools	Population	7		6		7		5		3		9		
		Sample	4		4		4		3		2		4		
		Sample %	57		67		57		60		67		45		
		Practice	NO	%	NO	%	NO	%	NO	%	NO	%	N0	%	
1	Cost Segregation		-	-	1	25	1	25	-	-	-	-	2	50	4/19
2	Cost Volume Profit Analysis		2	50	-	-	1	25	1	33	1	50	1	25	6/29
3	Standard Costing		2	50	-	-	1	25	-	-	-	-	-	-	3/14
4	Flexible budget and overhead cost control		-	-	1	25	-	-	1	33	-	-	1	25	3/14
5	Budgeting annually		4	100	4	100	4	100	3	100	2	100	4	100	21/100
6	Budgeting Long term		-	-	1	25	-	-	-	-	-	-	3	75	4/19
7	Responsibility Accounting		3	75	2	50	1	25	2	67	-	-	3	75	11/52
8	Ratio Analysis		2	50	1	25	-	-	1	33	1	50	3	75	8/38
9	Cash Flow Analysis		3	75	3	75	2	50	2	67	2	100	3	75	15/71
10	Capital Budgeting		1	25	2	50	1	25	-	-	2	100	-	-	6/29
Total			17		16		11		10		8		20		

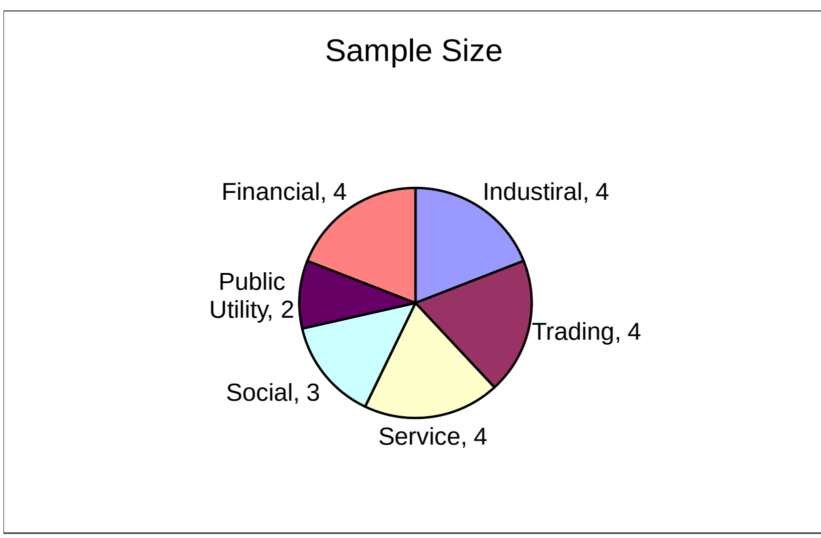
Source : Field Survey

4.3 Reasons for Non-practicing MA Tools and Techniques in Public Enterprises in Nepal.

Table No. 4.2

S.N	Reason for non-practicing the MA	Population	Sample		Lack of Expertise		High cost		No information of tools	
			Size	%	No	%	No	%	No	%
1	Industrial Sector	7	4	57	2	50	2	50	3	75
2	Trading Sector	6	4	67	1	25	2	75	3	75
3	Service Sector	7	4	57	1	25	-	-	-	-
4	Social Service Sector	5	3	60	1	33	1	33	-	-
5	Public Utility Sector	3	2	67	-	-	1	50	1	50
6	Financial Sector	9	4	45	2	50	2	50	1	25
Total		37	21	57	7	33	8	38	8	38

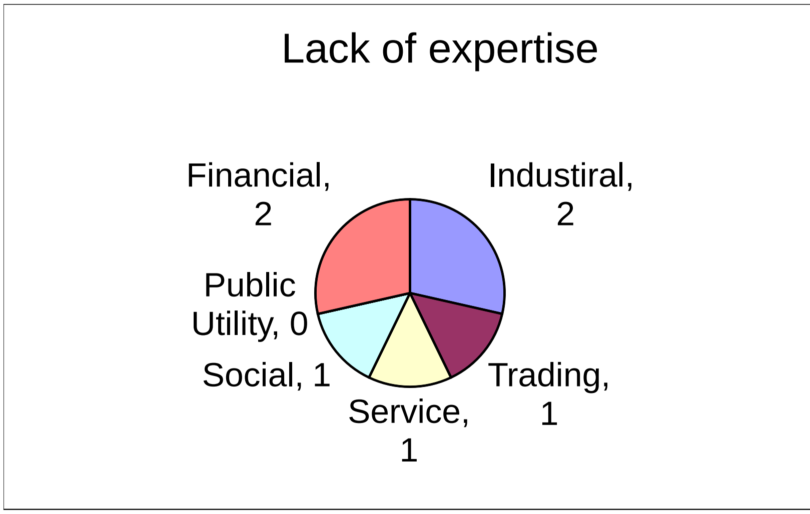
Source : Field Survey



Tools
3
3
1
1
8

Fig.: 4.1

Fig.: 4.1.1



. Tools
3
3
1
1
8

Fig.: 4.1.2

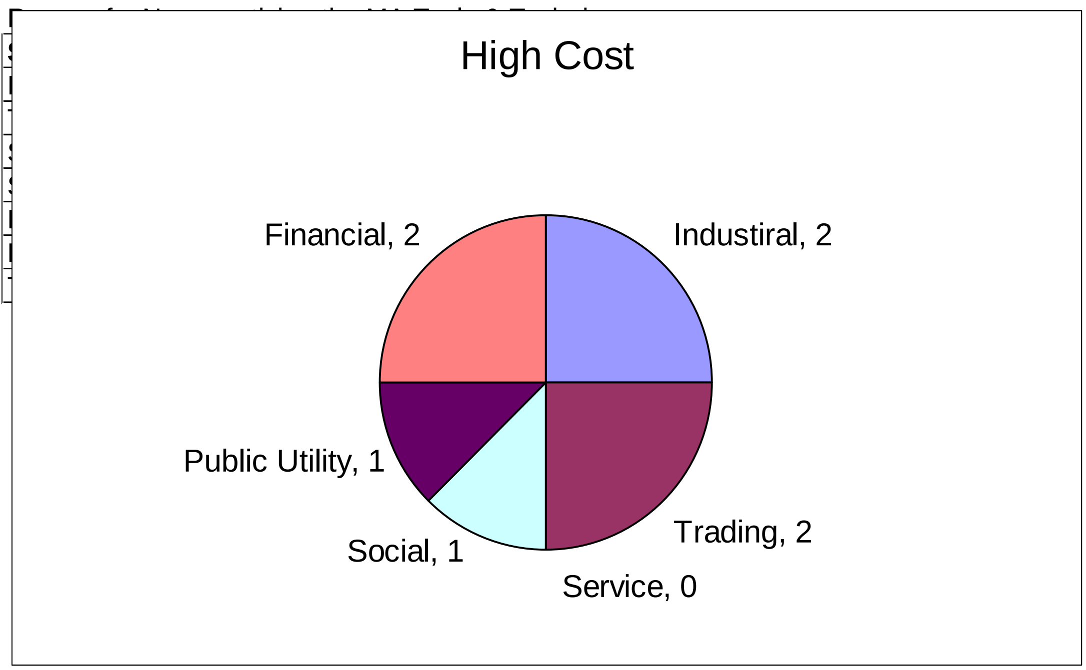
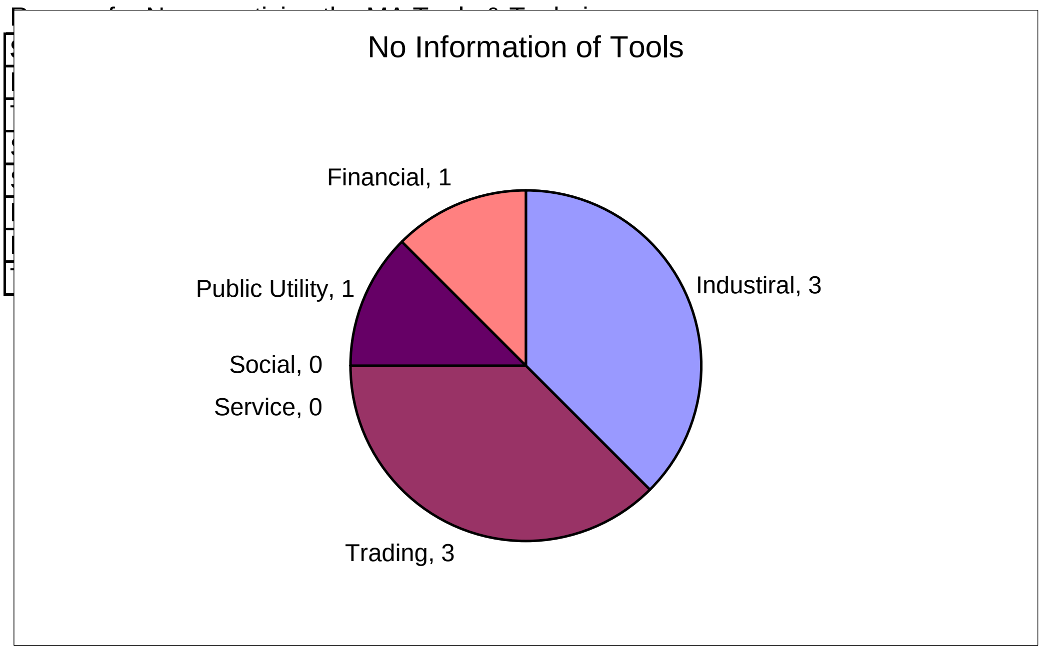


Fig.: 4.1.3



The above given table no 4.2 shows the level of reason for not practicing of the prime accounting tools which has mentioned in topics no 4.2 for the management decisions. In the context of Nepalese PEs, there are so many reasons for not practicing of management accounting which are described under with sector wise with the help of questionnaire surveying purpose. The data of Table 4.2 are also presented in pie-charts for easy understanding.

In the context of industrial sector, the maximum i.e. 75% of theses sectors have no information to use all the prime tools of accounting and 50% of the industrial sectors have no practiced all prime tools due to the lack of experience and high cost reasons.

In case of trading sector, here are also not practicing by 75% on these sector due to the reason for no information for the applying all prime tools of management accounting. Similarly lack of experience and high cost reasons 50% each on these trading sectors have not practiced of prime management accounting tools.

In service sector, 25% of total service sectors have not used of all prime management accounting tools due to the lack of experience reason. Rest 75% service sectors have not specified any reason on this matter for not using all prime MA tools.

On the same way for the social service sector, here is also 33% of total social service sector have mentioned for not using prime management accounting tools due to the lack of experience and high cost. The remaining social sectors have not mentioned about the specific reason for not using the prime management accounting tools for the managing decisions.

Similarly, 50% of the total public utility sectors have mentioned for not practicing of the prime management accounting tools due to the high cost and also not get the proper information. But the remaining 50% of these enterprises are not practicing because of the poor service and shortage of product.

Regarding in financial sector, lack of the experience and high cost about the tools becoming the main reasons in 50% financial sector for non-practicing the management accounting. And the only 25% financial sector have mentioned for not practicing the all prime management accounting tools.In sum up, out of total public enterprises 38% of companies are mentioned from high cost and no information for the non- practicing of prime management accounting tools, and out of the 33% of PEs are mentioned of lack of experience for non- practicing of prime management accounting tools.

4.4 Percentage analysis of Management Accounting Techniques Practice in Public Enterprises in Nepal

Practice of Segregation of Mixed Costs into Fixed and Variable In Public Enterprises in Nepal

Table No.4.3

SN	Cost Seg. Techniques	Population	Sample		High low		Regression		Average		Analytic	
			Size	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	-	-	-	-	3	75	-	-
2	Trading	6	4	67	-	-	-	-	3	75	-	-
3	Service	7	4	57	-	-	-	-	-	-	1	25
4	Social Service	5	3	60	-	-	-	-	-	-	-	-
5	Public Utility	3	2	67	-	-	-	-	1	50	-	-
6	Financial	9	4	45	-	-	-	-	3	75	1	25
Total		37	21	57	-	-	-	-	10	48	2	10

Source: Field Survey

The above table no. 4.4 represents the practice of segregating mixed cost into fixed and variable in the Nepalese enterprises. Usually four different methods i.e. high-low point method, regression analysis method, average analysis method and analytical method have used to segregate the mixed cost in questionnaire. In this types of costs, some of part contains from fixed cost and some of contains from variable cost. To perform the better managerial function from planning and control, it must be necessary to segregate into fixed and variable. It helps to the manager for the decision and also effective for planning and controlling.

From the above table, 75% of the industrial sectors are practicing average method to segregate the mixed costs into fixed and variable and also 75% of trading sectors and financial sectors are practicing the same method. Similarly, 50% of public utility sectors are practicing the same method to segregate the mixed costs into fixed and variable. But service sectors and social sectors have not found to practice of average analysis method of management accounting tools for the planning and controlling decision.

Secondly, 25% of the service sectors and financial sectors are found to practice the analytical method for this purpose but the remaining 75% of the service sectors have not found to use of any other practice of other segregate the cost. The other remaining sectors that is industrial, trading, social service and public sectors have not also found to practice the analytical method of management accounting tools for the decision of planning and controlling.

High-low method and regression method which are the effective and real techniques to segregate the mixed costs have not found to practice these methods in Nepalese PEs of management accounting tools for the decision of planning and controlling.

Out of the total companies, it is found that the maximum practice of segregate the cost in Nepalese PEs of management accounting tools is average analysis method which is 48% and second practice is analytical method which is only 10%. The reasons behind the non- practicing of high-low method and regression method have found that the authorities are not aware about the tools and techniques. Almost of the sectors said for non-practicing these method which are very difficult to calculate, time consumed and also an expensive technique than the average and analytical methods. But the public sectors said that it is not applicable for practicing the all segregation of mixed costs into fixed and variable cost.

Practice of Budget in Public Enterprises in Nepal

Table No.4.4

SN	Types of Budget	Popu-lation	Sample		Operating only		Cash only		Overall Master	
			Size	%	No	%	No	%	No	%
1	Industrial Sector	7	4	57	3	75	-	-	1	25
2	Trading Sector	6	4	67	-	-	1	25	3	75
3	Service Sector	7	4	57	3	75	-	-	1	25
4	Social Service Sector	5	3	60	2	67	1	33	-	-
5	Public Utility Sector	3	2	67	2	100			-	-
6	Financial Sector	9	4	45	1	25	-	-	3	75
Total		37	21	57	11	52	2	19	8	38

Source : Field Survey

The above given table no 4.4 reveals the types of budget and its practice in Nepalese PEs. There are three types of budget i.e. operating budget, cash budget and overall master budget has been used for business sectors.

In the context of industrial sector, 75% of manufacturing PEs are practicing cash budget only, and remaining 25% of the same enterprises are practicing overall master budge of management accounting for the decision of planning and controlling.

In case of trading sector, 75% of trading PEs are practicing overall master budget and remaining 25% of the same PEs are practicing only cash budget. The operating budget only has not found to practice on these trading sectors.

In case of service sector, 75% of service sectors are practicing operating budget only and remaining 25% of service sectors are practicing only overhead master budget. In these sectors, there has not found to practice of cash budget for the planning and controlling decision.

In the context of social service sector, 67% of this PEs are practicing only operating budget and remaining 33% enterprises are practicing cash budget only to provide their social type services.

The public utility sectors are found only fully practicing of operating budget only for operational activities.
In the financial sector, 75% of PEs are practicing overall master budget and remaining 25% of PEs are practicing operating budget only.

In sum up, 52% PEs are practicing operational budgeting only, 38% PEs are practicing overall master budget and remaining 10% practicing cash budget only to carry out their day-to-day operational activities. From the survey found that operating budgeting has found mostly practiced in public enterprises in Nepal.

Base for Preparing Budgeting in Public Enterprises in Nepal

Table No. 4.5

SN	Base of Budget	Population	Sample		Past Budget Estimate		Past Actual Expenses		Zero Based Budget		Activity Based	
			Size	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	3	75	2	50	1	25	1	25
2	Trading	6	4	67	2	50	3	75	-	-	1	25
3	Service	7	4	57	2	50	3	75	-	-	2	50
4	Social Service	5	3	60	2	67	3	100	-	-	-	-
5	Public Utility	3	2	67	2	100	2	100	-	-	1	50
6	Financial	9	4	45	2	50	4	100	3	75	1	25
Total		37	21	57	13	62	17	81	4	19	6	29

Source : Field Survey

The above table no. 4.5 reveals the base for budgeting preparation in Nepalese PEs. Different four types namely based on past budget estimate, based on past actual expenses, zero based budget and activity based budget have mostly used for this purpose. So these four types of option have included in survey and the survey found that the following result:

In industrial sector, 75% of manufacturing PEs are practicing the past budget estimate, 50% enterprises are practicing the past actual expenses and 25% enterprises are practicing the zero based budget and activity based budget as a base to prepare of budget. Herbs production and processing Co. Ltd is taking two bases, past budget estimate and past actual expenses as base to prepare the budget.

In the context of trading sector, 50% enterprises are practicing the past budget estimate, 75% of these enterprises are taking past budget estimate for the base of preparation the budget and 25% are practicing activity base budget for the preparation of budget. Here, zero base budgets has not found in practice for the preparation of budget.

In case of service sector, 50% enterprises are also practicing the past budget estimates and activity based for the basis to prepare the budget and 75% enterprises are practicing past actual expenses as a base to prepare the budget. In this sector, CAAN and IDML are taking three elements and NAC is taking two elements as a base to prepare the budget. Here is also not found to practice of ‘zero base’ base of budget preparation in practiced.

Similarly in social service sector, 100% enterprises are practicing to prepare budget on the basis of past actual expenses and 67% enterprises are also practicing to prepare the budget on the basis of past budgeting estimate. Gorkhapatra Sansthan has found to practice only past actual expenses on a base for the preparing budget. Zero based budget and activity based budget have not found in practice for the preparation of budget.

Likewise in public utility sector, 100% enterprises are practicing to prepare the budget on the basis of past budget estimate and past actual expenses and also 50% enterprises are practicing the budget on the basis of activity based budget. NTC is also found to use of activity based budget for the preparation of budget. Zero base budget has not found in practically use in these sector for the preparation of budget.

Finally in financial sector, 50% enterprises are practicing to prepare the budget on the basis of past budget estimate and 100% enterprises are practicing to prepare the budget on the basis of past actual expenses. Agricultural Development Bank, Karmachari Sanchaya Kosh and Rastriya Banijya Bank are also using the budget on the basis of zero based budget. Rastriya Banijaya Bank is using activity base budgeting techniques.

In sum up, 81% of the totals PEs are practicing past actual expenses, 62% enterprises are practicing past budget estimate, 29% enterprises are practicing activity base budgeting and 19% enterprises are practicing zero based as a base to prepare of budget. From the above survey, it is cleared that the most of the countries widely practicing the past actual expenses and past budget estimate as a base to prepare the budget. The used of zero based has only found to practice in financial sector in certain case.

Responsible for the Budget Preparation System Practice In Public Enterprises in Nepal

Table No.4.6

SN	Responsible for the Budget Preparation	Population	Sample		Committee		Planning Department		Finance Department		Outside Experts	
			Size	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	2	50	3	75	2	50	-	-
2	Trading	6	4	67	3	75	2	50	1	25	-	-
3	Service	7	4	57	2	50	2	50	1	25	-	-
4	Social Service	5	3	60	1	67	1	67	3	100	-	-
5	Public Utility	3	2	67	-	-	2	100	2	100	-	-
6	Financial	9	4	45	-	-	2	50	3	75	-	-
Total		37	21	57	8	38	12	57	12	57	-	-

Source: Field Survey

The above table 4.6 represents the budget preparation system practiced in PEs in Nepal . Normally, budget committee, planning department, finance department and outside experts has been involved to prepare the budget. Above mention four alternatives has been included in an option while making the survey.

From the above survey it is found that, in 75% of the industrial sector i.e. NRTL, HPPCL and NDL are practicing the budget from planning department and 50% of the same sector are practicing the budget from committee and finance department. NRTL and HPPCL are also practicing the budget from committee; and DDC and HPPCL are preparing the budget from finance department. In this industrial sector, there is not found to prepare the budget from outside expert.

In the context of trading sector, 75% trading sector are preparing budget from committee, 50% trading sector are practicing from planning department and 25%trading sector are practicing from finance department. NOC, NFC and STCL are practicing the budget from committee. STCL is also practicing the budget from planning department. NTL is practicing the budget from planning department and finance department. In this sector, there is also not found the practicing budget from outside experts.

Like wise in service sector, 50% enterprises are practicing budget from committee and planning department and only 25% enterprises are practicing the budget from finance department. ISML and Civil Aviation Authority of Nepal are preparing budget from planning department and finance department, and NCCL and NAC are preparing budget only from committee. Outside expert has not found in practice for the preparation of budget in this sector.

In case of social service sector, 100% enterprises are preparing the budget from finance department and 33% enterprises are also preparing budget with the help of committee and planning department. Gorkha Patra Sansthan and Janak Eduction Materials Center Ltd are practicing budget also from committee and planning department respectively. Here is also not found to practice the budget from outside experts.

In public utility sector, 100% enterprises are preparing the budget from planning department and finance department. In this sector, there is not found to prepare budget from committee and outside expert.

In finance sector, 75% enterprises are preparing budget from finance department and 50% enterprises are preparing budget from planning department. Agriculture Development Bank is preparing budget only from planning department.

Out of total PEs, 38% enterprises are preparing the budget from committee, 57% from planning department and 52% from finance department. But in public enterprises in Nepal are not found any practiced of hiring the outside experts to prepare the budget.
Regarding preparation of budget, it is found that the most of the enterprises have been collected information from three different department and the finance department as well as planning department compiled the budget as per requirement.

Types of Budget Practice in Public Enterprises in Nepal

Table no. 4.7

SN	Types of budget	Population	Sample		Short term budget		Medium term budget		Long term budget		Others	
			Size	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	4	100	-	-	-	-	-	-
2	Trading	6	4	67	4	100	-	-	-	-	-	-
3	Service	7	4	57	4	100	1	25	-	-	-	-
4	Social Service	5	3	60	3	100	-	-	-	-	-	-
5	Public Utility	3	2	67	2	100	1	50	1	50	-	-
6	Financial	9	4	45	4	100	1	25	1	25	-	-
Total		37	21	57	21	100	3	14	2	10	-	-

Source : Field Survey

The above table no.4.7 reveals the type of budget on the basis of time period practice in PEs in Nepal. Generally three types of budget i.e. short-term budget (up to one year), medium term budget (one to five years) and long term budget (five years and more) are widely used in business sector. While making the survey, different three alternatives have been included for the option in survey.

From the survey it is found that all of the enterprises (i.e. 100%) are practicing short-term budget. But in service sector NAC, Public utility sector NTC and in financial sector Agriculture Development Bank are also practicing the medium term budget. The Agriculture Development bank is also practicing the long term budget. Industrial sector, trading sector and social service sector are only practicing of short-term budget.

Generally business enterprises prepared the long term budget at the time of company establishment. Long-term budget shows the goal, objectives, mission, vision and target of enterprises in the long term. Different environment must be considered while preparing the budget. It provides guidelines to operate the daily activities in short-term, medium term and long-term. But in the PEs have not found interested to prepare the medium term and long-term budgets.

Present Practice of Long Term Investment Decision in PEs in Nepal

Table no. 4.8

SN	Long term investment Techniques	Population	Sample		PBP		ARR		NPV		IRR		PI	
	Business Sector		Size	%	No	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	-	-	1	25	2	50	-	-	-	-
2	Trading	6	4	67	1	25	1	25	1	25	-	-	-	-
3	Service	7	4	57	1	25	-	-	1	25	1	25	-	-
4	Social Service	5	3	60	2	67	1	33	1	33	1	33	-	-
5	Public Utility	3	2	7	1	50	1	50	1	50	1	50	1	50
6	Financial	9	4	45	3	75	2	50	2	50	2	50	2	50
Total		37	21	57	8	38	6	29	8	38	5	24	3	14

Source : Field Survey

The above table represents the present practice of long term investment decision in PEs in Nepal. Long term means more than one year's period. Different five types of techniques i.e. pay back period (PBP), Average rate of return (ARR), net present value (NPV), internal rate of return (IRR) and profitability index (PI) have been included in option, while conducting the survey.

In industrial sector, 25% enterprises are practicing the ARR and 50% enterprises are practicing the NPV techniques for the long term investment decision. HPPCL are not found to practice of any long term investing technique for the investment on fixed assets.

Similarly in trading sector, 25% enterprises are practicing the ARR and NPV analysis of long term investment techniques for the investment on fixed assets. NOC is only practicing the ARR and NPV analysis for the investment on fixed assets. The other enterprises of this sector are not practice any tool of long term investment.

In case of service sector, 25% enterprises are practicing PVP, NPV and IRR respectively for long term investment decision. CAAN is practicing two techniques PVP and NPV for long term investment decision. NCCN and IDML have not found any practice of long term investment techniques for the long term investment decision.

In social service sector, 67% social service sectors are practicing PBP technique and 33% social service sector are practicing ARR, NPV and IRR for the long term investment decisions. Cultural Corporation is also practicing the ARR, NPV and IRR technique for the long term investment technique. GS has not found any practice of long term investment techniques for the long term investment decisions.

In public enterprises, 50% public enterprises are practicing all techniques i.e. PBP, ARR, NPV, IRR and PI for the long term investment decision. NTC are practicing the all technique for the long term investment decisions.

In financial sector, 75% financial enterprises are practicing PBP techniques for the long term investment decision and 50% financial enterprises are practicing ARR, NPV, IRR and PI respectively for the long term investment decisions. ADB and RBB are practicing all techniques i.e. PBP, DPB, NPV, IRR and PI for the long term investment decisions. RBS is practicing only PBP technique for the long term decision. KSK has not found to practice any technique for the long term investment decisions.

In sum up, 38% of total enterprises are practicing PBP and NPV, 29% practicing ARR, 24% enterprises practicing IRR and 14% enterprises practicing PI for the long term investment decision in Nepalese PEs.

Present Practice of Pricing Mechanism for the Product/ Service In PEs in Nepal

Table no. 4.9

SN	Pricing Techniques	Population	Sample		Full Cost		Variable Cost		Going Rate		Target Return		Activity Based	
	Business Sector		Size	%	No	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	1	25	2	50	2	50	-	-	-	-
2	Trading	6	4	67	2	50	-	-	1	25	-	-	1	25
3	Service	7	4	57	-	-	1	25	-	-	-	-	1	25
4	Social Service	5	3	60	-	-	1	33	-	-	-	-	2	67
5	Public Utility	3	2	67	-	-	-	-	1	50	1	50	1	50
6	Financial	9	4	45	-	-	-	-	1	25	1	25	-	-
Total		37	21	57	3	14	2	10	5	24	2	10	5	24

Source : Field Survey

The above table no. 4.9 represents the pricing mechanism practiced in Nepalese PEs. Business house have determined the price of their product/service on the basis of full cost based pricing (absorption costing), variable (marginal) cost based pricing, going rate pricing (market determined), target return on investment pricing and activity based costing pricing. Different five alternatives and open-end options have been included in survey for suitable choice.

In industrial sector, 25% manufacturing enterprises are practicing full cost based pricing system and 50% of this enterprises are practicing variable cost based and going rate pricing system to determine the price of product, produced. On this sector there has not found to practice of target return on investment and activity based pricing techniques.

In trading sector, 50% trading companies are practicing full cost base pricing technique and 25% trading companies are practicing going rate and activity based technique to determine the price. NOC is practicing the full cost and activity based costing system and NFC is practicing full cost and going rate to determine the price of product. The other technique has not found to apply for the determination of price of product.

In service sector, 25% of service enterprises are practicing variable cost based and activity based pricing techniques to determine the price of their services.

Similarly in social service sector, 33% enterprises are practicing variable cost based and 67% enterprises are practicing activity based pricing technique to determine the price of service.

In case of public utility sector, 50% enterprises are practicing going rate, target return on investment and activity based pricing techniques to determine the price of services. NTC is practicing going rate, target return on investment and activity based pricing technique to determine the price of services.

In financial sector, 25% enterprises i.e. only RBB is practicing the going rate and target return on investment technique for the determination of price. But in this sector there is not applicable.

Thus out of total enterprises, 14%, 10%, 24%, 10% and 24% Nepalese PEs are practicing full cost, variable cost, going rate, target return on investment and activity based pricing respectively to determine the price of product / service. In some enterprises, government fixed the price as per the recommendation of management and board. But in some financial institution determines the price on market base of their service.

Practice of Transfer Pricing Techniques for Internal PurposeIn Public Enterprises in Nepal

Table no. 4.10

S.N	Transfer Pricing Techniques	Population	Sample		Market Based		Cost Based		Target Return Based		Negotiations	
	Business Sector		Size	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	-	-	3	75	-	-	-	-
2	Trading	6	4	67	2	50	3	75	-	-	-	-
3	Service	7	4	57	1	25	1	25	-	-	2	50
4	Social Service	5	3	60	-	-	1	33	-	-	-	-
5	Public Utility	3	2	67	-	-	1	50	-	-	-	-
6	Financial	9	4	45	-	-	1	25	-	-	-	-
Total		37	21	57	3	14	10	48	-	-	2	10

Source : Field Survey

The above table no. 4.10 shows the practice of transfer pricing in Nepalese PES. A business enterprise has charged the price of its product/service from one department to another department. Widely using methods to determine the price into intra organizations are market price based, cost price based, target return based and negotiation based. Different four alternatives were included while making the survey to find out the transfer pricing practice in Nepalese PEs.

In case of industrial sector, 75% manufacturing enterprises are practicing cost based transfer pricing technique to transfer their semi product/ service into another department. 25% enterprises have not found to practice of any transfer pricing to transfer their semi-finished product for the further process.

In trading sector, 50% trading companies are transferring their products on the basis of cost accrued on it and 75% companies are also transferring their products on the basis of cost based. NFC is practicing two technique; market based and cost based of transfer pricing technique. NOC has not found to practice any transfer pricing techniques.

In the context of service sector, 25% enterprises are practicing two technique i.e. market base and cost based of transfer pricing. 50% enterprises are also practicing negotiations based of transfer pricing. CAAN has not practicing any technique of transfer pricing.

In case of social sector, 33%enterprises are practicing cost based transfer pricing technique and remaining 67% enterprises have not found any practiced of transfer pricing technique.

In case of public utility sector, 50% enterprises are practicing cost based transfer pricing. Remaining 50% enterprises have not found to practice any technique of transfer pricing. NTC has not found to practice any technique of the transfer pricing.

In financial sector, 25% enterprises are practicing cost based transfer pricing. Remaining 75% enterprises have not found to practice any technique of transfer pricing. RBB is practicing only cost based pricing of transfer pricing technique.

In sum up, 48%, 14% and 10% of total enterprises are practicing cost based, market based and negotiation based of transfer pricing techniques respectively. Target return based of transfer pricing has not found to practice in any Nepalese PEs.

The main reasons behind the non-practicing of transfer pricing in the PEs are lack of such type of culture, difficult to calculate the cost of semi product and service, multi type of product/ service which they produce, and nature of business. In the absence of transfer pricing technique business firm can not measure the performance of individual department. It makes also difficulties to control the activities of departments. The transfer pricing techniques must be necessary to make the autonomous of the department's activities and to decentralize the authority and responsibility of the business enterprises.

Present Practice of Pricing the Issued Inventory In Public Enterprises in Nepal

Table no. 4.11

S N	Inventory Valuation Techniques / Business Sector	Population	Sample		LIFO		FIFO		Simple Average		Weigh. Average		Specific Items	
			Size	%	No	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	-	-	3	75	1	25	-	-	-	-
2	Trading	6	4	67	-	-	4	100	1	25	1	25	-	-
3	Service	7	4	57	-	-	2	50	-	-	-	-	1	25
4	Social Service	5	3	60	-	-	2	67	-	-	1	33	1	33
5	Public Utility	3	2	67	-	-	2	100	-	-	-	-	-	-
6	Financial	9	4	45	-	-	3	75	-	-	-	-	-	-
Total		37	21	57	-	-	16	76	2	10	2	10	2	10

Source : Field Survey

The above table no. 4.11 represents the methods of inventory valuation in PEs in Nepal. Widely used methods to evaluate the value of inventory are LIFO, FIFO, Simple average, weighted average and specific items. The above mentions five alternatives have been available to the represents for an option to the survey findings.

In industrial sector, 75% manufacturing enterprises are practicing FIFO method for the issued inventory. While, 25% practicing simple average method to evaluate the value of inventory. The practice of FIFO, weighted average and specific items have been not found in practice in industrial sector.

In the context of trading sector, 100% enterprises are practicing FIFO method for the issued inventory. 25% enterprises i.e. STCL are also practicing the simple average and weighted average to evaluate the value of inventory. The practice of FIFO, weighted average and specific items have not found in practice in trading sector.

In case of service sector, 50% enterprises are practicing FIFO method for the issued inventory and 25% enterprises are practicing specific items to evaluate the inventory. NAC is practicing FIFO and Specific items. Civil Aviation Authority of Nepal (CAAN) and Industrial Sector Management Limited (ISML) have not found any practice of inventory valuation.

Similarly in social service sector, 67% enterprises are practicing FIFO method to evaluate the inventory and 33% enterprises are practicing weighted average and specific items to evaluate the inventory. JEMCL is practicing FIFO, weighted average and specific items. CC has not found any practice of inventory valuation.

In public utility sector, 100% enterprises are practicing only FIFO method to evaluate the inventory.

In financial sector, 75% enterprises are practicing only FIFO method to evaluate the inventory and remaining 25% enterprises have not found any practice of inventory valuation. KSK has not found any practice of inventory valuation technique.

In sum up, 76% enterprise practiced FIFO method and 10% enterprises practiced simple average, weighted average and specific items for inventory valuation. The survey found that the service and financial institutions have not kept any inventory except stationery and office accessories. Therefore there may be the less practice of inventory valuation. It is also found that, most of the PES are using FIFO method to evaluate the inventory because it is easy to calculate and manage.

Present Practice of Management Accounting Decision Techniques In Public Enterprises in Nepal

Table No. 4.12

SN	Decision Techniques / Business Sector	Population	Sample Size	%	Make/ Buy No	%	Lease/ Purchase No	%	Drop/ Contd. No	%	Sale/ Further No	%	Special offer No	%
1	Industrial	7	4	57	1	25	-	-	-	-	1	25	-	-
2	Trading	6	4	67	1	25	-	-	1	25	1	25	1	25
3	Service	7	4	57	-	-	-	-	-	-	-	-	-	-
4	Social Service	5	3	60	1	33	1	33	-	-	-	-	-	-
5	Public Utility	3	2	67	-	-	1	50	-	-	-	-	1	50
6	Financial	9	4	45	-	-	1	25	1	25	-	-	1	25
Total		37	2	57	3	14	3	14	2	10	2	10	3	14

Source: Field Survey

The above table no. 4.12 reveals the practice of decision techniques in PEs in Nepal. From the management accounting point of view, the major decision techniques are make or buy the component, lease or purchase the fixed assets, drop or continue the any product or service line, sale now or further process the product, accept or reject a special offer and so on. In such types of decision techniques, management must be considers the cost and revenue from differential analysis. The above mentions five techniques and opinion space have included in the survey to identify the practice of decision techniques for such type of decisions.

In the context of industrial sector, 25% enterprises are practicing make or buy decision techniques and 25% enterprises are practicing sale or further process decision technique. NDL is practicing make or buy decision from the management accounting point of view. 50% enterprises have not found any practice of management accounting decision technique.

In case of trading sector, 25% enterprises (NFC) are practicing make or buy, 25% enterprises (NTL) are practicing drop or continue and sale or further process and 25% enterprises (NOC) are practicing special offer decision from the management accounting point of view. 25% enterprises have not found any practice of management accounting decision technique. In case of service sector, the enterprises have not practicing any accounting technique for the management decision making process. The main reason behind the non-practicing of such techniques may be the nature of business which they operate.

In case of social service sector, 33% enterprises are practicing the make or buy and lease or purchase decision techniques. 67% enterprises have not found any practice of management accounting decision technique.

In case of public utility sector, 50% enterprises Nepal Telcom (NTC) are practicing the lease or purchase the fixed assets and special offer decision for the management decisions. The remaining 50% enterprises have not found any practice of management accounting decision techniques.

In financial sector, 25% enterprises (RBB) are practicing lease or purchase the fixed assets, drop or continue the product or service and special offer decision for the management accounting point of view. 75% enterprises have not found any practice of management accounting decision techniques.

In sum up, 14% enterprises are practicing make or buy decision, lease or purchase decision and special offer decision technique. While, 10%

enterprises are practicing drop or continue and sale or further process decision techniques. The main reason behind the non-practicing of such MAtechniques have been lack of cognizance about the tools, long procedures and lack of culture for such type of practice.

Practices of Measure and Control Mechanism to Evaluate the OverallPerformance in Public Enterprises in Nepal

Table No. 4.13

SN	Mechanism	Population	Sample		Profit & Loss		Budgetary control		Standardcosting		Flexible budgeting		Ratio analysis	
					Pract.		Pract.		Pract.		Pract.		Pract.	
	Business Sector		Size	%	No	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	4	100	2	50	-	-	-	-	-	-
2	Trading	6	4	67	4	100	1	25	-	-	-	-	1	25
3	Service	7	4	57	3	75	1	25	-	-	-	-	-	-
4	Social Service	5	3	60	3	100	-	-	-	-	-	-	-	-
5	Public Utility	3	2	67	2	100	1	50	-	-	-	-	1	50
6	Financial	9	4	45	3	75	3	75	-	-	1	25	1	25
Total		37	21	57	19	90	8	38	-	-	1	5	3	14

Source : Field Survey

The above table no. 4.13 represents the practice of measure and control the overall performance in PEs in Nepal. All types of organization want to watch measure and control the overall performance at the end of certain accounting period. Most of the organizations used profit and loss criteria, budgetary control, standard costing, flexible budget and ratio analysis techniques to measure and control the overall performance. These techniques also help to identify the financial performance and position of the enterprises. The above mention five techniques and open opinion space has been included to the respondents for the alternatives.

In industrial sector, 100% enterprises are practicing profit and loss criteria and also 50% enterprises are practicing budgetary control techniques to measure and control the overall performance. Other tools like standard costing, flexible budgeting and ratio analysis have not found in practice.
In case of trading sector, 100% enterprises are practicing profit and loss criteria and also 25% enterprises are practicing budgetary control and ratio analysis to measure and control the overall performance. NOC is practicing profit and loss criteria, budgetary control and ratio analysis. Other tools like standard costing and flexible budget have not found in practice in this sector.

In service sector, 75% enterprises are using profit and loss criteria to measure and control the performance. But 25% enterprises are using budgetary measure and control criteria to overall evaluation of the firm.

In the context of social service sector, 100% enterprises are measuring and controlling their overall performance from profit and loss made them. The other tolls like budgetary control, standard costing, flexible budget and ratio analysis have not found in practice in social service sector.

Likewise in public utility sector, 100% enterprises are using profit and loss criteria and 50% enterprises are also practicing budgetary control and ratio analysis to measure the performance and control the activities of the enterprises. NTC is practicing profit and loss criteria, budgetary control and ratio analysis to measure the performance and control the activities of the enterprises. Standard costing and flexible budgeting have not found in practice in this sector.

Finally in financial sector, 75% enterprises are using profit and loss account and budgetary control and rest 25% enterprises are practicing flexible budgeting and ratio analysis to measure the performance and control the activities. RBB is practicing profit and loss account, budgetary control and ratio analysis. ADB is practicing profit and loss account, budgetary control and flexible budgeting. KSK is only practicing budgetary control. Standard costing has not found in practice in this sector.
Out of the total enterprises, 90% enterprises are practicing profit and loss criteria, 38% practicing budgetary control, 14% practicing ratio analysis and 5% practicing flexible budgeting to measure and control the overall performance of the enterprises. It is also find that profit and loss made by the enterprises during the period has been the widely used technique to measure and control the overall performance. The used of other techniques have been comparatively below then its requirement. The standard costing has not practiced in Nepalese PEs to measure and control overall performance till now.

Practice of Cost and Revenue Forecast / Estimate Mechanism In Public Enterprises in Nepal

Table No. 4.14

SN	Estimation Technique / Business Sector	Population	Sample		Zero Based		Past Trend		Engineering		Market Survey		Judgment	
			Size	%	No	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	-	-	4	100	-	-	-	-	-	-
2	Trading	6	4	67	-	-	4	100	-	-	-	-	2	50
3	Service	7	4	57	-	-	3	75	1	25	1	25	1	25
4	Social Service	5	3	60	-	-	2	67	-	-	1	33	-	-
5	Public Utility	3	2	67	-	-	2	100	1	50	-	-	1	50
6	Financial	9	4	45	1	25	4	100	1	25	2	50	1	25
Total		37	21	57	1	5	24	90	3	14	4	19	5	24

Source : Field Survey

The above table no. 4.14 represents the practice of cost and revenue estimation mechanism in PEs in Nepal. Cost and revenue estimation is an important tool of management accounting from planning and control. Most of the organization used zero base analysis, past trend analysis, engineering analysis, market survey and judgment analysis to forecast / estimate their cost as well as revenue. Above mentions five alternatives has been included for the option, while making the survey.

In industrial sector, 100% enterprises are practicing past trend analysis to forecast their future cost and revenue. The other methods are not in practiced to estimate the cost and revenues of future period.

In case of trading sector, 100% enterprises are practicing past trend analysis and 50% enterprises are also practicing the judgment analysis to forecast the cost and revenue. NOC and NFC are practicing both past trend analysis and judgment analysis to forecast the cost and revenue of the company. Zero based, engineering and market survey analysis has not found in practice in this sector.

In service sector, 75% enterprises are practicing past trend analysis and 25% Nepal Construction Company Limited (NCCL) practicing engineering analysis to forecast the company's cost and revenue. While, 25% enterprises Civil Aviation Authority of Nepal (CAAN) are practicing three methods past trend analysis, market survey and judgment analysis for this purpose. The use of zero based analysis has not found in practice in this sector.

Similarly in social service sector, 67% enterprises are estimating their future cost and revenue on the basis of past trend and remaining 33% enterprises are practicing their cost and revenue on the basis of market based.

In the context of public utility sector, 100% enterprises are practicing past trend analysis and 50% enterprises Nepal Telcom (NT) are also practicing engineering and judgment analysis to forecast the cost and revenue. Zero base and market based analysis have been not practiced in this sector.

Finally in financial sector, 100% enterprises are predetermining their future cost and revenue on the basis of past trend. While also 50% enterprises are practicing market survey and 25% enterprises are practicing zero based, engineering and judgment analysis to forecast the cost and revenue of the company. RBB is forecasting the cost and revenue on the basis of past trend analysis, zero based market based analysis. ADB is forecasting the cost and revenue on the basis of past trend analysis, engineering, market survey and judgment analysis.

Out of the total enterprise, 90% of PEs are forecasting/ estimating their cost and revenue on the basis of past trend. While also 24%, 19%, 14% and 5% enterprises are forecasting/ estimating their cost and revenue on the basis of judgment, market survey and market based, engineering and zero based analysis respectively. From the survey it is also found that, past trend analysis becomes the widely practicing technique in public sector enterprises for forecasting purpose.

4.5 Percentage Analysis of Effective Factors for Major Management Accounting Related Decision- Making Process in Public Enterprises in Nepal:

Proportion of Effective Factors for the Major Accounting Related Decision-Making Process in Public Enterprises in Nepal

Table No. 4.15

SN	Major Factors	Population	Sample		MA Techniques		Government Policy		Objective of Co.		Interest of Mgmt.	
	Business Sector		Size	%	No	%	No	%	No	%	No	%
1	Industrial	7	4	57	1	25	2	50	3	75	1	25
2	Trading	6	4	67	2	50	3	75	1	25	-	-
3	Service	7	4	57	-	-	2	50	2	50	1	25
4	Social Service	5	3	60	2	67	2	67	2	67	-	-
5	Public Utility	3	2	67	2	100	1	50	1	50	1	50
6	Financial	9	4	45	1	25	-	-	-	-	3	75
Total		37	21	45	8	38	10	48	9	43	6	29

Source : Field Survey

The above table no. 4.15 represents the percentage of effective factor, that effect to the major accounting related decision-making process in PEs in Nepal. Major accounting related decisions are these decisions in which MA tools and techniques played a vital role. Without considering the accounting technique and accounting analysis business enterprises can not perform effectively and efficiently. Most of the accounting decisions of PEs may be affected from the MA tools and techniques, government's policy, objective of the company and interest of the management. Different four alternatives and open opinion have been included in the option for the survey purpose.

In industrial sector, 75% enterprises are practicing of decision- making from objective of company, 50% enterprises are practicing the decision-making from government policy and 25% enterprises are practicing from MA technique and interest of management equally. The role of the MA technique and interest of management accounting tools and technique in this sector is very low.

In case of trading sector, government policies are playing in 75% enterprises. Similarly in 50% enterprises MA technique and in 25% enterprises objective of the company is dominating for the major accounting related decision-making process.

In service sector, government policy and objective of the company is playing a vital role in 50% of enterprises equally for theirs accounting related decision-making process. Only 25% enterprises (ISML) are also affecting the interest of management decisions. The survey also found that management accounting tools and techniques has not any role in service sector for accounting related decision criteria.

In the context of social sector, management accounting technique, government policy and objective of the company are affecting to 67% of enterprises respectively for accounting related decision-making process. Where a 33% enterprise (GS) is making its decision from the result of MA and objective of the company and 33% (JEMCL) of enterprises is also considering the government policy.

In public utility sector, 100% enterprises are considering the MA tools and techniques to make accounting related decisions. But 50% enterprises (NTC) are also considering the government policy, objective of the company and interest of management equally.

Regarding in financial sector, 75% enterprises are considering the interest of the management to make accounting related decision and rest 25% enterprise (ADB) is practice only MA technique to make accounting related decision. From the survey it is also found that government policy and objective of the company have no role in this sector for accounting related decision-making.

In sum up, 48% of total enterprises are effective from government policy. 43% are effective from objective of the firm. 38% are effective from MA techniques and 29% are effective from the interest of management for the management accounting related decision-making process. The government policy is effective in more than the other policy which is nearly 50%.

4.6 Percentage Analysis of Difficulties for Application of Management Account in public enterprises in Nepal:

Proportion of Difficulties for the Application of Managerial Accounting Tools and Techniques in public enterprises in Nepal

Table No. 4.16

SN	Major Difficulties	Population	Sample		Lack of Knowledge		Nature & size of business		High cost/ Expensive		Long Procedure		Traditional Approaches	
	Business Sector		Size	%	No	%	No	%	No	%	NO	%	No	%
1	Industrial	7	4	57	3	75	1	25	1	25	-	-	2	50
2	Trading	6	4	67	1	25	-	-	-	-	-	-	3	75
3	Service	7	4	57	1	25	1	25	-	-	-	-	3	75
4	Social Service	5	3	60	1	33	1	33	-	-	-	-	3	100
5	Public Utility	3	2	67	1	50	-	-	-	-	-	-	2	100
6	Financial	9	4	45	2	50	2	50	-	-	1	25	3	75
Total		37	21	57	9	43	5	24	1	5	1	5	16	76

Source : Field Survey

The above table no 4.16 reveals the difficulties for the application of MA tools and techniques in PEs in Nepal. The major difficulties for the application of Ma tools and techniques may be lack of knowledge, nature and size of business, high cost, long procedure and traditional approaches and so on. Different five difficulties have been included for the option, while making the survey.

In industrial sector, 75% enterprises are not practicing the MA because of lack of knowledge and information. Traditional approaches of concerned authorities have been becoming difficulties in 50% enterprises. 25% enterprises are affecting from nature and size of business and high cost. More than two factors have been becoming the difficulties for theapplication of managerial accounting tools in most of manufacturing enterprises.

In case of trading sector, 75% enterprises have difficulties for the application of MA tools from traditional approaches and rests 25% enterprise (NFC) have also difficulties from lack of knowledge and information.

In service sector, traditional approaches are becoming the major barriers in 75% of service companies and also lack of knowledge and nature and size of business are also becoming a reason in 25% enterprises for the difficulties to the application of MA tools and techniques.

Similarly in social service sector, 100% enterprises are becoming difficulties for the application of managerial accounting tools and techniques from the traditional approaches and also 33% enterprise barrier from lack of knowledge and nature and size of business for the application of managerial accounting tools and techniques.

In case of public utility sector, 100% enterprises are not practicing effective MA because of traditional approaches and rest 50% enterprises are not practicing effective MA due to the lack of knowledge.

Finally in financial sector, 75% enterprises have barrier for the application of MA tools and technique due to the traditional approaches. Lacks of information about the tools are playing a dominant role in 50% enterprises and also nature and size of the business. Where as, long procedure in 25% enterprises are becoming the major difficulties for the application of MA tools and techniques.

Out of total enterprises, 76% enterprises are becoming barriers for the application of MA tools and techniques due to the traditional approaches. Lack of information and cognizance about the tools is playing in 43%

enterprises as a difficult element. Where as, 24% enterprises are feeling to the nature and size of the business as a difficult factor for proper utilization of MA tools and techniques. High cost and long procedure is becoming the barrier for application of MA tools and techniques in 5% enterprises.

4.7 Test of Hypothesis

Research hypothesis is an educated guess about the overcome of an empirical test designed to answer a research question.

The chi-square test is used to see that, the principles of classification of attributes are independent. In this test, the attributes are classified into a two ways table. The observed frequency in each cell is known as cell frequency. The total frequency in each row or column of the two ways whether there is any association or relationship between two or more attributes.

To make the research specific, precise and objective, hypothesis have been tested related to the dependency and independency of PEs in practicing of MA tools and techniques. Broadly the public enterprises are classified into two categories i.e. manufacturing and service (non-manufacturing) companies for the sake of hypothesis. The industrial sector is kept in manufacturing companies and other remaining sectors are kept in service companies.

Hypothesis: I

Null Hypothesis (Ho): There is no significance difference between the practice of MA tools and techniques in the manufacturing and service companies. (Practice of MA techniques and type of companies are independent)

Alternative Hypothesis (H1): There is significance difference between the practice of MA tools and techniques in the manufacturing and service companies. (Practice of MA techniques and type of companies are dependent)

Satisfying the assumption of x^2 test

The test statistics under the Ho is given by

$$x^2 \; X \frac{(O - E)^2}{E}$$

Where, O = Observed frequency

E = Expected frequency

$$E \, X \frac{RT \mid CT}{N}$$

Where, RT = Row Total,

CT = Column Total,

N = Grand Total

Practice of MA Tools and types of Companies

2×2 Contingency Table

Table No 4.17

Types of Companies	Practice of MA Tools		
	Yes	No	Total
Manufacturing	(a) 17	(b) 23	40
Service	(c) 65	(d) 103	168
Total	82	126	208

Calculation of x^2

O	$E\ X \frac{RT \mid CT}{N}$	(O-E)	$(O-E)^2$	$\frac{(O-E)^2}{E}$
17	$\frac{40 \mid 82}{208}$ = 15.77	1.23	1.513	0.096
23	$\frac{40 \mid 126}{208}$ = 24.23	-1.23	1.513	0.062
65	$\frac{168 \mid 82}{208}$ = 66.23	-1.23	1.513	0.023
103	$\frac{168 \mid 126}{208}$ = 101.77	1.23	1.513	0.015
Total = $\frac{(O-E)^2}{E}$				0.196

Hence calculated x^2 = 0.19

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

Level of significance = 5%

Critical value: The tabulated value of x^2 at 5% level of significance for 1 degree of freedom is 3.841.

Where, Calculated x^2 = 0.196 Tabulated x^2 = 3.841

Decision: Since the calculated value of x^2 is less than the tabulated value of x^2 (Cal x^2< Tab x^2). Thus the null hypothesis (Ho) is accepted and the alternative hypothesis (H1) is rejected. Therefore, we conclude that there is no significant evidence of difference between the practices of MA tools in the manufacturing and services companies of Nepalese PEs.

Hypothesis: II

Null Hypothesis Ho: The major accounting related decision does not depend on the result of management accounting techniques. (Major accounting related decision-making process and management accounting techniques are independent.)

Alternative Hypothesis H1: The major accounting related decision depends on the result of management accounting techniques. (Major accounting related decision-making process and management accounting techniques are dependent.)

Satisfying the assumption of x^2 test,

The test statistics under the Ho is given by

$$X^2 = \frac{(O - E)^2}{E}$$

Dependency of Major Accounting Related Decisions

Upon the Result of MA Techniques

2×2 Contingency Table

Table No. 4.18

Types of Companies	Dependency of Decision		
	Yes	No	Total
Manufacturing	1	3	4
Service	7	10	17
Total	8	13	21

Since cell frequencies (a & b) are less than 5, we should apply Yates correction for calculating x^2. For this purpose we have to add 0.5 to cell frequency a (i.e. 1), and adjust the remaining frequencies by fixing row total and column total. Thus 2×2 contingencies table is presented in the following revised table.

Adjusted 2×2 contingency Table

Types of Companies	Dependency of Decision		
	Yes	No	Total
Manufacturing	1.50	2.50	4
Service	6.50	10.50	17
Total	8	13	21

Calculation of x^2

O	E X $\frac{RT \mid CT}{N}$	(O-E)	$(O\text{-}E)^2$	$\frac{(O - E)^2}{E}$
1.50	$\frac{4 \mid 8}{21} = 1.524$	-0.024	0.000576	0.00037
2.50	$\frac{4 \mid 13}{21} = 2.476$	0.024	0.000576	0.00023
6.50	$\frac{8 \mid 17}{21} = 6.476$	0.024	0.000576	0.00009
10.50	$\frac{17 \mid 13}{21} = 10.524$	-0.024	0.000576	0.00005
Total $\frac{(O - E)^2}{E}$			x^2 =	0.00074

Hence calculated x^2 = 0.00074

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

Level of significance = 5%

Critical value: The tabulated value of x^2 at 5% level of significance for 1 degree of freedom is 3.841.

Where, Calculated x^2 = 0.00074 Tabulated x^2= 3.841

Decision: Since the calculated value of x^2 is less than the tabulated value of x^2 (Cal x^2< Tab x^2). Thus the null hypothesis (Ho) is accepted and the alternative hypothesis (H1) is rejected. Therefore, we conclude that the major accounting related decision don't depend upon the result of MA techniques. Major accounting related decisions making process and management accounting techniques are independent.

4.8 Findings of the Research

From the analysis of information and data, the following findings can be obtained.

1. While examining the tools practiced by Nepalese PEs for management activities covering planning, decision-making, controlling activities, it is found that, the widely used tools in Nepalese PEs are annually budgeting and secondly cash flow analysis that represents 100% and 71% respectively. Responsibility accounting is also in practice rating 52%. The other tools like ratio analysis, CVP analysis and capital budgeting, and flexible budgeting, OH cost control are practiced by less than 50% enterprises.
2. The rate of practice of MA tools in manufacturing sector is comparatively high than other. Annual budgeting is practicing by

100% enterprises. 75% manufacturing enterprises are practicing responsibility accounting and cash flow analysis. Cost volume profit analysis, standard costing, ratio analysis are also practicing by 50% manufacturing enterprises and only 25% enterprises are practicing capital budgeting. The practices of cost segregation, flexible budget and overhead cost control, and budgeting long term have been not found in used in this sector.

3. Regarding the mixed cost segregation into fixed and variable, it is found that the maximum practice of segregate the cost in Nepalese PEs of management accounting tools is average analysis method which is 48% and second practice is analytical method which is only 10%. The reasons behind the non- practicing of high-low method and regression method have found that the authorities are not aware about the tools and techniques. Almost of the sectors said for non-practicing these method which are very difficult to calculate, time consumed and also an expensive technique than the average and analytical methods. But the public sectors said that it is not applicable for practicing the all segregation of mixed costs into fixed and variable cost.
4. Similarly in trading sector, annual budgeting is practicing by 100% enterprises and 75% enterprises are practicing cash flow analysis. Responsibility accounting and capital budgeting are practicing by 50% in this sector and cost segregation, flexible budgeting and overhead cost control, long-term budgeting and ratio analysis are practicing by 25% in trading sectors. But cost volume profit analysis and standard costing have not found in practicing in trading sectors.
5. In case of service sectors most of the managerial accounting tools are in use.

6. the rate of practice of MA tools are not encouraging. Here is found fully practicing of annual budgeting. And then, cash flow analysis is practicing by 50% from these sectors. On the same way, cost segregation, cost volume profit analysis, standard costing, responsibility accounting and capital budgeting are being practiced by 25% from service sectors. But here are also not found to practice of flexible budgeting, long-term budgeting and ratio analysis on these sectors.
7. On the same way in social service sectors, 100% of these sectors are practicing of annual budgeting and the secondly, 67% of these sectors are practicing of responsibility accounting and cash flow analysis. Similarly, cost volume profit analysis, flexible budgeting and overhead cost control and ratio analysis are practicing by 33% from these sectors. But here are also not found to practice of cost segregation, standard costing, long-term budgeting and capital budgeting on these sectors.
8. In public utility sectors, here are found to fully practice of annual budgeting, cash flow analysis and capital budgeting while cost volume profit analysis and ratio analysis are practicing by 50% on these sectors. Cost segregation, standard costing, long-term budgeting and responsibility accounting have not found in practice on these sectors.
9. So far in financial sectors, 100% of financial sectors are practicing only the annual budgeting. Long term budgeting, responsibility accounting, ratio analysis and cash flow analysis are practicing by 75% on this sector while cost segregation is practicing by 50% on these sectors. Similarly, cost volume profit analysis, flexible budgeting and overhead cost control are practicing by 25% of

financial sectors. On these sectors, standard costing and capital budgeting have not found to practice.

10. To carry out business and non-business activities of enterprises, 52% PEs are practicing operational budgeting only, 38% PEs are practicing overall master budget and remaining 10% practicing cash budget only to carry out their day-to-day operational activities. From the survey found that operating budgeting has found mostly practiced in public enterprises in Nepal.
11. At the time of preparing the budget, past actual expenses and past budget estimate are found widely practicing in Nepalese PEs. 81% of the totals PEs are practicing past actual expenses, 62% enterprises are practicing past budget estimate, 29% enterprises are practicing activity base budgeting and 19% enterprises are practicing zero based as a base to prepare of budget. From the survey it is also found that, most of the enterprises are considering two or more elements as a base. The used of zero based has only found to practice in financial sector in certain case.
12. Similarly examining the budget preparation system, involvement of planning department is high in practicing. The role of this department is 57%. 52% enterprises are preparing the budget from finance department and 38% from committee. But in public enterprises in Nepal are not found any practiced of hiring the outside experts to prepare the budget. Regarding preparation of budget, it is also found that the most of the enterprises have been collected information from three different department and the finance department as well as planning department compiled the budget as per requirement.

13. Similarly the type of budget practice in Nepalese PEs, it is found that all of the enterprises (i.e. 100%) are practicing short-term budget. But in service sector RNAC, Public utility sector NTC and in financial sector Agriculture Development Bank are also practicing the medium term budget. The Agriculture Development bank is also practicing the long term budget. Industrial sector, trading sector and social service sector are only practicing of short-term budget. Generally business enterprises prepared the long term budget at the time of company establishment. Long-term budget shows the goal, objectives, mission, vision and target of enterprises in the long term. Different environment must be considered while preparing the budget. It provides guidelines to operate the daily activities in short-term, medium term and long-term. But in the PEs have not found interested to prepare the medium term and long-term budgets.
14. While making long-term investment decisions PBP, NPV, ARR and IRR tools of capital budgeting are widely practice in Nepalese PEs. Lack of cognizance about the tools, long procedure, lack of experts and lack of such types of tradition are main reasons behind for none practicing of capital budgeting tools while making the long term investment decision.
15. While pricing mechanism for the product/service produced by them, 14%, 10%, 24%, 10% and 24% Nepalese PEs are practicing full cost, variable cost, going rate, target return on investment and activity based pricing respectively to determine the price of product / service. In some enterprises, government fixed the price as per the recommendation of management and board. But in some financial institution determines the price on market base of their service.

16. Similarly in transfer pricing practice, the cost based transfer pricing techniques are widely practice in Nepalese PEs. Some of enterprises are also practicing market based and making the negotiation for transfer pricing purpose. Target return based of transfer pricing has not found to practice in any Nepalese PEs. The main reasons behind the non-practicing of transfer pricing in the PEs are lack of such type of culture, difficult to calculate the cost of semi product and service, multi type of product/ service which they produce, and nature of business.
17. While examining the inventory valuation techniques in Nepalese PEs, it is found that 76% enterprise are practicing FIFO method and 10% enterprises practicing simple average, weighted average and specific items for inventory valuation. The survey found that the service and financial institutions have not kept any inventory except stationery and office accessories. Therefore there may be the less practice of inventory valuation. It is also found that, most of the PES are using FIFO method to evaluate the inventory because it is easy to calculate and manage.
18. While examining the practices of measure and control mechanism to evaluate the overall performance, it is found that 90% enterprises are practicing profit and loss criteria, 38% practicing budgetary control, 14% practicing ratio analysis and 5% practicing flexible budgeting to measure and control the overall performance of the enterprises. It is also find that profit and loss made by the enterprises during the period has been the widely used technique to measure and control the overall performance. The used of other techniques have been comparatively

below then its requirement. The standard costing has not practiced in Nepalese PEs to measure and control overall performance till now.

19. Similarly examining the practice of cost and revenue estimation/ forecast mechanism in Nepalese PEs, it is found that 90% of PEs are forecasting/ estimating their cost and revenue on the basis of past trend. While also 24%, 19%, 14% and 5% enterprises are forecasting/ estimating their cost and revenue on the basis of judgment, market survey and market based, engineering and zero based analysis respectively. From the survey it is also found that, past trend analysis becomes the widely practicing technique in public sector enterprises for forecasting purpose.
20. On the same way for the examining the proportion of effective factors for the major accounting related decision-making process in Nepalese PEs, the survey find that 48% of total enterprises are effective from government policy. 43% are effective from objective of the firm. 38% are effective from MA techniques and 29% are effective from the interest of management for the management accounting related decision-making process. The government policy is effective in more than the other policy which is nearly 50%.
21. From the survey it is found that 76% enterprises are becoming barriers for the application of MA tools and techniques due to the traditional approaches. Lack of information and cognizance about the tools is playing in 43% enterprises as a difficult element. Where as, 24% enterprises are feeling to the nature and size of the business as a difficult factor for proper utilization of MA tools and techniques. High cost and long procedure is becoming the barrier for application of MA tools and techniques in 5% enterprises. From the open end opinion of

respondents, lack of cultural and tradition of practice, lack of co-ordination between the departments, lack of clear cut objectives, lack of support of management, poor performance of entity, nature and product of entity are also becoming the difficulties in Nepalese PEs for application of MA tools and techniques in effective decision making and control.

22. From the hypothesis, it is also found that,

Hypothesis 1: There is significance difference between practice of MA in manufacturing and non-manufacturing sector. Most of the MA tools are widely applicable in manufacturing enterprises. The hypothesis is proved that the practicing process of MA in manufacturing and non-manufacturing (service sectors) are slightly different.

Hypothesis 2: In Nepalese PEs major accounting related decision-making process and MA techniques are independents. Most of the enterprises are making the account related major decisions without the proper consideration gave result that there is no direct relationship between the MA tools and techniques and major accounting related decision-making process. The account related decision of PEs are affected by the other factors like government policy, objective of the company, temperament of management and so on.

23. Nepalese PEs have not any clear cut policy for the broad and long term objectives.

24. Nepalese PEs have not successful to maintain the co-ordination between the departments with in organization.

CHAPTER- 5

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

Effective management process requires managers to plan, organize, direct, co-ordinate, motivate, control, report and communicate divergent activities pursued by an organization towards the attainment of organizational goals effectively in a changing environment. Management principles can be applied at all organizations and at all levels of an organization.

Public enterprise is one of the most important innovations of 21st century. The main objective of creating public enterprise is to secure a combination of public ownership, public accountability and business management for the public benefits. The reasons behind the establishment of public enterprises are basically to accelerate the ratio of economic growth, to build development infrastructure, to make provision of public utility, to supply essential commodities, to generate employment opportunities, to maximize the foreign earnings, to rational utilization of natural resources and to contribute in the national funds.

One of the important parts of management is MA. Management Accounting is the process of identification, measurement, accumulation, analysis, preparation, interpretation and communication of information used by management to plan, evaluate and control within an entity and to assure appropriate use of and accountability for its resources. Management accounting also comprises the preparation of financial reportsfor non management groups such as shareholders, creditors, regularity agencies and tax authorities. But, whether Nepalese PEs are applying managerial accounting tools and techniques or not? Cost segregation, CVP relationship, overall budgeting, pricing, standard costing, ABC costing, responsibility accounting, financial performance analysis, cash flow analysis are the major MA tools. Whether Nepalese PEs are getting advantages from the managerial accounting or not? To identify these facts, this research has been done.

The main objective of this research work is to study and examine the extent of practice of management accounting tools and techniques made in public enterprises in Nepal. The research has also identified the major difficulties for applying the management accounting tools Nepalese companies.

The research is completely based on primary sources of information. Secondary data have been also used. The data has been collected from the respective public enterprises by distributing the scheduled questionnaire. The PEs are classified into six different business sectors which have been done by the ministry of finance corporation co-ordination division. 58.33% of the total population has been used as a sample by using stratified judgments sampling procedure. The raw data has been properly processed, tabulated and analyzed. Sample percentage tool has been applied to analyze and interpreter the findings. Most of the analysis and interpretation have been expressed in business group o enterprises. The statistical tool Chi-square (x^2) has been used to test the hypothesis.

The managerial accounting tools i.e. annual budgeting, cash flow analysis, responsibility accountings have been found widely practicing. The other tools like ratio analysis, CVP analysis and capital budgeting, flexible budgeting and OH cost control are practiced by less than 50% enterprises. At the time of preparing the budget, past actual expenses and past budget estimate are found widely practicing and involvement of planning department is high for the preparation of budget in Nepalese PEs . From the survey it is also found that, most of the enterprises are considering two or more elements as a base. The used of zero based has only found to practice in financial sector in certain case. While making long-term investment decisions PBP, NPV, ARR and IRR tools of capital budgeting are widely practice in Nepalese PEs. Lack of cognizance about the tools, long procedure, lack of experts and lack of such types of tradition are main reasons behind for none practicing of capital budgeting tools while making the long term investment decision. FIFO method is widely found for inventory valuation. Most of the enterprises are practicing profit and loss criteria to measure, evaluate and control the overall performance of the Nepalese PEs. Similarly past trend analysis are widely used for the practice of cost and revenue estimation/ forecast mechanism in Nepalese PEs. From the survey it is also found that the traditional approaches are becoming barriers for the application of MA tools and techniques in Nepalese PEs. The hypothesis is proved that, practicing of MA in Manufacturing and service enterprises are slightly difference and major MA related decisions are effective from the government policy.

5.2 Conclusion

Management accounting is the presentation of accounting information to formulate the policies to be adapted by the management and assists its day-to-day activities. It helps the management to perform all its function including planning, organizing, staffing, directing and control. It presents to management the accounting information in the form of processed data, which it collects from financial accounting. These various MA tools and techniques are thought in the college and universities. But they are not used in Nepalese PEs. It shows a gap between the theory and practice.

The managerial tools like standard costing, cost segregation and allocation, ratio analysis, CVP analysis and capital budgeting, flexible budgeting and OH cost control are not real practiced in Nepalese PEs. The practice of overall master budget is very low. Activity base budgeting and zero base budgeting are not proper practicing at the time of preparing the budget in Nepalese PEs. In Nepalese PEs are not found any practiced of hiring the outside experts to prepare the budget. Different environment must be considered while preparing the budget. It provides guidelines to operate the daily activities in short-term, medium term and long-term. But in the PEs have not found interested to prepare the medium term and long-term budgets. Pricing strategy is completely based on cost of production and or government decision. Target return on investment pricing technique is not practicing in Nepalese PEs. It is found that, most of the PES are using FIFO method to evaluate the inventory because it is easy to calculate and manage. The survey is also found that the service and financial institutions have not kept any inventory except stationery and office accessories. Therefore there may be the less practice of inventory valuation. Almost companies are practicing profit and loss coeternal to measure and control the overall performance of the company. Similarly in transfer pricing practice, the cost based transfer pricing techniques are widely practice in Nepalese PEs. Some of enterprises are also practicing market based and making the negotiation for transfer pricing purpose. Target return based of transfer pricing has not found to practice in any Nepalese PEs. The main reasons behind the non-practicing of transfer pricing in the PEs are lack of such type of culture, difficult to calculate the cost of semi product and service, multi type of product/ service which they produce, and nature of business. Similarly past trend analysis is the most used technique to forecast the future cost and revenue of the company. The effective forecasting techniques like zero based analysis, engineering analysis, market survey, judgment analysis, and activity based analysis are not taking a wide range in Nepalese companies. Government's policy is affecting nearly fifty percent of the Nepalese PEs. From the survey it is found that more than fifty percent enterprises are becoming barriers for the application of MA tools and techniques due to the traditional approaches. From the open end opinion of respondents, lack of cultural and tradition of practice, lack of co-ordination between the departments, lack of clear cut objectives, lack of support of management, poor performance of entity, nature and product of entity are also becoming the difficulties in Nepalese PEs for application of MA tools and techniques in effective decision making and control. Practicing mechanism of MA in manufacturing and service enterprises are slightly difference. But MA related decision making processes are independent from the management accounting tools and techniques.

The conclusion of this study of the Nepalese PEs are not proper practicing the MA tools and techniques. They are operating their business as a routine work without broad mission and vision. Nepalese PEs are facing the different problems such as lack of expertise, lack of co-ordination between the departments as well as personnel, vested interest of management, lack of tradition, nature and size of the business, traditional approaches of concerned authorities and so on behind the non practicing of MA.

5.3 Recommendations

Mainly, this study is made for the partial fulfillment of MBS level. The recommendation of this study may be important for those who are concerned directly or indirectly with the stakeholders of management accounting. That can be improved and required attention to bring some improvement in Nepalese PEs to practice the managerial accounting. The following recommendations are prescribed from the analysis and major findings of this survey.

1. Managerial Accounting has to focus their mind with the use of management accounting tools and techniques. For planning activities tools like cost estimation, classification and allocation, profit measurement and recognition, ratio analysis, CVP analysis and capital budgeting, flexible budgeting and OH cost control can be used.
2. Considering the controlling activities tools like budgetary control, variance analysis, standard costing, responsibility accounting, flexible budgeting, cash flow analysis, financial statement analysis, differential analysis, environmental analysis can be used. While implementing any tools of management accounting, it is recommended to analyze cost and benefits of the tool.

3. To implement the effective managerial accounting tools and techniques, a separate managerial accounting department should be established within organization. Those companies who can not establish a separate department can manage it under their existing accounting, finance or planning department. Management accounting experts should be hired. If the company can not hire the outside experts, they can send their existing employee for short-term training program. If this also is not feasible for them, they can manage it by taking service from fee base consultants.
4. If possible, companies are recommended to prepare the overall master budget. At the time of preparing the budget, past actual expenses and past budget estimate are found widely practicing in Nepalese PEs. But it is not only based for the preparing the budget. Along with these, zero based and environmental analysis should also be taken into consideration. It is because what happen in the past might not be occur in future. Similarly, co-ordination between planning department, finance department and the company's board of director must be equally necessary. If possible companies should be hired the experts professional as well for planning purpose.
5. Generally business enterprises prepared the long term budget at the time of company establishment. Long-term budget shows the goal, objectives, mission, vision and target of enterprises in the long term. Different environment must be considered while preparing the budget. It provides guidelines to operate the daily activities in short-term, medium term and long-term. In Nepalese PEs there is found practicing only short-term budget. So they should not be prepared

only short-term budget but also prepare the mid-term and long term budget as well with specific mission, vision, goal and objectives.

6. While making long-term investment decisions PBP, NPV, ARR and IRR tools of capital budgeting are widely practice in Nepalese PEs. It is also recommended that DPB and PI techniques must be practiced for long-term investment decisions.
7. While pricing mechanism for the product/service produced by them, they should be equally practiced of full cost, variable cost, going rate, target return on investment and activity based pricing respectively to determine the price of product / service.
8. From the study, it is found that, most of the Nepalese PEs are practicing FIFO method to evaluate the inventory management because it is easy to calculate and manage. So for the valuation inventory of the PEs, other techniques like average method, LIFO method should also be practiced to reach the nearest point of the result.
9. Nepalese PEs should not be used only from profit and loss criteria to measure and control the overall performance of the company. It is suggested to use other techniques such as budgetary control, ratio analysis, flexible budgeting and standard costing to evaluate the overall performance.
10. Similarly examining the practice of cost and revenue estimation/ forecast mechanism in Nepalese PEs, it is found that most of the PEs are forecasting/ estimating their cost and revenue on the basis of past trend. But it is risky because if it might not be happen in future. So for the forecast/estimation mechanism of the PEs, other techniques such

as judgment, market survey, market based, engineering and zero based analysis should be also practice for forecasting purpose.

11. Academicians who have better knowledge about the MA tools and techniques should put an effort to develop environmental friendly tools and techniques into practice. So that Nepalese PEs should be beneficial from the managerial accounting.
12. From the survey it is found that most of the enterprises are becoming barriers for the application of MA tools and techniques due to the traditional approaches, lack of information and cognizance about the tools, nature and size of the business, high cost and long procedure. So they should be update with new tools and techniques that are practiced around the globe in the best performing companies. Unnecessary formalities should be corrected to enhance the effectiveness while decision making.
13. Internal and external information should be needed for proper application of managerial accounting tools and technique. Therefore, it is recommended to keep MA information system. It helps to make them informative through out time to time about every aspect of MA and its application.
14. Nepalese PEs are facing unnecessary government intervention and overstaffing. So, it is recommended to make them autonomous for their own activities and solve overstaffing by applying different restructuring methods

Nepalese PEs should be maintained a proper co-ordination and co-operation between the different departments and personnel’s with in organization. Effective motivation programs and carrier growth opportunities should be also provided to the employees.

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