# MANAGEMENT ACCOUNTING PRACTICES AND PERFORMANCE OF COMMERCIAL BANKS IN NEPAL

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# **CERTIFICATION OF AUTHORSHIP**

I certify that the work in this thesis has not previously been submitted for a degree nor has it been submitted as part of requirement for a degree except as fully acknowledged within the text.

I also certify that the thesis has been written by me. Any help that I have received in my research work and the preparation of the thesis itself has been acknowledged. In addition, I certify that all information sources and literature used are indicated in the reference section of the thesis.

Dhan Bahadur Dhami Date:

## **RECOMMENDATION LETTER**

It is certified that thesis entitled Management accounting practices and performance of Commercial Banks in Nepal by Dhan Bahadur Dhami is an original piece of research work carried out the candidate under my supervision. Literary presentation is satisfactory and the thesis is in a form suitable for publication. Work evinces the capacity of the candidate for critical examination and independent judgement. Candidate has put in at least 60 days after registration the proposal. The thesis is forwarded for examination.

Dr. Uday kishor Tiwari Thesis Supervisor Central Department of Management

Tribhuvan University Kirtipur, Kathmandu, Nepal Date: July, 2020

# **APPROVAL-SHEET**

We, the undersigned, have examined the thesis entitled "Management Accounting Practices and Performance of commercial Banks in Nepal (Nepal bank limited, NIC ASIA Bank, Rastiya banijya bank Ltd, and Nepal investment Bank Ltd)" presented by Dhan Bahadur Dhami a candidate for the degree of Master of Business Studies (MBS) and conducted the viva voce examination of the candidate. We hereby certify that the thesis is worthy of acceptance.

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#### ABSTRACT

Management accounting offers a best opportunity for Banks to compete in the market in order to offer best quality products and services to provide the Customers. The purpose of this study was to investigate the effects of management accounting practices performance of commercial Banks with a special focus on commercial banks in Nepal. The research design employed in this study was descriptive in nature. For the purpose of this study, the target population consisted total of 27 commercial banks where the top, middle or low level management staffs were involved. The convience sampling was representative of the population and offers an unbiased selection which was important in drawing conclusions from the results of the study. The research issued a total of 30 questionnaires. Primary data collection was via a questionnaire as this was an efficient and convenient way of gathering the data within the resources and time constraints. This study adopted a descriptive research design. The target population for this study was the 27 (Total branches 4239, 'A' class banks) commercial Banks in Nepal. This study involved 8 Commercial banks. The study collected primary data from the respondents. The data collected was quantitative. Data Analysis was done using IBM Statistical Package for Social Sciences (SPSS 25.0), allowing the researcher to present the information in form of tables and figures.

The study concludes that information for decision making practices is the most highly used management accounting practice amongst the Commercial Banks in Nepal followed by budgeting, performance evaluation, costing, controlling and decision making respectively. This study recommends the creation and enhancement of awareness among firms of the importance of Information for decision making practices as this is the most highly used management accounting practice amongst the commercial Banks in Nepal.

# ABBREVIATIONS

Activity Based Costing
Nepal Rastra Bank
Rastiya Banijya Bank
Cost Volume Profit
First in first out IRR
Internal rate of return
Joint Venture Banks
Management accounting
Management Accounting Practices
Net present value
Payback Period
Performance Management System
Strategic Enterprise Management
Strategic Management Accounting
Small and medium enterprises
Statistical package for social science
Value Based Management
Zero Based Budgeting

#### **CHAPTER - I**

### **INTRODUCTION**

#### 1.1 Background of the study

Accounting is a process of collecting, recording, classifying and summarizing financial transaction of a business in such of a manner that the result of its operation and financial position can be ascertained at the end of a given period and communicates them to various users.

Accounting system plays the virtual role in the function of any corporate organization. It provides the guidelines for better utilization of variable resources so that success can be achieved in this competitive age. Management accounting tools have provided beneficial in every aspect of management activities for planning and decision making. According to the American accounting association, "The process of management activities to permit informed judgments and decision by use of the information".

Management accounting concern with providing information to managers and users within the organization directly and provides the organization the necessary basic information through the preparation of various types of reports, some of them related to performance and comparison with that is planned and other frequently and periodically, analytical reports to investigate specific problems facing the organization (Garrison, et al, 2012). Management accounting also comprises the preparation of financial reports for non-management groups such as shareholders, creditors, regulatory agencies and tax authorities (Smith, 2014).

Management accounting is concerned with providing both financial and non-financial information that will help decision makers to make good decisions. It is relates to the provision of appropriate information for people within the organization for helping them to make better decision. Management accounting is an emerging discipline. With the changing environmental factors and cutthroat competition in the international market, the demand for the thoughtful decision making is highly appreciable. The main theme of management accounting is to simplify the planning and decision .making process and to provide support to achieve better organizational outcomes. It is important

for every level of management because every manager has to be involved in some sort of decision making, planning and controlling process (Shah and Ojha, 2016).

Companies use management accounting techniques to assess their operation. These include budgeting, variance analysis and breakeven analysis. Thesis methods help organization to plan Direct and control operating cost and achieve profitability. It is recognized that management accounting practices are important to the success of the organization (Horngren, eta, 2009).

Management accounting is the application of appropriate techniques and concepts in processing the historical and projected economic data of an entity to assist management in establishing a plan for reasonable economic objectives and in the making of rational decisions with a view towards achieving thesis objectives.

Management accounting is the management for management. It can be defined as the process of identifying, measuring, accumulation, analysis, presentation, interpretation and communication of financial information which is used by management to plan, evaluate and control within an organization. It ensures the appropriate use of and accountability for organizational resources. Management accounting is a technique for effective planning, for choosing among alternative business actions and controlling through the evaluation and interpretation of performance (Chowdhary, 1982: 4).

Management accounting measures analyzes, and reports financial and nonfinancial information that helps managers make decisions to fulfill the goals of an organization. Managers use management accounting information to develop, communicate implement strategy. They also use management accounting information to coordinate product design, production and marketing decisions to evaluate performance (Horngren and Datar, 2013). Management accounting is the process of measuring and reporting information about economic activity within organization, for use by managers in planning, performance evaluation and operational control (kalpan, 2012).

Management accounting is concerned with providing both financial and non-financial information that will help decision makers to make good decisions. It is relates to the provision of appropriate information for people within the organization for helping them to make better decision. Management accounting is the process of identifying,

measuring, analyzing, interpreting and communicating information for the goals of the company. Management accounting is an integral part of the management process and management accountants are important strategic partners in the company's management team (Hilton, 2002).

Management accounting is an emerging discipline. With the changing environmental factors and cutthroat competition in the international market, the demand for the thoughtful decision making is highly appreciable. Therefore, Management Accounting is useful, essential and beneficial to all the aspects of the management activities such as planning, decision making etc (Adhikari, 2010).

The main aim of management accounting is to help management in its functions planning, directing, controlling and areas of specialization included with the bounds of management accounting. It supplies accounting information to the management for planning, formulating policies, controlling business operation and making decisions. Management accounting helps in operational accounting system by providing necessary knowledge to management of planning and decision making and it also helps to motivate and monitor people in organization. During the 1950's the emphasis shifted from external users to the internal users of cost accounting data. As a result, the cost data used by management was accumulated in different manner from different sources of financial accounting. This shift in emphasis led to the emergence of management accounting (Gautam and Bhattarai, 2014).

Although backing business is in growing stage in our country. It is becoming more complex because of competitions. For the smooth running of banking sectors and to make the banking sector successful, good management is the only one option. The performance of the 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, system and methods, which coupled with special knowledge and ability. It consist management in maximizing profit, sales and wealth of the owners.

#### 1.2 Statement of the problem and research question?

Management accounting provides techniques to aid management function. Nepalese commercial banks are not performing well performances, because without using proper information and the formulating the plan, its implementation and control are not effective. Banking is a business of risks with the diversity of products and services, been increasing. In words as fast moving as finance, regulation cannot stay behind. Until recently serious work has been done by the accounting profession on the conceptual differences between the use of management accounting techniques to support GAAP financial reporting and management accounting techniques used for internal. A flexible and updated regulatory system seems to be the best option in such a volatile market.

Success is a matter of implementing plan systematically, profit does not just happen. Every activities must be planned and managed to achieve success. We find the practices is not sufficient there for the research questions will help to study the scenarios of management accounting tools being in commercial banks. It also provides information to assist managers in their planning and controlling activities. Management accounting activities include collecting, classifying, processing, analyzing, and reporting information to management.

The quality and ability of the management are often judges by the size of the profit figure at the end of the accounting period. Management accounting provides techniques to aid management function. Lack of information, extra cost burden and cognizance about management accounting tools are the main factors causing problem in the application of management accounting tools. Lack of knowledge, intensive decision, lack of skilled manpower, lack of infrastructure development and extra cost burden are the main reasons behind not practicing new management accounting tools. Nepalese commercial banks are infant stage in practicing management accounting tools.

The research is based on following questions to find out the answers:

- 1. What is the management accounting practices in Nepalese commercial banks
- 2. Which management accounting tools are used in these sectors?

3. What is the impact of management accounting system on customer performance in commercial banks?

# **1.3 Purpose of the study**

The general purpose of this study is to explore the management accounting practices and examine the extent to which the level of adoption affects the performance of commercial banks in the Nepal. More specifically this study proposes following objectives:

- 1. To examine the nature and practices accounting system in commercial banks.
- 2. To identify the cause that creates problem in applying management accounting tools in the commercial banks.
- 3. To examine the impact of management accounting system in performance.

## **1.4 Significance of the study**

Management accounting is the integral part of the management process such as planning, coordinating, controlling and decision making. This study is design to describe the different types of management accounting practices use by Nepalese commercial banks. Beside this study adds into the theory of management accounting practices in developing countries by focusing on the practices of commercial banks in Nepal. The main significance of this research is as follows:

#### Importance to commercial banks,

The study would show the MAPs that play a part in the financial health of banks through improving organization performance. It would also help organizations and competitors become aware of the tools, methods and techniques available to them in a bit to control cost, increase employee morale and maximizing profit. It helps to increase GDP in Nepal. The findings of this study would also to improve financial literacy, financial Access, economy promotion and financial transparency. The recommendations given in the study would help the commercial banks as well as other financial intonations in Nepal by equipping them with adequate tools to get the solutions to the problems and challenges posed by the identified aspects.

#### Importance to academicians and researcher,

The study would form basis or foundation for further studies and critique to be done by academic scholars interested in pursuing Accounting profession. The documented report of this study would be easily acquired in the library and it would equip the learners with more knowledge and skills on factors that influence the adoption of MAPs. The study would further make a myriad contribution to the literature on adoption of management accounting practices among commercial banks in Nepal which would be part of articles that would be useful to researchers who want to further in this study and to other wider stakeholders in academic circles.

#### **Importance to Investors**

The study would enable the investor to consider and analyze whether commercial banks pursue tight cost control policies, perform project appraisal before engaging in a project, have a future plan for the business in terms of market expansions, revenue growth and profitability improvement before making a decision on whether to invest in an organization. By using the study results, the investors in the sector would be in a better position to understand influence of MAPs on organizational performance and be conversant with best solutions in regards to business performance and sustainable profitability.

#### **The Government**

The government would be able to understand the factors that influence the adoption of MAPs among commercial banks in Nepal and the extent to which the policies drafted affect commercial banks. Additionally, since the study would draw attention to the factors that influence the adoption of MAPs among commercial banks, the study would provide useful insights to the government and the policy makers for adaptive and creative strategies which would be consistent with current economic and competitive environmental realities. The government through various stakeholders would facilitate development of operational policies that would ensure rapid growth of the sectors hence immense contribution to the economy as well as job creation opportunity.

### **1.5 Limitation of the study**

There are several limitation to this study, due to the time and budget constraints, this study will be carried only in few management accounting practitioners of Nepalese commercial banks. The present study suffers from following limitations:

- 1. This study is focused only on commercial banks not to other sectors banks and financial institutions.
- 2. This study takes eight commercial banks as sample with judgmental sampling.
- 3. This research is based on basically primary as well as secondary data.
- 4. This study takes attention to the practices of the management accounting tools only.

## 1.6 Chapter plan

This study is organized in five chapters. The title each of those chapters is summarized and the contents of each of these chapters of this are briefly mentioned here:

**Chapter One**: The introduction to the research which covers the background of the study, statements of research problem, purpose of the study, research questions, significance of the study, limitation of the study.

**Chapter Two:** Review of literature **is** function of any kinds of research work. It contents of the theoretical framework review of the empirical studies, review of major books, journals, existing thesis.

**Chapter Three**: Research methodology, it covers the research design, nature of the data, population and sampling, sampling techniques, process of data collection and procedures, data analysis and research variables.

**Chapter Four:** Data presentation and analysis. This chapter deals with presentation analysis and interpretation of data. It consists testing of hypothesis, analysis of questionnaires and analysis of open-end opinions and finding of the research.

**Chapter Five**: The last chapter covers summary, conclusion, and suitable recommendation.

#### **CHAPTER-II**

#### LITERATURE REVIEW

The previous study cannot be ignored in any study. We can find many past articles, journals, study reports, public books, manuals, thesis in this topic. In order to find out what other scholars have already done and what remains to be done and assess similarities and dissimilarities with the study review is necessary. We can found many articles, reviews, thesis on the topic about management accounting practices of commercial banks in Nepal. The following review is the impact of management accounting practices on organizational performance of commercial banks.

This chapter presents a review of literature on MA concepts. The research has drawn materials from several sources which are closely related to the theme and the objectives of the study. The chapter focuses on aspects of MA including costing system, budget practices, controlling and reporting system, performance evaluation and decision making. This is followed by a summary of the literature review.

#### 2.1 Management accounting practices

MA practice helps an organization to survive in the competitive, ever-changing world, because it provides an important competitive advantage for an organization that guides management action, motivates behaviors, supports and creates the cultural values necessary to achieve an organization's strategic objectives. MA is concerned primarily with the internal needs of management. It is oriented toward evaluation of performance and development of estimates of the future as opposed to traditional financial accounting which emphasizes historical data related to such legal financial matters as ownership, investment, credit granting, taxation, regulation, and the building of foundations for consistent and conservative external reporting, "in accordance with generally accepted accounting principles." Flexibility is an essential characteristic of MA since it presupposes that careful attention has been given to determine the important needs of management, many of which cannot be precisely identified in advance (Parker, 2002). The Institute of Management Accountants (IMA), the professional association of practicing and academic management accountants, defines MA as "The process of identification, measurement, accumulation, analysis, preparation, interpretation, and communication of financial information used by management to plan, evaluate, and control within an organization and to assure

appropriate use of and accountability for its resources. MA also comprises the preparation of financial reports for non-management groups such as shareholders, creditors, regulatory agencies, and tax authorities" (Smith, 2009).

MA provides information from its environment to management to facilitate decisionmaking. Good management accounting information has three attributes: Technical-it enhances the understanding of the phenomena measured and provides relevant information for strategic decisions, Behavioral-it encourages actions that are consistent with an organization's strategic objectives, and Cultural-it supports and/or creates a set of shared cultural values, beliefs, and mindsets in an organization and society (McWatters, 2001). In order to remain competitive in today's global market, business must continually improve. Good MAPs help the organization to improve continually. Due to these all over the world there are so many MA tools & techniques developed and practiced.

Management accounting is the branch of accounting that produces information for the managers within an organization. It is the process of identifying, measuring, accounting, analyzing, preparing, interpreting and communicating information that help managers to fulfill the goals and objectives of the organization. The charted institute of management accountants (UK) views MA as an integral part of management process which requires the identification, generation, presentation, interpretation and use of information. Smith (2014) also asserts MA involves the preparation of financial reports for non-management groups such as tax authorities, shareholders, creditors and regulatory agencies.

The history of accounting keeping in Nepal by the government is very old, in 1825 B.S. by the king of Prithivi Narayan shah the great chief of the district level soldiers used to keep the account of government offices. In 2008 B.S. a weak practices of managerial accounting being in Nepal through the implementation of budgetary system, which was a tool of managerial accounting technique to plan revenue and control expenses.

The term MAPs has been defined by Ittner and Larcker (2002) as the various methods especially considered for manufacturing firms in order to support the infrastructure and MA processes of the organization. Gichaaga (2014) asserts that MAPs can consist of performance evaluation, budgeting, strategic analyses and information for decision making, among others. They help management acquire relevant information needed to make meaningful decisions (Alleyne and Marshall, 2011). Usually, the larger the organization is, the greater is management's need for information.

#### 2.1.2 Function of management accounting

Function of management accounting that satisfy the various needs of management for arriving at appropriate business decision may be described as follows:

**Stewardship function:** stewardship function is a traditional approach of accounting that places can obligation on stewards or agents, such as a directors, to provide relevant and reliable financial information relating to resource over which they have control but which are owned by other, such as a shareholders. Not only are stewards responsible for providing information, but they must also submit to an adult, stewardship function follow proper accounting procedure which satisfy legal and commercial needs but are less vigorous and detailed than the professional practices of management and financial accounting. It is usually applied to small business that do not need the more sophisticated techniques outing to the popularity and practices of company business or corporations, the stewardship function now is almost out of continuation, (Bajracharaya et al., 2005:11).

**Controllership function**: controller is top accountant in an organization, controllership activities are primary related to the accounting process. It consists of major activities including financial record keeping and reporting, internal auditing, tax planning, cost accounting, managerial accounting, and profit planning, and accounting information system and so on. Maintaining financial discipline and profit maximization are the prime objectives of controllership function, (bajracharya et al., 2005:11). And other functions:

- a. Information and Data Collecting,
- b. Data Analysis and its Interpretation,
- c. Identification and Modification of Relevant Information,
- d. Providing Information for Planning and Decision Making,
- e. Facilitate Management Control,

#### 2.1.3 Background and meaning of commercial banks

Commercial banks are commercial concerns, which provide various types of financial service to customers in return for payments in various forms such as interest, discounts, commission fee etc. Their objectives are profit oriented. However, what distinguishes them from other business concerns in the degree which they have to balance the principle of profit maximization with certain others principles. Their primary functions are transfer of monitory resources from their savers to their borrowers, (joshi, 2069).

Commercial banks are the suppliers of finance for trade land, industry, which plays vital role in the economic and financial life of the country. They help in the formation of capital by investing the saving and productive areas. Rural people of underdeveloped counties like Nepal need various banking facilities to enhance its economy. In most of the countries, the banks are generally concerned in urban and semi-urban sectors. They neglect rural sector due to heavy risk and low return, which is in facts. The main key to economic development without if other sectors of economy cannot be flourished.

A commercial banks is a dealer, which deals with money as well as the substitutes for money such as cheque and bill of exchange. It provides variety of financial services, (American institute of banking).

History tells us that it was the merchant who first evolved the system of banking by trading in commodities than money. Reviewing the history we can find that present day banker has three ancestor of particular note. These are merchant, lender and the goldsmith. Lender and borrowing are almost as old as money itself but modern banking showed its seed in medieval Italy.

The history of the banking development, the bank of venice was established in 1157 A.D. In fact modern bank started to take rapid speed informing and functioning from 17<sup>th</sup> century, (Bhandari, 2003).

The Nepalese banking industry started with the established of the, Nepal Bank Limited in, 1994 B.S at the first commercial bank of the Nepal with the joint ownership of the government and general public. In these more than seven decades, since the establishment of Nepal bank limited, the Nepalese financial system witnessed major changes in policies and regulations, with economic liberalization of 1980s, and focus on the private sector development. Many foreign banks have established as joint venture banks in Nepal and thus the Nepalese financial system has shown a tremendous growth of banking sector. The financial sector liberalization resulted into entry of many new banks in the domestic market.

By the end of mansir 2076, altogether 165 banks licensed by NRB were in operation; out of them 27 are "A" class commercial banks, 24 "B" class development banks, 22 "C class finance companies, 91 "D" class micro-finance institution and one infrastructure development bank in Nepal.

However, the Nepalese banking industry is currently going through the consolidation process with merger and acquisition. The merger and acquisition of banks and financial institutions have been encouraged to strengthen financial sector stability.

## 2.1.4 A brief review of management accounting tools

There are various managements accounting tools and technique use to planning, controlling and decision making process for management goals. The main management accounting tools are: (Gyawali, et al., 2010).

- i. Cost classification & cost allocation
- ii. Measurement of income
- iii. Cost volume-profit analysis
- iv. Flexible budget and overhead variance
- v. Standard costing
- vi. Decision making
- vii. Pricing decision
- viii. Capital budgeting
  - ix. Master budgeting
  - x. Zero based budgeting
  - xi. Responsibility accounting

#### A. Cost concept

Cost may be defined as the sacrifice or giving up of resources for a particulars purpose. Monetary units that must be paid for goods and services frequently measure cost. Cost is initially recorded in elementary form. Then this cost are grouped in different ways to help managers make decision such as evaluating subordinates, and sub-unites of the organizations expanding or deleting equipment. To aid decision managers want the cost of something. The something is called a cost objectives or cost objective which may be defined as any activity for which separate measurement of cost is desired, (Horn green, 1991: 65).

#### **B.** Cost classification

Cost classification is the process of grouping cost according to their common characteristics. The same cost figure some time can be classified according to different ways of costing depending upon the purpose to be achieved and requirement of particulars concern, (Jain & Haring, 1992: 1. 48).

The cost can be classified different ways for different purpose. The major classifications are (Singh et al., 2004: 2.24).

- a) On the basis of elements of cost
  - i. Prime cost: direct material, direct labor, direct material
  - ii. Overhead cost : indirect material, indirect labor, indirect expenses
- b) On the basis of function of cost
  - i. Manufacturing cost
  - ii. Administrative cost
  - iii. Marketing/ selling cost
- c) On the basis of behavior cost
  - i. Variable cost
  - ii. Fixed cost
  - iii. Semi-variable cost
- d) On the basis of cost for decision making
  - i. Relevant cost
  - ii. Irrelevant cost
- e) Avoidable cost, unavoidable cost, controllable cost and un-controllable cost.

### C. Method of mixed cost segregations

Cost estimation requires the classification of cost into fixed and variable. To segregate the semi-variable 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 that method is simple, while some are quite sophisticated. In some firms managers use more than one method of cost estimation. The results of the different methods are than combined by the cost analysis on the basis of experiences and judgment.

- i. High-low method
- ii. Visual fit method
- iii. Accounting estimation method.
- iv. Engineering method
- v. Statistical method, (Hilton, 1997: 320).

We can use the following method of segregate the mixed cost into fixed and variable cost.

## i. High-low method

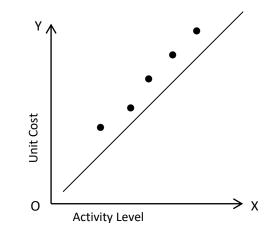
In this method, the high and low activity levels are chosen from the available data set. These activity levels, together with their associated cost levels are used to compute the variable and fixed cost components using the following formulas:

# Variableosper Un(tVCPL) CostatHigheLevelCostatLowestevel OutputtHighestevelOutputtLowesteve

Fixed cost (FC/a) = High cost-(high activity  $\times$  VCPU)

Total cost (y) = a + bx, where x = level of activity.

### ii. Graphical method



### Figure 2.1

This figure shows graphical method of cost segregation. This is a simple method which uses scatter diagram. Cost of different activities is plotted then a line is drawn in judgmental basis. It's subjective and result may be different as per the people and estimates.

## iii. Least- square method /Regression method

It is statistical procedure for estimating mathematically the average relationship between the dependent variable (y) and independent variable (x). Under this method, the following least square formula can be used to estimate cost.

 $\mathbf{Y} = \mathbf{a} + \mathbf{b}\mathbf{x}$ 

Slopefregressidineb=
$$\frac{n(\sum xy) - (\sum x)(\sum y)}{n(\sum x^2) - (\sum x)^2}$$

## iv. Analysis method

This method also known as "degree of variability" technique because the genesis of this method lies in measuring the extent of variability of cost on a careful analysis of each item to determine, how for the cost varies with volume, variables overheads under this method computed as follows, (Brown & Howard, 1964: 149)

Variable overhead = Budgeted mixed overhead × Degree of variability

#### 2.1.5 Cost relating to income measurement

### 1. Cost relating to Profit planning

Profit planning is concern with decision making. Cost volume profit relationship is an integral part of profit planning, that is how the cost and profits vary with sales volume. Planning deals with future. The future costs are relevant costs. The relevant cost concepts are:

#### a) Variable Cost, Fixed Cost and Semi Variable Cost

Variable costs are the costs that tend to vary in direct proportion and same

### a) Relevant and Irrelevant Cost:

A cost, which is influenced by a decision, is a relevant cost and hence is important for decision makers. Relevant cost in true sense is an incremental cost. Relevant cost is those costs, which differ from one alternative to the next. A cost, which is not affected by a decision, is irrelevant cost. Such a cost is of no relevance to decision makers. These costs should be ignored while making decisions. (Khan and Jain, 2013) Variable costs change in direct proportion to and in the same direction as the changes in activity levels or outputs. Fixed costs are costs associated with those inputs, which do not vary with changes in the volume of output or activity within a specified range of activity or output. If any cost remains constant in total at any level of activity within the relevant range, it is called fixed costs (Drury, 2017). Semi variable costs. All costs, other than fully variable and fixed, which are neither perfectly variable nor absolutely fixed in relation to volume changes, are semi variable costs.

# b. Out of Pocket Costs, Marginal or Difference Costs, , Sunk Costs Out of pocket costs:

Out of pocket cost means the cash incurred in an activity. Since, out of pocket costs involve a cash outlay it is very important for external reporting and internal planning and decision making both. Like raw material, labor, salary, rent, etc. out of pocket costs (Shah and Ojha, 2016).

#### Marginal or differential costs

Any cost that is present under one alternative but is absent in whole or in part under another alternative is known as differential cost. Differential cost is also known as incremental cost. Any costs which increase between the alternatives is incremental cost while the one that decreases is detrimental cost. Both incremental and detrimental cost is relevant in decision-making purpose (Garrison, ET. Al. 2012).

Marginal cost is the change in total cost owing to the change in output. More precisely marginal cost is the increase in the cost due to one more unit of output produced.

#### 2. Cost Allocation and Apportion Methods:

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

## a) Direct Method

"Direct method of cost allocation ignores the cost of services between departments and allocates all service department costs directly to producing department" (Horngren and Dater, 2013).

#### b) Step-Down Allocation Method

Under the step-down method, once a support department's costs have been allocated, no subsequent support department costs are allocated back to it.

#### **5. Product Costing Methods:**

There are two popular methods of product costing. They are absorption costing and variable costing.

### a) Absorption Costing

Absorption costing method is also known as conventional costing, traditional costing or full costing method. A costing method that includes all manufacturing cost in the cost of a unit of product is known as absorption costing system. Under absorption costing fixed manufacturing cost is also included in the cost of product. It absorbs all cost necessary to production (Horngren and Datar, 2013).

## Table 2.1

Product cost	Cost
Direct material	XXX
Direct labor	XXX
Variable overheads	XXX
Fixed overheads	XXX
Cost of goods manufactured	XXX
Period cost	
Fixed manufacturing cost	
General and administrative cost	
Selling and distribution cost	

## b) Variable Costing

Variable costing method is also known as modern costing or marginal costing method. Variable costing is a method of recording and reporting costs, which regards as product costs only those manufacturing costs, which tend to vary directly with volume of activity (Koirala and Acharya, 2013).

Product cost	Amount
Direct material	Xxx
Direct labor	Xxx
Variable overheads	Xxx
Cost of goods manufactured	Xxx
Period cost	Xxx
Fixed manufacturing cost	
General and administrative cost	
Selling and distribution cost	

# Table 2.2

#### 2.1.6 Cost-volume-profit analysis

Cost-volume profit analysis is management accounting technique, which is used to examine the relationship among revenue, cost, and profit for relevant range of activity and for a certain time period. Cost behavior pattern should be considered such as, how to cost change in response to the change in the level of activity? The reply is all costs do not behave in the same pattern towards the change in volume. " cost-volume-profit (CVP) analysis examines the behavior of total revenue, total costs, and operating income as changes occur in the output level, the selling price, the variable cost per unit, and the fixed costs of a product"

## a. Application of CVP Analysis:

CVP analysis is an essential tools for profit planning and control. It is used in the management accounting to show the relationship between cost, selling price, and profit and production volume. It can be used in the following reasons:

- i. It helps to fix selling price
- ii. It assists the management to understand the behavior of cost.
- iii. It is used to control cost
- iv. It provides essential information about cost volume to the management.
- v. It helps to determine the profitable range and breakeven point, (Acharya, Goat et al., 2064).

### b. Method / Approach of CVP Analysis

Contribution margin Analysis

Contribution margin is the excess of sales price of a unit of output over its variable cost i.e. (S-V). It is the difference between the profits of rupees that is left after variable expenses are deducted. It had to be remembered that 'V' is the sum of unit manufacturing cost and the unit marketing and administrative costs.

Profit =  $(S-V) \times \emptyset$  – Fixed cost

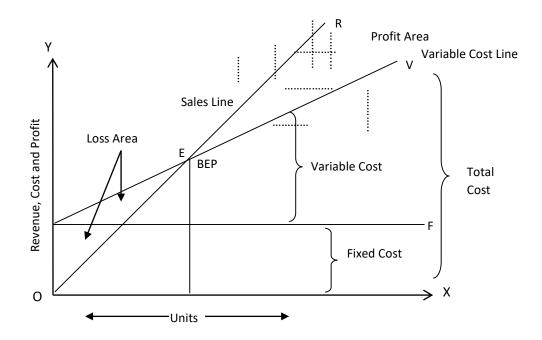
Where, S = selling price per unit

V= variable cost per unit

(S-V) =contribution margin

## **Break- even point:**

Break-even sales volume is that level of sales volume in which a company neither makes profit nor suffers losses. It will just be able to recover its cost. Break even analysis helps the management to know which sales volume will only recovers its cost and after which it charts giving profit. It can be calculated by following figures:



Here, the revenue curve intersects total cost curve at point E. This point is called breakeven point. At this point, the total revenue equals the total cost. The graph states that if the company can reach the point of the BEP it can generate sufficient revenues to cover all of its operating expenses

### 1. Contribution margin method

Contribution margin reflects the revenue remaining after covering all variable costs. Contribution margin is the excess of sales revenue over variable costs. So, contribution margin mean how much is left from sales revenue, after covering variable expenses that are contributed toward the covering of fixed expenses and then towards profit for the period. Total Contribution Margin = Total Sales Revenue – Total Variable Cost

CMC (Per Unit) = SPPU - VCP

CM (Total) = Sales-Variable Cost

CM (Ratio) = CM/Sales or Change in profit

A break-even point is reached when contribution equals to the total fixed cost. BEP in units and rs. can be calculated as follows:

BEP in Units = Total fixed cost/CMPU

BEP (in Rs.) = Total fixed cost/ CM Ratio

Using the contribution margin, the sales volume for the desired profit can be ascertained.

# Required lesin unit for desire profit Fixed Cost-Desire Profit Contributi Margi Per Un Required lesin Refordesire profit Fixed Cost-Desire Profi Contributi Margi Ratio

## 2.1.7 Flexible budget

A flexible budget is defined as 'a budget which by recognizing is designed to change as volume of output changes.'(Chartered institute of management accountings, London). A flexible budget is a budget that adjusts for changes in sales volume and other cost driver activities. The flexible budget is identical to the master budget in format, but manager may prepare it for many level of activity. For performance evaluation, the flexible budget would be prepared at the actual level of activity achieved. In contrast, the master budget is kept fixed or static to serve as the primary benchmark for evaluating performance. It shows revenues and costs at only the originally planned levels of activity, (Horn green, Sudden & Stratton, 1998.

### a). Multi- activity level

The budget prepared at different level of activities within the range of output. The factors to be taken into consideration for preparing the flexible budget under this method are summarized below:

- i. Determination of level of activity.
- ii. Estimation of cost and its behavior for each level of activity.
- iii. Determinations of units at the level of activities.
- iv. Preparation of flexible budget, (koirala, Gyawali et al, 2010).

## **b). Formula Format**

This format provides a formula for such expenses account in each responsibility center. The formula gives the fixed amount and variable rate. This is more compact and generally more useful because the components of a widely used for expressing expenses budget in actual practices. The formula is the flexible budget under formula format, (Koirala, Gyawali et al, 2010)

Expenses	Nature of cost	Fixed cost /period	VCPU
Salaries		XXX	
Indirect labor		-	XXX
Depreciation		XXX	-
Miscellaneous		XX	XXX
Direct material		-	XXX
Total		XXX	XXX

**Table 2.3**Flexible budget under formula format: y = a + bx

## 2.1.8 Standard costing

ICMA London defines, "standard cost is a pre-determined cost which is calculated from the managements' standard of efficient operation and the relevant necessary expenditure. It is pre-determined cost of a product based upon engineering. Specifications and representing highly efficient production of quality standards and forecasts of future market trend for the prices, standards with fixed amount expressed in rupees for materials, labor and overheads for an estimated qualities of production." Standard costing is a system which seeks to control the cost of each unit or batch by pre-determining standard cost is what the cost of an operation or service ought to be

pre-determining standard cost is what the cost of an operation or service ought to be under given condition and subject to given conventions of costing, (Koierala, Gyawali et al, 2010).

## Standard costing process

Standard costing involves following process:

- i. Establishments of standard cost
- ii. Ascertainment of actual cost
- iii. Comparison of the above two and measurements of variances
- iv. Analysis of variances
- v. Reporting to responsibility centers to take appropriate and necessary remedial actions

#### a) Analysis of variance

The deviation between the actual from the standard cost is known as "variance" variance analysis is a part of process of control and involves calculations of

variance and interpretation of results so as to localize the various factor that are responsible for the variance.

## I. Direct material variances

It is the different between the standard, cost of standard quantity of material for actual output and actual cost of material consumed. CIMA London has defined as "difference between standard cost of material specified and the actual cost of material used" material variance can be shown the following:

- i. Material cost variance(SC-AC)
- ii. Material price variance Q(SP-AP)
- iii. Material usages variance SP(SQ-AQ)
- iv. Material mixed variance SP(RSQ-AQ)
- v. Material yield variance SR(Actual yield standard yield)

# II. Direct labor variance

It is defined as the difference between the wages specified for the activity achieved and actual direct wages paid. It can be shown on the following:

- Labor rate variance AT(SR AR)
- Labor efficiency variance  $[SR(ST AT)]{SP(SQ AQ)}$
- Labor mix variance SR(RST AT)
- Labor yield variance SR(Actual yield std. yield)

# III. Overhead variance

Overhead variance are computed following three variance approach in which variance might be favorable or unfavorable, is the basis of controlling the cost.

- Spending variance  $FC = (VOR \times AT) Actual QA$
- Efficiency variances = VOR(ST AT)
- Capacity variance =  $[(SR \times ST) {FC + (UVC \times ST)}]$

# A. Decision Making

Generally, there is a perception about management accounting that its information provides the manager for effective decision making. There are a lot of different tools for decision making in which product profitability analysis, cost volume profit etc. Cost volume profit includes the potential change in the revenues, costs and prices of the company (Horngren, et al. 2009). Decision making practices are as follows.

- i. Profitability analysis about the product;
- ii. Break even analysis or cost volume profit analysis;
- iii. Cash flows;
- iv. Time value of money and payback period
- v. Profitability analysis about the customer;
- vi. Probability analysis;
- vii. Some non-financial decision making

There is a general perception that management accounting provides relevant information for making decision both internally or externally and on a long term or short term basis. There are many different tools for making short term decisions such as cost volume profit (CVP) analysis, and customer profitability analysis. Horngren et al. (2009, p.87) defined cost volume profit analysis as a method or tool for measuring potential changes in the company's revenues, costs and prices. CVP analysis is used in manufacturing companies to determine how many units of a particular product must be sold in order to break even. The application of this principle is relatively straight forward with the unit selling price being subtracted from the variable cost per unit to arrive at the contribution margin. The total fixed cost is then divided by the contribution margin in order to arrive at the number of break-even units required.

Therefore, this allows managers to see the behavior of the cost prior to making a solid commitment or final decision on a specific order. CVP analysis may also be used by managers when considering if a product should be bought or made. Cost volume profit analysis appears to be a practice that is strongly used by commercial banks in the Nepal. Management accounting can also produce useful information to make financial management decisions such as payback periods, accounting rate of return and discounted cash flow methods. Most companies used the popular way of measuring return on investment by using the accounting rate of return to calculate the cash flows on major capital projects. However, the use of discounted cash flows and internal rate of return techniques to calculate the cost of capital seems not to be a regular management accounting practice used by businesses.

Decision making is the art of selecting the best alternatives among the various alternatives available to solve a given problem. In case of Nepalese banks, the best

alternative is one, which is likely to provide maximum profits and involve a minimum cost without violating the social responsibilities (Gautam and Bhattarai, 2014).

# I) Sales Volume Related Decision

- Decision to a Special Order
- Decision to Drop a Product Line
- Decision to Make or Buy
- Decision to Further Process Joint Products

## **B.** Pricing decision

Pricing decisions are the decisions that the managers make about what to change for the products and services they deliver. The pricing of a product is not just a marketing decision or a financial decision rather it is a decision touching on all aspect of affirms activities and such as affects the entire enterprise. As the prices charged on product largely determines the quantities that customers are willing to purchase, the setting of both low and high prices dictates the inflows of revenues-consistently failing to cover all the costs of the firms, and then in the long run, the firm cannot survive, (Garrison, 1985: 189).

The ways of pricing special products are:

# a) Full cost pricing system

Under this system of pricing, selling price is determined by adding certain percentages of mark-up on total production cost of goods and services. The total cost includes all variable manufacturing cost are well as fixed manufacturing cost for determination of selling price.

Selling price = Total cost per unit + (mark up % × Total cost per unit) Target profit = capital employed ×Return on investment (ROI)

# b) Variable cost pricing system

Under this system, mark-up is added either on total variable manufacturing costs or total variable cost. This method is known as marginal cost pricing system or contribution margin pricing system. Using variable cost pricing system, the firm sets its price to maximize contribution be cover fixed cost and profit margin. Selling price = Total variable cost per unit + (mark up% ×Total variable cost per unit).

# **Procedure of Capital Budgeting**

# 1) Generation of investment proposals

Investment proposal may relate with the establishment of a new business or expansion in present line or diversification of the existing business replacement of a machine etc. as per the necessity.

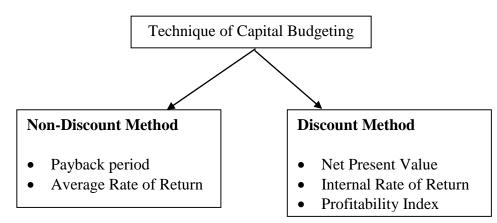
#### 2) Estimation of cash flow

It involves the calculation of cost and benefits of the proposal to serve as a base for judging the commercial viability of the proposal. Cost of the proposal is determined in the form of net cash outlay or net cash cost and involves the cash out flows from an organization. On the other hand, benefits form the proposal is determined in the form of annual cash flow after tax (CFAT) and represent the inflow of cash to an organizations.

# 3) Evaluation of investment proposal based on different methods of screening the proposal.

The methods of evaluating capital investment proposal are as follows:

#### Figure 2.3: Technique of Capital Budgeting



# a. Traditional method

i. Payback period method (PBP)

The payback period is the number of year required to recover the initial investment. It does not consider the inflows after the payback period. The projects having short payback period are desirable.

In Case of Even Cash Flow PBP=<u>Intitia</u>DutlayNCC AnnuaCastFlow

# In Case of Uneven Cash Flow

# PBP=Minimuryear+AmountfRevoeryInitlOutlayNCC CaslFlowDuringheYear

Where, Amount to Recover = Investment – Minimum Year's – Cumulative Cash Flow

# **Mutually Exclusive Project**

According to this decision rule is to accept that proposal with the minimum PBP. This requires the calculating the PBP of each alternative proposal. Checking to see if its PBP is minimum and then investing the project with the minimum PBP. If none of the proposal has less than average standard or acceptable PBP, none will be accepted.

# ii. Average Rate of Return (ARR)

It is also called the accounting rate of return. It is based on the average rate of return after tax over initial outlay. Higher rate of return is preferable. It is computed as follows:

# **Mutually Exclusive Project**

According to this rule accept the proposal with the highest ARR which is greater than acceptable rate of return.

# b. Discounted Cash Flow Method

This method is superior to traditional cash flow method because it considers the time value of money. This method considers all benefits and costs occurred during the life of the project. The amount which is converted to present value from the future value is known a discounted value. On the basis of discounted value, it evaluates the investment proposal. So it is called the discount flow. The following methods are under it.

- i. Net Present Value (NPV) Method: It is widely used method. It is present value of future returns discounted at the firm's cost of capital, minus cost of investment. This method requires the determination of three items of for a project.
  - Initial Cash Outflow
  - Future Net Cash Inflow and
  - Minimum Required Rate of Return

Mathematically,

$$NP \underbrace{ CF_1}_{(1+k)} + \underbrace{ CF_2}_{(1+k)^2} + \dots + \underbrace{ CF_n}_{(1+k)^n} - NCC$$

= (Present Value of Future Cash Flows) - Initial Outlay

= (PVIFAB <sub>k%nB</sub>) – NCO

**Mutually Exclusive Project:** According to this decision rule is to accept that proposal with the largest positive NPV. This requires calculating the NPV of each alternative proposal checking to see if its NPV is positive and then investing in the project with the largest positive NPV. If none of the proposals has a positive NPV, none will be accepted.

**ii. Profitability Index (PI):** Profitability Index is also called benefit-cost ratio. It is the ratio of the present value of the future cash flows to initial outlay.

$$PI = \frac{Preservalue of the Cash Inflow TPV}{Precervalue of Cash Outlay NCO}$$

# **Mutually Exclusive Project**:

The PI decision rule is to take the project with the largest acceptable PI, where an acceptable PI is greater than one. If none of the mutually exclusive projects has a PI greater than one, none would be acceptable.

#### iii. Internal Rate of Return (IRR)

The Internal Rate of Return is usually the rate of return that a project earns. It is defined as the discount rate, which equates the aggregate present value (PV) of the net cash inflows (CFAT) with aggregate present value of the cash outflows of a project. In other words, it is that rate which gives the project net present value zero. The internal rate of return is determined on the basis of trial and error method. PV Inflows = PV Investment Costs

$$\frac{CF_1}{(1+IRR)^4} + \frac{CF_2}{(1+IRR)^2} + \dots + \frac{CF_n}{(1+IRR)^n} - I_0 = 0$$

$$or, \sum_{t=1}^{m} \frac{CF_t}{(1+IRR)} - I_0 = 0$$

#### **Mutually Exclusive Project**

The IRR rule is to accept that proposal with the largest accepted IRR where an acceptable IRR is greater than the cost of capital. This procedure entails calculating each project's IRR and accepting that project whose IRR is both is greater than the cost of capital. If none of the competing proposals has an IRR greater than cost of capital, all will be rejected.

#### 2.2.9 The Budgeting Process

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

- 1. Evaluating the business environment
- 2. Setting specific goals
- 3. Identify potential strategies
- 4. Communicating the planning guidelines
- 5. Developing the long term and short term plans
- 6. Implementation of budget.
- 7. Periodic performance report and follow up.

#### **Master Budget**

Planning is the key to good management. So that budget are the manager's tools to understand plan and control operations. It highlights potential problems and advantages early, allowing managers to take step to avoid these problems or use the advantages wisely. A budget is a tool that helps managers in both their planning and control functions. Interestingly budget help managers with their control function. Not only by looking forward but also by looking backward. Budget of course; deal with what managers, plan for the future. However, they also can be used to evaluate what happened in the past. Budget can be used as a benchmark that allow manages to compare actual performance with estimated or desired performance. [Horngren, Sunder, Stratton, 2003: 270].

Therefore, Budgeting shows management's desire to allocate scares resources and priority for activity of future. The master budget is compilation of all functional budgets. A master budget is basically a summary budget of all the budgets. It represents the overall plan of the enterprises. Master budget sometimes called a comprehensive budget, is the summary or total budget package for a business firm. It is tool for coordinating acceptable effective plan.

#### **Components of Master Budget**

Master Budget are categorized into two parts. They are as follows:

#### (A) Operational Budget:-

A major part of master budget is that focuses on the income statement and its supporting schedules. It consists of the following Budgets.

- Sales Budget
- Production Budget
- Direct Material Budget
- Raw Material Purchase Budget
- Direct Labor Budget
- Manufacturing Overhead Budget
- Cost of goods Sold Budget
- Selling and Distribution Budget
- Administrative Budget
- Budgeted Income Statement

#### 2.1.10 Zero Based Budgeting

ZBB is a technique and tool of planning and decision making. It reverses the working process of traditional budgeting. In traditional budgeting, departmental manager need to justify only increase over the previous year budget. This means what has been already spent is automatically sanctioned. In case of ZBB, no reference is made to the previous level of expenditure. Every department function is reviewed comprehensively and all expenditure rather than only increase are approved. ZBB is a technique, by which the budget request has to be justified in complete detail by each manager starting from the Zero-Base. The zero base is indifferent to whether the total budget is increase or decreasing. The managers have to starts from zero level justifying all costs in terms of cost and benefits.

#### 2.1.11 Responsibility Accounting

In today's complex and dynamic world, all organization cannot be managed and controlled centrally. Decentralization is the must. Responsibility accounting is a form and process of decentralization. Whole organization is divided into smaller unit-division, segments, departments, branches, product lines etc. Every unit is managed and controlled by responsible person, manager. Authority and responsibility are delegated to the respective manager making him/her accountable. The managers should report the performance of the unit to the top management.

Responsibility accounting helps to identify what parts of the organization have primary responsibility for each action, developing measures and targets to achieve, and creating reports of these measures by organization subunit or responsibility center. [Horngre, Sudem, Stratton, 2000: 355].

Responsibility Accounting is a system of accounting that assigns revenues, costs and capital to responsibility centers (IOMA, USA).

Traditionally responsibility accounting refers only to financial performance (Cost, revenue and Profit) of subunits, But now a days it measure overall performance of the unit.

#### **Process of Responsibility Accounting**

- i. Identifying the responsibility center
- ii. Delegation of authority and responsibility
- iii. Controllability of the object
- iv. Establishing performance evaluation criteria
- v. Selecting cost allocation bases.

#### 2.3 Review of previous work

The previous research studies related to management accounting practices in Nepalese context are found very few. However, most of the research studies have been made in the area of profit planning and control in Nepalese context. Profit planning and control also covers some of the aspects of management accounting so that for the review of previous research studies these researches are also taken into consideration to examine how profit planning and control is practiced in Nepalese Companies. Some researches were also conducted in banking sector but all of them focus only in joint venture bank and manufacturing companies. Out of these research studies some selected research has been reviewed.

**Kariyawasam** (2018) conducted study on the topic "cost and MAPs in Srilanlka's manufacturing industry". The main objective of this study is to analyze the use of cost accounting and MAPs in public quoted manufacturing companies in Sri Lanka. To meet this objective applied and survey research method has been used. According to the study the main costing method used by public quoted manufacturing companies in Sri Lanka is activity based costing, followed by process and job costing. MAPs in public quoted manufacturing companies give high importance of traditional MAPs such as planning and controlling, budgeting, target costing, and cost volume profit analysis. It implies that modern MAPs is dominated by traditional MAPs in manufacturing companies of Sri Lanka.

Ahmed, & Ghani, (2019) have conducted a study MAPs in many countries around the world a review of the literature. This study contributes to the GAP in MAPs studies in several countries and provides an invaluable framework for future studies to adopt. MAPs (MAPs) studies have garnered increasing attention from researches and professional in accounting across several countries particularly those that is in the process of transitions. This study data was gathered from prior literature and tabulated

based on title year and country of the study and the sample size as well as the publication journal. The finding showed that researchers have been extensively dedicating their efforts to examining accounting management practices in various sectors particularly in commercial banks.

Subedi (2007): Mr. Subedi has conducted a research study on the topic "Management Accounting Practices in Joint Venture Banks of Nepal". Necessary information and data were mostly collected from primary sources. He has pointed out various finding in his study; some of them were as follows: Most of the joint venture of Nepal are practicing management tools like capital budgeting, ratio analysis, cash flow analysis, Break Even Analysis for planning and controlling on average, five management accounting tools are practiced by Nepalese joint venture bank. Out of total samples number of joint venture Banks, 40% banks did not meet the average no of tools, while nearly 22% meet exactly average no of management accounting tools and remaining 38% banks are practicing more than average no of management accounting tools. For preparing budget, actual expenses of previous year and Activity Base Budgeting are widely used as the base in the joint venture Banks. In the context of time period covered in budget, cent percent Nepalese joint venture Banks prepare short term budge(1 year or less) only 17% Nepalese joint venture Banks prepare long term budget. Nearly sixty seven percent of joint venture Banks of Nepal used Past Trends Analysis for cost and revenue estimation.

**Bhattarai** (2008) Mrs. Bhattrai has conducted research entitled "An analysis of Management Accounting Practices of Insurance Companies in Nepal." She has focused her study to examine and study the practice of management accounting tools practiced by the Insurance companies in Nepal In this research Mrs. Bhattarai pointed out some major findings and recommendation are as follows:

After examine the management tools and technique practiced in Nepalese insurance company for planning, controlling and decision making, it is found that Cash Flow, Budgeting and Pricing Decision are widely practiced MA tools. While analyzing the technique of inventory valuation 65% insurance company applied FIFO technique for inventory valuation Method of segregation of Mixed cost in insurance companies follow average method while 20% follow analysis method to segregate the mixed cost

in to fixed and variable cost. Regarding long term investment decision and purchasing fixed assets insurance companies mostly practiced NPV, PBP and AR.

**Karki** (2009) conducted a research work entitled "MA practice in public enterprises". Mr. karki has mainly focused to study and examine the extent of practice of "MA tools and techniques made in Nepalese public enterprises". The data and necessary information have been collected from the primary as well as secondary sources. In this study, it was found that various MA tools and techniques, which are taught in colleges and universities, are not used in real practice in Nepalese public enterprises. Some MA tools like capital budgeting, cash flow, ratio analysis and annual budgeting are widely practiced in joint ventures banks of Nepal but some tools like standard costing, activity based budgeting, zero base budgeting, long term budget are not practiced.

**Ghimire (2010)** submitted the thesis on the topic of "MA practice in Nepalese listed manufacturing companies". The necessary data and information has been collected through primary sources of data collection. Mr. Ghimire found under the study, regarding the practice of transfer price in the Nepalese manufacturing companies, 60% of the manufacturing companies practiced cost base transfer pricing, 25% of manufacturing companies practiced market based transfer price for their product.

The study shows that decision making and control process followed by Nepalese manufacturing firm, it was found that 70% of Nepalese manufacturing companies practiced control during the work period. 19% practiced control before work has to be stated, where as 10% practiced controls after finishing the work. The cost and revenue estimation practice of Nepalese manufacturing firm, it was found that 77% of the manufacturing companies practiced historical trend for cost and revenue estimation while 18% manufacturing firm practiced market survey. Where's one companies practiced zero based budgeting and judgment analysis for their cost and revenue estimation purpose. The area where management accounting tools is effective in practice to make strength of the companies, it was found that 50% in Nepalese manufacturing companies said production area is effective for practicing MA tools; 31% said marketing area is effective and 13% said financial area is effective. Regarding the practice for the issue of inventors in Nepalese manufacturing companies, it was

found that 71% manufacturing companies practiced FIFO method while, 12% practiced weighted average and only 6% practiced specified items by law for the issue of inventory.

**Duwadi** (2014) has submitted a thesis on the topic "A study on MAPs in joint venture banks". The major objectives of this study are to analyze the practices of MA tools being used in joint venture banks. The necessary data is collected based on primary data.

The major findings of this research work were:

Almost 95% of banks breakeven analysis and responsibility accounting were practiced about 80% and 44% respectively whereas the tools like activity base costing, standard costing, long term and zero based budgeting were unusual in joint venture banks. While preparing the budget there was no practice of taking consultancy service.

The committee and chief of finance division prepared the budget. While evaluating loan proposal all the joint venture bank focused on valuation of assets, purpose of loan, analysis of customer back ground with customer social status and the chances of loan recovery. Joint venture banks mostly accepted the securities like land and building, government bonds, treasury bills, share and debentures, gold and other valuable assets. Some remarkable recommendations of the research work were. Techniques like high low point method, average method and analysis method should be used to segregate costs. Joint venture needs to use responsibility accounting for the cost control and performance evaluation. Use of outside expert should be used by JVBs for the budget preparation. JVBs were not found practicing cash budget. So, they should practice cash budget which gives all details about sources and use of cash.

**Kushwaha**, (2015) has submitted the thesis on the topic "management accounting practices in Nepalese insurance companies". The necessary information and data are collected through primary as well as secondary sources of data collection. The major findings of this research work, cash flow and short term budgeting are mostly practiced tools in selected Nepalese insurance companies. Whereas regarding the practice of capital budgeting tools in the selected Nepalese insurance companies, from the study it was found that ARR is the mostly practiced tools i.e. (69%), While PBP, NPV and IRR

are the less practiced tools for long term investment decision. This study also shows that the tools practiced by the selected Nepalese insurance companies for measuring and controlling their overall performance, (85%) of the selected insurance companies measure their performance on the basis of profit and loss made by then during the year. While (29%) of the companies are using budgetary control but standard costing and breakeven point methods are not in practice. As regarded to the practicing of transfer price the selected Nepalese insurance companies are practicing only (25%) cost based price and another (33%) their own price. Market based price and negotiation price are less practiced price by the selected Nepalese insurance companies i.e. (11%), whereas (18%) are not practicing any kinds of pricing techniques because of lack of knowledge, skills, resources and manpower etc. As regarded to the variance inflation factor of independent variables budgeting and planning is (1.82), costing is (2.227), controlling and reporting is (5.340). The value of each variable is less than (10) thus; it indicates that there is significant positive contribution in overall organizational performance of the selected Nepalese insurance companies.

Emiaso, Egbunike, Patrik, (2018) has conducted research on topic Strategic MAPs and organizational performance of manufacturing firms in Nigeria. This study was carried out to examine the relationship between organizational performance of the Nigerian's manufacturing companies and the application of strategic MA techniques. The study adopted the survey research design. The population of the study consists of all manufacturing companies in Delta State, Nigeria. The study used simple random sampling. 15 manufacturing companies were randomly selected for the study. Data for the study were obtained through the administration of a self-designed questionnaire to managers or accountants of the sampled firms. Regression and t-test were used to test the hypotheses postulated for the study. The studies showed that application of strategic MA tools have a positive relationship with organizational performance of companies' survey. The study also found a significant difference in effectiveness of decision making between application of strategic MA tools and traditional MA techniques and concludes that implementation of strategic MA practice is necessary to enhance organizational performance of the firm. The study therefore recommends that manufacturing companies, especially the ones operating in Delta State, put in place

appropriate measures to apply Strategic MA tools to ensure efficient and realistic decision making process that will enhance organizational performance.

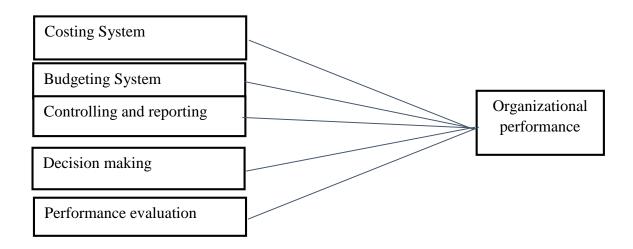
**Sharma** (2015) has conducted research on topic "practices of financial and MA: evidence from small and medium sized enterprises of Nepal". This study has stand on exploratory research methodology. Under this study, financial and MAPs in the small and medium size enterprise are relatively contemporary. They still used to prepare financial and MA reports such as profit and loss, balance sheet, cash flow statement, CVP analysis, variance analysis and budget on regular basis. They are not followed advanced MA tools and techniques. In terms of usefulness of accounting reports, MA reports are considered to be more useful than financial accounting reports.

Eugine and Miston, (2017), have conducted a study on the Impact of (MAPs) on the Business Performance of Small and Medium Enterprises within the Gauteng Province of South Africa: This study contributes to the body of knowledge in the area of MA by providing current insights on both literature and research methodologies. In this manner, the paper may be used as a reference source by future researchers on similar matters. Furthermore, the study validates that MAPs such as costing system, budgeting, performance evaluation, information for decision-making and strategic analysis are instrumental in stimulating the SMEs business performance within the Gauteng Province of South Africa. The study further validates that those small and medium enterprises that are engaged in MAPs enhance business performance. The study has both theoretical and management implications. Theoretically, this study makes a noteworthy progression in MA concept by methodically examining the interplay between management account practices and business performance. In this manner, the study is an important contributor to the existing literature on this subject. The study also underwrites a new direction in the research on MAPs by opening up a discussion on the importance of MAPs in the development of SMEs in developing countries such as South Africa.

**Gyawali** (2017) has conducted the research on the topic "MA systems practice in Nepalese commercial banks". The major objective of this study is to analyze the MA systems practices and its roles in Nepalese commercial banks. This research work finds that budgetary control is the foremost used MA system tool in Nepalese commercial banks. Thereafter, they use other MA systems tools also such rankings; cash flow statement analysis, ratio analysis, variance analysis and CVP analysis. According to his research work there is still gap between the theory and practical accounting tools in Nepalese commercial banks.

# **2.3 Theoretical Framework**

Theoretical framework clearly shows the cause and effect of independent variables on dependent variables. It helps to increase management accounting practices and improve organizational performance of commercial banks. To find the impact of independent variables (MAPs) on dependent variables (organizational performance), a theoretical framework has been developed. This is shown below:



Independent variables

Dependent Variable

From the above theoretical framework it has been conceptualized that budgeting and planning, controlling and reporting, performance evaluation system, decision making system, costing system(Management accounting systems) have positive correlation.

# 2.4 Research gaps

There is a gap between present research and previous researches conducted on MAPs in Nepalese commercial banks. The findings of the previous research were mostly based on secondary data. The previous research did not disclose which of the accounting tools are mostly practiced and which are not and why? The literature review on different articles, journals, and thesis shows that there is positive impact of MA practices on commercial banks. MAPs help to increase the organizational performance of commercial banks. The variable of the previous study are almost same. The previous research are conducted only MAPs but not show its relation with organizational performance. They also did not show the cause and effects of MPAs on customer performance. Previous research is mostly focus on traditional MPAs. They were focus only MAPs but not its Implementations. Thus, to fulfill those gaps current research is conducted.

This research is survey type of research. It is completely based on primary sources of data. Market survey is management activities of planning, controlling, and decision making probably the new research study made in present study. Thus, present study will be fruitful to those interested person, parties, scholars, professors, students, Bankers and government for academically as well as policy perspectives.

#### CHAPTER- III

#### **RESEARCH METHODOLOGY**

Research methodology is a way to systematically solve the problems. In other words Research methodology refers to the various sequential steps (along with rationale of each such steps) to be adopted by researcher in studying a problem with research projects are not meaningful, unless they are in sequential order, which determined by the particular problem at hand. Descriptive research design was used in this study. This research strategy was considered necessary because of its ability to view comprehensively and in details the major question raised in the study. This chapter deals with sampling techniques, data collection methods, data analysis tools, research instruments etc. To achieve the stated objectives the following methodology has been used.

# 3.1 Research design

The main objectives of this research study is to examine the present practices of management accounting systems and show the relationship between management accounting practices and its effect on customer performance of commercial banks. To fulfill these research objectives descriptive and casual research design has been used. In addition, this design enables the researcher describe the characteristics of the population being studied as they exist at present hence minimizing biases and maximizing the reliability of the evidence collected. Finally, this design is chosen because it also provides a relatively complete picture of what is occurring at a given time and allows the development of questions for further study. The research was relied on data obtained from respondents on effects of costing, budgeting, decision making, controlling and performance evaluation on the performance of commercial banks in Nepal.

#### **3.2 Population and samples**

This study is designed to complete the research work on the present practice of management accounting practices by Nepalese commercial banks. The total,27 numbers of commercial banks as population for the study [NRB report half yearly 2076, mansir]. Out of them 10 commercial banks were selected for the study that is called sample. The sample commercial banks have been selected with the help of convenience

sampling method. This study focused on two government banks, two joint ventures banks and six private banks which are in existence till now and head office located inside Kathmandu valley because highest contribution on GDP of Nepal.

# 3.3 Source of Data

Data has been mainly collected from primary sources. The primary data are those which are collected for the first time and thus happen to be original in character. Secondary data has been used as per necessity. Primary data has been collected through questionnaire, direct interview and group discussion with the authorities and secondary data from the published sources. To fulfill the objective of this study primary data has been used and collected through questionnaire from 100 respondents. They are classified and tabulated in required form.

#### **3.4 Data collection procedure**

Kothari (2004) defined data collection as a means by which information is obtained from the selected subjects of an investigation. Data collection instruments refer to the tools used in obtaining information from respondents. The researcher collected data using a questionnaire. A questionnaire is a systematically prepared form or document with a set of questions deliberately designed to elicit responses from respondents or research informants for the purpose of collecting data or information (Kumar, 2011). The questionnaire method was considered appropriate for this study since it is an inexpensive method of data collection as it is administered collectively to a study population.

The study collected primary data from the respondents. The study utilized a questionnaire to collect data. The questionnaire designed in this study comprised of two sectors. The first part included the demographical and operational characteristics designed to determine fundamental issues including the demographic characteristics of the respondents. The second part was devoted to the questions on the effects of MPAs and organizational performance of commercial banks in Nepal.

#### **3.5 Data Processing Procedures**

The data collected was first cleaned, then sorted and coded using numerical numbers. The data was then entered in the SPSS software after which analysis was done. The quantitative information gathered was investigated by the utilization of spellbinding measurements utilizing SPSS and introduced through means and standard deviations. The information was broken down as per the goals of the examination. Factual Package for Social Sciences (SPSS) adaptation 25.0 was utilized as an instrument to investigate the information. The data exhibited through utilization of tables and figures. This was finished by counting up reactions, registering rates of varieties accordingly and also depicting and translating the information in accordance with the examination targets and suppositions through utilization of SPSS.

# 3.6 Data analysis tools and techniques

Data analysis is a process of gathering, modeling, and transforming data with the goal of highlighting useful information, suggesting conclusions, and supporting decision making. Data analysis has multiple facets and approaches, encompassing diverse techniques under a variety of names, in different business, science and social science domains, (Wikipedia). Data analysis includes the data processing, presentation and its interpretation.

Data processing converts data into information or knowledge. Data collected from questionnaires were in raw from. They were classified and tabulated in a required from. Descriptive analysis includes bivariate and multivariable analysis, frequency, ratio, proportion, simple arithmetic percentage measure of the central tendencies and measure of dispersion.

The main management accounting tools are cost classification and cost allocation, measurement of income, CVP analysis, flexible budget, standard costing, decision making, pricing decision, capital budgeting, master budgeting, measuring organizational performance, zero based budgeting and responsibility accounting.

# 3.7 Reliability Test:

# Table 3.1 Cronbach's alpha coefficients

Cornbrash's	Cornbrash's Alpha Based on Standardized Items	No. of Items
Alpha		
0.629	0.785	6

The reliability analysis was done for the present management accounting tools questionnaire construction consistency of responses to items. The Cornbrash's alpha coefficient comes to  $\alpha = (0.629)$  on item 6, which is higher than 0.5. The results indicated the importances of management accounting tools are significant. It was generally used as a measure of internal consistency or reliability. Annually (1978) suggested that alpha coefficients of 0.50 to 0.60 will be deeming acceptable for exploratory research.

# CHAPTER IV: RESULTS

This chapter mainly incorporates data presentation, analysis and interpretations. Presented data are analyzed and interpreted by using statistical tools like mean, standard deviation and regression analysis of variance test, so as to achieve the result.

#### **4.1Analysis of primary Data**

MA is an integral part of management concerned with identifying, presenting and interpreting information used for formulating the strategy, planning, analyzing, processing, interpreting and communicating the resulting information for use within the organizations. So that management can more effectively plan, make decisions and control operations (shah and ojha, 2016).

The basic objective of the study is to examine the practices of MA tools and its organizational performance in Nepalese commercial banks and to identify the area where MAPs could be applied to strength the commercial banks. This chapter presents the analysis and interpretations of data. To meet the objectives all commercial banks having head office in the Kathmandu valley which are in operations are taken as populations. Among them questions where distributed to ten commercial banks. Besides questionnaire, discussion where also made with senior manager, and other senior employee of the banks. To get more information about the present practice of MA practices view of manager, chief manager, charted account and other employee are also included in this chapter. Raw data were properly processed, tabulated and analyzed. They were presented in to tables. Tables were developed on the basis of question asked.

#### **4.2 Descriptive Analysis**

The respondents banks were asked to rate the usage of costing, budgeting, controlling, performance evaluation and decision making management accounting practices in their banks. The ranking ranged from 1 to 5. Questions are used in five point likert scale questionnaire and each question ranging from "strongly disagree" to "strongly agree", coded by 1 is "strongly disagree", 2 representing "disagree", 3 representing "neutral", 4 representing "agree" and 5 representing strongly "agree".

Code	Statements	Test value = 3				
		POP.	Sample(N)	Mean	Std. devi.	
BP1	Budgeting increase operational	27	100	3.79	0.77	
	efficiency					
BP2	Budgeting develops a sense of	27	100	3.96	0.76	
	responsibility					
BP3	Maximization of profit	27	100	3.94	0.67	
BP4	Budgeting help to make plan	27	100	3.90	0.66	
BP5	Budget ensure better understanding	27	100	3.88	0.79	
Overa	ll Mean and SD	27	100	3.92	0.747	

 Table 4.1: Descriptive Statistics of Budgeting and Planning

Source: primary data. SPSS output

Table 4.1 shows descriptive statistics of an individual item and as a whole of budgeting and planning sub-factor. There are five statements are used to measure the variables. Each of respondents submitted their responses in the five point liker scale. The overall mean of budgeting and planning practices is 3.94, which is greater than 3, with standard deviation of 0.747. This shows that organizational performance could be achieve through effective budgeting and planning.

Code	Statement	Test value = 2			
		Total(P)	Ν	Mean	St. 'D'
CS1	Costing system help segregate total cost in fixed, variable and semi-variable	27	100	3.88	1.976
CS2	Reduce cost in areas of product improvement	27	100	3.90	1.964
CS3	Organization has used cost information	27	100	3.99	0.991
CS4	Costing system identify opportunities for product improvement	27	100	3.87	0.627
CS5	Applied standard costing technique	27	100	3.77	1.718
Overa	ll mean and Std.			3.82	1.364

Table 4.2: Descriptive statistics of costing system

Source: primary data, SPSS output

Table 4.2 shows descriptive statistics of an individual items and as a whole of costing systems sub-factor. There are five statements are used to measure the variables. Each of respondents submitted their responses in the five point liker scale. The overall mean of costing practices is 3.83, which is greater than 3, with standard deviation 1.364. This shows that organizational performance could be achieve through effective costing systems.

Code	Statements	Test v	Test value = 3		
		Pop.	(N)	Mean	Std. D.
CR1	To monitor and measures employees	27	100	3.87	0.761
	performance				
CR2	Responsibility center helps to control cost	27	100	3.90	0.781
CR3	Detects & corrects unintentional error.	27	100	3.95	0.753
CR4	Progress in achieving corrective actions.	27	100	3.88	0.791
Over a	Il mean and standard deviation			3.86	0.726

 Table 4.3: Descriptive statistics of controlling and reporting

Source: primary data, SPSS output.

Table 4.3 shows descriptive statistics of individual items and as a whole of controlling and reporting sub-factor. There are five statements are used to measure the variables. Each of respondents submitted their responses in the five point likert scale. The overall mean of controlling and reporting practices is 3.86, which is greater than 3, with standard deviation 0.726. This shows that organizational performance could be achieve through controlling and reporting technique.

Code	Statement	Test value $= 3$		3	
		Pop.	(N)	Mean	Std. D.
PE1	Customer satisfaction surveys frequently.	27	100	3.86	0.761
PE2	Bench marking system has been adopted for the	27	100	3.652	1.312
	quality delivery of services				
PE3	Performance evaluation is made based on RI,	27	100	3.831	0.965
	ROI, ROA, and ROE.				
PE4	Performance evaluation is made based an	27	100	3.91	0.781
	employee's attitude/behavior				
PE5	An effective measurement and reporting process	27	100	3.881	1.771
	can improve efficiency in productivity				
Over a	Il mean and std. deviation			3.57	1.06

Table 4.4: Descriptive statistics of performance evaluation

Source: primary data, SPSS output

Table 4.4 shows descriptive statistics of individual items and as a whole of performance evaluation sub-factor. There are five statements are used to measure the variables. Each of respondents submitted their responses in the five point likert scale. The overall mean of controlling and reporting practices is 3.57, which is greater than 3, with standard deviation 1.06. This shows that organizational performance could be achieve through controlling and reporting technique.

Code	Statement	Test val	Test value = 3		
		Pop.	Sample	Mean	Std. D
DM1	Customer profitability analysis to	27	100	4.80	0.760
	make customer related decision				
DM2	Increase market share, productivity	27	100	3.70	0.653
	and profit.				
DM3	Launching a new product	27	100	4.00	0.521
DM4	Management functions are	27	100	4.211	0.750
	determined by the good decision				
	made by the BOD				
DM5	Decision making provide accurate	27	100	3.91	0.641
	cost information to Management				
	accountant.				
Over all me	an and standard deviation			4.29	0.760

Table 4.5: Descriptive statistics of decision making

Source: primary data, SPSS output

Table 4.5 shows descriptive statistics of individual items and as a whole of decisionmaking sub-factor. There are five statements are used to measure the variables. Each of respondents submitted their responses in the five point likert scale. The overall mean of decision making practices is 4.29, which is greater than 3, with standard deviation 0.760. This shows that organizational performance could be achieve through effective decision making.

Code	Statement	Test value = 3			
		Рор	Sample(N)	Mean	Std. D
OP1	MAPs help to increase product service quality.	27	100	4.22	0.71
OP2	MAPs help to increase Return on investment	27	100	4.53	0.751
OP3	MAPs help to development of new product.	27	100	4.44	0.691
OP4	Organizational performance is based on customer satisfaction level.	27	100	4.51	0.81
OP5	MAPs help to increase market share /sales margin.	27	100	4.32	0.671
Overall m	nean and standard deviation.			4.204	0.727

 Table 4.6: Descriptive statistics of organizational performance

Source: primary data, SPSS output

Table 4.6 shows descriptive statistics of individual items and as a whole of organizational performance sub-factor. There are five statements are used to measure the variables. Each of respondents submitted their responses in the five point liker scale. The overall mean of organizational performance is 4.204, which is greater than 3, with standard deviation .727. This shows good organizational performance.

# 4.3 Correlations Analysis

Correlation is defined as a statistical measure which is used to study the degree of relationship between two or more variables (Yadav and Acharya, 2013). If the variables under study are only two, then the correlation is said to be simple correlation. If the

variables under the study are two or more, then the correlation is said to be multiple correlation.

Variable		Performance
Budgeting and Planning	Person correlation	0.135
	Sig. (2-tailed)	0.868
Costing system	Pearson Correlation	0.87
	Sig.(2-tailed)	0.689
Controlling and reporting	Pearson Correlation	0.098
	Sig.(2-tailed	0.905
Decision making	Pearson Correlation	0.385
	Sig.(2-tailed	0.556
Performance evaluation	Pearson Correlation	0.146
	Sig.(2-tailed	0.620

**Table: 4.7 Correlations** 

# Source: SPSS output

Table 4.6 shows that the multiple correlation between management accounting Practices and organizational performance. There are five variables are used to measure the correlation. Find out the correlation five point likert scale has been used. From the table it is found that there is positive relationship between management accounting practices and performance of commercial banks.

# 4.4 Regression Analysis

Regression analysis is the statistical technique that identifies the relationship between two or more quantitative variables: a dependent variable, whose value is to be predicted and an independent or explanatory variable, about which knowledge is available. The technique is used to find the equation that represents the relationship between the variables. Multiple regressions provide an equation that predicts one variable from two or more independent variables.

The researcher conducted a multiple regression analysis so as to test relationship among variables (independent) on the performance of commercial banks in Nepal. The researcher applied the statistical package for social science to code, enter and compute the measurements of the multiple regressions for the study. Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable that is explained by all the five independent variables (budgeting and planning, costing, controlling, performance evaluation and decision making).

The study adopted multiple regression guided by the following model:

Multiple regression model B5x5

Y = a + B1X1 + B2x2 + B3X3 + B4X4 + B5X5 + ei

Where,

Y= organizational performance

X1= budgeting and planning, X2= costing systems, X3= controlling and reporting, X4= decision making, X5= performance evaluation

a= constant

Bi= coefficient of slope of regression model

ei= error term

Where, A is constant, B is regression coefficient. A measure of change Y per unit change in X. if 1 unit increases in economic aspect, the competitiveness will also increase. This is presented the table, 4.7

# **Table 4.8: Model Summary**

Model	R	R square	Adjusted R square	Std. error of the estimated 1
1	0.896	0.798	0.657	0.33804

Primary data, SPSS output

a. Predictors: (Constant), Controlling and reporting, Costing system, Budgeting and planning, Performance evaluation, Decision making.

The results in Table 4.7 indicate that the management accounting practices had a joint significant and performance of commercial banks in Nepal. The finding of multiple regression analysis between MAPs and organizational performance indicates that MAPs is significant predictors of organizational performance. The R value of 0.896 indicates the moderate to strong positive relationship between MAPs and organizational performance performance. The R value of 0.798 it shows that the independent variables explained

by 79.8% of the variance on organizational performance of commercial banks in Nepal. Adj. R square indicates 65.7% of variation in the dependent variable is explained by the independent variables.

# Table: 4.9 ANOVAa

Model	Sum of the square	DF.	Mean square	F.	SIG.
1	124.469	21	5.927	2.0995	.000
regression	220.1889	78	2.823		
Residual	344.659	99			
Total					

a. Dependent Variable: OP

Predictors: (Constant), CR, CS, BP, PE, DM

Source: SPSS output

The results in table 4.9 show that the f static was 2.0995. At 5% level of confidence, the F-static was significant. In this case, all the predictor variables (budgeting and planning, costing, performance evaluation, controlling and reporting, decision making) explain a variation in organizational performance and that the overall model is significant.

		Standardized	Test	significan
Unstan	dardized	Coefficients	(T)	ce
Coefficients				
В	Std.	Beta		
	error			
0.804	0.229	_	0.765	.000
0.086	0.86	0.327	0.582	.000
0.028	0.028	0.317	0.745	0.008
0.705	0.024	0.367	0.801	0.416
0.657	0.029	0.422	0.220	0.001
0.620	0.058	0.248	0.561	0.002
	Coeffi B 0.804 0.086 0.028 0.705 0.657	B         Std. error           0.804         0.229           0.086         0.86           0.028         0.028           0.705         0.024           0.657         0.029	Unstandardized Coefficients       Coefficients         B       Std. error       Beta         0.804       0.229	Unstandardized Coefficients       Coefficients       (T)         B       Std. error       Beta       0.765         0.804       0.229       _       0.765         0.086       0.86       0.327       0.582         0.028       0.028       0.317       0.745         0.705       0.024       0.367       0.801         0.657       0.029       0.422       0.220

# **Table 4.10 coefficients**

Dependent variable, organizational performance

From the above results, the estimated equation can be written by taking the values from the model-1 Y= a+B1X1+B2x2+B3X3+B4X4+B5X5Therefore, Y= 0.604+0.499\*X1+0.183\*x2+0.14\*X3+0.301\*X4+0.480\*X5

It is observed that the t-values of four variables are statistically significant at 1% level namely Budgeting and Planning, Decision Making and Costing System, Performance Evaluation. This suggests that these variables have a bearing on explaining the variability of organization performance. However; the variable Controlling and Reporting is not statistically significant. Hence, there is sufficient evidence that Management Accounting practices has a positive impact on organizational performance.

#### 4.5 Major findings:

Based on the above analysis, the major findings are as follows:

- 1. The study also revealed that costing, budgeting and planning, performance evaluation, controlling, and decision making constant organizational performance to be 0.804. it is also found that decision making practices has the greatest impact on organizational performance of commercial banks in Nepal followed by costing, budgeting and controlling and reporting respectively.
- 2. While examining the tools practiced in the commercial banks for planning controlling and decision making. It was found that budgeting annually, cash flow statement, cost segregation, break-even analysis, responsibility accounting represented 95%, 95%, 50%, 50%, 55% out of ten commercial banks respectively. Likewise cost segregation, capital budgeting, flexible budgeting are also using in Nepalese commercial banks.
- 3. Regarding the organizational performance of commercial banks decision making tools shows the highest mean value than neutral value i.e. 4.39 with standard deviation 0.760. It shows that there is a positive impact of decision making on organizational performance of Nepalese commercial bank. The constant (decision making) is significantly different from 0 at the 0.05 alpha level. So it is found that there is a positive impact of management accounting tools and technique on performance of commercial banks in Nepal.

- 4. The study shows that the management accounting practices have a joint significant (79.8%) effect on the organizational performance of commercial banks in Nepal. At 5% level of confidence, the F-static was significant. The sum of squares also confirms that the regression model explained less than the residual.
- 5. In response to the questions to the management accounting tools provide benefits in every aspect of managerial activities i.e. planning to decision making"? Most of the commercial banks (i.e. 78%) agree upon the fact that management accounting is very effective tools for performing managerial activities. Some of the commercial banks epically public sector commercial banks did not agree with the fact. The reason for not accepting the facts is lack of knowledge about management accounting tools.
- 6. The study also shows that the one percent changes in management accounting tools they affects 89.6 percent on organizational performance of commercial banks in Nepal.
- All these research work shows that there is joint effects of management accountings tools and techniques on organizational performance of manufacturing firms. So this research is consistent with other transitional countries.

# CHAPTER – V Conclusions

#### **5.1 Discussion**

Business society today is being operated in a very dynamic environment which involves many forms of management problems. The old techniques of management by intuition are no longer considered dependable. Modern management has realized that even a slight error in policy decision may mean either losing a lot of business opportunity or going out of competition. A second chance may not come or even if it does, it may be costly or risky. Management constantly strive to reduce the risk of making mistake by looking for and analyzing relevant information by means of which it hopes to take judicious decision and direct the administration in a better manner. Managerial skills and competencies are key for organization effectiveness. Management principles can be applied at all organization and at all levels of an organization. It is equally important for all organization such as commercial, non-commercial and private or public.

The general objectives of this study were to examine the effect of management accounting practices on performance of commercial banks in Nepal. This study adopted a descriptive survey design. The target population for this study was the 27 commercial banks in Nepal.

The study found out that the decision making practices were highly used in the respondents Banks. They include CVP analysis for major product, product profitability analysis, customer profitability analysis evaluation of major capital investment.

Corporate firm carry out the economic activities. Economic activities are the backbone of the economy. These activities impact the economy in one or other ways. Every organization has limited resources. To utilize the limited resources in a better way, different tools and technique have been developed. Among the various tools and technique management accounting tools have proved beneficial in different aspects 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. Cost segregation, classification, CVP analysis, overall master budget, standard costing, activity base costing, responsibility accounting, financial performance analysis, cash flow analysis are the major management accounting tools.

# **5.2** Conclusion

Management accounting is concerned with the accounting information that is useful to management. Management accounting involves the preparation and use of accounting information for planning, controlling the operations of business and make right decision in right time.

Today business organizations are suffering from many problems due to their inability to take right decision in right time. As a result, most of them are out of the operation and more are nearly to collapse. To survive in this situation, taking right decision in right time is today's basic needs for business society. So management accounting concept emerged to resolve the complexity that has appeared in today's business decision-making process. It is for every level of management because every manager has to be involved in some or other sorts of decision-making process. Management accounting is a new discipline and still in developing stage in the context of modern business organization. Different types of management accounting tools and technique are evolving as new dimension and that facilitates the management to perform the management functions better covering from planning to control. Various kinds of management accounting tools and techniques are taught in the university but they are not completely practiced in Nepalese commercial banks. It shows a vast gap between theory and practice.

The management accounting tools like cash flow analysis, capital budgeting, ratio analysis, responsibility accounting, break-even analysis are widely practiced in Nepalese commercial banks. Likewise standard costing, zero base budgeting, pricing technique, segregation are the least practiced tools in Commercial Banks in Nepal. It is also found that the cause of not practicing standard costing, inventory management tools is not applicable for service industry specially, like banking and financing sector. In Nepalese commercial banks, practices of hiring the outside expert for carrying out different managerial activities are almost nil. Some management accounting tools and Techniques were not in practice and some in least practice due to the lack of proper sufficient knowledge about those tools in the Nepalese commercial banks.

In summary Nepalese commercial banks are in infant stage in practicing of management accounting tools. They are trying to adopt such tools and techniques more and more to cope with the expected opportunities of the future and challenge to be faced due to the globalization. They also realized that, to sustain and to operate their organization on a regular basis perfect planning, controlling and right decision in right time should be made. To carry out this goal management accounting will be fruitful because management accounting enhances decision making, guides strategy development and focuses efforts related to improved organization performance, and on evaluation the contribution and performance of organization units and member.

Finally, it can be conclude that the commercial banks in Nepal are in infant stage with respect to the application of modern management accounting tools. So, it is concluded that to improve overall performance, Nepalese commercial banks should focus new management accounting practices.

#### **5.3 Implications:**

The management accounting tools and techniques in every type of organization are not the optional but also the compulsion in the better organizational performance of the entity. It provides the key ideas, guidelines and strategies to the management for better organizational performance of management functions. Economic liberalization, globalization, changing nature of human behavior and technological advancements are making complexity to every organization. To meet the expected challenges to grab the opportunities, the organization must practice the management accounting tools and techniques. The analysis and interpretation of application of management accounting tools helped to draw some findings. Concerning these findings, it may be appropriate to make some suggestions and recommendations. It will be helpful to the concerned stakeholders of an organization to bring some improvements in Nepalese commercial bank through application of management accounting tools. Thus, the following recommendations were made on the basis of findings.

- 1. This study can be a good implication for commercial banks more reliable information of management accounting tools.
- From the study, it was found that costing, budgeting and planning, controlling and decision making and performance evaluation tools has positive relationship to organizational performance. So the firm can do management accounting practices to gain the competitive advantage.
- 3. The study can be useful for company to know the management accounting tools and their behavior in performance of the banks.
- 4. The study found that the new management accounting tools is helpful to improve the banks performance.
- 5. Research should be carried out that also includes those banks in other sectors (private) to establish if they also consider the management accounting practices as important and to establish the frequency of usage of the practices.
- 6. Commercial banks of Nepal should use different MA tools and apply it in different areas according to the nature of tools. For example budgeting, decision making, capital budgeting, cost estimation, cost classification and allocation can apply for planning. Similarly standard costing, budgetary control, cash flow statement, flexing budgeting and responsibility accounting can be used for controlling. If management apply right tools in right place, then the company can achieve more benefit in near future.
- 7. To strengthen the competitiveness of commercial banks and carryout management activities effectively and efficiently the use of management accounting tools and techniques are recommended to practice. For planning activities; tools like cost estimation, classification and allocation, profit measurement and recognition, cost volume-profit analysis, can be applied.
- 8. Most of the commercial banks especially public and private sector commercial banks are becoming barrier for the application of management accounting tools and technique due to lack information, high cost, long procedure and time consuming. So Nepalese commercial banks should be update with new tools and technique that are practiced around the globe in best performing banks. Activities performance based on traditional management accounting tool in though helpful but not sufficient in the competitive age, new method and technique should be

thought and developed so that cost minimization can be exercised and better can be delivered to delight the customer.

- 9. Regarding preparation of budget and planning activities, co-ordination between planning department, finance department and the committee must be equally necessary. The bottom-up approach should be followed while preparing budget. If possible, the banks should hire the expert professional for planning purpose.
- 10. From survey, most of the commercial banks have used profit/loss criteria to measure and control the overall performance. They should use other techniques such as budgetary control, standard costing, flexible budgeting and ratio analysis to evaluate the overall performance.
- 11. Nepalese commercial banks should use academician knowledge by interacting with the through mass meeting and seminars as well as discussion programs so as to beneficial form and understand the new management accounting tools and techniques. To keep their personnel updated, banks should conduct different types of training programs. Similarly top-level management should also pay the attention for the implementation of management accounting tools and technique in their banks effectively.

The findings based on descriptive study which highlights the current status of management accounting practices, not before or after, so longitudinal research can be required in future with more power full statistical techniques. Finally, the difference between traditional and new management accounting techniques needs further investigation.

#### REFERENCERS

- Abdel-Kader, M. & Luther, R. (2008), The Impact of Firm Characteristics on Management Accounting Practices: A UK Based Empirical Analysis, *The British Accounting Review*, 40(1), 2-27.
- Adhikari, D.R, (2010). "Human Resource Development for Performance management" The case of Nepalese organization" Kathmandu: Buddha Publication.
- Adhikari, D.R., (2010), "Human Resource Development for Performance management" *The case of Nepalese organization*" vol 59
- Ahmad, & Ghani. (2019), Management accounting practices in many countries around the world a review of the literature. *IOSR Journal of Business and Management* (*IOSR-JBM*) Vol.4, No. 4
- Alleyne, & Marshall, (2011), An exploratory study of management accounting Practices in Manufacturing Companies in Barbados. *International Journal of Business and Social Science*, 9(2), 49-58.
- Amalokwu, & Obiajulum, (2008), The Effect of Budgets on Financial Performance of Manufacturing Companies in Nairobi County. Sourced from https://www.coursehero.com/file/p121fis/Amalokwu-and-Obiajulum-2008-inathesis-present-a-paper-titled-Budgetary-and/ (Accessed 12/08/2018).
- Ballada, W (2012), *Basic Accounting Made E*, (17th Ed). Manila, PHL: Dom Dane Publisher.
- Bhattrai, R. (2008), An analysis of Management Accounting Practices of Insurance Companies in Nepal, a published Master's level Thesis, Shankar Dev Campus Tribhuvan University.
- Chowdhary, S. B. (1982), *Management accountancy*. Second edition, New Delhi: Kalyani publishers.
- Drury, C, (2017), *Management and Cost Accounting*. London Business Press, Thomas learning.
- Duwadi, R. (2014). A study on management accounting practices in joint venture banks. Kathmandu: unpublished thesis submitted to Tribhuvan University.
- Emiaso, & Egbunike, (2018), Journal of Accounting and Financial Management: Strategic management accounting practices and organizational performance of manufacturing firms in Nigeria.

- Eugine, & Miston M. (2017), The Impact of Management Accounting Practices (Maps) on the Business Performance of Small and Medium Enterprises within the Gauteng Province of South Africa *Journal of accounting and management*, 7(2), 1-14.
- Garrison, R. Noreen, E. & Brewer, (2011), *Managerial Accounting*, (13th Ed.). New Delhi, IN: McGraw-Hill Education.
- Garrison, R.H. et.al. (2012), *Managerial Accounting Concept for Planning Control, Decision Making*. New work: Plano Business Publishing.
- Gautam and Bhattarai, R. (2014), *Management Accounting*. Kathmandu: Asmita books publishers and distributors Pvt. Ltd, Kathmandu.
- Gautam and Bhattarai, R. (2014), *Management Accounting*. Kathmandu: Asmita books publishers and distributors Pvt. Ltd, Kathmandu.
- Ghimire, (2010). Management Accounting Practices in Nepalese Listed Manufacturing Companies. Kathmandu: unpublished master degree thesis, submitted to Shanker Dev Campus.
- Gyawali, A. (2017), Management accounting system Practice in Nepalese Commercial Banks. *International Journal of Advanced Research and Publications*, 1(5), 72-76.
- Hilton, Ronald w, (2002), *Management accounting*, (fourth edition) new work: McGraw-Hill Inc.
- Horngren, & Datar, (2009), *Cost Accounting*: A *Managerial Emphasis*. New Jersey: Upper Saddle River: Prentice Hall.
- Horngren, C., Datar, S., Foster, G., Rajan, M., &Ittner, C. (2009). Cost Accounting: A Managerial Emphasis. New Jersey: Upper Saddle River: Prentice Hall.
- Kalpan, R.S. (2012), *The Evolution of Management Accounting*. The accounting review, 59(3), 390-418.
- Kariwasam, H. (2018). Cost and management accounting practices in Srilanka's manufacturing industry. A Research Articles: University of sri Jayewardenepura, Srilanka, 4(2), 54-69.
- Karki, (2009), *Management Accounting Practices in Public Enterprises*. Unpublished thesis submitted to Tribhuvan University.
- Koirala, Y.D. & Acharya, R. (2013), *Principles of Accounting-II*. Kathmandu: Asmita Books Publishers and Distributors.

- Parker, (2002), Budgetary instrumentalism in a Christian bureaucracy. Management Accounting Research, 13, 71-100 Kathmandu: An unpublished thesis submitted to faculty of management.
- Shah, &. Ojha, K.P, (2016), *Management Accounting. Kathmandu*: Asmita books publishers and distributors PVT. Ltd.
- Sharma, (2015)," Practices of Financial and Management Accounting: Evidence from Small and Medium-Sized Enterprises of Nepal". *The Journal of Nepalese Business Studies*, 4(1), 77-86.
- Smith. (2014), *Management Accounting for Comparative Advantage*. Sydney LBC information services

# APPENDIX I QUESTIONNAIRES

# **Dear Respected participants**

I am planning to conduct a research study on **management accounting practices and performance of commercial banks in Nepal.** The objectives of this questionnaire is to collect information about **the present practices of management accounting and employee satisfactions** offered by commercial banks in Nepal. Each of your opinion will be very important to manager, researcher and academicians for strategy development and policy perspectives your answer will be kept strictly, confidential and please be assured that you will not be victimized for anything written here. The information collected is intended to be used to pursuer. I shall be grateful for your valuable inputs and active co-operation.

Use of scale 1 to 5 are available that shows your perceptions about the organizational performance, Where **1=strongly disagree**, **2=Disagree**, **3=Natural**, **4=Agree**, **5=strongly agree** Circle (O) or Tick ( $\sqrt{}$ ) at the appropriate alternative number that comes closest to your opinion. You should rank each statement as follows.

- 1. Name: .....
- 2. Sex: male [ ] female [ ]
- 3. Age: (20-30)[ ], (31-45) [ ], 46 above [ ]
- 4. Educational level: HSEB [], Bachelor level [], postgraduate []

	Budgeting and Planning				Score					
S.										
Ν										
1	Budgeting develops a sense of responsibility, policy among the employees	1	2	3	4	5				
	and assist in assignment of responsibility.									
2	Budgeting increases operational efficiency; reduce waste and uncertainty	1	2	3	4	5				
	of future.									
3	Maximization of profit through careful planning and control is possible	1	2	3	4	5				
	with the help of budgeting.									
4	Budgeting helps to make plan about the sources and uses of money and	1	2	3	4	5				
	when and where additional cash borrowing necessary.									
5	Budget ensures better understanding and harmonious relation between top	1	2	3	4	5				
	management managers and workers.									
	Controlling and reporting									
1	Control system is used to monitor and measure employees' performance	1	2	3	4	5				
	against targets (output quality).									
2	You have managed the responsibility centers like investment, profits,	1	2	3	4	5				
	revenue and cost that helps to control its activities that leads to better									
	performance									
3	There are proper and timely feedback, monitoring, supervision systems	1	2	3	4	5				
	adopted in your organization.									
4	It detects and corrects unintentional performance error and intentional	1	2	3	4	5				
	irregularities such as theft or misuse of resources, waste, fraud and									
	mismanagement.									
5	There is a mechanism of reviewing periodic status reports on department	1	2	3	4	5				
	wise progress in achieving corrective actions.									
	Decision Making									
1	The organization has made customer profitability analysis to make	1	2	3	4	5				
	customer related decision.									
2	Good decision has helped to increase market share, productivity and profit.	1	2	3	4	5				
3	The organization has applied break-even analysis for launching a new	1	2	3	4	5				
	product.									

4	Management functions such as planning, organizing, leading, directing	1	2	3	4	5
	and controlling are determined by the good decision made by the BOD.					
	Costing System					
1	MAPs has helped to segregate the total cost in fixed, variable and semi-	1	2	3	4	5
	variable component that leads to reduce the cost and to increase revenue					
	and profit.					
2	Target costing helps to examining a competitors' product in order to	1	2	3	4	5
	identify opportunities for product improvement and cost reduction.					
3	The organization has adopted and applied standard costing technique in	1	2	3	4	5
	controlling cost i.e. salary, operational, cost and R & D cost.					
4	MAPs help to reduce cost in areas of product improvement, operation	1	2	3	4	5
	methods and marketing areas, administrative and financial areas.					
5	MAPs help to reduce cost in areas of product improvement, operation	1	2	3	4	5
	methods and marketing areas, administrative and financial areas.					
	Performance Evaluation					
1	The organization makes customer satisfaction surveys frequently.	1	2	3	4	5
2	Bench marking system has been adopted for the quality delivery of	1	2	3	4	5
	services					
3	Performance evaluation is made based on Residual income, ROI,	1	2	3	4	5
	Divisional profit, Return on asset, Return on Equity that assess					
	profitability, and overall organizational performance.					
4	Performance evaluation is made based an employee's attitude/behavior.	1	2	3	4	5
5	An effective measurement and reporting process can improve performance	1	2	3	4	5
	and efficiency in productivity.					
	Organizational Performance					
1	MAPs help to increase product service quality.	1	2	3	4	5
2	MAPs help to development of new product.	1	2	3	4	5
3	MAPs help to increase Return on investment.	1	2	3	4	5
4	Organizational performance is based on customer satisfaction level.	1	2	3	4	5
5	MAPs help to increase market share /sales margin.	1	2	3	4	5
	Thank you for your participation		1	I		1

Thank you for your participation.