CHAPTER - I

INTRODUCTION

1.1 Background of Study

Nepal is an underdeveloped country. It has no long history of development banks as compared to other South Asian as well as other developed countries of world. Nepal is a landlocked country and most of its economy is based on agriculture up to now also. Economic status of country is growing slowly, more than 38% people are still below poverty line and per capita income of Nepalese people is only US $ 470. The structure of GDP is 40% from agriculture, 20% from industry and 40% from service sector. Agriculture is playing dominant role in Nepalese economy. Although being an agro based country, the non-agricultural sectors are also given top priority (Kushum, et al., 2010:64).

Capital is the main thing necessary for the development of country. Capital mobilization plays the vital role to run and develop the national economy. Although the practices of banking activities are relatively lower in developing countries, it is slowly increasing in our country. The banking system of every nation plays consequential role in the smooth functioning of the economy (Joshi, 2010:5).

Accounting system plays the vital role in the functioning of any corporate organization. It provides the guidelines for better utilization of available resources so that success can be achieved in this competitive age. Management accounting tools have proved beneficial in every aspect of management activities from planning to decision making. It helps managers in overall managerial activities by providing information and helping them in planning, controlling and decision making (Bajracharya, et al., 2010:5).

Although banking business is in growing stage in our country, it is becoming more complex because of cut throat competition. For the smooth running of banking sectors and to make the banking sector successful, good management is the only one option. The performance of well-managed organization is high as compared with the organizations which have poor management. Management accounting is the term used to describe the accounting methods, systems and techniques, which coupled with special knowledge and ability. It consist management in maximizing profit or minimizing losses (Joshi, 2010:12).

1.1.1Bank

A bank is an organization, the major function of which is to deal in money and credit. The main business of bank is to pool the scattered idle deposits in the public and channel it for productive use. It collects deposits and invests or lends to those who stand in need of money. Bank in other words, is a custodian of money received from the depositors. Hence its responsibility towards the general public is pretty different than those who are involved in other types of trades and service. Modern day bank exhibit the trait more of a department store with a wide range of financial products to offer.

Bank can be a person, company or a firm, with a place of business, and must be involved in credit creation. The business of a modern day bank is not confined in borrowing deposits and lending advances only, it performs host of other financial activities which has immensely contributed to achieve industrial and commercial progress of every country.

As per R.S Sayers, “bank is an institution whose whole debts are widely accepted in settlement of others people’s debts”.

1.1.2History of Banking

In the east, it is believed that banking was practiced at the time of “Manu” as it is referred Manusmriti. Banking was also practiced during Chanakya’s time too

as banking has been mentioned in “Kautilya’s Arthasastra”, which is the first book on economics.

In the west, the history of banking begins in ancient Greece, Rome and Mesopotamia. The Lombards who originally from the plains of Lombardy of Northern Italy, introduced banking practice to England.

After the Lombards, the goldsmiths practised banking as a sideline to their normal activities in the bullion and jewellery fields. The early gold goldsmiths used to have large vaults, which were soundly built and heavily guarded. The person who deposited his surplus funds with the goldsmith became as a depositor and naturally paid for the privilege of having his money defended this way. These payments are called ‘bank charges’. The depositors who needed funds to pay wages or debts, could call at the bank and collect such sums as required.

Modern banks history begins from the bank of Venice established in 1157 AD, Bank Barcelona established in 1401, bank of Genoa established in 1407, Bank of Amsterdam established in 1609 and Bank of England, which was established in 1694 (www.googleusercontent.com).

1.1.3 History of Banking in Nepal

The history of banking in Nepal is believed to be started from the time of Prime Minister Ranoddip Singh in 1934 B.S. he introduced many financial and economic reforms. The Tejaratha Adda was established at that time and its basic purpose was to provide credit facilities to the general public at a very concessional interest rate. The Tejarath Adda disbursed credit to the people on the basis of collateral of gold and silver. All employees of government were also eligible for this type of loan, which was settled by deducting from their salary. Tejaratha Adda extended credit only; it did not accept deposits from the public.

But the real banking started with the establishment of Nepal bank limited in 1994 B.S which was founded by Judda Samsher. It was the first bank of Nepal. Its main function was to provide loans and accept deposits. Later Nepal Rastra Bank was established as a central bank in 2013 B.S. The bank was completely government ownership bank and it also started to issues notes since 2016 B.S. Then after, several commercial and development banks have been established in the recent years (www.googleusercontent.com).

1.1.4 Development Bank

Development banks are established for the development of a special sector of the economy. Nepal Industrial development Corporation was established in 1956 with the objective of providing medium and long-term loans for the establishment, development, and modernization of private sector industries. Besides providing loans, other objective was to participate in shares, underwrites shares and debentures, transfer and deal in shares and establishes industries. Small industry Development Corporation was established in 1960 to provide loans to small scale industries and it was merged with NIDC in 1971.

After the introduction of Development of bank Act 1995, there was rush to establish Development banks which brought many development banks and regional development banks in operation. The main objective was to improve the living standard of people by providing credit to poor and small entrepreneurs. The bank and financial Institutions Act 2063 categorizes Developments Banks into class-B category's licensed institutions.

Class B: Development Banks				
S. No.	Names	Operation Date (A.D.)	Head Office	Paid up Capital *(Rs. '00 Thosands)*
1	Nepal Industrial Development Corporation	1959/06/15	Durbar Marg, Kathmandu	4158
2	Uddyam Development Bank Ltd.	1999/11/11	Narayangadh, Chitawan	500
3	Malika Development Bank Ltd.	1998/12/19	Dhangadhi, Kailali	2048
4	Siddhartha Development Bank Ltd.	1998/08/20	Tinkune, Kathmandu	6450
5	United Development Bank Ltd.	2002/03/16	Jeetpur, Bara	802
6	Manakamana Development Bank Ltd.	2001/06/19	Durbar Marg, Kathmandu	10000
7	Narayani Development Bank Ltd.	2001/10/17	Ratna Nagar, Chitawan	655
8	Pashimanchal Development Bank Ltd.	2003/03/02	Mitrapark, Rupandehi	3365
9	Sahayogi Bikas Bank Ltd.	2003/10/21	Janakpur, Dhanusha	750
10	Pashupati Development Bank Ltd.	/01/01	Banepa, Kavre	6632
11	Karnali Bikash Bank Ltd.	2004/02/14	Nepalgunj, Banke	800
12	Triveni Development Bank Ltd.	2004/07/26	Narayangadh, Chitawan	1357
13	Annapurna Development Bank Ltd.	2004/08/23	Banepa, Kavre	6720
14	Bhrikuti Bikas Bank Ltd.	2004/08/19	Butawal, Rupandehi	2792
15	Shubhechchha Bikas Bank Ltd.	2004/09/14	Narayangadh, Chitawan	1008
16	Bageshowri Development Bank Ltd.	2004/10/19	Nepalgunj, Banke	594
17	Sanima Bikas Bank Ltd.	2004/11/26	Kamalpokhari, Kathmandu	20160
18	Gaurishankar Development Bank Ltd.	2004/11/29	Kawasoti, Nawalparasi	2100
19	Gorkha Bikas Bank Ltd.	2004/12/01	Putalisadak, Kathmandu	6608
20	Gandaki Bikas Bank Ltd.	2005/01/19	Pokhara, Kaski	2000
21	Infrastructure Development Bank Ltd.	2005/04/29	Banepa, Kavre	6607
22	Business Development Bank Ltd.	2005/05/10	Pokhara, Kaski	6901
23	Biratlaxmi Bikas Bank Ltd.	2005/05/11	Biratnagar, Morang	605
24	Excel Development Bank Ltd.	2005/07/21	Birtamod, Jhapa	800
25	Western Development Bank Ltd.	2005/09/15	Ghorahi, Dang	500
26	H. & B. Development Bank Ltd.**	2011/06/15	Kamalpokhari , Kathmandu	8979
27	Arniko Development Bank Ltd.	2006/07/06	Dhulekhel, Kavre	2000
28	NDEP Development Bank Ltd.	2006/07/17	Kamaladi, Kathmandu	5461
29	Clean Energy Development Bank Ltd.	2006/09/06	Sitapaila, Kathmandu	10550
30	Miteri Development Bank Ltd.	2006/10/13	Dharan, Sunsari	903
31	Tinau Bikas Bank Ltd.	2006/10/13	Butwal, Rupandehi	1000
32	Rising Development Bank Ltd.	2006/12/18	Gaidakot, Nawalparasi	1400
33	Muktinath Bikas Bank Ltd.	2006/12/18	Pokhara, Kaski	1300
34	Sewa Bikas Bank Ltd.	2007/02/25	Butawal, Rupandehi	1000
35	Kankai Bikas Bank Ltd.	2007/05/04sss	Damak , Jhapa	400
36	Public Development Bank Ltd.	2007/06/07	Birjunj , Parsa	1500
37	Ace Development Bank Ltd.	2007/08/15	Narayanchaur, Kathmandu	7505
38	Mahakali Bikas Bank Ltd.	2007/08/18	Mahendranagar, Kanchanpur	356
39	Sangrila Bikas Bank Ltd.	2007/08/26	Newroad Pokhara, Kaski	2240
40	Bhargab Bikas Bank Ltd.	2007/08/30	Nepalgunj, Banke	600
41	Vibor Bikas Bank Ltd.	2007/10/04	Tripureshwor, Kathmadu	6818
42	Resunga Bikas Bank Ltd.	2007/09/26	Tamghas, Gulmi	306
43	Rara Bikas Bank Ltd.	2007/09/30	Birendranagar, Surkhet	2001
44	Diyalo Bikas Bank Ltd.	2007/10/01	Banepa, Kavre	1000
45	Country Development Bank Ltd.	2007/10/04	Banepa, Kavre	3200
46	Kasthamandap Development Bank Ltd.	2007/10/25	New Road, Kathmandu	3360
47	Alpine Development Bank Ltd.	2007/10/05	Hetauda, Makawanpur	1000

48	Nilgiri Bikas Bank Ltd.	2007/10/12	Beni, Myagdi	500
49	Corporate Development Bank Ltd.	2007/10/25	Birjung, Parsa	1400
50	Kamana Bikas Bank Ltd.	2007/09/29	Lekhnath, Kaski	2000
51	City Development Bank Ltd.	2007/10/19	Pokhara, Kaski	2000
52	Garima Bikas Bank Ltd.	2007/11/23	Pokhara, Kaski	2000
53	Biswo Bikas Bank Ltd.	2007/11/21	Pokhara, Kaski	2400
54	Pathibhara Bikas Bank Ltd.	2007/11/21	Urlabari, Morang	500
55	Professional Bikas Bank Ltd.	2007/10/17	Banepa, Kavre	1000
56	Kabeli Bikas Bank Ltd.	2007/11/15	Dhankuta	200
57	Purnima Bikas Bank Ltd.	2008/05/20	Sidhardhanagar, Rupandehi	1000
58	Jyoti Development Bank Ltd.	2008/08/25	Kamalpokhari, Kathmandu	7400
59	Shine Development Bank Ltd.	2009/02/22	Butawal, Rupandehi	1200
60	Bagmati Development Bank Ltd.	2009/03/23	Hariwon, Sarlahi	140
61	Hamro Bikas Bank Ltd.	2009/04/19	Battar, Nuwakot	210
62	Kakre Bihar Bikas Bank Ltd.	2009/05/15	Birendranagar, Surkhet	180
63	Pacific Development Bank Ltd.	2009/07/26	Beshishahar, Lamjung	374
64	Civic Development Bank Ltd.	2009/08/13	Dhadingbesi, Dhading	140
65	International Development Bank Ltd.	2009/09/04	Taku, Kathmandu	4480
66	Kanchan Development Bank Ltd.	2009/09/19	Mahendranagar, Kanchanpur	700
67	Gulmi Bikas Bank Ltd.	2009/09/24	Tamghas, Gulmi	140
68	Bright Development Bank Ltd.	2009/10/08	Panouti, Kavre	980
69	Matribhumi Bikas Bank Ltd.	2009/10/09	Sindhulimadi, Sindhuli	154
70	Innovative Development Bank Ltd.	2009/11/13	Sidhardhanagar, Rupandehi	663
71	Jhimruk Bikas Bank Ltd.	2009/12/14	Bagdula,Pyuthan	120
72	Metro Development Bank Ltd.	2009/12/16	Pokhara, Kaski	700
73	Raptibheri Bikas Bank Ltd.	2010/01/15	Nepalgunj, Banke	600
74	Gaumukhi Bikas Bank Ltd.	2010/01/25	Bijuwar, Pyuthan	140
75	Nepal Consumer Development Bank Ltd	2010/02/5	Pokhara, Kaski	1400
76	Khandbari Development Bank Ltd.	2010/03/5	Khandbari, Sankhuwasava	175
77	Tourism Development Bank Ltd.	2010/03/18	Thamel, Kathmandu	4000
78	Mission Development Bank Ltd.	2010/06/15	Butwal, Rupandehi	700
79	Surya Development Bank Ltd.	2010/07/18	Charikot, Dolkha	140
80	Mount Makalu Development Bank Ltd.	2010/07/21	Basantapur, Terathum	140
81	Sindhu Bikas Bank Ltd.	2010/09/09	Barhabise, Sindhupalchowk	510
82	Social Development Bank Ltd.	2010/10/12	Naxal, Kathmandu	3827
83	Sahara Development Bank Ltd.	2010/10/27	Mahangawa,Sarlahi	140
84	Nepal Community Development Bank Ltd.	2010/11/03	Butwal, Rupendehi	700
85	Cosmos Development Bank Ltd.	2010/11/17	Gorkhabazar, Gorkha	175
86	Manasalu Development Bank Ltd.	2010/12/14	Buspark, Gorkha	700
87	Samabriddhi Development Bank Ltd.	2010/12/31	Gajuri,Dhading	700

Source: (www.nrb.org.com/directives, notification)

1.2 Statement of the Problem

Development banks of Nepal have achieved the main aim to some extent but they could not success in major streams despite the political instability of the country and various policies form by various government. The development

banks themselves have not been able to operate in a satisfactory manner. Success of any business enterprise is measured by capacity of surplus generation but the financial performance of development banks in Nepal are quite gloomy and have not been able to contribute towards the generation of surplus.

Development banks play a vital role for the national development. Although, most of the development banks in Nepal have been suffering the problem of poor performance. So the reasons for the poor performance have to be studied. There may be different and various reasons for the poor performance of development banks such as ignorance of objectives, communication gap between the managerial levels, preparation of long range and short range plan on ad-hoc basis, political instability, lack of taking accountability and responsibility, unnecessary competition between the companies themselves. Such reasons should be investigated & should be taken corrective actions for the improvement of their performance (Dhungel, 2013).

Thinking such a concrete fact Nepal Government has established a numbers of Development banks but their performances are quit dismal and have not been able to contribute towards the generation of surplus. The present study will try to analyze and examine the Management Accounting practice side of the development banks and this study is mainly designed to solve the problems of development banks in Nepal. The research questions posed in this research

It can be find the practice is not sufficient therefore the research questions help to study the scenarios of management accounting tools being used in Development banks:

- How far Development banks are practicing management accounting tools?
- Which management accounting tools are mostly practiced and which aren't practiced till now?

- What are the major difficulties in the application and implementation of management accounting tools?
- In which areas of the Development bank, management accounting tools can be applied to improve the efficiency and competitiveness?

1.3 Objectives of the Study

The main objective of this research is to examine and study the practice of management accounting tools in Development banks in Nepal. The specific objectives are:

- To study and analysis the present practice of management accounting tools in the Development banks of Nepal.
- To identify the areas where management accounting tools can be applied to strength the banks in commercial activities.
- To assess the impact of management accounting system performance.
- To make recommendations to overcome the difficulties in applying management accounting tools in Development banks.

1.4 Importance of the Study

The research work is the study of the practice of management accounting tools in Development banks in Nepal. This study is important in the following ways.

- It will analyze the use of management accounting tools in banking sectors.
- It will explore the problems and potentialities of the Development banks. It will be useful to the potential investors, lenders, managers, policy makers and stakeholders of the banks.

- It will provide information on the application of the tools under different situations and encourages the use of management accounting tools in decision-making.

- It will provide literature to the researcher who wants to carry on further research in this field.

1.5 Limitations of the Study

The present research has the following limitations.

- The study is concerned with management accounting practice and is not consider the economic aspects of the banks.

- This study is focused only on Development banks, thus the findings might not be applicable to other sectors, banks and financial institutions.

- The study pays attention to the practice of management accounting tools only.

- The research doesn't concern on the human resource aspects of the Development banks.

- Its data is present condition of Development banks, so it is not suitable for past and future condition of Development banks.

1.6 Organization of the Study

This thesis has been divided into five chapters, they are:

Chapter – I Introduction

The introduction chapter covers role of management accounting, statement of problem, research hypothesis, and objectives of study, importance of the study and limitations of the study.

Chapter – II Review of literature

The second chapter focuses on review of literature. It contains the conceptual framework and past research literature on profit planning and control area of management accounting.

Chapter – III Research Methodology

The third chapter deals with the research methodology to be adopted for the study consisting research design, sources of data, data gathering procedure, population and sample, research variables and data processing procedure.

Chapter – IV Data Presentation and Analysis

The fourth chapter deals with presentation, analysis, and interpretation of data. It consists testing of hypothesis, analysis of questionnaires, and analysis of open-end opinions and major findings of the research.

Chapter – V Summary, Conclusion and Recommendation

The last chapter covers summary, conclusions and recommendations.

Bibliography, appendix and other supporting documents have also been incorporated at the end of the study.

CHAPTER – II

REVIEW OF LITERATURE

2.1 Conceptual Frameworks

One of the frequently asked questions in Thesis/Research Coach of this blog is how to develop a framework conceptual and theoretical for a thesis outline. Here's the advice have always given thesis students.

A framework is simply the structure of the research idea or concept and how it is put together. A conceptual framework elaborates the research problem in relation to relevant literature. This section may summarize the major (dependent and independent) variables in your research. The framework may be summarized in a schematic diagram that presents the major variables and their hypothesized relationships (Goran, 2000). It should also cover the following:

Existing research and its relevance for your topic

- Key ideas or constructs in your approach
- Identify and discuss the variables related to the problem.
- Conceptualized relationships between variables
    - Independent variables (presumed cause)
    - Dependent variables (presumed effect)
    - Intervening variables (other variables that influence the effect of the independent variable)
- Present a schematic diagram of the relationships between key variables and discuss the relationship of the elements/variables
- Statement of hypotheses

2.1.1 Concept of Management Accounting

Managerial accounting is concerned with providing information to managers-that is, people inside an organization who direct and control its operation. In contrast, financial accounting is concerned with providing information to stockholders, creditors, and others who are outside an organization.

Managerial accounting provides the essential data with which the organizations are actually run. Managerial accounting is also termed as management accounting or cost accounting. Financial accounting provides the scorecard by which a company's overall past performance is judged by outsiders. Managerial accountants prepare a variety of reports. Some reports focus on how well managers or business units have performed-comparing actual results to plans and to benchmarks (Eltje, et al., 2012).

Some reports provide timely, frequent updates on key indicators such as orders received, order backlog, capacity utilization, and sales. Other analytical reports are prepared as needed to investigate specific problems such as a decline in the profitability of a product line. And yet other reports analyze a developing business situation or opportunity. In contrast, financial accounting is oriented toward producing a limited set of specific prescribed annual and quarterly financial statements in accordance with Generally Accepted Accounting Principles.

Managerial accounting is managers oriented therefore its study must be preceded by some understanding of what managers do, the information managers need, and the general business environment (www.accounting4 management.com).

2.1.2 Historical Perspective of Management Accounting

Management accounting has been defined as the process of identifying, measuring, accumulating, analyzing, preparing, interpreting and communicating information that helps managers fulfill organizational

objectives it's not just about money. It's about control. This paper will give the historical view of management accounting. Traditionally, management accountants' principal cost control technique was variance analysis, which is a systematic approach to the comparison of the actual and budgeted costs of the raw materials and labor used during a production period. While some form of variance analysis is still used by most manufacturing firms, it nowadays tends to be used in conjunction with innovative techniques such as lifecycle costing and activity-based costing, which are designed with specific aspects of the modern business environment in mind. Historical studies have played an obvious role in management accounting in recent years to include a role in economics and sociology, which provide a basis for management accounting research. As accountants use economic and sociological theories to explain management accounting practice, they may often be using theories suggested and supported by historical data (www.googleusercontent.com).

2.1.3 Functions of Managerial Accounting

The function of managerial accounting that satisfy the various needs of management for arriving at appropriate business decisions may be described as follows:

- **Collection of data:**
  Managerial accounting information system (MAIS) has to procure and store data relating to the internal operation of a company and the external environment. Internal data include the capacity available, current utilization of capacity, cost structure, past results of operation, etc. Data relating to external market include the competitors, position, socio-political movements, market characteristics, globalization etc.
- **Identification and modification of relevant information:**
  Accounting data required for the decision-making and planning process is supplied by managerial accounting through a process of classification

and combination, which enables us to retain only the relevant information.

- **Analysis and interpretation of data:**
  Managerial accounting is concerned more with records of past achievements, maintenance of values, fixation of responsibilities and basis for assessing the future developments; it is more concerned with the analysis and interpretation of data, which has opened up new directions for its use by management (Munankarmi, 2010:6).
- **Providing information for Planning and decision-making:**
  Planning, which is a creative aspect of management job, is carried out by managerial accounting through the process of budgeting. Business decisions are based on relevant economic information provided by managerial accounting.
- **Facilitating management Control:**
  Managerial accounting enables all accounting efforts to be directed towards control of the destiny of an enterprise. This is made possible through budgetary and standard costing which are integral parts of managerial accounting.
- **Use of qualitative information:**
  Managerial accounting does not restrict itself merely to financial data for helping management in the decision making process and frequently draws upon sources, other than accounting, for such information as is not capable of being readily convertible into monetary terms.
- **Satisfaction of informational needs:**
  Managerial accounting has a system of processing data in a way that yields concise information covering the entire field of business for the top management (Bajracharya, et al, 2010:15).

2.1.4 Objectives of Management Accounting

Management Accounting is the process of analysis, interpretation and presentation of accounting information collected with the help of financial

accounting and cost accounting, in order to assist management in the process of decision making, creation of policy and day to day operation of an organization. Thus, it is clear from the above that the management accounting is based on financial accounting and cost accounting.

Following are the objectives of management accounting

1) Measuring performance: Management accounting measures two types of performance. First is employee performance and the second is efficiency measurement. The actual performance is measured with the standardized performance and a report of deviation from the standard performance is reported to the management for the effective decision making and also to indicate the effectiveness of the methods in use. Both types of performance management are used to make corrective actions in order to improve performance (Sharma, 2012).

2) Assess Risk: The aim of management accounting is to assess risk in order to maximize.

3) Allocation of Resources: is an important objective of Management Accounting.

4) Presentation of various financial statements to the Management.

Source: (googleusercontent.com)

2.1.5 Difference between Managerial Accounting and Cost Accounting

Basis	**Management accounting**	**Cost accounting**
Objectives	Its objective is to assist managers providing accounting information for decision-making.	Its objective is to determine and record the cost of production of goods and services.
Scope	It has broad scope and includes financial and cost accounting.	Its scope is limited in cost determination and record.
Sources of data	It uses both quantitative and qualitative data.	It uses the quantitative data only.
Accounting principles	No specific principles like accounting and cost accounting	Certain principles and procedures are followed in cost determination and allocation.
Nature	It uses past and present data in the protection of future.	It uses both past and present data and figure.

Source: (Koirala, et al., 2012:6)

2.1.6 Difference between Financial and Managerial Accounting

Financial Accounting	**Managerial Accounting**
Financial accounting provides information to stockholders, creditors and others who are outside the organization. Financial accounting may also be helpful in providing information to accomplish the management process.	Managerial accounting provides information for managers inside an organization who direct and control its operations.
It is concerned with reports made to those outside the organization.	It is concerned with information for the internal use of management.
It summarizes the financial consequences of past activities and diagnoses the past activities.	It emphasizes the future.
It emphasizes precision and verifiability of the data.	It emphasizes relevance and flexibility of data.
It summarizes data for the entire organization.	It emphasizes the segments of an organization rather than the organization as a whole.
It is mandatory by the law and required for publicly held companies and by lenders.	It is not required by external regulatory bodies or by lenders.

Source: (Bajracharya, et al., 2010: 15)

2.1.7 Career Opportunities on Managerial Accounting

Managerial accountants have become most demanding professionals in recent years particularly owing to the global business. Managerial accountants serve a crucial function in virtually any business organization. Managerial accountants are regarded as strategic business partners. Managerial accountants need the

knowhow of all functional areas of the business including finance, production, marketing, personnel, etc.

Managerial accountants is not a mandatory function in organization but the assumption is that an organization operated in accordance with the advice of managerial accountants will add more value to the firm by maximizing profits or / and minimizing the risks (Dangol, 2011:9).

- Profit planning manager in business organizations
- Financial analyst and consultant
- Cost-management researcher
- Teacher and trainer

To keep up with the new developments in their field, managerial accountants often belong to one or more professional organizations. The largest of these is the Institute of Management Accountants (IMA). In keeping with the importance of their role and the specialized knowledge they must have, managerial accountants can earn a professional certification. In the United Stated, the IMA administers the Certified Management Accountant (CMA) program. The requirements for becoming a CMA include meeting specified educational requirements and passing the CMA examination.

In addition to preparing you for a position in an accounting department, studying accounting department, studying accounting and working as a management accountant- can prepare you for the very highest levels of management. A number of recent surveys have indicated that more chief executive officers (CEOs) began their careers in an accounting position than in any other area, including marketing, production and engineering (Bajracharya, et al., 2010:17).

2.1.8 Managerial Accounting in Nepalese Perspective

The history of account keeping in Nepal by the government is very old. Mandev, the first king of Nepal in Lichhavi period, had circulated the first coin

called “Mananka” during the period 464-491 A.D. Similarly king Mahendra Malla had circulated the coin named “Mahendra Mally” in the Malla period. This seems to be the main step to record the national transactions in a proper way and manner. It is said that a small number of financial transactions used to be performed in Lichhavi and Malla periods. It proves there was certain form of accounting to record transactions.

Though the history of account keeping in Nepal by the government is very old, written records to accounting have been traced back after 18th centuries in Nepal after the unification of the nation in 1768 (1825 B.S.) by king Prithivi Narayan Shah the Great , the chief of the district level soldiers used to keep the accounts of the government offices. In 2008, a weak practice of managerial accounting techniques to plan revenue and control expenditure (Dangol, 2011;10).

Managerial accounting is a new thing and it is still in a developing stage in the context of Nepal. The decisions that take place are usually based on intuits or behavior of the strategic manager. It can be said that the role of managerial accounting is yet to be recognized by Nepalese corporations. However recently, with the country’s entry into the WTO, the functions and importance of managerial accounting has been realized by the business people and companies in Nepal too. Thus there is still plenty of scope for managerial accounting to be practiced by the Nepalese companies and it has almost become mandatory to understand and use the same so as to grow and sustain itself in today’s rapidly changing and competitive global market.

From this in-depth study of managerial accounting my recommendation is that organizations in Nepal should commence hiring professional managerial accountants. They will not only be an asset to the organization; they will also become CEOs in future. One major problem in Nepal is having good second generation leaders to take over from the founders or first CEOs. As managerial accountants is an integral part of the management team and also get involved in

all management decision-making situations, if organization hire professionals in this field they could very well be able to serve as Chief Executive Officers (CEOs) in the future. However, I would also like to recommend that people entering this profession should be highly ethical and sincere to the organization and keeping under the code of conduct (Bajracharya, et al., 2010:23).

2.2 A Brief Review of Management Accounting Tools

'Management Accounting' is the term used to describe the accounting methods, systems and techniques, which coupled with special knowledge and ability, assist management in minimizing losses. It is essentially the application of managerial principles and know-how to the planning, development, execution and control of corporate plans (Batty, 1982:267).

The main management accounting tools are cost classification and cost estimation, cost allocation, Product service costing method, Cost-Volume Profit analysis, budgeting for planning and control, management control system and responsibility accounting, standard costing: control of direct material and direct labor cost, flexible budgeting and overhead cost control, decision regarding alternatives in business operation, pricing decisions of product/services, long term investment decisions and management use of financial statement analysis. Tools and techniques provided by management accounting to discharge functions like; planning, controlling and organizing can be identified.

2.2.1 Cost Segregation and Cost Estimation

Concept and classification of cost

Cost classification is the process of grouping costs according to their common characteristics. A suitable classification of costs is of vital importance in order to identify the cost with cost centers or cost units. Cost may be classified accounting to their nature, i.e., material, labor and expenses and a number of other characteristics. The same cost figures are classified according to different

ways of costing depending upon the purpose to be achieved and requirements of particular concern. The important ways of classification are:

1. **On the basis of Identity:** According to this classification, the costs are divided into three categories i.e., Materials, Labor and Expenses. There can be further sub-classification of each element; for example, material into raw material components, and spare parts, consumable stores, packing material etc. This classification is important as it helps to find total cost, how such total cost is constituted and valuation of work-in-progress (Oberholzer and Ziemerink, 2004).
2. **On the basis of Function:** Production, Administration, Selling & Distribution are three important functions of a business concern. Taking these functions into consideration, costs have been classified by:
   (a) Production or Manufacturing Cost: Manufacturing costs are those costs which are incurred in the course of manufacture. It includes cost of raw material, cost of labor, other direct cost and factory indirect cost. Example of production or manufacturing costs may be power, lighting, heating, rent, depreciation etc.
   (b) Office and Administration Cost: These costs are incurred for the general administration of the enterprise. It includes office costs as well as administration cost. For example, salary of office staff, rent of office building, electricity charges, audit fee, printing and stationeries etc.
3. **Selling and Distribution Cost:** It includes both selling cost as well as distribution cost. Selling costs are those costs which are incurred in connection with the selling of goods and services Distribution costs are those costs which are incurred on despatch of finished goods to the consumers. Examples of selling and distribution costs are: sales men salary, packing charges, carriage, out ward, advertisement, ware house charges etc (Oberholzer and Ziemerink, 2004).

4. **On the basis of Variability:** The behavior of cost varies from one another as production increases, some cost remains constant or varies in direct proportion to the volume of output, or others may vary partially. Thus on the basis of variability, costs can be classified into the following three categories.
   - **(a) Fixed Cost / Period Cost:** Fixed costs are those costs which remain fixed irrespective of the change in volume of output. As production increases cost per unit of the fixed cost decreases and as production decreases fixed costs are, rent of the factory building depreciation, salary of the office manager etc.
   - **(b) Variable Cost / Product Cost:** Variable costs are those costs which vary in direct proportion to the volume of output. As production increases total cost increases but also per unit remains constant. As production decreases total cost decreases and cost per unit also decreases. Examples of variable costs are, cost of raw materials labor etc.
   - **(c) Semi-Variable Cost / Semi-Fixed cost:** These costs are partly fixed and partly variable. Examples of variable costs are telephone rent. It includes partly fixed charge up to a certain level and then varies according to the calls.
5. **On the basis of controllability:** From the point of view of controllability, the cost has been classified in to two categories as controllable cost and uncontrollable cost.
   - **(a) Controllable Cost:** These costs are regulated or controlled by specified member of an organization. Most of the variable costs are controllable. Generally direct material, direct labor and direct expenses are controlled by the lower level of the management.
   - **(b) Uncontrollable Cost:** These costs cannot be regulated or controlled by specified member of an undertaking. Most of the fixed costs are uncontrollable. Examples of uncontrollable costs are factory rent, manager's salary etc.

6. **On the basis of normality:** On this basis the costs have been classified in to two categories as.
    (a) Normal cost: It is the cost which is normally incurred at a given level of output. These costs are part of cost production.
    (b) Abnormal cost: It is the cost which is not normally incurred at a given level of output. These costs are not charged to the cost of production. It is transferred to the costing profit and loss account.
7. **On the basis of Time:** On this basis the costs have been classified as
    (a) Historical Cost: These costs are ascertained after they have been incurred such costs are available only when the production of a particular thing has already been done.
8. **Pre-determined Cost:** Pre-determined costs are estimated costs which are set in advance on a scientific way. It becomes standard cost and compared with the actual for adopting controlling measures (Oberholzer and Ziemerink, 2004).

Cost Segregation and estimation

Cost estimation is the process of determining cost at various levels of activities. In order to estimate cost at various level, first of all, cost relationship should be considered. Therefore cost estimation requires the classification of cost into fixed and variable the following methods can be used. Several methods are commonly used to estimate the relationship between cost and activity. Some of these methods are simple while some are quite sophisticated. In some firms, managers use more than one methods of cost estimation. The results of the different methods are combined by the cost analyst on the basis of experience and judgment (Bajracharya, et al., 2010:63).

Method of Cost Segregation

There are two methods of cost segregation. They are briefly explained below.

1. High-Low Method or Two Points Method

In the high-low method the semi-variable cost approximation is computed using exactly two data points. The high and low activity levels are chosen from the available data set. These activity levels, together with their associated cost levels, are used to compute the variable and fixed cost components using the following formulas.

$$\text{Variable rate (b)} = \frac{\text{High Cost Z Low Cost}}{\text{High level of activity - Low level of activity}} \qquad \frac{\text{Cost}}{\text{Activity}}$$

Fixed cost (a) = Total cost – Variable cost

Total cost – Variable rate | levels of activities

Therefore, the cost volume formula

Total cost = Fixed cost + (Variable rate | levels of activities)

Source: (Koirala, et al., 2012:27)

2. Least-Squares Regression Method

Statistical techniques may be used to estimate objectively a cost behavior pattern using all of the available data. The most common of the methods is called least squires regression. It is one of the best and widely used methods in cost estimation statistical technique. It is a statistical producer for estimating mathematically the average relationship between the dependent variable (Y) and independent variable (X). Under this method, the following least squire formula can be used to estimate cost.

$Y = a+bX$

Where,

a = denote the intercept of the regression line, or estimated fixed cost component

b = slope of regression or estimated variable cost per unit

X = the independent variable i.e. levels of activities

Y = the dependent variable, since its estimated depends on the independent variable i.e. estimated cost

Source: (Koirala, et al., 2012:27).

3. Regression Statistics

Least squire regression method is used to estimate variable and fixed cost. However, it does not explain the accuracy and the reliability of the regression result. The following regression statistics can be used to explain the accuracy and reliability of the regression result.

Correction coefficient (r)
Coefficient of Determination (r^2)
Standard error of the estimate (Se)
Standard error of the regression coefficient (Sb) and t-statistics

Source: (Koirala, et al., 2012:28)

Cost Allocation

It is the processes of assigning costs when a direct measure does not exist for the quality of resources consumed by a particular cost object. Cost allocations involve the use of some apportionment bases rather than direct measures. For example, consider an activity such as receiving incoming materials. Assuming that the cost of receiving materials is strongly influenced by the number of receipts then costs can be allocated to products based on the number of material receipts. The basis is used to allocate costs to cost objects (i.e. the number of material receipts in our example) is called an allocating base cost driver. If 20%

of the receipts for a period were required for a particular product then 20% of the total costs of receiving incoming materials would be allocated to that product. Assuming that the product was discontinued and not replaced, we would accept action to be taken to reduce the resource required for receiving materials by 20% (Bajracharya, et al., 2010:70).

Assignment of direct costs remains similar under any of the allocation systems except the cases of joint products. Therefore the term "Cost Allocation" in other than the joint products, directly implies the indirect or overhead costs. Cost allocation, then, may be defined as the distribution of indirect or overhead cost to cost centers (the departments or the activities) and the cost objects (the products) in a most appropriate basis (Munankarmi, 2011:17). Two widely practiced systems of overhead costs allocation are;

- Traditional costing system
- Activity-based-costing (ABC) system

1. Traditional Costing System

This method allocates indirect cost to cost objects using a single overhead rate for the total overheads as a whole. The term blanket overhead as a whole, the term blanket overhead rate is used to describe a single overhead rate that is established for the organization as a whole. Indeed, departmental overhead rates can be ascertained to serve the segment reporting. More precisely speaking, the two-stage allocation process is used for the assignment of overhead costs to cost object under the traditional method.

Primary allocation

In the first stage each element of overheads is assigned to cost centers in some appropriate bases. These cost centers comprise of the production departments and the service departments

Secondary Allocation

The second step is to reallocate the costs assigned to service departments to production department. Service department (i.e. service cost centers) is those departments that exist to provide service of various kinds to other units within the organization. Say if a manufacturing company has two services of various kinds to other units within the organization. Say if a manufacturing company has two service departments: materials procurements and general factory support, then these services departments will not produce directly the outputs of the firm but will render essential services that support the production departments. Reallocation of service departments receive from the service rendered (Bajracharya, et al., 2010:76). Three methods of reallocating the costs of service departments are:

- Direct allocation method
- Step-down allocation method
- Reciprocal allocation method

2. Activity-Based –Costing (ABC) Systems

ABC system differs from traditional system in many respects. ABC system explores a greater number of cost centers in the primary allocation. The primary allocation process is almost the same as illustrated in the traditional system except the difference that costs are assigned to the major activities instead of the departments. In the secondary allocation, however instead of reallocating the service department overheads to production department's costs are assigned to the cost driver of each activity.

One major distinguishing feature of ABC is that overheads are assigned to each major activity, rather than departments, which normally represent cost centers with traditional systems. Besides the production, departments, typical support activities include scheduling production, setting-up machines, moving materials, purchasing materials, inspecting items, and processing supplier

records. When costs are accumulated by the activities they are known as activity cost centers. Production process activities include machine products and assembly products and assembly products. Thus within the production process, activity cost centers are often identical to the cost centers used by traditional cost systems (Bajracharya, et al., 2010:80).

2.2.2 Cost volume profit analysis (CVP analysis)

Introduction of CVP analysis

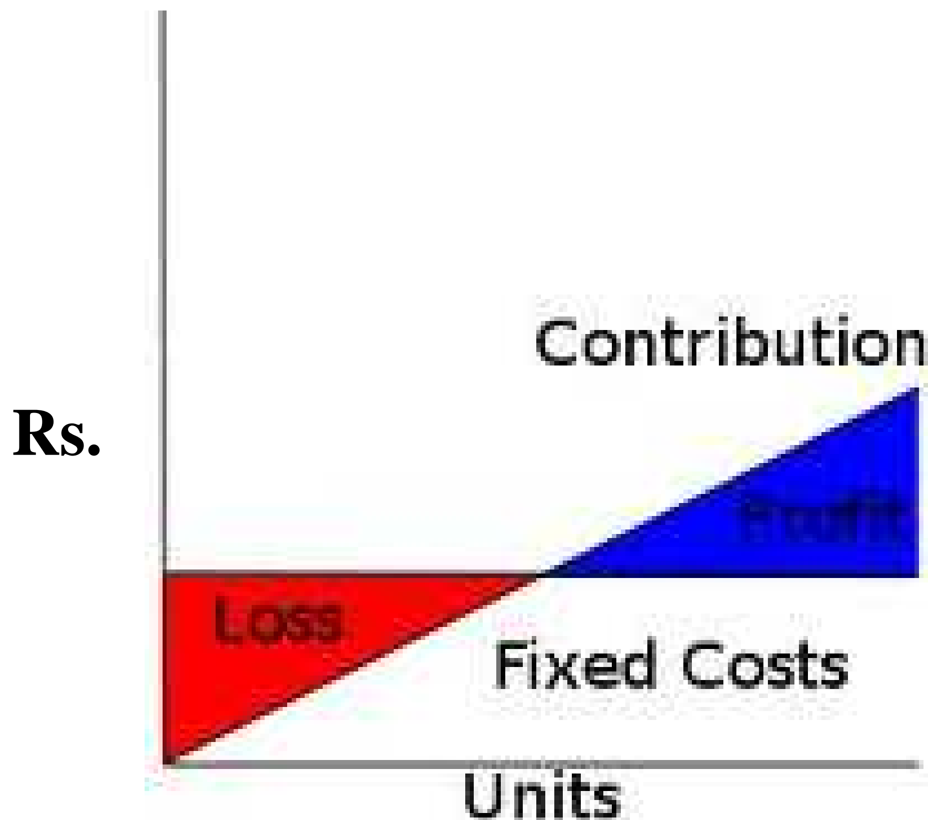
Cost-volume-profit (CVP) analysis examines the behavior of total revenues, total costs, and operating income as change occur in the output level, the selling price, the variable cost per unit, and or the fixed costs of a product.

Cost-volume-profit analysis is a systematic method of examining the relationship between changes in activity (i.e. output) and changes in total sales revenue, expenses and net profit. As a model, which are abstractions from reality, CVP analysis is subject to a number of underlying assumptions and limitations, which will be discussed later in this chapter; nevertheless, it is a powerful tool for decision-making in certain situations (Shrestha, 2010:52).

Most of the business fails after a few years, sometimes months, of starting because they tend to do anything for volume without thinking how it's going to affect the bottom line. Cost-volume-profit analysis is a management accounting tool to show the relationship between the elements of profit planning. Profit planning is the function of the selling price of product, demand, variable costs, fixed costs, taxes, etc. The whole picture of profit planning is associated with cost-volume-profit inter-relationships. A popular technique to study cost-volume-profit relationships is break-even analysis. Break-even analysis is concerned with the study of revenues and costs in relation to sales at which the firm's revenues and total costs will be exactly equal or the net income will be zero. It is a "No profit on loss" situation. This point is a cornerstone of profit

planning (Bajracharya, et al., 2010: 166). This can be explained, through cost-volume-profit graph as follows:

Figure 2.1: Graphical Approach to CVP



It is one of the most powerful tools that managers have at their command. It helps them understand the interrelationship between cost, volume, and profit in an organization by focusing on interactions among the following five elements:

1. Prices of products
2. Volume or level of activity
3. Per unit variable cost
4. Total fixed cost
5. Mix of product sold

Because cost-volume-profit (CVP) analysis helps managers understand the interrelationships among cost, volume, and profit it is a vital tool in many business decisions. These decisions include, for example, what products to manufacture or sell, what pricing policy to follow, what marketing strategy to employ, and what type of productive facilities to acquire (www.accounting 4management.com).

- Contribution Margin and Basics of CVP Analysis
- Difference Between Gross Margin and Contribution Margin
- Cost Volume Profit (CVP) Relationship in Graphic Form
- Contribution Margin Ratio (CM Ratio)
- Importance of Contribution Margin

Applications of Cost Volume Profit (CVP) Concepts:

Now we can explain how CVP concepts developed on above pages can be used in planning and decision making. We shall use these concepts to show how changes in variable costs, fixed costs, sales price, and sales volume affect contribution margin and profitability of companies in a variety of situations (www.accounting4management.com). For detailed study click on a link below.

- Change in fixed cost and sales volume
- Change in variable cost and sales volume
- Change in fixed cost, sales price and sales volume
- Change in variable cost, fixed cost, and sales volume
- Change in regular sales price

Break – Even Analysis

Break – Even Analysis is that part of cost-Volume-Profit Analysis which ascertains the levels of point at which revenues equal expenses thus showing a zero net income more precisely, such as point is called the Break – Even Point. One point of interest in the CVP analysis is the break-even point. It is incidental to the broader scope of CVP study. Break-even sales volume is that

levels sales volume in which a company neither makes a profit nor suffers losses. At this level of activity the sales just cover the total cost, and the profit is zero. In other words, this is a point at what a company breaks the state of loss and enters into profit zone. Break-Even analysis helps management to know that which sales volume will only recover its costs and after which volume it starts to make profit. In conclusion, BEP is a point at which the firm's total revenue are total cost, yielding zero income or the point at which losses ceases and profit begins. It always taken as an important part of profit planning as it gives the planner many insights the data with which he or she is working profit planning of each firm begins with Break- even Analysis (Koirala, et al., 2012:118).

Break- even point can be calculated by three methods

- Graphical method
- Formula method
- Equation method

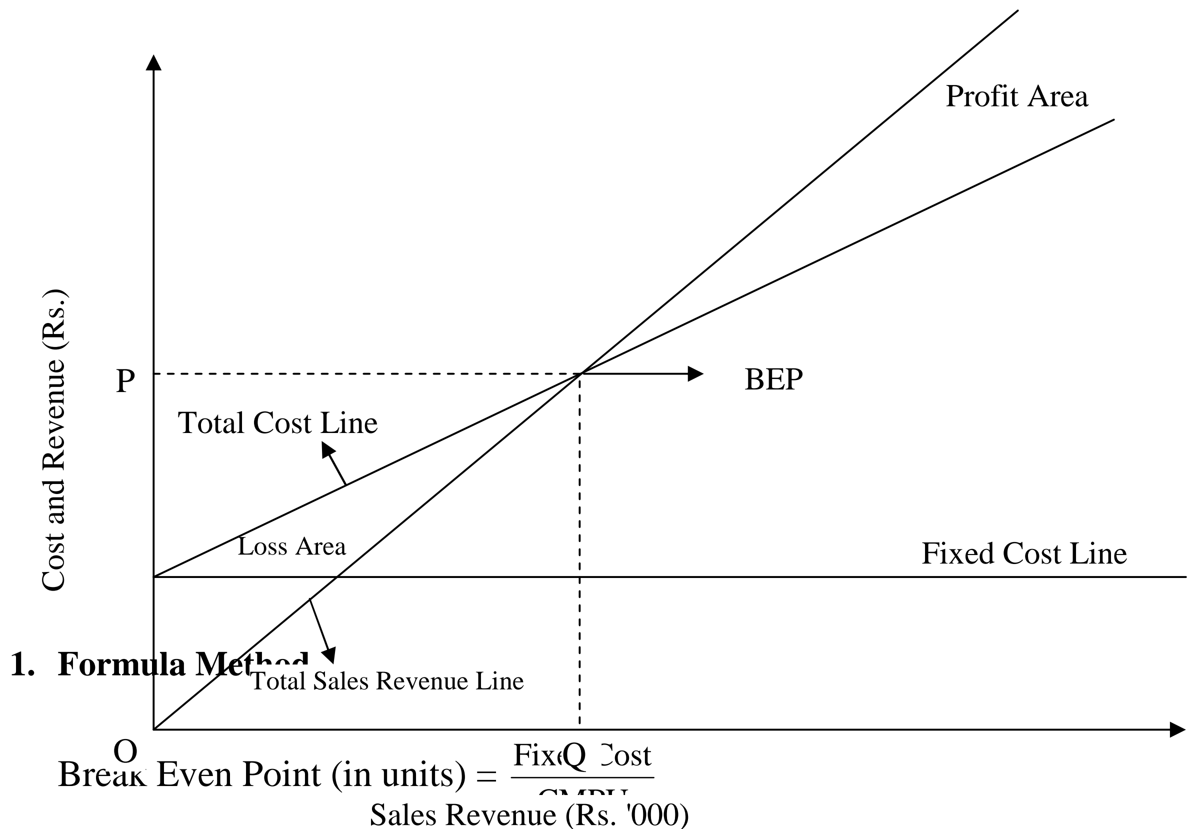
1. **Graphical method**

A CVP graph is very useful because it highlights CVP relationships over wide ranges of activity and gives managers perspective regarding the cost volumes profit and margin of safety. In other words, it helps to depict the relationship profit and volume of activity, a cost-volume-profit graph is used. Graphical presentation of CVP is preferred where a simple overview is sufficient and where there is a need to avoid a detail of numerical approach. Such graphing is sometimes referred to as preparing a break- even point. The following steps are used to prepare CVP graph sometimes called a break even chart):

- **Draw the axes of the graph:** Sales revenue and cost are presented by vertical axes and units represented by horizontal axis.
- **Draw a cost and revenue line:** A line for sales revenue and other line for total cost are drawn from left to right at different level of sales or units produced. The fixed cost line is drawn parallel to the horizontal

axis. These costs do not change with activity. The break- even point is where the total revenue and total line cross (Bajracharya, et al., 2010:105).

Figure 2.2: Break Even Analysis



1. Formula Method

$$\text{Break Even Point (in units)} = \frac{\text{Fixed Cost}}{\text{CMPU}}$$

$$\text{(in Rs)} = \frac{\text{Fixed Cost}}{\text{P/V Ratio}}$$

2. Equation Method

In addition to graphic and formulas method we can use equation in order to study cost volume profit relationship as under

Break even sales = Fixed cost + variable rate + Zero profit

=Fixed cost + Variable per unit x Sales unit +Zero profit

Source: (Koirala, et al., 2012:120)

Inventory System

Either the period inventory system or the perpetual inventory system may be used to account following for inventory management.

1. Perpetual Inventory System

Under a perpetual inventory system, the book figure for me ending inventory is a balancing figure on the accounts, which may be verified periodically by actually counting the items. This counting is referred to as "taking a physical inventory" (Dangol, 2010: 65).

2. Periodic Inventory System

Under a periodic inventory procedure, where a perpetual inventory is not maintained, physical inventory is taken periodically and the cost of material used is the balancing figure in accounts. In this case, the cost of material, used is perhaps more accurately described as the cost of materials which are assumed to have been used (Shrestha, 2010:58).

Inventory Valuation Method

There are some inventory valuation methods such as FIFO, LIFO, Weighted Average and specific Items. There are describing as follows:

1. First in First out (FIFO Method)

The FIFO method assumes that the items of inventor which were purchased first are sold or consumed first, and consequently the items remaining in inventory at the end of the period are those most recently purchase or produced (Bajracharya, et al., 2010:199).

2. Last in First out (LIFO Method)

Under the LIFO method, on the other hand, the cost of goods sold and the value of closing inventory can be determined only after the final lot of the year has been received. This is because of the assumption underlying the calculation of inventory, according to this method, as the name LIFO suggests, the use of inventory is valued in the basis of the inverse sequence of receipts (Shrestha, 2010:59).

3. Weighted Average Method (End- of-the Months Average Cost Method)

Under this method, the materials issued during the month are generally costed at the weighted average unit cost (total cost of units divided by number of units) as the end of the previous months. Since the weighted average unit costs at end of the previous month are available during the current period for costing requisitions, this method can be used with either a perpetual or periodic inventory system (Dangol, 2011: 66).

4. Identification of Specific Items

The cost of inventories of items that are not ordinarily interchangeable and goods or service produced and segregated for specific project should be assigned by using specific identification of their individual costs are attributed to identify items of inventory. This is an appropriate treatment for items that are segregate for a specific project, regardless of whether they have been bough or produced. However, specific identification of costs id inappropriate when there are a large number of items that remain in inventories could be used to obtain pre determined effects on the net profit or loss for the period (Bajracharya, et al., 2010:201).

2.2.3 Standard Costing

Standard costing is a management accounting tool for management control. Controlling is the process of comparing actual results with the planned objectives and determining where adjustments should be made. The management control process encompasses the following steps:

1. Setting Standards

The first step in management control process is to set performance standards. Especially in cost control, the estimated cost to manufacture a single unit of product or to perform a service is called the standard cost. For example, allowed milk expense of Rs 1.5 per cup of tea would be the standard cost for a tea café. Setting standard has a crucial value for planning and cost control. The sources of information for developing standards are determined from different angles depending on the nature and the movement of the job (Bajracharya, et al., 2010:111). Most usual sources include;

- Past experience: for a running business.
- Trial production: for a new business.
- Lab studies, time and motion studies: for a large-scale new manufacturing.
- Tear down analysis: Functional analysis of competitors products.
- Bench marking: Practice of the word-class products
- National standards: e.g. Nepal standard mark.
- International standard: e.g. ISO standards.
- Health products: WHO standards.

2. Actual Performance Measurements

After setting the cost standards, the actual result of material, labor and overhead cost of a batch of production are collected. Information is most important for actual performance measurement. Such information is available

with the related cost centre. For example, actual labor cost data is available In the payroll department. Therefore, a well-structured responsibility accounting system is the pre-requisite for cost control through standard costing system (Munankarmi, 2011:87).

3. Variance Analysis

It is a task of comparing the actual performances with the predetermined performance standards to determine how well the targets have been met. Variances are the deviations or the differences between what should be (the standard) and what has happened (the actual). If actual performance meets the standards, the achievement is considered good. If there is big gap between the actual results and the standards, the performance is considered poor. The difference between standard cost and actual costs is called variance (Bajracharya, et al., 2010:366).

The expression of this relationship can be seen in the simple formula

Actual cost = Standard cost + Variance

Variance = Actual cost – Standard cost

2.2.4 Budgeting and Planning:

Profit planning:

The objective of this study is to examine four components of profit planning efficiency, goal achievement, and firm success. The key research question is how profit planning efficiency has an influence on goal achievement and firm success. Questionnaire is used as an instrument for data collection and accounting manager of each firm is the key informant. The regression analysis is employed as an examination of all hypotheses. Data are collected from the sample of 967 canned foods business in Thailand. The overall results indicated partially significant positive effect on the relationships among profit planning efficiency, goal achievement, firm success, business environment perception, accounting information usefulness, and employee cooperation quality.

Learning culture definitely moderates the planning communication effectiveness on goal achievement and firm success. Hence, theoretical and managerial contributions are provided and limitations of the study and suggestions for further research are Presented accordingly (Bunnoon and Ussahawantichakit, 2012).

Budgeting

A budget is a detailed plan for acquiring and using financial and other resources over a specified period of time. It represents a plan for the future expressed in formal quantitative terms. The act of preparing a budget is called budgeting. The use of budgeting to control a firm's activities is called budgetary control.

Master budget is a summary of a company's plan that sets specific targets for sales, production, distribution, and financing activities. It generally culminates in cash budget, a budgeted income statement, and a budgeted balance sheet. In short, it represents a comprehensive expression of management's plans for the future and how these plans are to be accomplished (www.accounting4 management.com).

Advantages and Disadvantages of Budgeting:

Companies realize many advantages / Benefits from a budgeting program. Among these benefits are the following:

1. Budgets provide a means of communicating management's plans through the organization.
2. Budgets force managers to think about and plan for the future. In the absence of the necessity to prepare a budget, many mangers would spend all of their time dealing with daily emergencies.
3. The budgeting process provides a means of allocating resources to those parts of the organization where they can be used most effectively

4. The budgeting process can uncover many potential bottlenecks before they occur.

5. Budgets coordinate the activities of the entire organization by integrating the plans of the various parts of the organization. Budgeting helps to ensure that everyone in the organization is pulling in the same direction.

6. Budgets provide goals and objectives that can serve as benchmark for evaluating subsequent performance.

Source: (www.accounting4management.com)

Disadvantages / Limitations of Budgeting:

Whilst budgets may be an essential part of any marketing activity they do have a number of disadvantages, particularly in perception terms.

Budgets can be seen as pressure devices imposed by management, thus resulting in:

a) Bad labor relation
b) Inaccurate record-keeping.

Departmental conflict arises due to:

a) Disputes over resource allocation
b) Departments blaming each other if targets are not attained.

It is difficult to reconcile personal/individual and corporate goals.

Waste may arise as managers adopt the view, "we had better spend it or we will lose it". This is often coupled with "empire building" in order to enhance the prestige of a department. Responsibility versus controlling, i.e. some costs are under the influence of more than one person, e.g. power costs. Managers may overestimate costs so that they will not be blamed in the future should they overspend (www.accounting4management.com).

Zero Based Budgeting (ZBB):

Zero based budgeting (ZBB) is an alternative approach that is sometimes used particularly in government and not for profit sectors of the economy. Under zero based budgeting managers are required to justify all budgeted expenditures, not just changes in the budget from the previous year. The base line is zero rather than last year's budget.

In traditional approach of budgeting, the managers start with last year's budget and add to it (or subtract from it) according to anticipated needs. This is an incremental approach to budgeting in which the previous year's budget is taken for granted as a baseline. This approach is called incremental budgeting (Shayne, 2012).

Zero based budgeting approach requires considerable documentation. In addition to all of the schedules in the usual master budget, the manager must prepare a series of decision packages in which all of the activities of the department are ranked according to their relative importance and the cost of each activity is identified. Higher level managers can then review the decision packages and cut back in those areas that appear to be less critical or whose costs do not appear to be justified.

Zero based budgeting is a good idea. The only issue is the frequency with which a ZBB review is carried out. Under zero based budgeting (ZBB) ,the review is performed every year. Critics of such type of budgeting charge that properly executed zero based budgeting is too time consuming and too costly to justify on an annual basis. In addition, it is argued that annual reviews soon become mathematical and that the whole purpose of zero based budgeting is then lost. Whether or not a company should use annual reviews is a matter of judgment. In some situations, annual zero based reviews may be justified; in other situations they may not because of the time and cost involved. However, most managers would at least agree that on occasion zero based reviews can be very helpful (www.accounting4management.com).

.**Advantages | benefits of zero based budgeting process:**

1. Efficient allocation of resources, as it is based on needs and benefits.
2. Drives managers to find cost effective ways to improve operations.
3. Detects inflated budgets.
4. Municipal planning departments are exempt from this budgeting practice.
5. Useful for service departments where the output is difficult to identify.
6. Increases staff motivation by providing greater initiative and responsibility in decision-making.
7. Increases communication and coordination within the organization.
8. Identifies and eliminates wasteful and obsolete operations.
9. Identifies opportunities for outsourcing.
10. Forces cost centers to identify their mission and their relationship to overall goals.

Source: (www.accounting4management.com)

Disadvantages | Limitations of zero based budgeting method.

1. Difficult to define decision units and decision packages, as it is time-consuming and exhaustive.

2. Forced to justify every detail related to expenditure. The research and development (R&D) department is threatened whereas the production department benefits.

3. Necessary to train managers. Zero based budgeting (ZBB) must be clearly understood by managers at various levels to be successfully implemented. Difficult to administer and communicate the budgeting because more managers are involved in the process.

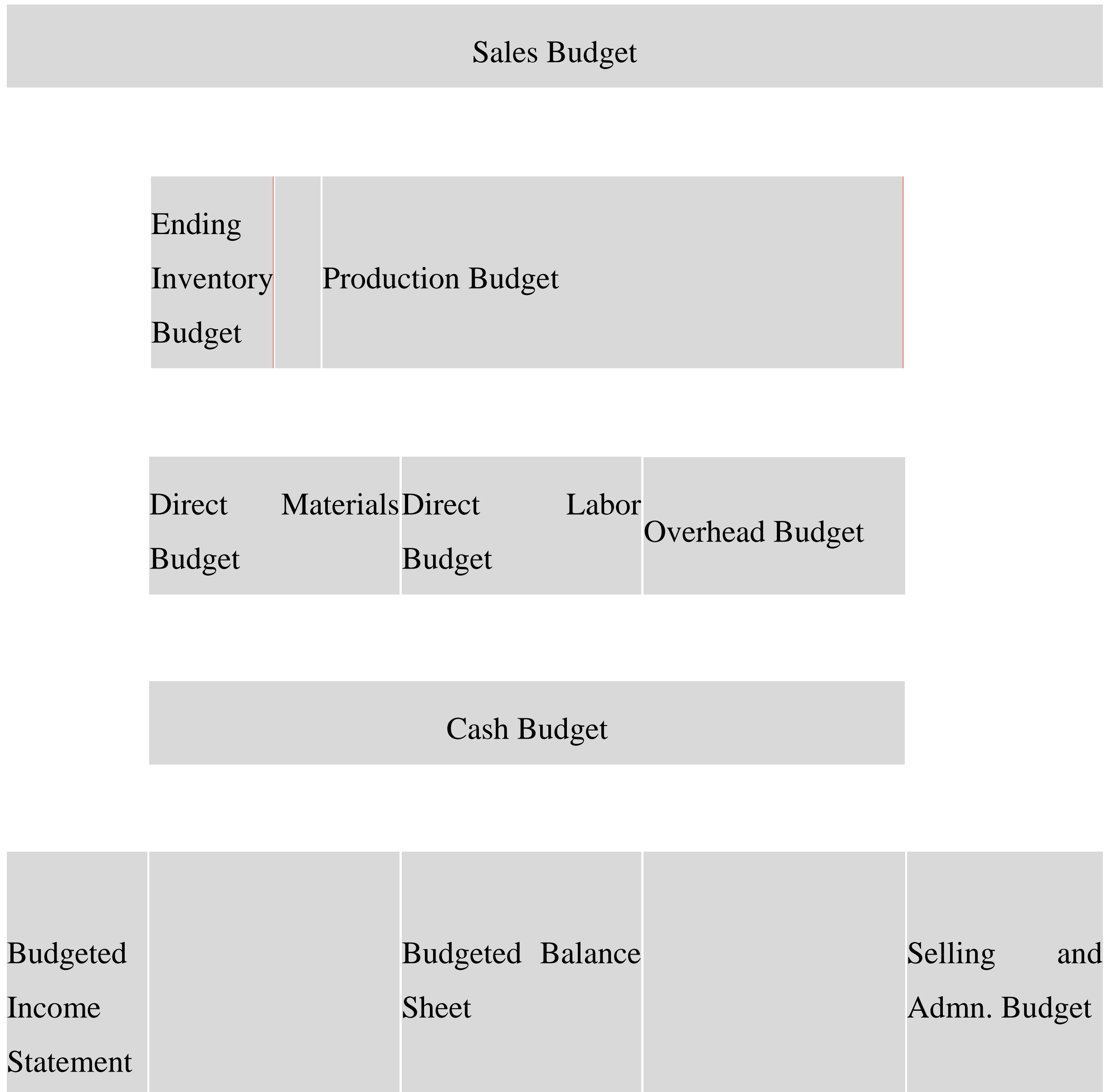
4. In a large organization, the volume of forms may be so large that no one person could read it all. Compressing the information down to a usable size might remove critically important details.

5. Honesty of the managers must be reliable and uniform. Any manager that exaggerates skews the results.

Source: (www.accounting4management.com)

Master Budget

Figure 2.3: Master Budget Interrelationship



Components of Master Budget

Master budget has two major sections which are the operational budget and the financial budgt. They have following components:

Operational Budget

1. Sales Budget
2. Production Budget
3. Direct Material Purchases Budget
4. Direct Labor Budget
5. Overhead Budget
6. Selling and Administrative Expenses Budget
7. Cost of Goods Manufactured Budget

Financial Budget

1. Schedule of Expected Cash Receipts from Customers
2. Schedule of Expected Cash Payments to Suppliers
3. Cash Budget
4. Budgeted Income Statement
5. Budgeted Balance Sheet

Note that all of the above component budgets may not be included in the master budget of every business. Some of these such as production budget and cost of goods manufactured budget are not need by a non-manufacturing business (www.googleusercontent.com).

Sales Budget

The sales budget is the starting point in preparing the master budget. As shown nearly all other items in the master budget including production, purchases, inventories, and expenses, depends on it in some way.

The sales budget is constructed by multiplying the expected sales in units by the sales price schedule 1 below contains the sales budget for Star Manufacturing Company for 20x9 by quarters. Notice from the schedule that the company plans to sell 6000 units during the year, with sales eking out in third quarters.

Generally, the sales budget is complained by a computation of 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 of collections on sales made to customers in prior periods, plus collections on sales made in the current budget period. Schedule 1 below also contains a computation of expected cash collections for Star Manufacturing Company (Koirala, et al, 2012:185).

The Production Budget

After the sales budget has prepared the production requirements for the forthcoming budget period can be determined and organized in the form of a production budget. Sufficient goods will have to be available to meet sales needs and provide for the desired inventory. A portion of goods will already exist in the form of a beginning inventory. The remainder will have to be produced. Therefore production needs can be determined by adding budgeted sales (in units or in rupees) to the desired ending inventory (in units or in rupees) and deducing the beginning inventory (in units or in rupees) from this total Schedule 2 below contains a production budget for Star Manufacturing Company (Koirala, et al, 2012:186).

The Direct Labor Budget

The direct labor budget is also developed from the production budget. Direct labor requirement must be computed so that the company will know whether sufficient labor time is available to meet production needs. By knowing in advance just what will be needed in the way of labor time throughout the budget year, the company can develop plans to adjust the labor forces the situation manage pure firms that neglect this budget run budget run the risk or racing labor having to hire and fire at awkward times. Erratic labor policies lead to insecurity and inefficiency on the part of employees.

To compute direct labor requirements, the number of units of finished product to be produced each period (month, quarter and so on) is multiplied by the number of direct labor hour required to produce a single unit. Many different types of labor may be involved if so then computation should be by type of labor needed. The hours of direct labor time resulting from these computations can then be multiplied by the direct labor cost per hour to obtain budgeted total direct labor cost. Schedule 4 following contains such computation for Star Manufacturing Company (Bajracharya, et al, 2010:129).

The Manufacturing Overhead Budget

The manufacturing overhead budget should provide a schedule of all costs of production other than direct materials and direct labor. These costs should be broken down by cost behavior for budgeting purposes, and a predetermined overhead rate developed. This rate will be used apply manufacturing overhead to units of product thought budget period. In the care of Star Manufacturing Company, the contribution approach to costing is being used internally for planning purposes so only variable overhead is included in the predetermined overhead rate.

A computation showing budgeted cash disbursements for manufacturing overhead should be made for use in developing the cash budget. The critical

thing to remember in making thing computation is that depreciation is a non-cash charge. Therefore, any depreciation charge included in manufacturing overhead must be deducted from the total in computing expected cash payments (Munankarmi, 2012:112).

The Cash Budget

A cash budget is a summary of the firm's expected cash inflows and outflows over a projected time period. In order words, cash budget involves a projection of future cash receipts and cash disbursements budget. It helps the management in:

- Determining the future cash needs of the firm,
- Planning for financing of those needs, and
- Exercising control over cash and liquidity of the firm.

The overall objective of a cash budget is to enable the firm to meet all its commitments in time at the same time prevent accumulations of unnecessary large balance with it.

Cash budget is mostly prepared on cash receipts and payments basis which is known as Revenue and Payments Method. In this method the cash receipts from various sources and cash payments different agencies are estimated. Cash requirement of all functional budgets including expenditure budget are taken into account. Accruals and adjustments are excluded preparing the cash budget by receipts and payments method. All anticipated receipts are added the opening balance of cash for the period (month). The receipts and payments may be divided into two specific categories (Munankarmi, 2012:113).

The Budgeted Income Statement

A budgeted income statement can be prepared from the data developed in Schedule 1-8. 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 forthcoming period. After it has been developed, it stands as a benchmark against which subsequent company performance can be measured. Schedule 9 below contains a budgeted income statement for Star Manufacturing Company for 20x9 (Koirala, et al., 2012:192).

The Budgeted Balance Sheet

The budgeted balance sheet developed by beginning with me current balance sheet and adjusting it for the data contained in the other budgets. A budgeted balance sheet for Star Manufacturing Company for 20x9 is presented in Schedule 10. The company's the budgeted balance sheet in Schedule 10 has been and presented below (Koirala, et al., 2012:193).

2.2.5 Responsibility Accounting

The basic idea behind responsibility accounting is that each manager's performance should be judged by how well he or she managers those item directly under his or her control. To judge a manager's performance in this way, the cost (and revenues) of an organization must be carefully scrutinized and classified according to the various levels of management under whose control the cost rest. Each levels of management is then charged with those cost under its care and the manager at each level are held responsible for variations between budgeted goals and actual results. In effect, responsibility accounting personalizes the accounting system by looking at costs from a personal control standpoint, rather than from an institutional standpoint. This concept is central to any effective profit planning and control system (Koirala, et al., 2012:195).

The basis of a responsibility accounting system is the designation of each subunit in the organization as a particular type of responsibility center. A responsibility center is a subunit in an organization whose manager is held accountable for specified financial results of the subunit's activities.

There are four common types of responsibility centers.

1 Cost center: A cost center is an organizational subunit, such as a department or division whose manager is held accountable for the costs incurred in the subunit. The painting Department in an automobile plant is an example of a cost center.

2 Revenue center: The manager of a revenue center is held accountable for the revenue attributed to the subunit. For example, the Reservations Department of an airline and the Sale Department of manufacturer are revenue centers.

3 **Profit center:** A profit center is an organizational subunit whose manager is held accounting for profit. Since profit is equal to revenue minus expense, profit-center managers are held accountable for both the revenue and expenses attributed to their submits. An example of a profit center is a company-owned restaurant in a fast-food chain.

4 **Investment center:** The manager of an investment center is held accountable for submits profit and the invested capital used by the submit to generate its profit. A division of a large corporation is typically designed as an investment center (Koirala, et al., 2012:181).

2.2.6 Investment Analysis [Capital Budgeting]

This paper investigates the financial-economic decision process for investments in flexible manufacturing systems (FMS). Contrary to popular belief, we show that conventional capital budgeting techniques can be used to make such investment decisions. First, we identify the *overall* impact of installing an FMS and present guidelines for a cash flow forecasting model. We then present ways in which to incorporate uncertainty in these cash flows within a risk-adjusted discount rate. These expected cash flows and the discount rate are used in calculating the net present value (NPV). Once the capital budgeting analysis is completed, a critical issue facing the firm is the optimal timing of the installation. We reinterpret the general results on optimal timing of investments

within the special context of an FMS project. Finally, we illustrate the above technique via a stylized example (Karim, 2010).

Capital budgeting decisions

1. **Purpose :** The purpose of this paper is to understand current practices in capital budgeting (including real options) in Indian companies and provide a normative framework (guidelines) for practitioners (based on our findings and literature reviewed).
2. **Design/methodology/approach :** A questionnaire survey was administered to 166 non-financial companies of the BSE 200 index. Secondary data were also collated from 2001-2011.
3. **Findings :** Trends towards sophisticated techniques and sound capital budgeting decisions have continued in India. All sample respondent firms used discounted cash flow (DCF) techniques in conjunction with non-DCF techniques. Internal rate of return (IRR), used by more than three quarters of the sample companies, is favored over net present value (NPV), used by half of the sample companies. Real options are used by half of the sample companies. Permanent (long-term) capital has been used to finance fixed assets (net) and working capital (net).
4. **Research limitations/implications :** The limitations of the study are that it is country specific and a detailed sartorial analysis of the constituent sectors of the sample companies could have perhaps provided deeper insight into the subject.
5. **Practical implications :** The findings of this research, decades of teaching experience of the authors and the literature reviewed have been utilized to evaluate current practices and suggest possible improvements in decision making (through a normative framework).
6. **Originality/value :** The findings show that there still remains a theory-practice gap in the usage of IRR over NPV. The usage of permanent (long-term) capital to fund fixed assets (net) and permanent working capital requirements, although sound, could be an indication of surplus

funds which could be used to repay long-term debt or finance more asset building (Singh, et al., 2012)

Evaluation Methods

After estimation of cash flow, the project must be evaluated. There are various methods of evaluation of projects. The main methods of evaluations are:

1 Traditional or Non-discounted Cash Flow Method

This method does not consider the time value of money. This method does not evaluate the future money with present value. The following two techniques are applied under this method.

1. ***Payback Period*:** The number of years required for the proposals cumulative cash flows to be equal to its cash outflows is known as payback period. It can also be defined that the year required covering its cost by its income. The project which provides its return in the smallest period of time is considered as the highest ranking project. Calculation of Payback period is different in following two conditions.

a) ***Even Cash Flow:*** If the cash flow of the project is equal during the period of project's life is known as even cash flow. The payback period is calculated as:

$$\text{Payback Period (PBP)} = \frac{\text{Net Cash Outlay}}{\text{Annual CFAT}}$$

Uneven Cash Flow: When the annual cash flows are unequal, that is known as cash flow. The payback period under uneven cash flow cannot be calculated by using the above formula. The payback period under uneven cash flow is calculated as:

Payback Period =

$$\frac{\text{Minimum required period} + \text{Amount required to recover investment}}{\text{Next year's CFAT}}$$

Source: (Koirala, et al, 2012:175)

2. Discounted Cash Flow Method

The traditional methods of evaluation of capital budgeting do not consider the time value of money. The traditional methods assume that there is no difference between present value and future value of money. It assumes that a rupee earned today is equal to a rupee earned after certain period. But in fact it cannot be so. A rupee earned today has more value than a rupee earned after a specific period.

The discounted method considers the time value of money. Before evaluation any project under this method the future cash flow must be converted into present value. The following methods are used to evaluation of projects (Shrestha, 2010:132).

a) Net Present Value

The net present value is the net benefit at present value of an investment. It is the net differences between present value of cash outflow and present value of cash inflow. It can be presented in the following equation.

Net Present Value = Total Present Value – Net Cash Outlay

b) Profitability Index

Profitability index is similar to net present value approach. It measures present value of return in lump sum. A ratio of total present value of cash flow and initial cash outlay is called Profitability index. The profitability index is calculated as under:

$$\text{Profitability index} = \frac{\text{Total Present Value (TPV)}}{\text{Net Cash Outlay (NCO)}}$$

The profitability index greater than one is accepted and less than one is rejected on the ranking of the projects, higher the profitability index is preferred (Koirala, et al., 2012:179).

c) Internal Rate of Return (IRR)

It is a rate at which the net present value of investment will be zero. This method depends upon cash inflow and cash outflow of the project. It is the rate that discounts an investment's future cash flows to the present so that the present value of those cash flow exactly equals the cost of the investment. This rate is also called as time adjusted rate of return, marginal rate of return, yield of investment and so on. The procedure of calculation of internal rate of return under even cash flow and uneven cash flow is different (Koirala, et al., 2012:181).

For even cash flow

If the cash flow after tax is equal in every year, which is known as even cash flow.

For Uneven cash flow

If cash flow is different in every year, that is known as uneven cash flow.

Decision Rule: The IRR must be greater than cost of capital. The higher rate of return is acceptable among the mutually proposals.

2.2.7 Flexible Budgets and Overhead Cost Control

A flexible budget calculates budgeted revenues and budgeted cost 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 is known; a static budget is

developed at the start of the budget period based on the planned output level for the period (Horngreen, et al, 2003:520).

A flexible budget estimates expenses at different possible levels of future operations. A flexible budget is not based on only one level of activity. A flexible overhead budget is defined as a detailed plan for controlling overhead costs-a plan that is valid in the firm's relevant range of activity (Hilton, 2000:215).

Since some of the factory overhead cost elements remain constant per activity and others remain constant per period. We can simplify the flexible cost statement by summarizing all factory overhead costs in a general formula, known as flexible budget formula.

Total factory overheads (y) = Fixed costs (per period) + Variable cost (per activity) x

Y=FC + UVC | LA

Here,Y'-stands for the budget allowance(BA) for the factory overheads for any given level of output or activity (X), a-stands for the fixed costs and b-stands for the variable costs per unit.

Factory overhead cost standards are much more complex than those of direct material are and direct labor. By nature, direct material and direct labor costs are variable costs, whereas factory overheads are partly fixed and partly variable. Since direct materials and direct labor costs are directly traceable to the output units, standards can be determined as per unit of output. As fixed factory overhead costs are of mixed nature, it is difficult to express the cost per unit of output. For the over cost control purpose, following standard data are required.

- Normal capacity to ascertain the fixed overhead rate.
- Standard/machine labor hours per unit of output

- Segregation of factory overheads into fixed and variable components
- Standard overhead rate

The first and the foremost thing to define incase of overhead cost control is the appropriate cost driver for the factory overheads. Leaving the question of activity-based costing for the moment; we, at least, have to choose one common cost driver for the total factory overhead. Factory overhead costs are incurred in the course of concerting the raw materials into finished production. Raw materials are processed either through labor or through machinery. Yet, the labor and the machines are not mutually exclusive factors. The only question is whether the process is more labor-based or more machinated. Depending upon the nature, direct labor hours (DLH) or the direct machine hours (DMH) should be chosen as the cost driver for the factory overhead costs.

The main objective of analyzing the factory overhead variance is to determine whether the total manufacturing overheads are over or under applied in the cost of production for the given level of output. The 'Three-way analysis system' allows management to break down the total overhead variance into three principal areas: the portion caused by efficiency factors, and the portion caused by rate or spending factors (www.googleusercontent.com).

2.2.8 Decision Making

Decision making is a daily activity for any human being. There is no exception about that. When it comes to business organizations, decision making is a habit and a process as well.

Effective and successful decisions make profit to the company and unsuccessful ones make losses. Therefore, corporate decision making process is the most critical process in any organization.

In the decision making process, we choose one course of action from a few possible alternatives. In the process of decision making, we may use many tools, techniques, and perceptions.

In addition, we may make our own private decision or may prefer a collective decision.

Usually, decision-making is hard. Majority of corporate decisions involve some level of dissatisfaction or conflict with another party (www.accounting4 management.com).

The Five-Step Decision Making Process

You can adapt the familiar five-step decision making process (outlined below) to decide which program or service to assess.

Step 1 Identifying/clarifying the decision to be made: If the decision has not yet been isolated, it should be identified as a first step. Sometimes the decision to be made will have been presented to the decision maker. In those situations, Step 1 calls for the clarification of what the decision actually entails.

Step 2 Identifying possible decision options: The next step requires the decision maker to spell out, as clearly as possible, just what the decision alternatives really are. For instance, if one were attempting to buy a bicycle, do the decision options only consist of the different types of bicycles, or is another option to refrain from buying a bicycle altogether?

Step 3 Gathering/processing information: Next, the decision maker collects or processes information that can help guide the decision. If such information is already at hand, then it simply needs to be processed; that is, studied and understood by the decision maker. If there is no relevant information available, or if there is insufficient information, then such information must be collected so it can be processed. The more significant the decision, the more rigorous the information-gathering process.

Step 4 Making/implementing the decision: After the information has been considered according to its relevance and significance, a decision based on that information should be made and, thereafter, implemented.

Step 5 Evaluating the decision: In recognition of the fact that not all of one's decisions are likely to be defensible, the final step in the five-step decision making process is to determine whether the decision was appropriate. Ordinarily, this will be done by ascertaining the decision's consequences.

Source: (www.tesc.edu)

Types of Decisions

1. Decision to Accept A Special Order

A special order is one that has been offered for a bulk volume at a reduced price. Opportunity to consider an 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 attractive. The basis of decision making should be the difference that it 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 cost and the opportunity costs (Bajracharya, et al., 2010:364).

2. Decision to Drop A Product Line

When a firm is divided into multiple sales output, products lines, divisions, departments, it may have to evaluate their individual performances to decide whether or not to continue operations of each of these segments or whether to add a new segment. The decision criterion would be the segment margin. The segment margin equals the segments contribution margin less fixed cost that is directly traceable to that segment. The decision criterion in an operate-or-down situation will be based on the comparisons of the shutdown losses and the losses associated with continuing operations (Bajracharya, et al., 2010:365).

3. Decision To Make or Buy

Buying or outsourcing is the process of obtaining goods or services from outside suppliers instead of producing the same good or providing the same services within the organization. Decisions on whether to produce components or providing services within the organization or to acquire them from outside suppliers are called make-or-buy decisions. Many organizations buy some of their activities such as their payroll and purchasing functions or the purchase of specially components. Outsourcing is considered only when it will give financial advantages over making things within the company with no inferior quality (Shrestha, 2010:171).

4. Decisions To Further Process Joint Products

Joint products are those products that are produced by a single process but are not identifiable as individual products until some definite point in the manufacturing process. Industries producing joint products include petroleum refining, chemicals, meatpacking, dairies, sawmills, soap making and flour milling. For example a dairy cannot produce milk skim milk, cream, butter etc.

Joint product costs are those costs associated with the products before they reach before they reach the spilt-off point the point in the process where they become separate, identifiable products. Commonly adopted bases for joint cost allocation are;

- Unit of output
- Market value
- Net realizable value ratio of market values

However, such costs are usually allocated to final products in market-value or the net-realizable-value basis depending upon the suitability (Bajracharya, et al., 2010:366).

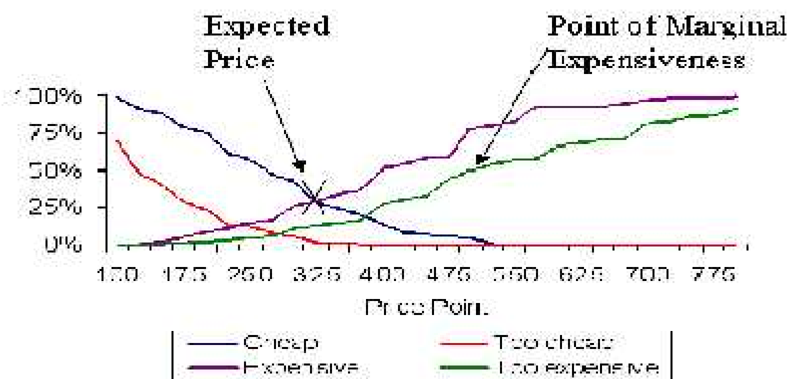
2.2.8 Pricing Decision

Pricing Your Product or Service

It's a challenge faced by every company developing a product or service - finding an appropriate and profitable price. The smartest approach uses the van Westendorp methodology to understand the message you are sending with the price itself. Learn how price can affect quality perceptions and product positioning.

One of the biggest questions companies must answer when developing a product or service, or revamping an existing one, is at what price to sell the device or service. Many companies simply add a certain percentage to the cost of production, not taking into account what buyers will actually pay. This works well and produces a profit for a successful product, but is it the smartest approach? No. In an economy where consumers are trying to save money and looking for value, if you set your price too low, you might actually turn customers away from your product by communicating low-quality. To fully realize the pricing potential of a product or service, you must take into consideration the message you are sending the buyer with the price itself. This is where the van Westendorp methodology can help (Joseph, et al., 1988).

Figure 2.4: Price Perceptions



Methods of Pricing Decisions

It is very difficult to make pricing decisions. Different firms apply different techniques for making pricing decisions. There are two types of methods form making pricing decisions.

- Pricing for external sales
- Pricing for internal transfer

While goods and services are sold outside the organization cost plus pricing techniques is applied for pricing decision. Under this system a certain percentage mark up is added to estimated cost for determination of selling price of goods and services. Cost plus pricing system maintains a certain percentage of profit on cost so that is rare chance for making loss in the organization. Cost plus pricing technique is based on the following formula (Koirala, et al.,2012:177).

Price = Cost + (Mark up percentage x Cost price)

This is to be paid by customers to consume goods and service.

The following systems are included while making cost plus pricing decision.

1. Full Cost/Absorption Cost Pricing System

Under this system of pricing selling price is determined by adding certain percentage of markup on total production cost of goods and services. The total cost includes all variable manufacturing costs as well as fixed manufacturing cost for determination of selling price.

In the long run price must cover all costs and normal profit margin full cost pricing system covers all variable costs fixed cost as well as required level of mark up. It provides a just able price that trends to be perceived as equitable by all parties. Consumer generally understand that a company must make a profit on it’s product of service in order to remain in business justifying a price as

total cost of production sales and administrative activities plus a reasonable profit margin seems reasonable to buyers (Bajracharya, et al., 2010:369).

2. Variable Cost Pricing System

Some firms use variable cost pricing system for determination of selling price of the products. Under this system mark up is added either on total pricing system markup is added either on total pricing system in contribution margin pricing system the firm sets it's price to maximize contribution to cover fixed cost and profit margin.

3. Activity Based Costing (ABC) Pricing System

It is a technique of allocating manufacturing overheads to products using multiple applications rates and a wide variety of costs drivers in multiproduct firm. It maintains the relationship between overhead costs and the activities that decreasing ratio of cost depends upon the quality of cost drivers (Koirala, et al.,2012:179). The following steps are taken for making pricing decision under ABC pricing system.

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

4. Target Cost Pricing System

Pricing a new product is harder than pricing a mature product, because of the degree of the uncertainty involved. New product entails uncertainties of two types. First, when obstacles will be encountered in manufacturing the product and what will be the costs of production? Second, after the product is available, will anyone want to buy it, and at what price? It a firm decides to market a new two-person sailboat, management can make a good estimate of both the

production costs and the potential market for the product. The uncertainty here is far smaller than the uncertainty facing a company developing artificial hearts.

Sometimes the projected cost of a new product is above the target cost. Then efforts are made to eliminate non-value-added costs to bring the projected cost down. Target pricing is based on the target costing. Target costing is a method of determining the cost of product based on target price that customers are willing to pay. A target price is determined by the marketing department before designing and introducing a new product.

Target Cost = Anticipated selling price – Desire profit

Generally, the target price is determined at that level which helps the company to achieve a desired market share and sales volume. Under this method, product cost is calculated by deducting anticipated profit from anticipated selling price. If the product cost is above the target cost, then the product designer focuses on modification of design of the product. So that it reduces the cost of product to target cost (Shrestha, 2010:173).

Target Return on Investment (ROI) Pricing System

Investment is necessary to establish a business and to produce goods and services. The return which is made on invested Capital is known as Return on Investment. ROI pricing system, considers Capita investment made for business organization. ROI is a pre-determined rate o return on Capital employed which includes both shareholder’s fund as well as debt Capital. This ROI pricing System not only consider to cover all cost but also help to maintain adequate return on invested Capital. This pricing system can be used for long term purpose (Koirala, et al.,2012:181).

The mark% can be determined as:

$$\text{Mark up\%} = \frac{\text{Profit to be achieved}}{\text{Total cost of production}} \times 100$$

$$\text{Or,} \quad \frac{\text{Capital Employed}}{\text{Total cost of production}} \times 100$$

Transfer Pricing

When one division of an organization provides goods and services to another division it charges price to the division. Transfer prices are the amount charged by one division of an organization for goods and services that is supplied to another division of the same organization. Transfer price present the value of goods or services to another division, they have to be expressed in monetary value such monetary expression is known as transfer pricing. Transfer pricing is also known as Intra Company pricing. The transfer pricing is a revenue to one division on the return of providing goods and services where as it is a cost to another division for acquiring of goods and services. Transfer pricing is necessary where output of one division becomes output on other division when the output of one division is transferred from one unit to another unit, following principles should be considered (Bajracharya, et al., 2010:371).

- Objective of the company
- Maintaining the autonomous status of the division
- Earning situation of the division
- Motivation of produce and sell to each unit

1. Transfer Pricing Method

The transfer pricing methods are broadly classified into three categories.' These three approaches of transfer pricing are as follows:

a. Market Based Transfer Pricing

Transfer price based on market value of the product or services 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 can buy and sell at market price. The internal transfer price may be then external market price less marketing cost (Koirala, et al,2012:180).

Transfer price = Market price – Selling and distribution expenses

b. Cost Based Transfer Pricing

Most of the companies transfer its price based on cost. Cost based transfer pricing is used when:

- market price is not available like for semi-finished goods
- it is difficult for determining the market price
- product manufactured is of secret nature

There are many possible definitions of cost. Some company use only variable cost, other use full cost and still others use full cost plus profit.

i. Variable Cost Based Transfer Pricing

When the market price is not applicable at that condition variable cost transfer pricing also can be used in practice. In this method only the variable costs, i.e. direct material, direct labor and variable factory overhead are into consideration as the transfer price.

ii. Full Cost Based Transfer Pricing

Generally, most of the popular transfer price method is full cost transfer pricing scheme. Under this method, cost is taken as recovery of full cost. This cost includes total variable manufacturing costs as well as manufacturing fixed cost as transfer pricing.

Transfer price = Purchase price + Variable cost + Fixed cost

c. Negotiated Transfer Pricing

Under this method, the transfer price is negotiated between the transferor and transferee by considering the factors like demand and supply, quality of product, time of delivery etc. Selling price is negotiated between buying and selling division. When the goods are not sold into market the manger of the organizations makes a negotiation for determining selling price which is known as negotiated transfer prices.

d. General Formula Approach to Transfer Pricing

There is no any hard and fast rule for transfer pricing which would lead to optimal decisions for an organization as a whole. According to general rule, the transfer price is set in that point which helps to recover the variable cost plus opportunity cost (Koirala, et al.,2012:180).

Transfer price = Outlay cost (Variable cost) per unit + Opportunity cost per unit

2. Opportunity Cost

Opportunity cost is the amount or revenue forgone by the company as a whole when the product or services is transferred internally. The selling division opportunity cost depends upon its operating capacity. If the selling division is operating at full capacity, external demand cannot satisfy. At this situation, the opportunity cost will be the contribution margin foregone from the sales cost but opportunity cost many be zero if the division has idle capacity and can satisfy to the external demand (Koirala, et al, 2012:181).

2.2.9 Financial Statement Analysis:

Financial statement analysis is defined as the process of identifying financial strengths and weaknesses of the firm by properly establishing relationship between the items of the balance sheet and the profit and loss account.

There are various methods or techniques that are used in analyzing financial statements, such as comparative statements, schedule of changes in working capital, common size percentages, funds analysis, trend analysis, and ratios analysis.

This course focuses on the interpretation of financial statements from an external user perspective. We consider the usage and interpretation of financial statements from multiple stakeholders such as management, shareholders, investors, borrowers, lenders, employees and regulators. It is intended for non-finance professionals without prior exposure to accounting and finance training. It presents the basic concepts underlying financial statements and the terminology and methods that allow participants to interpret, analyze and evaluate actual corporate financial statements. Practical application of these concepts will be emphasized through various case analyses (Rhoda Brown, Mark Whittington, (2007).

Tools and Techniques of Financial Statement Analysis:

Following are the most important tools and techniques of financial statement analysis:

1. Horizontal and Vertical Analysis
2. Ratios Analysis

1. Horizontal and Vertical Analysis:

Horizontal Analysis or Trend Analysis:

Comparison of two or more year's financial data is known as horizontal analysis, or trend analysis. Horizontal analysis is facilitated by showing changes between years in both dollar and percentage form.

Horizontal analysis of financial statements can also be carried out by computing trend percentages. Trend percentage states several years' financial data in terms of a base year. The base year equals 100%, with all other years stated in some percentage of this base.

Vertical Analysis:

Vertical analysis is the procedure of preparing and presenting common size statements. Common size statement is one that shows the items appearing on it in percentage form as well as in dollar form. Each item is stated as a percentage of some total of which that item is a part. Key financial changes and trends can be highlighted by the use of common size statements (www.googleuser content.com).

2. Ratios Analysis:

The ratios analysis is the most powerful tool of financial statement analysis. Ratios simply mean one number expressed in terms of another. A ratio is a statistical yardstick by means of which relationship between two or various figures can be compared or measured. Ratios can be found out by dividing one number by another number. Ratios show how one number is related to another (Dangol, 2011:149).

An analysis of financial statements with the help of ratio may be termed as ratio analysis. It is a mathematical relationship between two related items expressed in quantitative form. When this definition of ratio is explained with reference to the items shows in financial statements, then it is called accounting ration. So the ratio is the measurement of quantitative relationship between two

or more items of financial statement connected with each others. The quantitative relationship may be expressed in either of the following ways.

Profitability Ratios:

Profitability ratios measure the results of business operations or overall performance and effectiveness of the firm. Some of the most popular profitability ratios are as under:

- Net profit ratio
- Operating ratio
- Gross profit ratio
- Expense ratio
- Return on shareholders investment or net worth
- Return on equity capital
- Return on capital employed (ROCE) Ratio
- Dividend yield ratio
- Dividend payout ratio
- Earnings Per Share (EPS) Ratio
- Price earning ratio

Liquidity Ratios:

Liquidity ratios measure the short term solvency of financial position of a firm. These ratios are calculated to comment upon the short term paying capacity of a concern or the firm's ability to meet its current obligations (Bajracharya, et al., 2010:447). Following are the most important liquidity ratios.

- Current ratio
- Liquid / Acid test / Quick ratio

Activity Ratios:

Activity ratios are calculated to measure the efficiency with which the resources of a firm have been employed. These ratios are also called turnover ratios because they indicate the speed with which assets are being turned over into sales. Following are the most important activity ratios:

- Inventory / Stock turnover ratio
- Debtors / Receivables turnover ratio
- Average collection period
- Creditors / Payable turnover ratio
- Working capital turnover ratio
- Fixed assets turnover ratio
- Over and under trading

Long Term Solvency or Leverage Ratios:

Long term solvency or leverage ratios convey a firm's ability to meet the interest costs and payment schedules of its long term obligations. Following are some of the most important long term solvency or leverage ratios.

- Debt-to-equity ratio
- Proprietary or Equity ratio
- Ratio of fixed assets to shareholders funds
- Ratio of current assets to shareholders funds
- Interest coverage ratio
- Capital gearing ratio
- Over and under capitalization

Advantages of Financial Statement Analysis:

There are various advantages of financial statements analysis. The major benefit is that the investors get enough idea to decide about the investments of their funds in the specific company. Secondly, regulatory authorities like

International Accounting Standards Board can ensure whether the company is following accounting standards or not. Thirdly, financial statements analysis can help the government agencies to analyze the taxation due to the company. Moreover, company can analyze its own performance over the period of time through financial statements analysis (www.accounting 4management.com).

2.2.10 Cash flow statement

Three major financial statements are ordinarily required for external reports an income statement, a balance sheet, and a statement of cash flows. The purpose of the statement of cash flow is to highlight the major activities that directly and indirectly impact cash flows and hence affect the overall cash balance. Managers' focus on cash for a very good reason without sufficient cash balance at the right time, a company may miss golden opportunities or may even fall into bankruptcy. The cash flow statement answers questions that cannot be answered by the income statement and a balance sheet. For example a statement of cash flows can be used to answer questions like where did the company get the cash to pay dividend of nearly $140 million in a year in which, according to income statement, it lost more than $1 billion? To answer such questions, familiarity with the statement of cash flows is required (www.googleusercontent.com).

The statement of cash flows is a valuable analytical tool for managers as well as for investors and creditors, although managers tend to be more concerned with forecasted statements of cash flows that are prepared as a part of the budgeting process. The statement of cash flows can be used to answer crucial questions such as the following:

1. Is the company generating sufficient positive cash flows from its ongoing operations to remain viable?
2. Will the company be able to repay its debts?
3. Will the company be able to pay its usual dividends?

4. Why is there a difference between net income and net cash flow for the year?

5. To what extent will the company have to borrow money in order to make needed investments?

For the statement of cash flows to be useful to managers and others, it is important that companies employ a common definition of cash. It is also important that a statement be constructed using consistent guidelines for identifying activities that are sources of cash and uses of cash. The proper definition of cash and the guidelines to use in identifying sources are discussed in coming paragraphs.

Definition of Cash:

In preparing a statement of cash flows, the term cash is broadly defined to include both cash and cash equivalents. Cash equivalents consist of short term, highly liquid investments such as treasury bills, commercial paper, and money market funds that are made solely for the purpose of generating a return on temporary idle funds. Instead of simply holding cash, most companies invest their excess cash reserves in these types of interest bearing assets that can be easily converted into cash. These short term liquid investments are usually included in marketable securities on the balance sheet. Since such assets are equivalent to cash, they are included with cash in preparing a statement of cash flows (Koirala, et al., 2012:181).

Sections of cash flow statement:

The cash flow statement is usually divided into three sections: Operating, investing and financing activities.

Operating Activities:

Operating activities involve the cash effects of transactions that enter into the determination of net income, such as cash receipts from sales of goods and

services and cash payments to suppliers and employees for acquisition of inventory and expenses

Investing Activities:

Investing activities generally involve long term assets and include (a) making and collecting loans (b) acquiring and disposing of investments and productive long lived assets.

Financing Activities:

Financing activities involve liability and stock holder's equity items and include obtaining cash from creditors and repaying the amounts borrowed and obtaining capital from owners and providing them with a return on, and a return of, their investment. Below is the typical classification of of cash receipts and payments according to operating, investing and financing activities

Source: (www.accounting 4management.com)

Methods of Preparing Cash Flow Statement

Direct Method: Direct method of cash flow statement calculates the cash flows from direct incomes and direct expenses of cash. It is started from sales revenue. This method of cash flow statement calculates the receipts of cash and disbursements of cash from operating, investing, and financing activities. If income statement and balance sheet is given as information then direct method must be used.

Indirect Method: Indirect method of cash flow statement is such type of method, which calculates the cash flow from operating activities by considering the non-cash items. It is started from net profit for the period. The non-cash expenses are add on net profit and non-cash income is deducted from net profit. The change in working capital is also considered. The other activities remain same as direct method. If the method is specified, we have to use direct method. Nepal accounting standard (2004) has recommended preparing the

cash flow statement by using direct method. But the indirect method is an alternative acceptance (Dangol, 2011:349).

2.3.1 Review of Previous Studies

Management accounting plays an important role for the prosperity of the business organization. New tools and techniques of management accounting have been developing as a new ways. Research in the title of "Management Accounting Practices of Development Banks in Nepal has not been made". Many researches in the field of profit planning have been made. Some of the researches have been done in the separate area of the management accounting like working capital management, CVP analysis, inventory management, capital expenditure planning and so on. Negligence of researches has been made in the topic of management accounting. Some of the researches lying in the topic of management accounting and profit planning with some remarkable findings are as follows:

Sharma (2002) has accomplished a research work entitled, "Management Accounting Practice in the Listed Company in Nepal", in the partial fulfillment of the requirement for the degree of MBS (TU). Sharma had focused on the present practice of management accounting tools in the listed companies as stated in Nepal stock exchange. He had used stratified sampling procedure to draw a sample with 27% and 41% of total population and target population. The data and necessary information regarding this research has been collected from the primary sources by using a scheduled questionnaire. Mr. Sharma has pointed out the various findings but some remarkable findings were presented as follows:

- While examining the MA tools practiced in listed companies for planning, controlling and decision-making, it was found that capital budgeting, cash flow statement, ratio analysis and annual budgeting were widely practiced MA tools in the listed companies of Nepal with 100%. Similarly cost segregation, breakeven analysis, standard costing,

long-term budgeting was partially in practice and activity based costing, responsibility accounting was not practiced in the listed companies in Nepal.

- Master budget has widely practiced in listed companies in Nepal with 70% or more. Almost 87% listed companies used past actual expenses as a base to prepare the budget. Similarly short-term budget is widely in practice in listed companies with 90%.
- Almost 100% companies measured their performance on the basis of profit and loss made by them during the period. Other techniques like budgeting control, standard costing and ratio analysis were slightly in practice of listed companies.
- Pay back period and net present value was widely practicing techniques for long-term investment decision in listed companies in Nepal. Similarly 55% companies were practicing risk adjustment techniques for investment period.
- Cost based pricing techniques have widely in practiced in listed companies in Nepal for pricing the product/service. Target return on investment has also in practice for this purpose. Similarly market price and cost price based transferred pricing techniques were slightly in practice for transferred pricing purpose.
- 100% listed companies were practiced the past trend analysis to forecast the future costs of revenues of the company. Market survey and judgment analysis were also in practice of listed companies but in introduction stage. Nepalese listed companies were independent in practicing the MA tools.

Upprety (2005) had conducted a research in the topic "Profit Planning in Manufacturing Public Enterprise; A Case study of Royal Drugs Limited and Herbal Production and Processing Company Limited." This research of Upprety was mainly focused with current practice of profit planning and its effectiveness in RDL and HPPCL. The data and other necessary information's were collected by using secondary as well as primary sources of data. In this research Upprety has pointed out various findings. Some of the remarkable findings were presented as follows:

- Inadequate planning's of profit due to lack of skilled planner.
- Inadequate authority and responsibility to planning department.
- Failure in achievements due to inadequate evaluation of internal and external variables.
- Failure due to inadequate forecasting system.
- Lack of entrepreneurship and commercial concepts in overall operations of the enterprise.

Upprety summarized his findings by stating plans are formulated on traditional ad-hoc basis due to lack of budgeting experts and semi skilled planners. Some functional budgets are prepared but not in systematic and scientific way. They have not followed a system of periodical performance report.

Shrestha (2006) had conducted his research work entitled "Profit Planning in Public Utility Enterprise; A Case Study of Nepal Telecommunication Corporation". Shrestha had mainly focused with the current practice of profit planning and its effectiveness in NTC. The data and necessary information's were collected from using secondary sources of data. In this research Shrestha has pointed out various findings. Some of the remarkable findings were as follows:

- Budget isn’t prepared in detail and systematically.
- Cost isn’t classified and analyzed systematically.
- Financial performance is not satisfactory.
- No controlling activities are carried on for the betterment of the Organization.
- Actual activities are more variable than budget activities.

Dallakoti, N. (2008), had conducted a research on the topic *"A Study on Management Accounting Practices in Civil Aviation Authority of Nepal"* an unpublished master level thesis submitted to Faculty of Management, T.U. He had focused his study to examine the Management Accounting tools practiced in CAAN. Dallakoti's research was based on primary and secondary data collection. In his research, he had pointed out various objectives and findings. Some of remarkable objectives were as follows:

- To study and examine the Management Accounting tools practiced in CAAN.
- To identify the difficulties in applying Management Accounting tools in CAAN.
- To identify the Management Accounting tools not in use.
- To recommend the areas where Management Accounting tools can be applied to strengthen the organization.
- To make recommendation to over come the difficulties in applying Management Accounting tools in CAAN.

Some major findings were as follows:

- CAAN was facing challenges in collection of the overdue/outstanding revenues from airlines and other clients. A substantial proportion of due was with Nepal Airlines Corporation, NECON air and COSMIC air etc.

- It is the ground reality that the transportation service through out the nation is quite difficult due to its geographical structure. So that in most part of the country the only assess of transportation is possible through air services. The construction of aerodromes and its regular operation is very much expensive than others. Even in huge loss, CAAN was operating large numbers of airports for its public responsibilities as a service provider but due to that government was not providing any subsidies to CAAN.

- In some cases, the aerodromes were constructed, on the interest of political leaders and parties even the future perspective is very poor. Such airports were made on grants or loan from different sectors and transferred all the responsibilities to CAAN.

- Civil Aviation Academy was functioning as a sole institution to train manpower required for CAAN in various disciplines like air traffic services, rescue and fire fighting services, radio maintenance, aviation safety, computer etc.

- There was no such faculty on the academy to provide trainings concentrating managerial and accounting disciplines. For these trainings, huge amount was paying to outside training centers.

Shrestha, D.K. (2009), had conducted a research on the topic *“Management Accounting Practices in the Public Financial Sector in Nepal"* an unpublished master level thesis submitted to Faculty of Management, T.U. The main objective of his study is the state of practices of Management Accounting Tools

in financial sectors in Nepal. Shrestha's research was based on only primary collection. In his research, he had pointed out various objectives and findings.

Some of remarkable objectives were as follows:

- To evaluate the process of planning controlling and decision making process of Public Financial Sector in Nepal.
- To identify the major difficulties for practicing the Management Accounting tools in Public financial Sectors Nepal.
- To make suggestion and recommendation to overcome the difficulties in Public Financial Sector in Nepal.

Some major findings were as follow:

- The types of budget practiced in PES's of Nepal were operational budget, Cash Budget, Master Budget and Program Budget. Almost PFS's of Nepal practiced operational budget while some prepared master budget. Cash budget and Program Budget were practiced too and most of PES's of Nepal practiced operational budget only for carryout operational activities.
- Reasons for not practicing Management Accounting Tools were lack of expertise, high cost/quite expensive, no information about the tools and governmental policy.
- The past budget estimate of historical expenses were the basis used for preparation of budget. Zero base budgeting was not practiced because of government policy and unwilling of the management

Gyawali, (2012), had conducted a research on the topic *"Management Accounting Practices in the Public Trade Companies of Nepal"* an unpublished master level thesis submitted to Faculty of Management, T.U. He had focused his study to examine the practice of Management Accounting tools in Public

Trade Companies in Nepal. Gyawai's research was based on only primary sources of data. In this thesis he had pointed out various objectives and findings. Some remarkable objectives were as follows:

- To find out the Management Accounting tools and techniques in PTCs in Nepal.
- To identify the process of planning, controlling and decision making process of PTCs in Nepal.
- To identify the management policy towards the Management Accounting tools and techniques.
- To identify the major difficulties in using Management Accounting tools and techniques in PTC's in Nepal.
- To make suggestions to overcome the difficulties in practicing Management Accounting tools and techniques in PTCs in Nepal.

Some major findings were as follows:

- Management Accounting helps to managers to formulate organizational strategies as well as policy. PE's as practicing Management Accounting tools such as Capital Budgeting, Annual Budgeting, Cash Flows and Ratio Analysis.
- Management Accounting is help to managers to formulate organizational strategies as well policy for decision making.
- Lack of information and cognizance about Management Accounting tools are the main factors causing problem in the application of such tools.
- Nepalese Public Trade Companies were prepared budget by committee, planning department and chief of finance division mostly. It is also recommended to take outside expert's service for budget prepared.

- Nepalese Public Trade Companies should practice not only full cost pricing and transfer costing pricing but also activity base cost pricing and variable cost pricing.

2.4.1 Research Gap

There is a gap between the present research and previous research to some extent most of the previous research are conducted in the area of profit planning which only covered the budgeting practices in manufacturing companies especially in public enterprises. And negligence of research has been made in the area of management accounting. The previous researches in profit planning didn't disclose which of the management accounting tools are used and which aren't. Previous research earlier conducted in management accounting seems to be vague, because those researches try to cover the many sector of the economy, which doesn't provide the appropriate result. Thus to fulfill the gap current research is conducted. This research is conducted only in the single sector of the economy i.e. Development bank which provide appropriate result. Therefore, this research might be superior to the other research conducted earlier.

So this study will be fruitful to those interested Person, Scholars, Students, Teachers, Government, Businessman, Civil society and other stakeholders for academic and policy perspectives.

CHAPTER – III

RESEARCH METHODOLOGY

3.1 Introduction

Human nature is always curious to find out something new, to learn, understand or investigate the phenomenon raising the question like why, how, what, when etc. The knowledge has something to do with knowing. Knowing may be through acquaintance or through the description of the characteristics of certain things. The things with which we can be acquainted are the things of which we are directly aware. Direct awareness may come through perception and sensation.

3.2 Research Design

'After the research study has been formulated, the next logical steps are to construe the research design which refers to the entire process of planning and carrying out a research study. The research design asks what approach to the problem taken? What methods used? What strategies most effective? Identification, selection and formulation of a problem may be considered as the planning stage of a research. The remaining activities refer to the designs, operation and completion of the research study" (Wolf and Pant; 2005:53).

Design is the overall plan of any future activity. The research design is the specification of methods and procedures required to conduct and complete the study. So, the research design implies procedures, techniques and method.

3.3 Sources of Data

Data were mainly collected from the primary sources. Primary data were collected through questionnaire, interview and discussion. Secondary data were also used as per required.

3.4 Population and Samples

All the development banks of Nepal considered as the total population. Out of them ten Development banks considered as the sample using judgmental sampling for the research study.

3.5 Data Collecting Procedure

As the study was based on primary data, most of the information was collected developing a scheduled questionnaire and distributing it to managers and finance chief that were available. 'Tick mark' and open-end questions was included in the questionnaire. To check whether questions could be understood or not by the respondents, questionnaires were distributed to four different banks for pre-test.

3.6 Data Processing Procedure

Those data which was collected were in raw form. They were classified and tabulated in the required form. Simple arithmetical percentage tools were used for analysis. Statistical tool like chi-square was used to test the hypothesis major findings based on the analysis and interpretation of data.

3.7 Major Management Accounting Tools

Budgeting, standard costing, cost-volume-profit analysis, ratio analysis, capital budgeting, activity based budgeting, zero based budgeting, responsibility accounting cash flow statement and pricing techniques was the major research available.

3.8 Statistical Procedure

Simple percentages were used as an arithmetical tool to interpret data. Chi-square test was used as statistical tool to test much hypothesis.

Hypothesis 1:

Null Hypothesis H_o: There is no significant relationship between the use of accounting system and its performance.

Alternative Hypothesis H_1: There is significant relationship between the use of accounting system and its performance.

CHAPTER - IV
DATA PRESENTATION AND ANALYSIS

The basic objective of the study is to examine the present practice of management accounting tools in the development banks in Nepal and to identify the spot where management accounting tools could be applied to strengthen the development banks. This chapter presents the analysis and interpretation of the data.

To meet the objectives, all the development banks with head office inside Kathmandu valley is taken as target population. Questionnaires were distributed to 14 development banks out of them only 10 development banks show their response. So it's only about $\frac{1000}{14}\%$ of the target population is taken as sample in Kathmandu Valley.

Besides questionnaires, discussions were also made with CEO, Finance Manager and Account Manager of the development banks to get the more information about the present practice of management accounting tools. Opinion of CEO, Accountants, and Finance Managers are also included in this chapter.

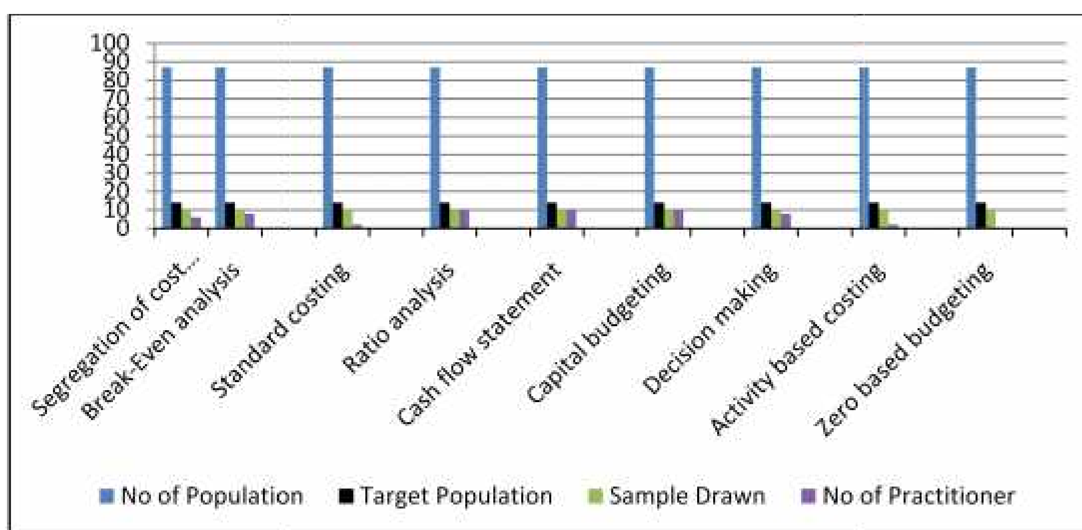
Raw data were properly processed, tabulated and analyzed. They are presented in sixteen tables. Tables were developed based on question asked. Open-ended questions were arranged in a descriptive manner. Hypothesis was tested with chi-square statistical tools.

4.1 Percentage Scenario of Management Accounting Practice

Table 4.1: Practice of Management Accounting Tools in Development banks in Nepal

S. N.	Tools	No of Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Segregation of cost into fixed and variable	87	14	10	6	60
2	Break-Even analysis	87	14	10	8	80
3	Standard costing	87	14	10	2	20
4	Ratio analysis	87	14	10	10	100
5	Cash flow statement	87	14	10	10	100
6	Capital budgeting	87	14	10	10	100
7	Decision making	87	14	10	8	80
9	Activity based costing	87	14	10	2	20
10	Zero based budgeting	87	14	10	-	-

Sources: Opinion Survey, 2013.



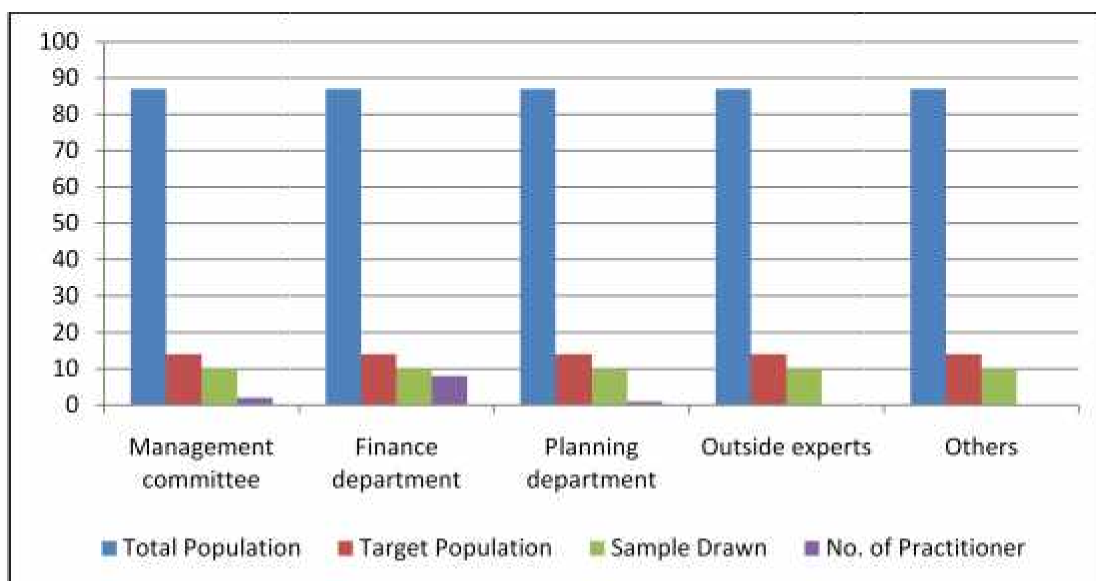
This above table and figure show the practice of management accounting tools in the development banks in Nepal. Management accounting tools like cash flow statement, capital budgeting, ratio analysis are widely practiced in every development banks in Nepal to perform various managerial activities.

Similarly 60% were practicing Break even analysis, 80% were practicing decision making, 60% each were practicing segregation of cost into fixed and variable and activity based costing. None of the development banks were found practicing tools like standard costing and zero based budgeting.

Table 4.2: Budget Preparation System in Development banks in Nepal

S.N.	*Outline of Budget*	Total Population	Target Population	Sample Drawn	No. of Practitioner	Percent (%)
1	Management committee	87	14	10	2	20
2	Finance department	87	14	10	8	80
3	Planning department	87	14	10	1	10
4	Outside experts	87	14	10	-	-
5	Others	87	14	10	-	-

Sources: Opinion Survey, 2013



This above table and figure show the scenario of budget preparation system in development banks in Nepal. Most of the development banks prepare their budget through Finance department i.e. about 80%. Similarly about 20% and 10% of the development banks prepare their budget through management committee and planning department respectively. Some of the development

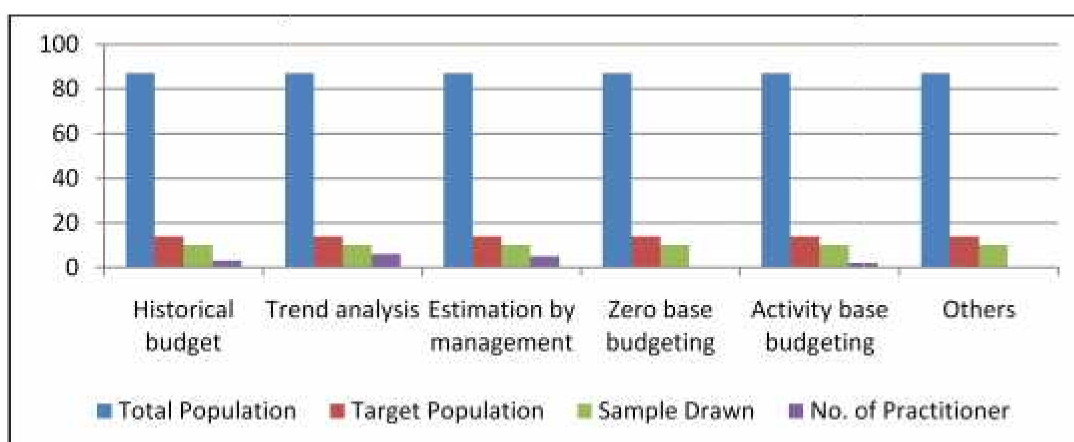
banks prepare their budget through mutual coordination between management committee, finance department and planning department.

Practice of hiring outside experts for preparing budget was almost nil in every development banks due to lack of separate fund for hiring outside experts. Manpower inside the development banks was liable for preparation of budget. Regarding preparation of budget, information were collected from various department and finally submitted to the concerned authorities and based on those information, budget preparation task was forwarded.

Table 4.3: Base for Preparation of Budget in Development banks in Nepal

S.N.	Base	Total Population	Target Population	Sample Drawn	No. of Practitioner	Percent (%)
1	Historical budget	87	14	10	3	30
2	Trend analysis	87	14	10	6	60
3	Estimation by management	87	14	10	5	50
4	Zero base budgeting	87	14	10	-	-
5	Activity base budgeting	87	14	10	2	20
6	Others	87	14	10	-	-

Sources: Opinion Survey, 2013.



The above table shows the base for preparation of budget in development banks in Nepal. As shown in above table the base for practicing budget in most of the development banks were trend analysis and management estimation which

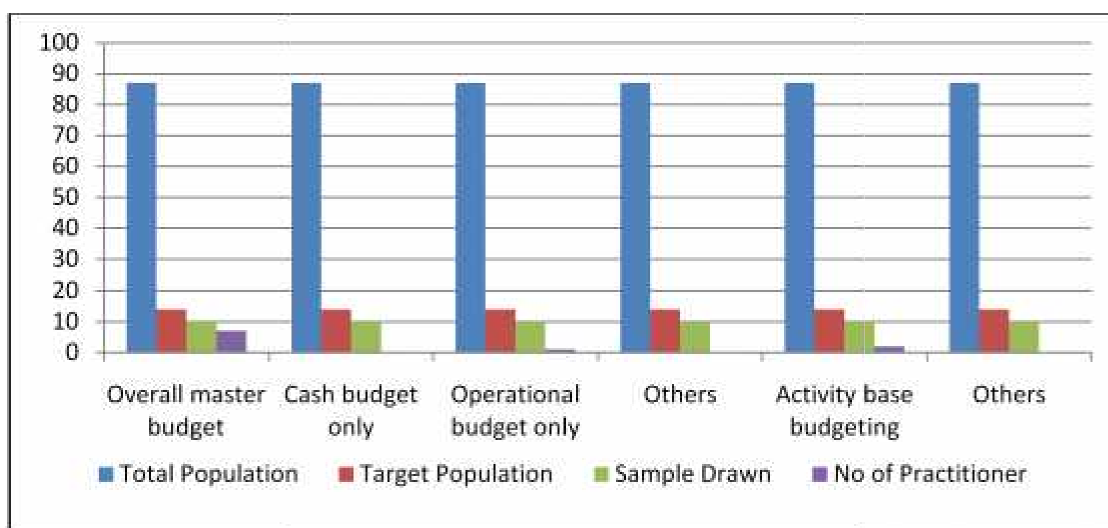
were about 50% and 60% respectively. Activity base budgeting and historical budget are also practiced as well, which were about 20% and 30% respectively.

'Management estimation', Historical budget and Trend analyses were jointly used as basis for budget preparation in some of the development bank as well. None of the development banks were followed zero base budgeting as base for budget preparation.

Table 4.4: Budget Practice (on the basis of nature) in Development banks in Nepal

S. N.	Types of Budget	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Overall master budget	87	14	10	7	70
2	Cash budget only	87	14	10	-	-
3	Operational budget only	87	14	10	1	10
4	Others	87	14	10	-	-

Sources: Opinion Survey, 2013.

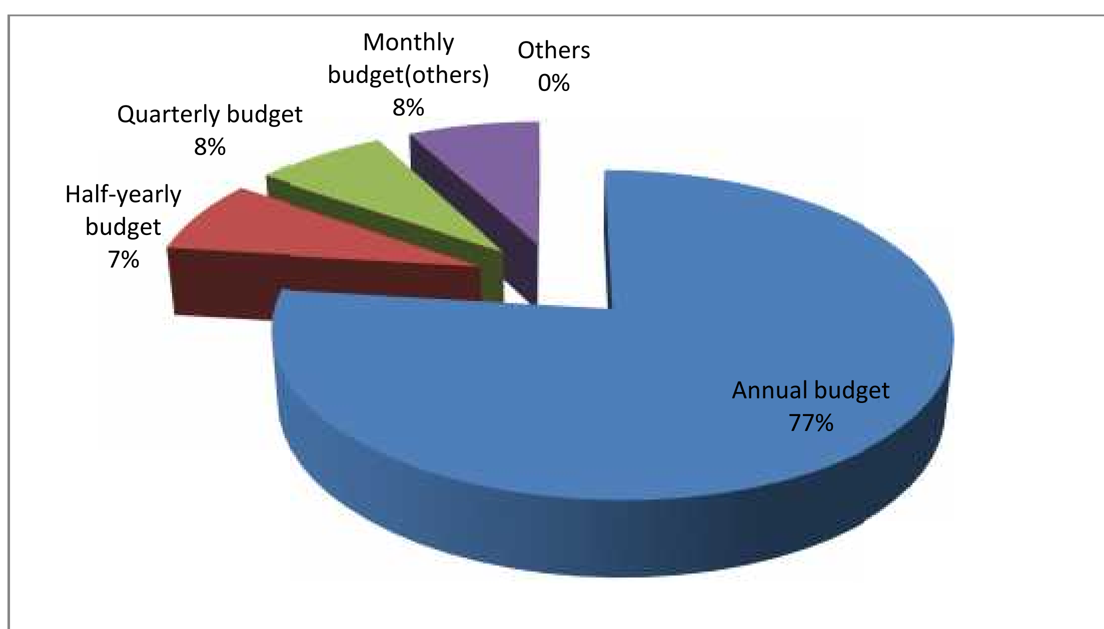


The above table and figure show the types of budget practice in the development banks in Nepal. Most of the development banks (about 70%) practiced overall master budget where as some of the development banks (80%) practiced operational budget only. The practiced of cash budget was not found in any of the development banks.

Table 4.5: Budget practice (on the basis of time) in development banks in Nepal

S. N.	*Types of Budget*	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Annual budget	87	14	10	10	100
2	Half-yearly budget	87	14	10	1	10
3	Quarterly budget	87	14	10	1	10
4	Monthly budget(others)	87	14	10	1	10

Sources: Opinion Survey, 2013.

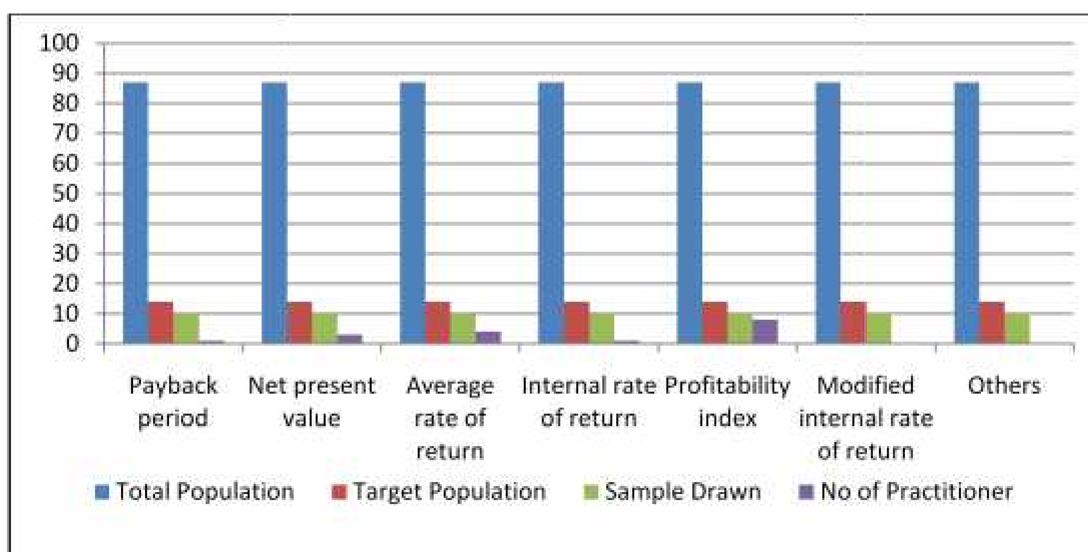


The above table and figure show the budget practice (on the basis of time) in the development banks in Nepal. Most of the development banks practiced annual budget where as minimum development banks practiced half-yearly budget (10%), quarterly budget (10%) and monthly budget (10%).

Table 4.6: Practice of Capital Budgeting Tools While Making Long Term Investment Decisions or Purchasing Fixed Assets

S.N.	Tools	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Payback period	87	14	10	1	10
2	Net present value	87	14	10	3	30
3	Average rate of return	87	14	10	4	40
4	Internal rate of return	87	14	10	1	10
5	Profitability index	87	14	10	8	80
6	Modified internal rate of return	87	14	10	-	-
7	Others	87	14	10	-	-

Sources: Opinion Survey, 2013.



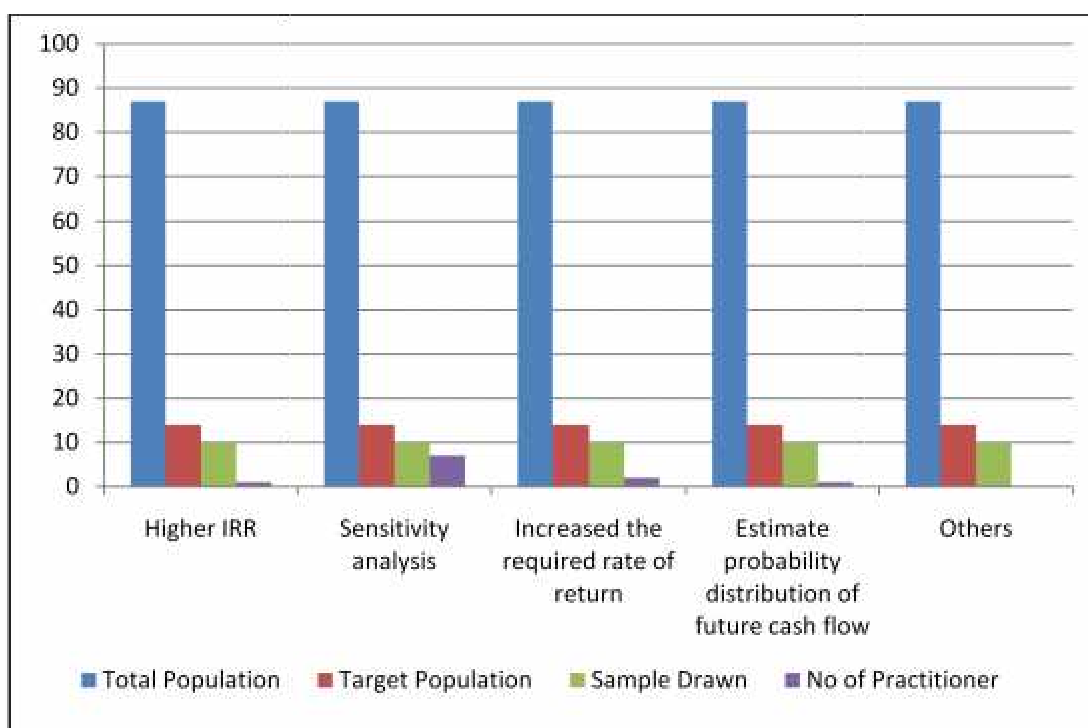
The above table and figure show the practice of capital budgeting tools in the development banks in Nepal. Among the capital budgeting tools, more practiced tools are profitability index (80%), average rate of return (40%), internal rate of return 10% and net present value 30%. Few of the development banks practiced payback period (10%), and none of the development banks has practiced modified internal rate of return for making long-term investment decision.

Some of the development banks are not able to make decision with a single tool so; they are practicing more than a single capital budgeting tool for making long-term investment decision.

Table 4.7: Practice of Risk Adjustment while Evaluating Capital Investment in Development banks in Nepal

S.N.	*Tools*	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Higher IRR	87	14	10	1	10
2	Sensitivity analysis	87	14	10	7	70
3	Increased the required rate of return	87	14	10	2	20
4	Estimate probability distribution of future cash flow	87	14	10	1	10
5	Others	87	14	10	-	-

Sources: Opinion Survey, 2013.



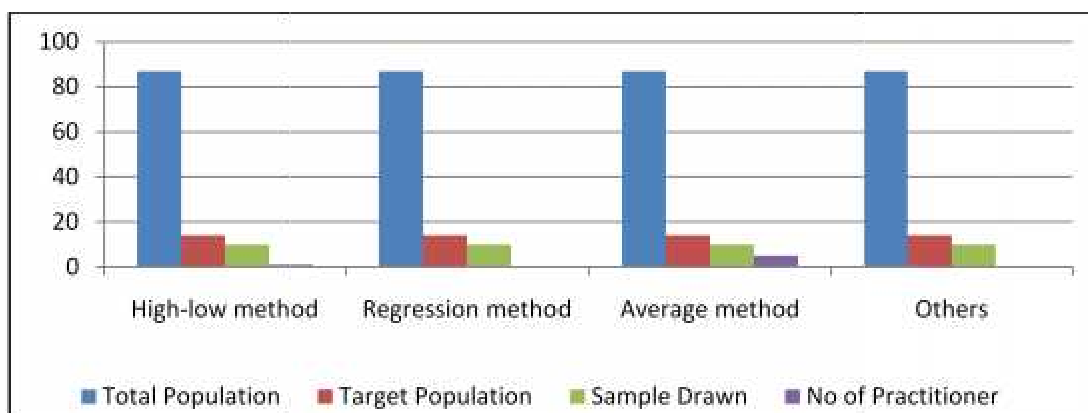
The above table and figure show the scenario of risk adjustment for evaluation of capital investment in development banks in Nepal. More development banks

are aware about risk adjustment while evaluating capital investment. From the table it is obvious that 70% of the development banks are practicing sensitivity analysis, 20% of the development banks are practicing increased the required rate of return and l0% each are practicing higher IRR and estimate probability distribution of future cash flow. Some of the development banks are unaware about the risk adjustment while making capital investment.

Table 4.8: Segregation of Mixed Cost into Variable and Fixed in Development banks in Nepal

S.N.	Segregation Method	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	High-low method	87	14	10	1	10
2	Regression method	87	14	10	-	-
3	Average method	87	14	10	5	50
4	Others	87	14	10	-	-

Sources: Opinion Survey, 2013.

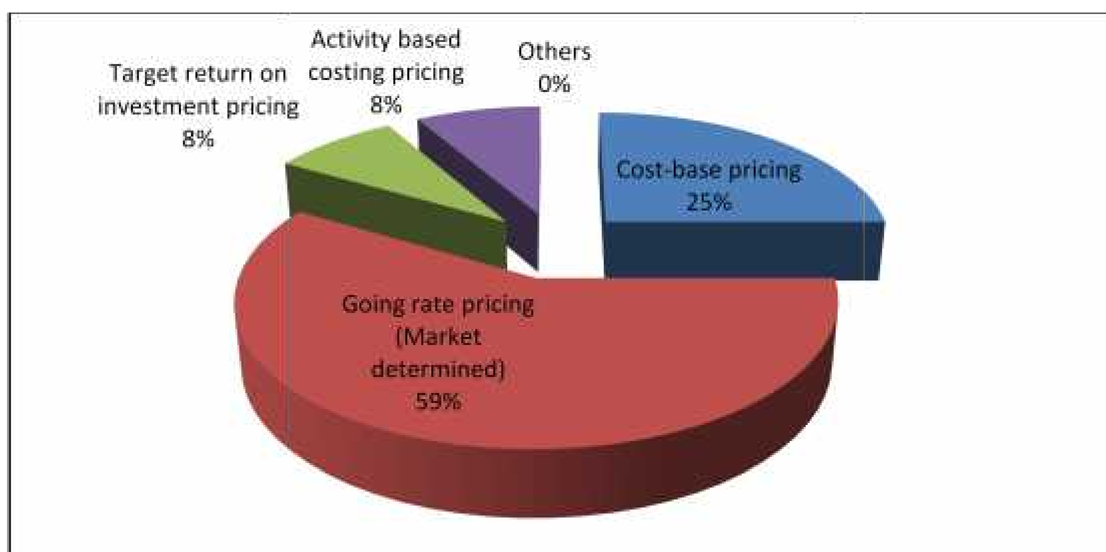


Many of the development banks are aware about segregating mixed cost into fixed and variable while some of the development banks are unaware about it. From the above table and figure it is obvious that 50% of the development banks follow average method and 10% follow high-low method. None of the development banks follow regression method.

Table 4.9: Practice of Pricing the Service in Development banks in Nepal

S. N.	*Pricing Techniques*	**Total Population**	**Target Population**	**Sample Drawn**	**No of Practitioner**	**Percent (%)**
1	Cost-base pricing	87	14	10	3	30
2	Going rate pricing (Market determined)	87	14	10	7	70
3	Target return on investment pricing	87	14	10	1	10
4	Activity based costing pricing	87	14	10	1	10
5	Others	87	14	10	-	-

Sources: Opinion Survey, 2013.



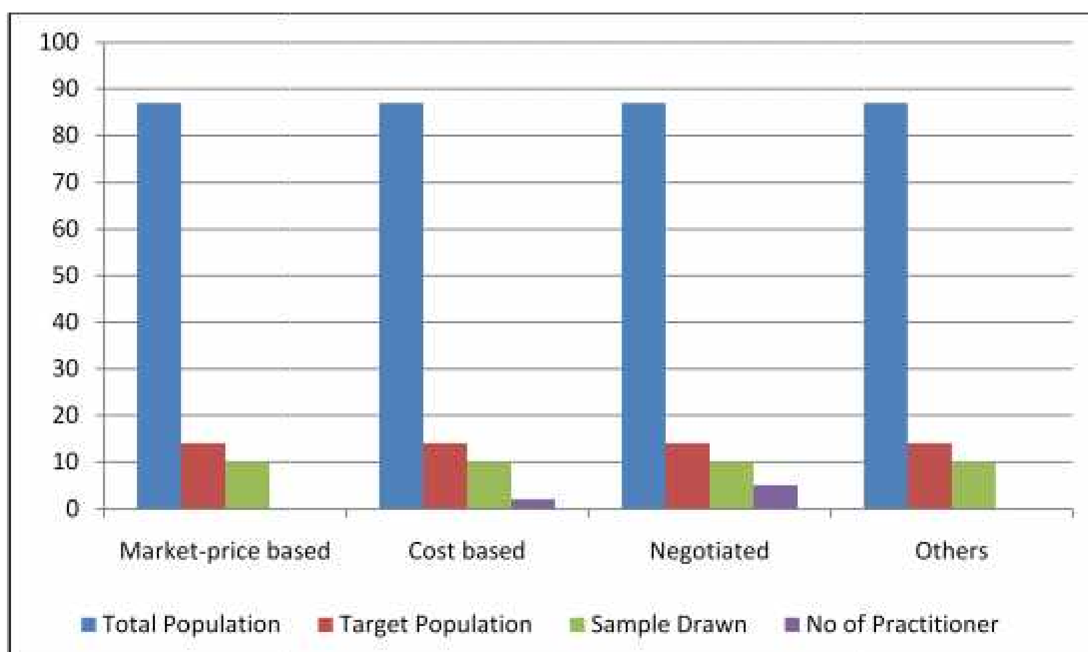
The above table and figure show the practice of pricing the service in development banks in Nepal. As per above table 30% of the development banks practice cost base pricing, 10% practice activity based costing pricing , 70% practice going rate pricing and 10% practice target return on investment pricing for pricing the service.

Practice of pricing the service is not wide in development banks in Nepal. Only some of the commercial banks are aware about the pricing the service.

Table 4.10: Practice of Transfer Pricing in Development banks in Nepal

S. N.	Transfer Pricing Techniques	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Market-price based	87	14	10	-	-
2	Cost based	87	14	10	2	20
3	Negotiated	87	14	10	5	50
4	Others	87	14	10	-	-

Sources: Opinion Survey, 2013.



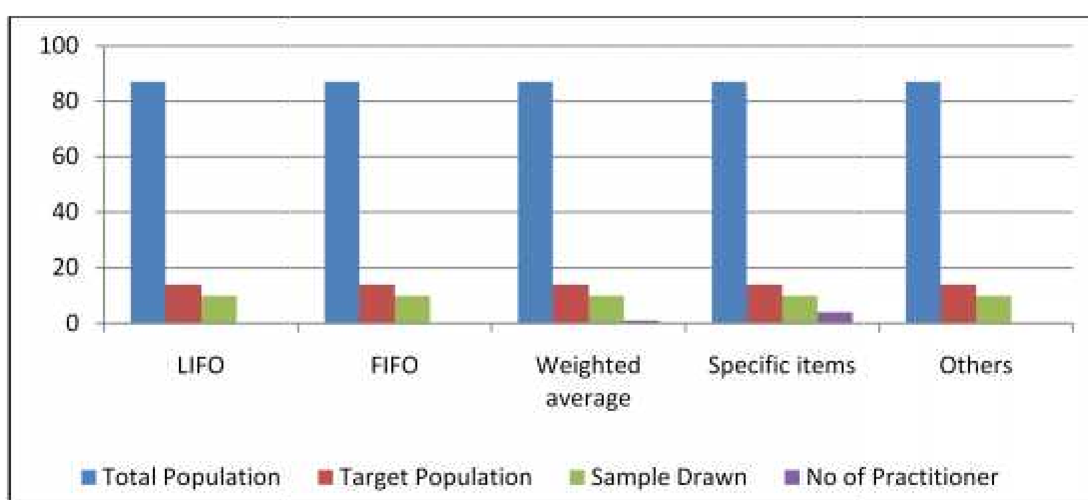
The above table and figure show the scenario of the practice of transfer pricing in finance in Nepal. From the table 50% development banks are practiced negotiated transfer pricing 20% are practiced cost based transfer pricing.

The main reason behind few practicing of transfer pricing in the development banks is they directly rendered service to the customer rather than department to department. As there did not arise any option whether to render service to internal department or outside customer.

Table 4.11: Practice of Pricing for the Issue of Inventory in Development banks in Nepal

S.N.	Techniques	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	LIFO	87	14	10	-	-
2	FIFO	87	14	10	-	-
3	Weighted average	87	14	10	1	10
4	Specific items	87	14	10	4	40
5	Others	87	14	10	-	-

Sources: Opinion Survey, 2013.

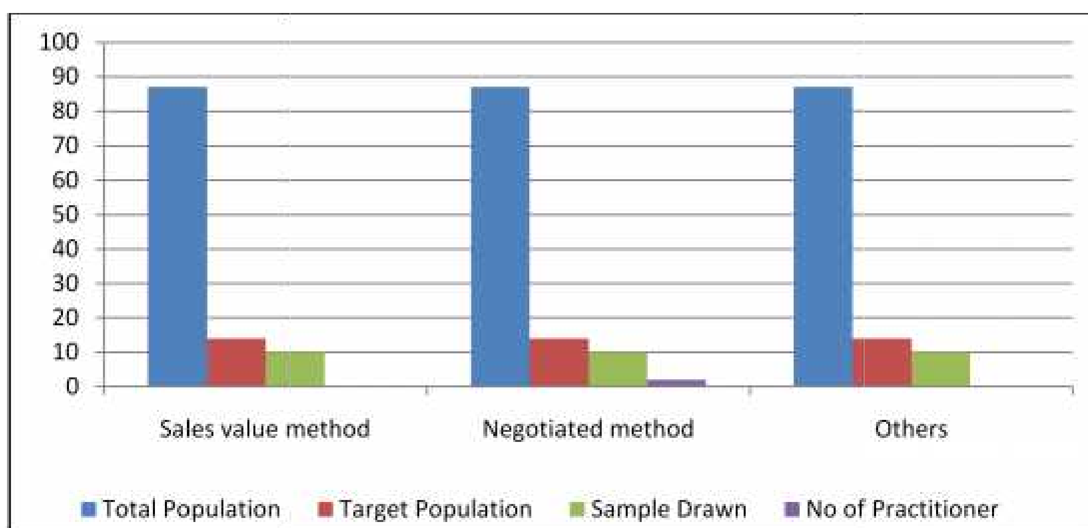


The above table and figure show the scenario of pricing for the issue of inventory in development banks in Nepal. Most popular technique for pricing the issue of inventory LIFO and FIFO are still not in use in the development banks. 40% of the development banks were practicing specific items and 10% are practicing weighted average for pricing the issue of inventory.

Table 4.12: Joint Cost Allocation in Development banks in Nepal

S. N.	*Techniques*	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Sales value method	87	14	10	-	-
2	Negotiated method	87	14	10	2	20
3	Others	87	14	10	-	-

Sources: Opinion Survey, 2013



The above table and figure show the practice of joint cost allocation in development banks in Nepal. Very few development banks practice joint cost allocation, which is followed by negotiated method only i.e. about 20% only. Most of the development banks do not practiced joint cost allocation. On going through fruitful discussions with manager and finance chief it was known that the major expenditure for development banks was operating expenditure and office expenditure. There was no occurrence of joint cost so no question arouse of allocating joint cost among the department in development banks.

Table 4.14: Practice of Cost and Revenue Estimation in Development banks in Nepal

S. N.	*Techniques*	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Past trend analysis	87	14	10	8	80
2	Engineering analysis	87	14	10	-	-
3	Market survey	87	14	10	6	60
4	Zero based analysis	87	14	10	-	-
5	Judgmental analysis	87	14	10	2	20
6	Others	87	14	10	-	-

Sources: Opinion Survey, 2013

The above table shows the practice of cost and revenue estimation in development banks in Nepal. Most of the development banks follow past trend analysis (80%) and past trend analysis (60%) to estimate the cost and revenue. Beside that judgmental analysis (20%) is also used for cost and revenue estimation. while zero based analysis and engineering analysis are found to be nil in the process of cost and revenue estimation in development banks. Some of the development banks mutually followed judgmental analysis and market survey in process of cost and revenue estimation.

Table 4.14: Type of Decision Making Practice in the Listed Development banks in Nepal

S. N.	Types of Decision Making	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Make of buy decision	87	14	10	-	
2	Special order offer decision	87	14	10	1	10
3	Drop or continue any product decision	87	14	10	-	
4	Lease or buy decision	87	14	10	6	60
5	others	87	14	10	-	-

Sources: Opinion Survey, 2013

The above table shows the scenario of decision making practiced in the development banks in Nepal. 60% of the development banks followed by “lease or buy decision” while only 10% of development banks has practiced “special order offer decision”. Few of the development banks are unaware about the practice of decision-making.

Table 4.14: Tools Practiced in Development banks in Nepal for Measuring and Controlling the Overall Performance at the End of Accounting Period

S. N.	Tools Practiced	Total Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Profit and loss a/c made by the company	Budgeted Sales and Actual Sales in Rs.	14	10	10	100
2	Ratio analysis	Budgeted Sales and Actual Sales in Rs.	14	10	10	100
3	Budgetary measure and control	Budgeted Sales and Actual Sales in Rs.	14	10	1	10
4	Flexible budgeting	Budgeted Sales and Actual Sales in Rs.	14	10	-	-
5	Standard costing	Budgeted Sales and Actual Sales in Rs.	14	10	-	-
6	Others	Budgeted Sales and Actual Sales in Rs.	14	10	1	10

Sources: Opinion Survey, 2013

The above table shows the tools practiced by the development banks in Nepal for measuring and controlling the overall performance. As shown in the table 100% of the development banks measure and control their overall performance by the means of profit & loss a/c and ratio analysis made by the company. 10% by budgetary measure and control and 10% through other unspecified tools.

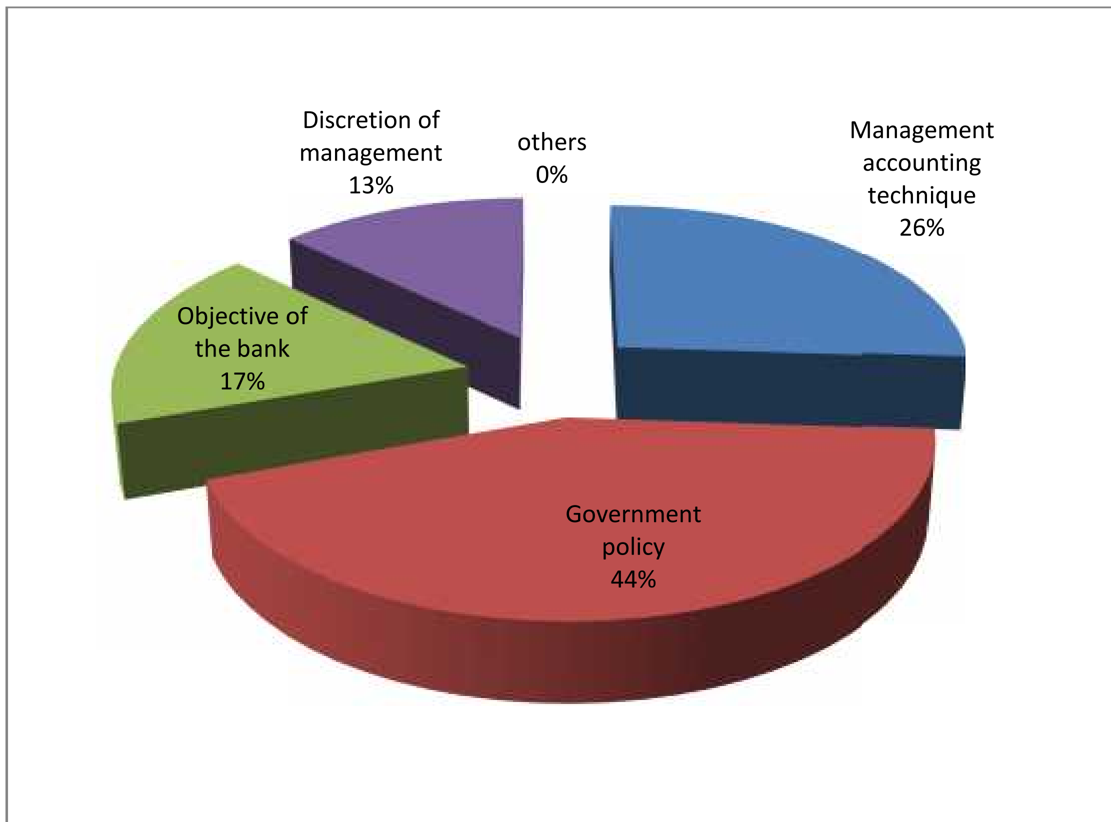
While flexible budgeting and standard costing tools are not used for measuring and controlling the overall performance in development banks in Nepal.

Table 4.16

The Main Factor that Affect the Decision Making Process in Development banks of Nepal

S.N.	Main Factors	No. of Respondent	No. of Practitioner	%
1	Management accounting technique	10	6	60
2	Government policy	10	10	100
3	Objective of the bank	10	4	40
4	Discretion of management	10	3	30
5	others	10	-	-

Sources: Opinion Survey, 2013



The above table and figure show the main factors that affect the decision making process in Development banks of Nepal. The table shows that 100% banks' decisions were affected by government policy. Management accounting tools and discretion of management affect 60% and 30% Development banks

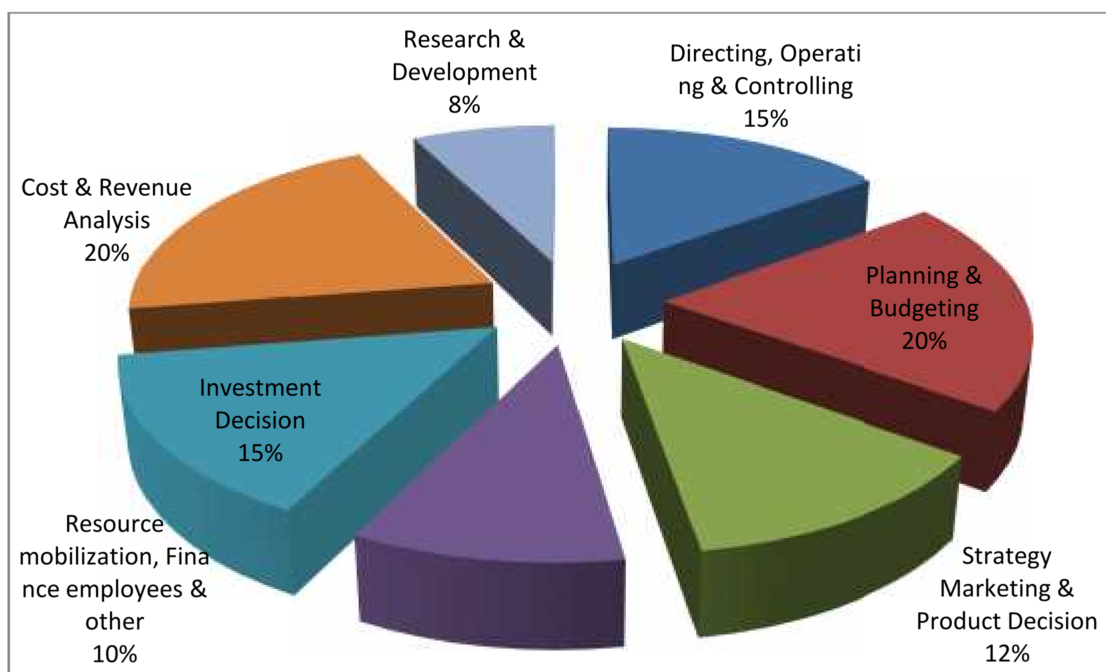
of Nepal respectively. 40% banks decision were affected by objective of bank. Therefore, decision was mostly affected by government policy.

Table 4.17

Performance of Management Accounting system in current Practice

S.N.	Tools	No of Population	Target Population	Sample Drawn	No of Practitioner	Percent (%)
1	Directing, Operating & Controlling	87	14	10	6	60
2	Planning & Budgeting	87	14	10	8	80
3	Strategy Marketing & Product Decision	87	14	10	5	50
4	Resource mobilization, Finance employees & other	87	14	10	4	40
5	Investment Decision	87	14	10	6	60
6	Cost & Revenue Analysis	87	14	10	8	80
7	Research & Development	87	14	10	3	30

Sources: Opinion Survey, 2013.



The above table 4.17 shows the performance of management accounting system practice in Development banks of Nepal. Management accounting system like 80%, Planning & Budgeting and 80 %, cost & Revenue analysis are mostly performed in every development banks

in Nepal to perform various managerial activities. Similarly 60% were performed Directing, Operating & Controlling, 60% were perform investment decision. Few of the development banks 50% were performed

Market strategy & Product decision, 40% were performed Resource mobilization, Finance employees & other and 30% were performed Research & Development.

Empirical Analysis of "Performance of Management accounting system"

Tick mark questions were asked and discussions were made to the manager and finance chief of the development bank under the study to take their opinions to identify the performance of Management Accounting System from practice of management accounting tools. Some key analysis, which were fruitful to be considered are presented as follows.

In case of Directing operating & controlling, due to the practice of accounting tools, increase the performance of Directing operating & controlling. In this opinion, 50% banks are agreed, 30% disagree and 20% development banks are undecided. So it can be said, Management accounting tools some helps for directing operating & controlling in development bank.

In Planning & budgeting, due to the practice of accounting tools, increase the performance of Planning & budgeting. In this opinion, 80% banks are agreed and 20% development banks are strongly agreed. So it can be said, Management accounting tools fully helps for Planning & budgeting in development bank.

In case of Strategy of marketing & Product decision, due to the practice of accounting tools, increase the performance of **S**trategy of marketing & Product decision. In this opinion, 40% banks are agreed, 20% development banks are

disagreed 20% undecided and 20% strongly undecided. So it can be said, Management accounting tools some helps for Strategy of marketing & Product decision in development bank.

In Resource mobilization, finance, Employees & other, due to the practice of accounting tools, increase the performance of Resource mobilization, finance, Employees & other. In this opinion, 60% banks are strongly disagreed, 20% development banks are disagreed and 20% are agreed. So it can be said, Management accounting tools some helps for Resource mobilization, finance, Employees & other in development bank.

In case of Investment Decision, due to the practice of accounting tools, increase the performance of Investment Decision. In this opinion, 50% banks are agreed, 30% development banks are disagreed and 20% undecided. So it can be said, Management accounting tools some helps for Investment Decision in development bank.

In Cost & Profit Analysis, due to the practice of accounting tools, increase the performance of Cost & Profit Analysis .In this opinion, 80% banks are agreed and 20% development banks are strongly agreed. So it can be said, Management accounting tools fully helps for Cost & Profit Analysis in development bank.

In case of Research & Development, due to the practice of accounting tools increase the performance of Research & Development. In this opinion, 60% banks are strongly disagreed, 30% development banks are disagreed and 10% agreed. So it can be said, Management accounting tools few helps for Research & Development in development bank.

4.2 Analysis of Open-End Opinions of Manager and Finance Chief

Two open-ended questions were asked and discussions were made to the manager and finance chief of the development bank under the study to take their opinions to identify the difficulties in applying management accounting tools and suggestions for the application of such tools. Some key opinions which were fruitful to be considered are presented as follows:

Regarding the difficulties in application of management accounting tools, the opinion of manager and finance chief are as:

Management accounting tools like; zero base budgeting and standard costing were completely nil in the case of application. Lack of information about such tools caused difficulties in the application of these tools.

In the application of break even analysis technique, it was difficult to determine major activities to compute contribution margin per activities or profit volume ratio in service sector like development banks.

In case of cost-segregation into fixed and variable, application of “regression method” was found nil in any of the finance companies in Nepal. The major difficulties in the application of it were that it was purely a statistical tool which required manpower and expertise in statistics. Development banks were not in a position to hire an expert from outside due to cost burden.

Regarding estimation of forecasting of cost and revenue development banks found difficulties in applying “engineering analysis” and “zero based analysis” because it was vague, time consuming and much expensive.

Because of price ceiling stipulated by central body of NRB, development banks face difficulties to practice management accounting tools of pricing. Development banks were forced to exercise price within the territory bounded by the central body of NRB.

In case of decision making due to external forces, decision could not be made based on management accounting principles.

Due to limited market and resources of the development banks, they were not enabling to make expenditure for innovation. There were no research and development programmed launched for the application of management accounting tools neither they could send their employees for training on their own cost.

From the opinion of the manager and finance chief of the development bank, it was clear that the main reason of not implementing management accounting tools was due to lack of information and cognizance about the tools. Besides these, limited market, nature of the business, size of the business and cost burden were other factors causing difficulties in the implementation of the tools.

Regarding suggestions to improve the application of management accounting tools the following opinions were cited:

a. Efficient manpower should be produced in the country.
b. Training institute should be developed to produce such manpower.
c. Academicians should put effort to bring the new techniques and tools in the light
d. Information about the new and advance techniques should be conveyed through different media
e. Campaign should be carried out to increase awareness about such tools and techniques.
f. Seminars, workshop should be conducted for companies managers so that they could be acquainted with new tools and its use and benefits.

From the opinion of the managers and finance chief regarding the suggestion to implements the management accounting tools in the developments banks, it was clear that information about the tools, its cost and benefits should be disseminated to them. On the basis of cost-benefit analysis, if any tools suit in the banks, they were ready to implement it.

4.3 Analysis of Hypothesis Test

<u>Hypothesis 1</u>

Hypothesis 1: Null Hypothesis Ho: There is no significant relationship between the use of accounting system and its performance.

Alternative Hypothesis H1: There is significant relationship between the use of accounting system and its performance.

Solution:

2x2 Contingency Table

Practicing Accounting system

	Yes	**No**	**Row Total**
Use of Accounting System	49 a	51 b	100 (a+b) r_1
Performance of Accounting System	40 c	30 d	70 (c+d) r_2
Column Total	89 (a+c) c_1	81 (b+d) c_2	170 N

Performance 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

Calculation of x^2

O	$E = \frac{RT \mid CT}{N}$	(O-E)	$(O-E)^2$	$\frac{(O-E)^2}{E}$
49	$\frac{100 \mid 89}{170} = 52$	-3	9	0.17
51	$\frac{100 \mid 81}{170} = 48$	3	9	0.19
40	$\frac{70 \mid 89}{170} = 37$	3	9	0.24
30	$\frac{70 \mid 81}{170} = 33$	-3	9	0.27
Total $= \frac{(O-E)^2}{E}$				0.87

Hence calculated x^2 = 0.87

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

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 = 0.87 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, it can be conclude that there is no significant evidence of difference between the use of accounting system and its performance.

4.4 Major Findings of the Study

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

a. While examining the tools practiced in the development banks for planning , controlling and decision making it was found that "ratio analysis", "cash flow analysis", "capital budgeting", and "Annual Budgeting" were widely practiced management accounting tools in development banks in Nepal. Almost every development bank has practiced these to tools in carrying out operational activities. Break even analysis, Activity based costing, cost segregation are used to some extent in the development banks in Nepal while practiced of standard costing and zero based budgeting is totally nil.
b. Regarding decision-making on long term investment and fixed assets purchase, payback period, average rate of return and internal rate of return are more practiced technique of capital budgeting. Some of the development banks practiced net present value while most of the development banks practiced profitability index and none of the companies practiced modified internal rate of return while making capital budgeting decisions.
c. To adjust for risk while evaluating capital investment it was found that some of the development banks preferred "sensitivity analysis" and some of them preferred "increased the required rate of return" which are 70% and 20% respectively. Many of the development banks are unaware about the risk adjustment while making capital investment.
d. To carry out operational activities properly, development banks mostly practiced preparation of master budget and annual budgeting. Some of the development banks managed their activities with "operational budget, half-yearly budget and quarterly budget" also.
e. While preparing budget, most of the development banks prepared their budget on the basis of past trend and management estimation. Some of

them followed historical budget and activity base budgeting as the basis of budget preparation, none of the development banks use "zero base budgeting" as a basis for budget preparation. The reason behind not satisfied "zero base budgeting" was lack of information and cognizance about the format and the way of developing it.

f. While examining the budget preparation system, it was found that in most of the development banks, it was finance department that prepared the budget. About 80% of the development banks prepare their budget through finance department; some of the development banks prepare their budget through mutual cooperation between management committee, finance department and planning department. While preparing budget all the management staffs are involved and there was no practice of consultancy services.
g. Regarding types of budget practice in the development banks in Nepal, it was found that most of the development banks prepared annual budget where as few of the development banks prepare half-yearly, quarterly and monthly budget
h. Regarding performance measurement and control, most of the development banks followed profit and loss criteria. Almost all the development banks measured their performance on the basis of "profit and loss A/c" made by them during a year. Besides these, ratio analysis and budgetary control was also practiced tool for measuring and controlling activities. But none of the development banks used standard costing and flexible budgeting for measuring and controlling the overall performance.
i. For pricing the services, some of the development banks followed 'going rate pricing' where as few of the development banks followed ', 'cost based pricing' target return on investment, and activity based cost pricing.
j. Due to nature of business transfer pricing practiced like negotiated and cost bases in some of the development banks in Nepal.

k. Regarding joint cost allocation among different departments, units and division only some of the development banks (20%) were found practiced of "negotiated basis". Besides that none of the development banks take initiative about joint cost allocation.
l. Regarding segregation of mixed cost in fixed and variable the technique of "least square method" was not practiced in any of the development banks.50% of the development banks followed average method whereas few of them followed high-low method.
m. Regarding cost and revenue estimation, 100% of the development banks forecasted coming year cost and revenue on the basis of "past trend analysis". Some of the development banks mutually followed "past trend analysis", market survey and judgmental analysis as a base for cost and revenue estimation practice of zero based budgeting and engineering analysis was nil in this regard.
n. For pricing the issue of inventory some of the development banks followed their specific items and few of them followed weighted average method. None of them practiced LIFO and FIFO method for pricing the issue of inventory. Besides that some the development banks do not practiced pricing the issue of inventory.
o. In various development banks, various types of administrative and technical decision were made. Administrative decision were governed by policy, rule and regulation of the development banks, where as in case of technical decision making none of the development banks practiced special order offer decision and none of them followed lease or buy decision. Make or buy decision and drop or continue any product/service line decision some practiced at all
p. From the open-end analysis, the major difficulties for application of new advance management accounting tools were found as follows:
    - Lack of information and knowledge about the tools
    - Long procedure
    - Lack of expertise and trend of follow-up traditional approaches.

- To solve these difficulties, managers of various development banks requested academician to bring tools and techniques into light through different media.

q. From the hypothesis test, it was found that development banks were independent in performance management accounting tools. We conclude with the help of hypothesis test the use of management accounting system and their performance are independent i.e. there is no significant relationship between the use of management accounting system and their performance.

CHAPTER – V
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Summary

The main objective of the present research was to observe the present practice of management accounting tools in the listed development banks in Nepal and to identify the spot where management accounting tools can be applied to boost the development bank.

Management enhanced the effective uses of resources to achieve the targeted objective of an organization as per changing environment. Future is uncertain. It creates risk. Through good management risk can be minimize, changed can be managed and targeted objective of the organization can be easily achieved.

Corporate firms that carryout the economic activities are the backbone of the economy. Their activities impact the economy in one-way or the other. Every organization has limited resources. To utilize the limited resources in a better way, different tools and techniques have been developed. Among the various tools and techniques, management accounting tools have proved beneficial in different aspect of managerial activities. The main objective of management accounting is to help managers in overall managerial activities by providing information and helping in planning, controlling and decision making, this acts as a strategic business partner in support of management role in decision making.

This is survey type of research design which is followed by descriptive and analytical approach. Surveys of different banks are made. Questionnaire was distributed and table talks were made to gather information. Information is tabulated as per the requirement of the study.

From the analysis it is found that management accounting tools such as capital budgeting, annual budgeting, cash flow, ratio analysis are mostly practiced tools. Similarly pricing, activity based costing, segregation of cost, Cost volume profit analysis are practiced to some extent in some of the development banks while zero base budgeting, value engineering and standard costing are totally nil in the listed development banks in Nepal. Lack of information and extra cost burden are the main reason behind not satisfied such tools.

From the hypothesis test; it was found that development banks were independently performance the management accounting tools. There was no significant relationship between the use of accounting system and their performance.

5.2 Conclusions

Different types of management accounting tools, which are taught in the colleges and universities, are not found applied by the development banks in Nepal. It shows gap between the theory and practice. Tools like capital budgeting, budget, ratio analysis and cash flow are in practice but application of new tools of management accounting are not in practice.

No development banks in Nepal practice of hiring outside expert for carrying out various activities. Thus, it can be concluded that Nepalese development banks are in beginning stage in practiced of management accounting tools. New tools of management accounting like zero base budgeting, target costing, value engineering are widely practiced around the world but it seems in infant stage in the development banks in Nepal. Lack of information and cognizance about management accounting tools are the main factors causing problem in the application of such tools.

5.3 Recommendations

Nepal is the member of World Trade Organization (WTO). Nepalese development banks should fit with globe environment. Best fit managerial strategies should be developed. Managers of development banks should think in global perspective information should be updated. For better utilization of the limited resources and achieving goal through cut throat competition, application of advance management accounting tools can be of great help. Thus the following recommendations based on the findings of the research study are presented as:

a. Development banks should put effort to bring advance management accounting tools into the light by conducting national and international seminars. Short term training packages on management accounting should be offered for business managers for notify them with the appropriate techniques of management accounting and to up date their knowledge and skill.
b. Development banks are depending upon the traditional tools of management accounting such as past trend analysis. For the smooth operation of the activities traditional tools of management accounting should be changed, they should be motivated toward the application of new, advance and modern management accounting tools such as target costing, activity base costing, zero base budgeting.
c. While preparing budgeting and planning activities, development banks should hire outside professional expert.
d. Budget preparation should not be based on "past experiences" and "management estimation" only. Beside that environmental factors should also be taken into consideration. It is because what happened in the past might not occur in the future.
e. Interaction between academician and development banks should be needed. It is recommended that the development banks should create conducive environment of interaction between the academician and the

development banks. Development banks can benefit from their knowledge about new tools and techniques of management accounting.

f. Favorable environment should be needed to implement the tools. For this sake, a separate management accounting department should be established within an organization. Management accounting expert should be hired. Those development banks who cannot manage to establish separate department can manage it under their existing accounting, financing and planning department if the development bank cannot hire outside experts, it can send its existing employee for short term training.
g. Academicians, who have sufficient knowledge about the tools, should put effort to bring advance management accounting tools in the light so that person related to this field gets more information about the implementation and benefit of the tools.
h. For planning activities, tools like budgeting and cost volume profit analysis can be used. For controlling activities, budgetary control tool can be used. For decision making, marginal analysis can be used. While implementing any tools of management accounting, it is recommended to analyze cost and benefit of the tools. To build up the competitiveness of Nepalese listed development banks and to carryout managerial activities, the uses of management accounting tools are recommended.
i. Applications of management accounting tools need internal and external information. So development banks are recommended to keep management accounting information system so that they can be informative through out the time about every aspects of management. Skill should be updated with the every changes taking place around the external environment. Skill can be developed through training.
j. While making long term investment decision or purchasing fixed assets, development banks are recommended to apply NPV tool of capital budgeting.

k. Development banks using "cost plus pricing" should use target cost pricing, activity based pricing tools as per the case.
l. Out of profit made each year, some portion of it should be allocated for research and development program so that new tools and techniques can be developed and adopted in the development banks.
m. For future cost and revenue estimation, development banks should not be based on "past trend" only. What happened in the past might not occur in the future. So, tools like "zero base budgeting", market survey and statistical tools should be practiced. This helps the development banks proper information.

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Appendix-1

Research Questionnaires

Dear, Sir/Madam

This questionnaire is concerned with the study on "Management Accounting Practices of Development Banks in Nepal". It would be very much appreciated if you could spare some of your valuable time for filling this questionnaire. Please specify with tick mark (✓) for choosing the alternative or alternatives.

Q.No.1. (i)Do the following management accounting tools are used for planning, controlling and decision-making in your Bank?

	Yes	No
a) Segregation of cost into fixed and variable	-----------	---------
b) Break-Even Analysis	-----------	---------
c) Standard Costing	-----------	---------
d) Ratio Analysis	-----------	---------
e) Cash Flow Statement	-----------	---------
f) Capital Budgeting	-----------	---------
g) Decision making	-----------	---------
h) Activity-Based Costing	-----------	---------
i) Zero Based costing	-----------	---------

(ii).If your Bank has not practiced any of the above mentioned tools, what might be the reasons?

a) Lack of expertise [ ] b) Heavy cost [ ]
c) Lack of information about the tools [ ]
d) Please specify, if other ____________________

Q.No.2.Who is liable to prepare the budget in your Bank?

a) Management Committee [ ] b)Finance department [ ]

c) Planning department [ ] d) Outside experts [ ]
e) Please specify, if other ____________________

Q.No.3.What is the basis for preparing budget in your Bank?

a) Historical budget [ ] b) Trend analysis c) Zero base [ ]
c) Estimation by management [ ] d) Activity base [ ]
e) Please specify, if other ____________________

Q.No.4.What type of budget (on the basis of nature) does your Bank practice?

a) Overall master budget [ ] b) Cash budget only [ ]

c) Operational budget only [ ]

d) Please specify, if other ____________________

Q.No.5.What type of budget (on the basis of time period) does your Bank practice?

a) Quarterly budget [ ] b) Half-yearly budget [ ]
c) Annual budget [ ]
d) Please specify, if other ____________________

Q.No.6.Which of the following capital budgeting tools is practiced while making long term investment decisions or purchasing fixed assets?

a) Payback period [ ] b) Average rate of return [ ]
c) Net present value [ ] d) Internal rate of return [ ]

e) Profitability index [ ] f) Modified internal rate of return [ ]

g) Please specify, if other ____________________

Q.No.7.What is the appropriate way to adjust risk while evaluating capital investment in your Bank?

a) Higher IRR [ ] b) Sensitivity analysis [ ]

c) Increased the required rate of return [ ]
d) Estimate probability distribution of future cash flow [ ]
e) Please specify, if other ____________________

Q.No.8.How does your Bank practiced to segregate mixed cost into variable and fixed?

a) High-low-point method [ ] b) Regression method [ ]
c) Average method [ ]
d) Please specify, if other ____________________

Q.No.9.Which technique does your Bank practiced for pricing the service?

a) Cost-base pricing [ ] b) Going-rate pricing(market determined [ ]

c) Target return on investment pricing [ ] d) Activity based costing pricing [ ]
e) Please specify, if other ____________________

Q.No.10.which transfer pricing technique is practiced in your Bank?

a) Market-price based [ ] b) Cost based [ ]
c) Negotiated [ ]
b) Please specify, if other ____________________

Q.No.11.Which method does the Bank follow for pricing the issue of inventory

(stock) in your Bank?

a) LIFO [ ] b) FIFO [ ] c)Weighted Average [ ]

b) Please specify, if other ____________________

Q.No.12.What technique does your Bank is following to allocate the joint cost into various department?

a) Sales value method [ ] b) Negotiated method [ ]
c) Please specify, if other ____________________

Q.No.13.Which method does the Bank used to forecast the costs and revenues of the Bank for the future periods?

a) Past trend analysis [ ] b) Engineering analysis [ ]

c) Market survey [ ] d) Zero based analysis [ ]

e) Judgmental analysis [ ]
f) Please specify, if other ____

Q.No.14.What shot of Decision making technique have been carried out in Your Bank?
a) Make or buy decision [ ] b) Special order
c) Drop or continue decision [ ] d) Lease or buy decision [ ]

e) Others [ ] ____

Q.No.15.How does the Bank measures and controls the overall performance at the end of the accounting period?
a) Profit and loss a/c made by the Bank [ ] b) Ratio analysis [ ]

c) Budgetary measure and control [ ] d) Flexible budgeting [ ]

e) Standard costing technique [ ]
f) Please specify, if other ____

Name of the Bank: ____________________________

Designation of the respondent: ____________________

Name (optional) ______________________

Date: ______________

"Thank You for Your Kind Co-operation"

Appendix-2

Open-End Questionnaire

a. What is the main factor of major accounting related decision-making process in your Bank?

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b. What are the difficulties face by the Bank for the application of management accounting tools and techniques?

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Name of the Bank: ____

Designation of the respondent: __________________________

Name (optional): ______________________________

Date: ___________________

"Thank You for Your Kind Co-operation"

Appendix-3
Research Questionnaires

Dear, Sir/Madam

This questionnaire is concerned with the study on "Management Accounting Practices of Development Banks in Nepal". It would be very much appreciated if you could spare some of your valuable time for filling this questionnaire. Please specify with tick mark (✓) for choosing the alternative or alternatives.

Q.No.1. Does the use of accounting tool increase the performance of "Directing, Operating & Controlling" in your Bank?

b) Strongly disagree [ ] b) Disagree [ ]
c) Undecided [ ] d) Agree [ ]
e) Strongly agree [ ]

Q.No.2. Does the use of accounting tool increase the performance of "Planning & Budgeting" in your Bank?

a) Strongly disagree [ ] b) Disagree [ ]
c) Undecided [ ] d) Agree [ ]
e) Strongly agree [ ]

Q.No.3. Does the use of accounting tool increase the performance of "Strategy of marketing & product decision" in your Bank?

a) Strongly disagree [ ] b) Disagree [ ]
c) Undecided [ ] d) Agree [ ]
e) Strongly agree [ ]

Q.No.4. Does the use of accounting tool increase the performance of "Resource mobilization, Finance, Employees & other" in your Bank?

a) Strongly disagree [ ] b) Disagree [ ]
c) Undecided [ ] d) Agree [ ]
e) Strongly agree [ ]

Q.No.5. Does the use of accounting tool increase the performance of "Investment decision" in your Bank?

a) Strongly disagree [ ] b) Disagree [ ]
c) Undecided [ ] d) Agree [ ]
e) Strongly agree [ ]

Q.No.6. Does the use of accounting tool increase the performance of "Cost & Profit Analysis" in your Bank?

a) Strongly disagree [ ] b) Disagree [ ]
c) Undecided [ ] d) Agree [ ]
e) Strongly agree [ ]

Q.No.7. Does the use of accounting tool increase the performance of "Research & Development" in your Bank?

a) Strongly disagree [ ]　　b) Disagree [ ]
c) Undecided [ ]　　d) Agree [ ]
e) Strongly agree [ ]

Name of the Bank: ______________________________

Designation of the respondent: ____________________

Name (optional) ______________________

Date: _______________

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Appendix-4
Tabulation of "Performance of Management Accounting System"

1. Performance of "Directing, Operating & Controlling"

Option	No. of Respondent	% of Respondent
Strongly Disagree	-	-
Disagree	3	30
Undecided	2	20
Agree	5	50
Strongly Agree	-	-
Total	**10**	**100**

2. Performance of "Planning & Budgeting"

Option	No. of Respondent	% of Respondent
Strongly Disagree	-	-
Disagree	-	-
Undecided	-	-
Agree	8	80
Strongly Agree	2	20
Total	**10**	**100**

3. Performance of "Strategy of marketing & Product decision"

Option	No. of Respondent	% of Respondent
Strongly Disagree	1	10
Disagree	2	20
Undecided	2	20
Agree	4	40
Strongly Agree	-	-
Total	**10**	**100**

4. Performance of "Resource mobilization, finance, Employees & other"

Option	No. of Respondent	% of Respondent
Strongly Disagree	6	60
Disagree	2	20
Undecided	-	-
Agree	2	20
Strongly Agree	-	-
Total	**10**	**100**

5. Performance of "Investment Decision"

Option	No. of Respondent	% of Respondent
Strongly Disagree	-	-
Disagree	3	30
Undecided	2	20
Agree	5	50
Strongly Agree	-	-
Total	**10**	**100**

6. Performance of "Cost & Profit Analysis"

Option	No. of Respondent	% of Respondent
Strongly Disagree	-	-
Disagree	-	-
Undecided	-	-
Agree	8	80
Strongly Agree	2	20
Total	**10**	**100**

7. Performance of "Research & Development"

Option	No. of Respondent	% of Respondent
Strongly Disagree	6	60
Disagree	3	30
Undecided	-	-
Agree	1	10
Strongly Agree	-	-
Total	**10**	**100**

For example

7. Performance of "Research & Development"

Option (x)	**No. of Respondent** (f)	$(f \times x)$
1. Strongly Disagree	6	6
2. Disagree	3	6
3. Undecided	-	-
4. Agree	1	4
5. Strongly Agree	-	-
Total	**10**	**16**

Mean = $\frac{\sum fx}{n}$

Where, $\sum fx$ = sum of option and No. Of Respondent

n = Sample size of development banks

Mean = $\frac{16}{10} = 1.6 \approx 2$

Mean 2 indicates the performance of "Research & Development" is Disagree

% of Respondent = $\frac{2}{10} \times 100 = 20$