

**ANALYSIS OF REVENUE PLANNING &
PERFORMANCE OF SERVICE ORIENTED COMPANY
WITH REFERENCE TO NEPAL TELECOM LIMITED**

A Thesis
Submitted by

PRAMOD BHURJI
Shanker Dev Campus
Campus Roll No 1572/2063
TU Registration No.7-2-367-04-2003
2nd Year Symbol No.: 392306

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RECOMMENDATION

This is to certify that the thesis:

Submitted by

Mr. PRAMOD BHURJI

Entitled:

**ANALYSIS OF REVENUE PLANNING & PERFORMANCE OF
SERVICE ORIENTED COMPANY
WITH REFERENCE TO NEPAL TELECOM LIMITED**

*has been prepared as approved by this Department in the prescribed format of the
Faculty of Management. This thesis is forwarded for examination.*

.....
Prof. Dr. Kamal Deep Dhakal
(Thesis Supervisor)

.....
Prof. Dr. Kamal Deep Dhakal
(Head of Research Department)

.....
Asso.Prof. Prakash Singh Pradhan
(Campus Chief)

.....
Shankar Raj Joshi
(Thesis Supervisor)

VIVA VOCE SHEET

We have conducted the viva-voce examination of the thesis presented by

Mr. PRAMOD BHURJI

Entitled:

**ANALYSIS OF REVENUE PLANNING & PERFORMANCE OF
SERVICE ORIENTED COMPANY
WITH REFERENCE TO NEPAL TELECOM LIMITED**

And found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for the Master's Degree in Business studies (M.B.S.)

Viva-voce Committee

Head of Research Department.....

Member (Thesis Supervisor).....

Member (Thesis Supervisor).....

Member (External Expert).....

TRIBHUWAN UNIVERSITY

Faculty of Management

Shanker Dev Campus

DECLARATION

I hereby declare that the work reported in this thesis entitled “Analysis of Revenue Planning & Performance of Service Oriented Company with Reference to Nepal Telecom Limited” submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the Master's Degree in Business Studies (M.B.S.) under the supervision of Prof. Dr. Kamal Deep Dhakal and Shankar Raj Joshi of Shanker Dev Campus.

.....
PRAMOD BHURJI

Shanker Dev Campus

TU Regd. No: 7-2-367-04-2003

Campus Roll No: 1572/2063

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I am pleased to present this thesis entitled “*Analysis of Revenue Planning & performance of Service Oriented Company with Reference to Nepal Telecom Limited*” in partial fulfillment of requirement for the degree of Master’s Degree in Business Studies (M.B.S.). I am thankful to Tribhuvan University for providing me such an opportunity to explore my subject from a practical perspective. While preparing this thesis, I encountered different realities and facts of the business world in real terms. This work is based on research models involving the use of quantitative as well as qualitative aspects of revenue planning of Nepal Telecom Limited.

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I hope this study will be helpful for those who want to gain knowledge related to the revenue plan of service oriented company especially Nepal Telecom Company

Limited. I hope this study will definitely be helpful for academicians, students and researchers and other interested person.

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Researcher
Pramod Bhurji

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LIST OF ABBREVIATINS

ARR	Accounting Rate of Return
BEP	Break Even Point
BOD	Board of Directors
CDMA	Code Division Multiple Access
CRBT	Caller Ring Back Tone
CV	Coefficient Variation
CVP	Cost Volume Profit
EOQ	Economic Order Quantity
Email	Electronic Mail
FY	Fiscal Year
GDP	Gross Domestic Product
GPRS	General Packet Radio Service
IRR	Internal Rate of Return
MOS	Margin of Safety
NEA	Nepal Electricity Authority
NPV	Net Present Value
NTC	Nepal Tele Com
PBP	Payback Period
PCC	Public Call Centre
PE	Probable Error
PE's	Public Enterprises
PPC	Profit Planning and Control
PSTN	Public service Telephone Networks
SD	Standard Deviation
SMS	Short Message Service
VAS	Value Added Services
VC	Variable Cost
VMS	Voice Mail Service

CHAPTER I

INTRODUCTION

1.1 Industrial Development in Nepal

The industrial development had begun very late in Nepal. It started with the establishment of Industrial Council in 1936. The Gharelu Prachar Ilam Adda was established in 1940. The cigarette, matches, cotton, paper etc. industries were established thereafter.

The industries had flourished during Second World War due to the scarcity of goods and excessive increase in price level. Juddha Match Factory was established in 1938 while Nepal Plywood and Bobin Company and Morang Cotton Mills were established in 1943. Similarly Morang Sugar Mills was established in 1944 and Ragupati Jute Mills was established in 1946. In addition to this, many other industries were established. But many industries were closed after Second World War due to different reasons.

The process of planned industrialization started with the launching of 1st five years economic plan in 1956. Many large scale industries such as cigarettes, sugar, cement, leather, brick, cotton, paper industries were established in the public sector under foreign assistance. But the state of industrialization is still in infancy. The agricultural products still form the significant portion of total export trade.

1.1.1 Public Enterprises in Nepal

Nepal has adopted mixed economy for its economic prosperity thereby creating the existence of private as well as public sector in the industrialization of the country. The primary objectives of the private sector is generation of profit with or without due consideration for social welfare. Government reserves full or partial ownership of the enterprises based on public utility. The co-existence of private as

well as public sector is necessary to mitigate the financial, administrative burden of the Government and to usher in all round economic development of the country. Under public enterprises, it is believed that the product or service should be provided by a state monopoly. The core services of utilities (gas, electricity, etc.), telecommunications, and certain forms of transportation fall into the category of public enterprises.

It is believed that Japan is the first country to start organized public enterprises for promotional purpose. Soviet Union also used public enterprises for building up its socialist economy. In India, there were no public enterprises before independent era. After 1947, there started some public enterprises following enforcement of industrial policy, which focused the progressive role of the government in the development of industries.

As per the definitions of United Nations (UN) “Public enterprises are those organizations, namely governmental enterprises and public corporation which are entirely or mainly owned and / or controlled by public authorities consisting of establishment which by virtue of their kind of activities, technology and mode of operation are classified as industries”.

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

According to Laxmi Narayan, “PEs is autonomous bodies which are owned and managed by the government and which provide goods or services for a price. The ownership with the government should be 51% or more to take an entity an entity PEs“(Laxmi Narayan, 1996; 20)”.

In Nepalese context PEs play vital role in economic and social development. Role and the main objectives of PEs in Nepalese economy can be summarized as below:

- Acceleration of economic growth rate.
- Infrastructure development.
- Overall nation development.
- Supply of essential commodities.
- Contribution towards national fund.
- Opportunities for employment generation.
- Development of large industries.
- Attaining social justice and social welfare.
- Balance of payment
- Acting as model entrepreneur.
- Initiate research and development activities

1.2 Brief Introduction of NTC

Telecommunication is the fastest means of communication. The history of operation of any form of telecommunication service in Nepal falls around 1970 B.S. But formally telecom service was provided mainly after the establishment of MOHAN AKASHWANI in 2005 B.S. Later, as per the First National Five year plan (2013-2018) Telecommunication Department was established in 2016 B.S. About 100 automatic telephone lines at Kathmandu and wireless offices in few districts were established under the department. To modernize and to expand the telecommunications services during third five-year plan (2023-2028), Telecommunication Department was converted into Telecommunications Development Board in 2026 B.S. After the enactment of Communications Corporation Act, 2028, it was formally established as fully owned Government Corporation called Nepal Telecommunications Corporation in 2032 B.S. After

-serving the nation for 29 years with great pride and a sense of accomplishment, Nepal Telecommunication Corporation was transformed into Nepal Doorsanchar Company Limited on 1st Baisakh 2061. Nepal Doorsanchar Company Limited is a public limited company registered under the companies Act, 2053. However, the company is known to the general public by the brand name Nepal Telecom as registered trademark. As the dawn of 21st century, NTC has launched internet service from 4th May 2000. In order to provide all relevant company information and its services NTC has launched its official website “www.ntc.net.np”.

Nepal Telecom has always put its endeavors in providing its valued customers a quality service since its inception. The nationwide reach of the organization from urban areas to the economically non- viable most remote locations, is the result of all the efforts that makes the organization distinct from others.

Definitely Nepal Telecom's widespread reach will assist in the socio-economic development of the urban as well as rural areas, as telecommunication is basic infrastructure required for development. Accordingly in the era of globalization, it is felt that milestones and achievements of the past are not adequate enough to cater with the global trend in the development of telecommunication sector. The growth of telecommunication services in the country will be guided by technology, declining equipment prices, market growth due to increase in standard of life and finally by healthy competition.

Converting NT from government owned Monopoly Company to private owned, business oriented, customer focused company in a competitive environment, Nepal Telecom invites its all-probable shareholders in the consecrated work of nation building.

The growing presence of the private sector in business directly or indirectly related to telecommunication has forced Nepal Telecom to develop alternative strategies to cope with the emerging competition. Proper financial management, availability

and utilization of sufficient infrastructure and technology and skilled human resources are some of the strategies adopted by NTC to cope with the emerging competition and establish its distinct identity. Frequent revision of tariff, customer care and satisfaction and introduction of value added services have now become the top priority in the competitive telecommunications market. GSM mobile phone capacity has been increased and expanded throughout the nation. NTC has been servicing to 6,743,976 valued customers as at the end of F/Y 2067/68.

Under the ongoing Eleventh National Plan, Nepal Telecom plans to launch rehabilitation and expansion program in its rural network. The program is aimed at replacing some of its existing rural telecommunications network, which has become obsolete. The step will foster in modernization of national telecommunication services.

Nepal Telecom, United Telecom Limited, N Cell, Nepal Satellite, Hello GSM, etc are some of the companies providing telecommunication services in Nepal. Still Nepal telecommunication is unable to meet the public demand. It may be due to lack of proper planning, financial resources and technical know how. It has directly hampered the other activities of the country.

Profile of NTC

Vision

"Vision of Nepal Telecom is to remain a market leader in information and technology sector in the country while also extending reliable and cost effective services to all".

Mission

"Nepal Telecom as a progressive, customer spirited and consumer responsive entity, is committed to provide nation-wide reliable telecommunication service to

serve as an impetus to the social, political and economic development of the Country"

Goal

"Goal of Nepal Telecom is to provide cost effective telecommunication services to every nook and corner of country"

Services of NTC

The services of NTC are categorized in different group viz PSTN service, CDMA service, Mobile Service, Email and Internet service and other services. The Service/ products of NTC are grouped as follows.

PSTN Service

Local calls
National Trunk Calls
International Trunk Calls
International Telegram
Domestic Telex
International Telex
Leased Lines
Operator - Assisted Int'l Telephone
Packet Switching Data Communication
Pay Phone
PCC Easy Call Service
Intelligent Network Services
AFS Advanced Free phone Service
Universal Access Number service
HCD Service

PSTN credit Limit service
<p><u>Mobile</u></p> <p>Postpaid Mobile Service</p> <p>Prepaid Mobile Service</p> <p>Roaming Service</p> <p>SMS</p> <p>3G Service</p> <p>VAS Services</p>
<p><u>CDMA</u></p> <p>Fixed Postpaid Service</p> <p>Fixed Prepaid Service</p> <p>SKY phone Services</p> <p>Data Services</p>
<p><u>Internet and E-mail</u></p> <p>Dial -up Internet /Email Access</p> <p>PSTN Dial-up</p> <p>Fixed hour package</p> <p>Night Surfing Package</p> <p>Fixed hour / monthly package</p> <p>Unlimited Single User Package</p> <p>Post-Paid Mobile Bills</p> <p>PSTN Bills through the Internet</p> <p>Web SMS</p> <p>E-mail Alert</p>
<p><u>Other services</u></p> <p>Check Mail</p> <p>Caller Ring back Tone</p>

GSM Mobile Bill
PSTN VMS
Web SMS
Change Pass word
Intelligent Network

Sources: Nepal Telecom Ltd, Bhadrakali, Ktm

1.3 Statement of the Problem

Revenue Planning and Control model provides a tool for more effective supervision of individual operation and practical administration of a business as a whole. In Nepal, the industrialization is still in its infancy and therefore the concept of revenue planning has not even been familiarized in most of the enterprises. By proper revenue planning a business can be managed more effectively and efficiently. The major problem may arise in planning and implementation of budgetary problem in coordinating individual objectives. For effective implementation of budgetary program integration of individual and organizational goal in a single bowl is necessary so that entire individual effort can be coordinated for the achievement of organizational goal. Organization success is mainly dependent on the revenue planning which is the basis for other aspects of planning. The current study focuses to demonstrate and analyze revenue planning mechanism of NTC and attempts to answer the following questions:

- Does NTC have appropriate profit planning system?
- What kinds of tools and techniques are adopted for revenue planning?
- What are the problems faced by NTC in planning?
- Whether there exists any sort of shortcoming with planning practice and its implementation.

- Which method of profit planning could be effective for better financial results?

1.4 Objectives of the Study

The main objective of this study is to search and highlight the role of Revenue planning in the performance of NTC. Therefore the main objectives of this study are:

- To study and evaluate the pattern of revenue generation of NTC
- To sketch out the use of revenue planning tools and techniques.
- To study the growth of the business of NTC over the period.
- To provide suggestions and recommendations for improvement of the overall performance of NTC.

1.5 Significance of the Study

Profit is the life blood for any organization because the continuity or survival of the organization depends upon the earning capacity of the organization. This study is concerned with revenue planning. It attempts to examine and analyze the applicability of profit planning system exercised by NTC. Profit planning process significantly contributes to improve the profitability as well as the overall financial performance of an organization with the help of the best utilization of resources.

Every Organization should systematically plan its activities. It helps in making managerial decisions and adheres for achievement of organizational objective. As revenue planning is the corner stone for every planning, proper planning of revenue is necessary for the organization. The study is more significant to public enterprises as it will try to analyze and examine the relation of sales planning

with other functional planning viz production, inventory, etc. The study will be useful and beneficial to all interested parties concerned with revenue planning. Moreover, it seeks to provide valuable suggestions and ideas to people related in revenue planning for any firm and NTC.

1.6 Limitation of the Study

A research is full analysis and vast investigation study of a problem and generation of feasible solutions. It requires substantial time, detailed authentic information and financial resources as well. The study is only related with the Revenue planning aspect of NTC. Since revenue, planning is the focus of study, only overall amount and condensed form of different budgets have been used for analysis. The limitations of the study are summarized as follows:

- The time and the availability of the resources.
- The study covers only ten years actual data i.e. from 2001/02 to 2010/11
- The study is based on the secondary data viz annual report.
- The study is only concerned with revenue planning of NTC
- The research does not concern with the human recourse aspect of NTC.
- For the easiness in calculation, most of the data are rounded to nearest 1000 that may cause rounding error.
- Especially the data of NTC are Vega so reported as lump sum data.

1.7 Organization of the study

The study is divided into five chapters as follows:

- Chapter 1 Introduction
- Chapter 2 Conceptual Framework and Review of literature

Chapter 3	Research Methodology
Chapter 4	Data Presentation and Analysis
Chapter 5	Summary, Conclusion & Recommendations

The First Chapter: Introduction of the study consists of industrial development in Nepal, general introduction and brief profile of NTC. It also envisages statement of the problem, significance and objectives of the study and limitation of the study.

The Second Chapter: Conceptive framework mainly includes concept regarding, budgeting and profit planning as well as review of available literature. It takes review of related books, journals, articles and previous unpublished Master degree dissertation, etc.

The Third Chapter: It consists of the research methodology employed in the study. It includes research design, population and sample, data collection procedure, period covered, nature and sources of data, tools and research ridicules.

The Forth Chapter: The fourth chapter is the important chapter of the study which comprises presentation and analysis of data using different financial and statistical tools as well as major findings of the study.

The Fifth Chapter: The fifth and last chapter covers the summary of the study, the main conclusion that flows from the study and offers some recommendations as well as suggestions for further improvement.

CHAPTER II

CONCEPTUAL FRAMEWORK AND REVIEW OF LITERATURE

2.1 Conceptual Framework

The main objective of this chapter is review of the eminent literature related to the study including review of the empirical evidence of previous studies. Review of literature is one of the most important parts of the thesis writing. Reference of various books, journals, newspaper, magazine, old thesis, dissertation and useful suggestion of the investigators and experts of the related field have systematically and effectively considered for review. For this study prospectus, articles, and memorandum of the sampled specially Nepal Telecom Company Limited is also considered, referenced and reviewed. The review of literature has been divided into different categories as follows:

2.1.1 Concept of Profit Planning

Profit Planning is a comprehensive and coordinated plan expressed in financial terms, for the operations and resource of an enterprise for some specific period in the future. It is a plan of the firm's expectation and is used as a basis for measuring the actual performance of managers and their units. "A profit plan or budget is the formal expression of the enterprise's plans and objectives stated in financial terms for a specified future period of time". (**Fremgen, 1973; 144**)

Profit planning is a part of overall planning process of an organization. The managerial process and profit planning are interrelated to each other. Success of

management is always depended on well planning. "The concept and techniques of profit planning and control (PPC) have wide application in individual business enterprises. Government units, charitable organizations and virtually all group endeavors [**Welsch, Glenna, 2001**]

Profit planning is estimation, predetermination of revenue and expenses that estimates how much income should be generated and how it should be spent in order to meet investment and profit requirements. It presents a plan for spending income in a manner that does not result in a loss.

Comprehensive profit planning and control is a new term in business literature. It is viewed as a process designed to help management effectively perform significant phases of the planning and controlling functions. Comprehensive profit planning and control is defined as a systematic and formulized approach for performing significant phases to help the management. The other terms which can be used in the same context are comprehensive budgeting, managerial budgeting or simply budgeting. It involves:

- The development and application of broad and long-range objectives of the enterprise,
- The specification of enterprise goals,
- A long-range profit plan developed in broad term,
- A short-range profit plan detailed by relevant responsibilities,
- A system of periodic performance reports detailed by assigned responsibilities and
- Follow-up procedure.

Planning, organization, controlling, staffing and leading the comprehensive profit planning and control is a new term in the field of business. "The concept of comprehensive profit plan and control theory i.e. the primary success factor in an

enterprise is the competence of management to plan and control enterprise activities. This notion says that a management earns its bread and butter only if it can plan and control in ways that determine the long-range designation of the enterprise. The foundation for profit planning and control then, is that management must have confidence in its ability to establish realistic objectives and to devise efficient strategies to attain those objectives. The market theory argues very little for the concept of profit planning and control. (*Welsch, Hilton and Gordon, 2005*)

Profit planning is a tool, which may be used by the management in planning the future course of action and controlling the actual performance because profit planning or Managerial budgeting is a written plan in which all aspects of business operation concerned with future period, are included. Profit guides for current operations and serves as a partial basis for the subsequent performance evaluation.

A profit plan is an advance decision of expected achievement based on the most efficient operating standards in effect or/ and prospect of time. It is established against which actual accomplishment is regularly compared.

In this way, profit planning and control which has been developed to facilitate effective performance of the management process is a major improvement approach of the organization and has the ultimate objectives to achieve the optimum profit for the organization.

2.1.1.1 Profit

Profit is a controversial term. It is been defined differently by different peoples taking into consideration different aspect. Profit is a reward for risk taking in business. If the entrepreneur does not receive the reward, he would not be willing

to undertake risk involved in the business. This profit of the entrepreneur exceeds ordinary return on capital.

An economist will say that profit is the reward for entrepreneurship for risk taking. A labor leader might say that it is a measure of how efficiently labor has produced and provides a base for negotiating wage increment. An investor will view it as a gauge of the return on his or her money. A tax agent might regard it as the base for determining income taxes. The accountant will define it simply as the excess of firm's revenue over the expenses in a given fiscal period.

Using the accounts measuring stick, management thinks profit as:

- A tangible expression of the goals, it has set for the firm.
- A performance measurement towards goal achievement.
- A means of maintaining growth and continuity of the organization.

The main target of management is maximization of profits over the long term consistent with its corporate social responsibility in profit planning.

2.1.1.2 Planning

In the context of business enterprises (and other organization in general) planning is defined as the process of determination of the desired future destination and direction in terms of objectives and aspirations of the organization, as also the ways and means of achieving them over a specific period of time. It involves visualization of the likely future conditions in the environment relevant for purpose of making decisions on the desired objectives as also the courses of action required to attain them.

Planning could be taken as the tools of achieving organizational goals efficiently and effectively from the selection of various alternatives." Planning consist in setting goals for the firm both immediate and the long-range considering the various means by which such goals may be achieved. And deciding which of any variable alternative means would be best suited to the condition express to prevail.

For an ongoing enterprise, planning includes analysis and assessment of past performance, present position, future expectations and aspirations, status of resources, strengths and weak nesses, present and likely future conditions in the behavior of relevant variables in the environment. All these activities provide the basis for the enterprise to set its future objectives envisaging an image of what the enterprise would like to be, where it would like to go, what it would have to do, how and when.

Planning is a conscious blue – printing of the desired degree of continuity, stability and change in the future functioning of the enterprise backed by adequate commitment of resources, efforts and action initiatives. It helps in deciding and steering the organization to the desired future of the organization.

The essence of planning is

- To bridge the gap between its present position and the desired future shape
- To reduce uncertainty
- To facilitate the process of an integrated thinking of decision making
- To effective and efficient resource mobilization, allocation and utilization
- To provide direction by determining course of action in advance
- To accomplish organizational goals

2.1.1.3 Steps in the Process of Planning

As stated above planning is a process and involves certain steps or stages, which are often regarded as elements of the planning process. Although there is no standardized set of planning steps, we may discuss them in the following conceptual level:

- Perception of the need of planning.
- Current internal situation analysis
- Appraisal of external environment
- Identification of important areas and issues for planning
- Development and evaluation of alternative long range set of plans
- Formulation of medium range and operational plans
- Design of systems for implementation and control

2.1.1.4 Importance of Forecasting as an Element of Planning

It has been mentioned above that one of the steps in planning is forecasting. Forecasting is playing vital role in planning. F.D. Newbury rightly says "There can be no intelligent or effective planning for a business enterprise without the primary steps of forecasting" The role of forecasting in planning is clearly pictured by D.W. Editing , "Good planning depends on good forecasting".

Planning is to be based on proper and reliable information on the past, present and likely future position of the organization. Forecasting is intended to generate information on the future- the conditions likely to prevail and their likely implications for the performance of the organization. Intelligent, systematic and scientific forecasting is an attempt at understanding the state of uncertainty and complexity of some of the variables of the future. It may be noted that forecasting does not render the future conditions less complex and uncertain. It only

strengthens the sense of confidence and competence of managers while making current decisions on commitment of scarce resources and valuable efforts in the future. It enables managers to make informed assumptions (called 'planning premises'), estimates and judgment on the implications of future events and behavior of variables.

Managers make the premises on the basis of information they generate by forecasting. Thus forecasting precedes the formulation of planning premises. In this sense, the formulation of planning premises may be regarded as one of the stages in planning.

There is a little doubt that forecasting and planning in a complex and rapidly changing environment is a hazardous exercise. But the only alternative to forecasting is drifting into the unknown future with closed eyes, which is more hazardous. The very turbulence and complexity of the future events make forecasting more relevant and indispensable than ever. It is true that forecasting is not an exact science. Many errors and deviations may occur. The future may not always behave as per the predictions and assumptions made. However, attempts should be made to improve forecasting skills and techniques so as to reduce the range and margin of errors. This is better than forsaking forecasting. Effective forecasting helps in reducing the influence of chance events and luck apart from enlarging the freedom of action for the enterprise to make conscious choices as part of the planning process.

2.1.1.5 Planning Vs Forecasting

Forecasting refers to the process of predicting, projecting and estimating some specific future events and conditions (internal or external) in the organization. It is a systematic appraisal of the future viz. its behavior, trends and likely changes so

far as they are relevant to the functioning of the organization. (**ICAI Board of Studies**)

Forecasting is pre-requisite for planning; not a plan in itself. It is statements of expected future conditions about a particular subject based on one or more assumptions. Management may change the forecast. It is only an input of a comprehensive plan.

According to S.C. Kuehhal, "Forecasting is an attempt to find the most probable coursing of events or at best a range of probabilities" Forecasting is not only guess or imagination matter but it is related within certain assumptions. Forecasting is a future decision at present from the analysis of relevant factors of past and present. Its main aim is to reduce uncertainty and risk in future and conformity to achieve desired objectives as possible.

For a business enterprise, there are several aspects of the future which can be the subject matter of forecasting, depending on the size and nature of the enterprise. They relate to future conditions in the economy, general price situation, growth of the economy, changes in its structure, conditions in the industry in which the enterprise operates or wishes to operate, likely demand and competitive trends, availability of inputs like materials, funds, managerial manpower, likely changes in the technology, consumer tastes and life styles, population and urbanization trends, governmental policies and programmes, sales volume, market share and profitability of products of the enterprise and so on. But forecast in other areas, especially the sales volume, market share, profitability and the like, have to be made by the enterprise itself. (**ICAI Board of Studies**)

Forecasting is not always a matter of simple projection of the present conditions. Future is not an extension of the past and present in all aspects. History may not always repeat itself. It only offers some lessons which have to be kept in mind

while looking ahead into the future. Similarly, forecasting is not planning. The former is confined to the task of predicting the probable future conditions, while planning is concerned with designing the desired future conditions and making the needed efforts to ensure that they will materialize.

Finally, according to the American Accounting Institution," The distinction between forecasting and planning is not an easy one. Webster gives, "To plan an eared' as the leading definition for forecasting. Forecasting is our best thinking about what will happen to us in the future. In forecasting we define situations and recognize problems and opportunities. In planning we develop our objectives in practical detail and we correspondingly develop schemes of action to achieve these objectives".

2.1.2 Fundamentals of Profit Planning and Control

Profit planning, generally known as budget or plan of operations, may be defined as the planning of future operations to attain a defined profit goal. The fundamentals concern effective implementation of the management process in resource by complex endeavors. It describes management orientations, activities, and approaches necessary for proficient and sophisticated application of comprehensive profit planning and control. This fundamental is needed to be established as a sound foundation of managerial commitment. The important fundamentals are:

2.1.2.1 Managerial Involvement and Commitment

Managerial involvement entails managerial support, confidence, participations and performance orientation. In order to engage competently in profit planning or

Managerial Budgeting, all levels of managements, especially top management must:

- Understand the nature and characteristic of profit planning and control.
- Be convinced that this particular approach to managing is preferable for their situation.
- Be willing to devote the effort required to make it operative.
- Support the program in all its ramifications and
- View the result of the planning process as performance commitments.

For the comprehensive profit planning and control (PPC) program to be successful it must have the full support of each members of management, starting with the president, the impetus and direction must come from the very top.

2.1.2.2 Organizational Adaptation

Profit planning program must rest upon sound organizational structure of the enterprise and a clear-cut designation of lines of authorities and responsibilities. The purpose of organizational structure and the assignment of authority are to establish a framework within which enterprise objectives may be attained in a coordinated and effective way on a continuing basis. The scope and inter-relationship of the responsibilities of each individual manager is specified.

Thus the company as a whole is a responsibility center, as is a division, department, a sales district. Responsibility center are further classified in respect to the content of responsibility as follows.

- Cost Center
- Profit Center
- Investment Center

➤ Revenue Center

2.1.2.3 Responsibility Accounting

The term 'responsibility accounting' refers to the accounting process that reports how well managers (of responsibility centres) have fulfilled their responsibility. Also known as activity or profitability accounting, it is an information system that personalizes control reports by accumulating and reporting cost and revenue information according to defined responsibility areas within a company. According to Horngreen, "the responsibility accounting system recognizes various division centres throughout an organization and traces costs (as well as revenue, assets, and liabilities, where relevant) to the individual managers who are primarily responsible for making decisions about these variables".

2.1.2.4 Full Communication

Communication can be broadly defined as an inter change of thought or information to bring about a mutual understanding between two or more parties. It may be accomplished by combination of words, symbols and messages of understanding that come from working together, day-in and day-out, by two or more individuals. Communication may be thought of as the link that brings together the human elements in an enterprise.

There are numerous approaches for improving communication in the management process of comprehensive profit planning and control. Communication provides important avenues to enhance effective communication. Fundamentally, these relate to the process of developing enterprise objectives, specification of goals, the development of profit plan, and the reporting and follow-up activities related to performance evaluation of each responsibility center.

Communication for effective planning and control requires that executive and subordinate have the same understanding of responsibilities, goals and profit plans. Full and open reporting in performance reports that focus on assigned responsibilities enhances the degree of communication essential to sound management

2.1.2.5 Realistic Expectation

In profit planning and control, management must be realistic and avoid either undue conservatism or irrational optimism. For profit planning or managerial budgeting process enterprise objectives and specification budgeted goals should represent realistic expectations. Enterprise objectives and specific budget goals, in order to constitute realistic expectations, must represent a real challenge to the manager and to the operational unit. As a practical matter of board policy, the degree of challenge that should be represented by realistic expectations, the definition of realistic expectations in a given enterprise therefore, should be related to many pervasive variables such as: size of the enterprise, characteristics, of the manager, leadership characteristics, maturity of the enterprise, sophistication of the management, nature of operations and numerous psychological factors.

2.1.2.6 Time Dimension

Effective implementation of the managerial budgeting or profit planning concept requires that the management of enterprise establish the defined time dimensions for certain types of decision. In viewing time dimension perspective in managerial planning, a clear-cut distinction should be made between historical consideration and future considerations.

"The concept of comprehensive profit planning or managerial budgeting encompasses a systematic and integrated approach to project planning to tactical planning and so to strategic planning".

2.1.2.7 Flexible Application

This fundamental stresses that a profit planning and control program or managerial budgeting must not dominate the business and that flexibility in applying the plans must be a forth right policy so that jackets are not imposed and all favorable opportunities are seized even though 'they are not covered by the budget.'

It is not uncommon for budgets to impose inflexibility on an endeavor and act as a serve constraint on the decision-making freedom of managers and supervisors. Contrary to this view, profit planning and control or Managerial Budgeting program in a sophisticated manner permits greater freedom at all management levels.

2.1.2.8 Activity Costing

Responsibility accounting system accumulates costs by department and product costing system associates costs with units of product or service organization also frequently finds it useful to associate costs with activities. It involves decomposing an organizations production process into discrete set of activities, and then associating costs with each of these activities. Moreover, by systematically identifying the activities throughout the organizations managers can identify redundant activities. (Welsh; 2004; 42)

2.1.2.9 Behavioral View Point

"The motivation of human resources through dynamic leadership is central to effective management. The behavioral aspects of management process have been accorded extensive and intensive investigation by psychologists, educators and businessmen. This attention is increasing in scope and intensity in recognition that there are many unknowns, misconceptions and speculation concerning the responses of the individual and the group in varying situations. The comprehensive profit planning approach to management brings many of these behavioral problems into sharp focus. A sophisticated view of managerial budgeting focuses on a positive approach to resolve certain behavioral problems.

2.1.2.10 Zero Base Budgeting

It is an expenditure control device where without reference to the past budget or achievements each divisional head has to justify the requirements of funds for each head of expenditure and prepare the budget accordingly.

In the words of Peter a Pyhm, Zero base budgeting (ZBB) is "an operating planning and budgeting process which requires each manager to justify his entire budget requests in detail from scratch (Hence zero-base). Each manager has to justify why he should spend any money at all. This approach requires that all activities be identified as decision on packages which would be evaluated by systematic analysis and ranked in order of importance."

The technique of ZBB suggests examining a programme or function or responsibility from "scratch". The evaluator proceeds on the assumption that nothing is to be allowed simply since it was being done previously. The manager proposing the activity has to justify that the activity is essential and the outlay

proposed is reasonable in the present circumstance. It thus implies writing on a clean slate.

2.1.2.11 Follow-up

The fundamental holds that both good and substandard performance should be carefully investigated, the purpose being three fold:

- In the case of substandard performance, to lead in a constructive manner to immediate corrective action.
- In the case of outstanding performance, to recognize it and perhaps provide for a transfer of knowledge to similar operation.
- To provide a basis for better planning and control in the future.

2.1.2.12 Management by Exception

This type of reporting represents an effective application of the well recognized management exception principle. The exception principle holds that the manager should concentrate primarily on the exceptional or unusual items that appear in daily, weekly and monthly reports, thereby leaving sufficient managerial time for overall policy and planning considerations. It is the 'out of line' that needs immediate managerial attention to determine causes and determine corrective actions. The items that are not out of line need not utilize extensive management time; however, they should trigger 'rewards' in appropriate ways. To implement the exceptional principle, procedures must be adopted to call the manager attention to the 'out of control' items. Performance reports include a comparison of actual results with plans by areas of responsibility, emphasize in a relevant ways performance variation. The out of line items stand out with respect that the busy executive should investigate, determine the cause and take corrective action.

2.1.3 Budgetary Control and Performance Measurement

2.1.3.1 Definition

The Chartered Institute of Management Accountants of England and Wales has defined the terms ‘budget’ and budgetary ‘control’ as follows:

Budget:

“A financial and/or quantitative statement prepared and approved prior to a defined period of time of the policy to be pursued during that period for the purpose of attaining a given objective. It may include income, expenditure and employment of capital”.

Budgets are usually, set up in the light of past experience after taking into account the changes that are expected to occur in the future. It is, therefore, to be expected that actual figures will correspond to the budgets unless there is some important change in the conditions. In fact, it must be the constant endeavor of the management to see that actual performance does correspond with the budget concerned. Since budgets assume the optimum efficiency attainable, the system of budgetary control helps to increase efficiency and enables the concerned to achieve the targets which are considered attainable.

The objects of budgeting have been summarized as follows on the subjects:

- To encourage self- study in all aspects of the company’s operations.
- To get all members of management to “put their heads” to the basic question of how the business should e run, to make the of a coordinated team operating to an unison towards clearly defined objectives.
- To force a definition and crystallization of company’s policies an aims.
- To increase the effectiveness with which people and capital are employed.

- To disclose areas of potential improvement in the company's operations.
- To stimulate a study of relationship of the company to its external economic environment for improving the effectiveness of its direction.

(Source: ICAI Board of Studies)

Budgetary Control System:

Budgetary control is defined as “the establishment of budgets relating the responsibilities of executives to the requirements of a policy, and the continuous comparison of actual with budgeted results either to secure by individual action the objective of that policy or to provide a base for its revision”. Broadly speaking, it is a system of achieving the firm's objectives with minimum possible cost.

2.1.3.2 Salient Features of Budgetary Control System

The salient features of such a system are the following:

- Determining the objectives to be achieved over the budgeted period, and the policy or policies that might be adopted for the achievement of these ends.
- Determining the varieties of activities that should be undertaken for the achievement of the objectives.
- Drawing up a plan or a scheme of operation in respect of each class of activity, in physical as well as monetary terms for the full budget period and its parts.
- Laying out a system of comparison of actual performance by each person, section, or department with the relevant budget and determination of causes for the discrepancies, if any.

- Ensuring that a corrective action will be taken where the plan is not being achieved and if that is not possible, for the revision of the plan.

(Source: ICAI Board of Studies)

A budgeting is a written plan for the future. The manager of firms which use budgets, are forced to plan ahead. Thus, these firms tend to do well because they anticipate problems before they occur. A firm without financial goal may find it difficult to make proper decision. A firm with specific goals, in form of a budget, makes many decisions ahead of time. Budget helps a firm to control its costs by setting guidelines for spending money for undead items.

A concept of comprehensive budget covers its use in planning, organization and controlling all the financial and operating activities of the firm in the forthcoming period. Budgeting summarize the estimated result of future Transaction for the entire company in much the same manner as the accounting process records and summarize the result of completed transactions.

Budget as a tool of planning and controlled is clearly related to the broader system of planning and control in an organization. Planning involves the specification of the basic objectives that the organization will pursue and fundamental policies that will guide it. In operation term, it involves the step of setting objectives, specifying goals, formulating strategies, and expressed in financial terms, for the operation and resources of an enterprise for same specified period in the future.

Hence, budgeting includes sales, production, distribution and financial aspects of an organization. Budget programs are designed to carry cut a verity of function, planning, evaluation of performance, coordinating activities, and implementation of plans, communicating motivating and authoring.

Budgeting is a comprehensive plan of action prepared for achieving objectives. Budget is plan quantified in monetary term prepared and approved to defined

period of time usually showing planned income to be generated expenditure be incurred during that period of the capital to be employed to attain a given objectives of office terminology. It express as organization commitment to planned activities and resources acquisition and use. It is vital part of good planning. It is a formal statement of future plan usually expressed monetary terms. Therefore a budget is:

- i. Essentially a plan (qualified in monetary terms) to attain a given objectives.
- ii. Prepared and approved,
- iii. Prior to defined period of time,
- iv. Usually showing planned income to be generated
- v. Expenditure to the incurred and
- vi. Capital to be employed during the period

The process of preparing budget is known as budgeting. This is the process of planning future business action and expressing that plan in a formal manner is called budgeting.

2.1.3.3 Objectives of Budgeting

The objectives of a system of budgetary control are given below:

- Portraying with precision the overall aims of the business and determining targets of performance for each section or department of the business.
- Laying down the responsibilities of each of the executives and other personnel so that everyone knows what is expected of him and how he will be judged.

- Providing a basis for the comparison of actual performance with the predetermined targets and investigation of deviation, if any, of actual performance and expenses from the budgeted figures.
- Co-coordinating the various activities of the business, and centralizing control and enabling management to decentralize responsibility and delegate authority in the overall interest of the business.
- Ensuring the best use of all available resources to maximize profit or production, subject to the limiting factors.
- Providing a basis for revision of current and future policies.
- Drawing up long range plans with a fair measure of accuracy.
- Providing a yardstick against which actual results can be compared.

(Source: ICAI Board of Studies)

2.1.3.4 Profit Planning Process

Development of profit planning or managerial Budgeting includes the preparation of various functional budgets, analysis of variance and presentation of projected income statement and balance sheet. Top management with the participation of low management involves in the development of profit plan. Developing profit plan begins with the preparation of master budget. The budgeting process or programme varies widely from one organization to another. Differences in management style, organization objectives, structure of competition and similar factors affect the procedures companies adopt in budget preparations. However, there are a set of guidelines (procedures) that are used in the budgeting process by a large number of organizations. The common steps can be listed as follows:

The common steps of Profit Planning and Control can be listed as follows:

- i. Identification and evaluation of external variable.
- ii. Development of the broad objectives of the enterprise.

- iii. Development of specific goals for the enterprise
- iv. Development and evaluation of company strategy.
- v. Executive management planning instruction.
- vi. Preparation and evaluation of project plans.
- vii. Development of strategies and tactical profit plan.
- viii. Implementation of profit plans.
- ix. Use of periodic performance reports
- x. Follow up.

2.1.3.5 Elements of a Successful Budgeting

The success of the budgeting process in an organization depends on the following essential elements:

- 1. Accurate forecasting of business activities:** Forecasting is a prerequisite in a budgeting process. It is not only the starting point, but is also critical to the development of an accurate budget.
- 2. Coordinating business activities:** Budgeting needs to coordinate all the individual budgets into an integrated plan as each budget has certain implications for the other budgets. There must be coordination between sales, production, purchasing, and personnel budgets.
- 3. Communicating the budgets:** The success of a comprehensive budgeting programme depends on communication of individual budgets to the different units in the organization. Managers are not responsible for budget unless the budget is communicated clearly, concisely and in an authoritative manner to them.

- 4. Acceptance and Cooperation:** Successful budgeting also requires that budgets should be accepted by the people who must execute them. Budgeting should have the active cooperation of the entire organization from the top to the bottom.

- 5. Reasonable flexibility:** The budgeting programme should contain reasonable flexibility if the situation so demands. However, it should be noted that too much flexibility and too much tightness are both undesirable. Too much flexibility will weaken the cost control and the budget will become inoperative. Similarly, too much rigidity not permitting reasonable deviations will create problems and restrictions in the implementation of the budget.

- 6. An Adequate and planned accounting system:** There should be proper flow of accurate and timely information in the enterprise.

- 7. Providing a framework for evaluation:** Budgeting provides a basis to evaluate the performance of different departments.

2.1.3.6 Classification of Budgets

Budgets are the end product of the budgeting process. The number and types of budgets in a business enterprise depend on the size and nature of the business. Budgets may be classified by capacity, coverage they encompass, periods which they cover and conditions on which they are based.

A) On the basis of capacity

- 1. Fixed Budget*
- 2. Flexible Budget*

B) On the basis of function

1. *Sales Budget*
2. *Production Budget*
3. *Direct material usage Budget*
4. *Direct material purchases Budget*

5. *Direct labor Budget*
6. *Factory overhead budget*
7. *Production cost Budget.*
8. *Inventory Budget*
9. *Selling and distribution expenses Budget.*
10. *Administration expenses Budget*
11. *Research and Development Budget*
12. *Capital expenditure Budget*
13. *Cash Budget.*
14. *Budget summaries/Master Budget-Budgeted Income Statement and Budgeted Balance Sheet.*

C) On the basis of period

1. *Long Term Budget*
2. *Short Term Budget*

2.1.4 Development of Profit planning

Development of profit planning or managerial Budgeting includes the preparation of various functional budgets, analysis of variance and presentation of projected income statement and balance sheet. Top management with the participation of low management involves in the development of profit plan. The preparation process of budget forces executives to become better administrator and budgeting puts planning where it belongs in the forefront of the manager is mind. Developing

profit plan begins with the preparation of master budget. The steps included in the preparation of master budget may be outlined as below:

Step 1: Forecast demand for products or services.

Step 2: Identify cost patterns responsibility centers.

Step 3: Estimate production costs.

Step 4: Specify operating objectives.

Step 5: Develop a sales budget.

Step 6: Develop a production budget.

Step 7: Develop a purchasing budget.

Step 8: Develop budgets for responsibility centers.

2.1.4.1 Sales Budget or Plan

A. Introduction

After the planning premises have been received, the development of sales plan is the major step in the preparation of profit plans. In practical sense, sales plan is the starting points for the development of the profit plan. Sales forecast is the commencement of budgeting and hence sales budget assume primary importance. The quantity which can be sold may be the principal budget factor in many business undertakings. In any case in order to chalk out a realistic budget programme, there must be an accurate sales forecast. The sales budget represents the total sales in physical quantities and values for a future budget period. Sales managers are constantly faced with problem like anticipation of customer requirements, new product needs, competitor strategies and various changes in distribution methods or promotional techniques.

The sales forecast is the starting points for budgeting because inventory level, purchases and operating expenses are generally geared to the rate of sales activity. “Sales plan is the starting point in the preparation of the comprehensive profit

planning and control. All the other plans and budgets are dependent upon the sales budget. The budget is usually presented in units and currency terms (the sales revenue or sales volume). The preparation of sales plan is based upon the sales forecast where various methods are use to forecast the sales for the planning period.

The sales plans are foundation for periodic planning in the firm because particularly all other enterprise planning builds on it. The primary source of cash is sales; capital addition need the amount of expenses to be planned, the manpower requirement, the production level and other important operational aspect depend on the volume of sales. Therefore, the sales plan must be realistic. The sales plan has three distinct parts:

- i. The planned volume and the selling price per unit for each product.
- ii. The sales promotion plan and
- iii. The sales or distribution expenses plan. The sales budget itself is an estimate of main three figures. They are income be earned, cost and expenses incurred for such sales and sales surplus which will be sold.

The primary purposes of sales plan are:

- i. To reduce uncertainty about future re veres,
- ii. To incorporate management judgment and decision into the planning process,
- iii. To provide necessary information for developing other elements of comprehensive profit plan, and
- iv. To facilitate management in controlling sales activities.

The sales budget may be prepared under the following classification or combination of classifications:

- i. Products or groups of products.

- ii. Areas, towns, salesman and agents.
- iii. Types of customers as for example: government, export, home sales, retail depots.
- iv. Period- months, weeks, etc.

Sales in units or amount can be computed as follows:

<i>Particulars</i>	<i>Units/Rs)</i>
<i>Opining stock (inventory) of finished goods</i>	<i>XXXX</i>
<i>Add: Planned production</i>	<i>XXXX</i>
<i>Total</i>	<i>XXXX</i>
<i>Less: Closing stock of finished goods</i>	<i>XXXX</i>
<i>Planned Sales</i>	<u><i>XXXX</i></u>

B. Sales Planning and Sales Forecasting

"Sales planning and forecasting often are confused. Although related, they have distinctly different purpose. A forecast is not plan rather it is a statement and/or a quantified assessment of future conditions about a particular subject (e.g. sales revenue) based on the one or more explicit assumptions. A forecast should always state the assumption upon which it is based. A forecast should be viewed as only one input into the development of a sales plan. The management of a company may accept, modify or reject the forecast. In contrast, a sales plan incorporates management decisions that are based on the forecast. Other inputs and management judgments about such related items are sales volume, prices, sales efforts production and financing.

The purpose of sales budget is not to attempt to estimate or guess what the actual sales will be, but rather to develop a plan with clearly defined objectives towards which the operational effort is directed in order to attain or exceed the objective. Hence, sales budget is not merely a sales forecast. A budget is a planning and

control document which shows what the management intends to accomplish. Thus, the sales budget is active rather than passive. A sales forecast, however, is a projection or estimate of the available customer demand. A forecast reflects the environmental or competitive situation facing the company whereas the sales budget shows how the management intends to react to this environmental and competitive situation. A good budget hinges on aggressive management control rather than on passive acceptance of what the market appears to offer. If the company fails to make this distinction, the budget will remain more a figure-work exercise than a working tool of dynamic management control.

As explained above sales plans are formulated by top executives on the basis of strategies, objectives, guidelines and considering the sales forecast of technical staffs as well

C. Factors to be Considered for Preparing Sales Budget

The following factors have to be considered for preparing the sales budget:

- Reports by salesman who will have first-hand information about the local conditions prevailing in their areas, competition, etc.
- Past sales analysis and statistical forecasting techniques can be used to project the sales volume based on past sales data.
- General economic and political conditions.
- Relative product profitability.
- Pricing policies.
- Advertising and sales promotion.
- Market research studies which will provide information like state of the market, fashion, changes, consumer preferences, activities of competitors, ability of the consumers to pay, etc.

- Quality of sales force.
- Competition, market size and market share.
- Seasonal and Cyclical variations.
- Production capacity of the plant.
- Change in company's policy like introduction of a new product or design.

D. Strategic and Tactical Sales Planning

A comprehensive sales plan includes two separate but related plans, the strategic and the tactical sales plan. The strategic sales plan provides long term direction and scope to the organization. It is a long term sales plan and usually covers 5 to 10 years time horizon. A strategic sales budget or planning is defined as a systematic and formalized process for directing and controlling future sales operations towards a desired objective in consonance with the organizational corporate strategy. There are many factors which are duly considered while preparing strategic sales planning, such as market trends, economic factors, growth of population, consumption pattern, industrial production, national income, government economic and industrial policy. Long term management strategies would affect such areas as long term pricing policy, development of new product and innovation of present products, new directions in marketing efforts, expansion or changes in distribution channels and cost patterns. The influence of managerial strategy decision is explicitly brought to bear on the long term sales plan primarily on a judgmental basis.

Quantitative sales can be budgeted for a five to ten years period. After forecasting sales, a budgeted profit and loss account can be prepared relating anticipated sales to corresponding cost and thus net operating profit can be forecasted. Likewise, a balance sheet for many years can be prepared to forecast cash, inventory levels, accounts receivable, accounts payable, liabilities, etc. The forecasted profit and

loss account and balance sheet for a long-range is a very useful tool in accomplishing the objectives of the organization as a whole.

Tactical sales plan has shorter time horizon and usually covers one year period for future, covering the plan initially by quarters and by months for the first quarter. The sales plan is restudied and revised by adding a period in the future and by dropping the period just ended.

Thus tactical sales plans are usually subject to review and revision on a quarterly basis. The short-term sales plan includes a detailed plan for each major product and for groupings of minor products. Tactical sales plans are usually developed in terms of physical units (or jobs) and in sales and /or service dollars. To establish policy about detail in the short- range sales plan, the main question is for the use of the results. First, the major consideration is to provide detail by responsibility for planning and control purpose. Second, the short-range sales plan must be prepared by functional managers. That is, the production managers will need sufficient detail for planning production levels and capacity usages. The financial manager will need sufficient detail for assessing and planning cash flows, unit product cost, inventory needs and so on. Third, the amount of detail also depends on the type of industry, size of the firm, availability of resources and use of results by managements.

E. Components of Sales Plan

The component of comprehensive sales plans are as follows:

- i. Management policies and assumptions.
- ii. Marketing plan (sales and services revenues)
- iii. Advertising and promotion plan.
- iv. Distribution or selling expenses plan.

F. Developing a Sales Plan

Following steps are followed to develop comprehensive sales plans.

- Step 1** Develop management guidelines for sales planning.
- Step 2** Prepare one or more sales forecast consistent with specified forecasting guidelines including assumptions.
- Step 3** Assemble other relevant data.
 - i. Manufacturing capacity.
 - ii. Sources of raw material and supplies or goods for resale.
 - iii. Availability of key people and labor force.
 - iv. Capital availability.
 - v. Availability of alternative distribution channels.
- Step 4** Develop the strategic and tactical sales plan. There are five different participate approaches as below:
 - i. Sales force composite (maximum participation)
 - ii. Sales division managers composite (participation limited to managers only)
 - iii. Executive decision (participation limited to top management)
 - iv. Statistical approaches (technical specialists plus limited participation)
 - v. Source managerial commitments to attain the goals in the comprehensive sales plan.
- Step 5** Secure managerial commitment to attain the goals specified in the comprehensive sales plan.

These steps should be revised and implemented in different ways depending upon the characteristics of the organization and management expertise.

G. Evaluation of Alternatives

Developing a sales plan consists of the consideration of various policies and related alternative and a final choice by executive management among many possible courses of action. Profit of business firms are the results of many factors viz. selling prices, volume of sales, unit variable costs, total fixed costs and combinations in which the various product lines are sold, etc. To do an effective job in planning, management must have analysis which allows reasonable correct predictions of how profits will be affected by a change in any one of these factors. There are mainly two types of problems to which important consideration should be given while preparing the sales plan.

1. Price-cost – volume consideration in sales planning: In a competitive market, price and sales volume are mutually interdependent. The close relationship between sales volume and price possesses complicated problem to management of every company. Thus, two basic relationships involving the sales plan to be considered are

- Estimation of the demand curve that is the extent to which sales volume varies at different selling price,
- The unit cost curve, which varies with the level of productive output.

2. Product-line Consideration: Determination of the number and variety of products that a company plans to sell is crucial in the development of a sales plan. Sales plan must *include* tentative decision about new product lines to be introduced, old product to be dropped, innovations and product mix.

2.1.4.2 Production Budget or Plan

A. Introduction

After preparing the sales plan the next step in comprehensive profit planning and control is the formulation of production plan. Production budget is an estimate of the number of units of product that will be produced in the budget period. The production plan involves determining the number of units (each product) that must be manufactured to meet planned sales and maintain the planned inventory levels of finished goods. The production facility available and the sales budget will be compared and co-ordinated to determine the production budget. If production facilities are not sufficient, consideration may be given to such factors as working overtime, introducing shift working, sub-contracting, or purchasing of additional plant and machinery. If, however, the production facilities are surplus, consideration should be given to promote advertising, reduction of prices to increase the sales, sub-contracting of surplus capacity, etc.

Production budget shows the production for the budget period based upon:

- Sales budget,
- Production capacity of the factory,
- Planned increase or decrease in finished stocks,
- Policy governing outside purchase,
- Opening inventory of finished goods,
- Economic batch quantity,
- Seasonal conditions,
- Delivery schedules

B. Objectives of Production Plan or Budget

The objectives of Production Plan are:

- i. To bring to common focus of all the factors necessary to establish policies and to determine operations.

- ii. To project these establishing policies into the future by an analysis of past performance
- iii. To plan and control the operations being carried out to implement policies decided upon.
- iv. To plan the sequence of operation required for economical production.
- v. To co- ordinate the various aspects of factory operation so as to make them aviate link in the chain of profitable program

C. Responsibility for Production Planning

Production managers are responsible for the development of production plan. The complete marketing plan is given to the production manager for translating it into a production program consistent with managerial policies and subject to certain constraints. Production Managers are fully responsible for production plan and they have also to consider top management policies in respect of (i) inventory level (ii) stability of production and (iii) capital additions.

An efficient and coordinated production plan requires the careful attention of executive management, particularly where there is multiple production requiring the determination of both time and place of production. The production manager must plan an optimum co-ordination between sales, inventory and production levels.

D. Developing the Production Plan.

i. Recasting of sales budget

Sales budgets are typically classified according to product line and sales territory. It is necessary to recombine these planned sales figures on a basis that will permit determination of physical input requirements, generally means for individual plants or productive facilities.

ii. Production analysis

This consists of breaking down production into its ultimate parts or components.

iii. Scheduling

It specifies the quantity of each finished unit of products to be produced, and the time at which each unit will be required. It is concerned with fitting the various processes into a general time table to permit orders to be manufactured according to requirements based upon selling estimate.

iv. Inspection

It is designed to exercise control over the quality of the product to prevent re work on scrap, sub standard, defective and spoiled units of production to ensure that payment for goods is received in respect of satisfactory work only. It aims to find and locate faults in machines and to maintain a satisfactory standard of accuracy.

The calculation of the planned production of goods is as below:

Particulars	Units/Rs.
<i>Planned sales in units or amount</i>	<i>Xxxxxx</i>
<i>Add: desired ending inventory of finished goods</i>	<u><i>Xxxxxx</i></u>
<i>Total Requirements</i>	<i>Xxxxxxx</i>
<i>Less: Beginning inventory of finished goods</i>	<u><i>Xxxxxx</i></u>
Production for the year	<u>Xxxxxxx</u>

E. Production and Inventory Policy

The coordination between the sales plan, inventory level and production requirement comes into focus and is resolved in production plan. The production plan fully depends upon inventory level and sales demand. Planning inventory level and production level is not easy task as it depends on variation of sales. So

the different policies to be adopted for production and inventory level are as follows:

1. Stable production policy

There are fixed production in each month or specified period while inventory levels are changed reversibly to sales volume. If sales increases, inventory level decreases and if sales decrease inventory level increases.

2. Stable inventory policy

Under this policy, inventory levels are fixed in each month or specific period time while production levels are changed due to change in the level of sales. When sales increases, production level also increases and when sales decreases, production level also decreases.

3. Production and inventory within limit or flexible policy

Under this approach flexible units of final inventory are to be maintained for specific period. If sales increases, production level will be slightly increased and stock level will be decreases within a certain limit.

4. JIT production (Just in time production)

The JIT approach to production planning is a recent trend in manufacturing. Japanese companies developed the policy. Under this approach, a company must ensure that it receives products/spare parts/materials from its suppliers on the exact date and at the exact time when they are needed. Production must be as per order specification.

F. Considerations in Establishing Inventory

The management should consider the following factors for establishing or setting inventory policies:

1. Quantities needed to meet sales requirements.
2. Perish ability of items.
3. Length of the production period.
4. Storage facilities.
5. Adequacy of capital to finance inventory
6. Cost of holding inventory.
7. Protection against direct material and component shortages.
8. Protection against labor shortages.
9. Protection against materials and parts price increase.
10. Risk involved in inventory.
 - Price declines
 - Obsolescence of stock.
 - Casualty loss and theft.
 - Lack of demand.
 - Customer returns policies.

2.1.4.3 Material Plan or Budget

A. Introduction

The raw material budget is prepared after production and sales budget. The production budget gives information about the units to be produced and on this basis; the raw material need is estimated. Based on the production budget, the quantities of each material usage lead to the solution of the problem of when and how much to purchases of each material. “A comprehensive profit planning and

control program includes planning and controlling raw material and components used in the manufacturing of finished products. The steps involved in the compilation of direct materials usage budget are as under:

- i. The quality standards for each item of material have to be specified. In this connection, standardization of size, quality, colour, etc may be considered.
- ii. Standard requirement of each item of materials required should also be set. While setting the standard quality, consideration should be given to normal loss in process. The standard allowance for normal loss may be given on the basis of past performance, test runs, technical estimates, etc
- iii. Standard prices for each item of materials should be set after giving consideration to stock and contracts entered into.

After setting standards for quality, quantity and prices, the materials budget can be prepared by multiplying each item of material required for the production by the standard price.

Example of direct material usage budget is as under:

XYZ COMPANY

Direct material usage in units and Rs.

For the year ending Ashad 32, 20.....

	Products		Total
	A	B	
<i>Budgeted Production in units</i>	50,000	60,000	
<i>Direct materials requirements:</i>			
<i>Product A 5 kg per unit</i>	x 5		
	62		

<i>Product B 8 kg per unit</i>			<i>x8</i>	
	-----		-----	
<i>Direct material usage (Kg)</i>	<i>2, 50,000</i>		<i>4, 80,000</i>	
<i>Cost per kg</i>	<i>Rs 4</i>		<i>Rs 6</i>	
	-----		-----	
<i>Cost of direct materials used</i>	<i>Rs 10, 00,000</i>		<i>Rs 28, 80,000</i>	<i>Rs 38, 80,000</i>

B. Material Purchase Budget

Purchase budget represents the purchases which must be made during the budget period to meet the needs of the business. It includes cost of direct materials, indirect materials, purchased services, finished goods required for resale as set out in sales, production costs, capital expenditure, research and development budgets etc. The quantities specified in those budgets will further be adjusted for any planned increase or decrease of inventories, purchase orders already placed and material to be manufactured within the factory. Besides these, two other important considerations that govern purchase budgets are the following:

- i. Economic order quantity.
- ii. Re-order point with safety stocks to cover fluctuations in demand.

The main purpose of this budget is:

- i. To plan the purchases and place long-term contracts where necessary, taking into consideration the market position and trend in prices, and
- ii. To plan the finances required for purchase

An example of material purchase budget is as under:

XYZ Company

Direct material purchase budget

For the year ending Ashad 32, 20.....

	<i>Product A</i>	<i>Product B</i>	<i>Total</i>
<i>Desired closing stock (units)</i>	50,000	75,000	
<i>Direct materials usage</i>	2, 50,000	4, 80,000	
<i>Total requirements</i>	-----	-----	
	3, 00,000	5, 55, 000	
<i>Beginning direct materials inventory</i>	70,000	1, 00,000	
	-----	-----	
	2, 30,000	4, 55,000	
<i>Cost per kg</i>	Rs. 4	Rs. 6	
<i>Cost of purchase</i>	-----	-----	
	9, 20,000	27, 30,000	36, 50,000

C. Considerations in Setting Inventory Policies for Materials

According to Welsch, Hilton, Gorden, "The primary considerations in setting inventory policies for materials and parts are as follows."

- 1. Timing and quantity of manufacturing needs.*
- 2. Economics in purchasing through quantity discounts.*
- 3. Availability of materials and parts.*
- 4. Lead time (order and delivery).*
- 5. Perish ability of materials and parts.*

6. *Storage facilities needed.*
7. *Capital requirements to finance inventory.*
8. *Cost of storage.*
9. *Expected change in the cost of materials and parts.*
10. *Protection against shortages.*
11. *Risk involved in inventories.*
12. *Opportunity cost (inadequate inventory)*

In developing the policy with respect to purchases and inventory the basic two questions should be analyzed viz. how much and when to purchase. The first is the amount of quantity to purchase at a time is determined by well-known approach called economic order quantity (EOQ). The EOQ is the optimum or the most favorable quantity which should be purchased each time the purchases are to be made. The EOQ one where the cost of carrying inventory is equal or almost equal to the cost of placing orders. Also at EOQ level, the total of these two costs is minimum. EOQ can be calculated by using the following formula:

a) **How much to purchases at a time**

$$\text{EOQ} = \frac{\sqrt{2AO}}{C}$$

Where,

EOQ = Economic order quantity (units)

A= Annual usage quantity (units)

O= Cost of placing an order

C= Annual carrying cost/ units in inventory for one year.

b) When to purchase/order (Reorder level)

The order point or re-order level is a point or quantity level at which if materials in stores reach, the order for supply of materials must be placed. This model is used to calculate the timing for purchases. This is

Re-order point level [ROL] = Replacement stock + safety stock

Or

Re-order point level [ROL] = Maximum consumption \times Maximum Lead time

2.1.4.4 Direct Labor Cost Budget or Plan

A. Meaning

Once sales budget and production budget are compiled and thereafter plant utilization budget is settled, detailed amount of the various machine operations involved and services required can be arrived at. This will facilitate preparation of an estimate of different grades of labour required. From this the standard hours required to be worked can be prepared. The total labour complement thus budgeted can be divided into direct and indirect. Direct labor budget is the pre-determination of planned direct labor hours and labor cost. After finding total labor hours required cost is calculated by multiplying the labors hours and standard wages rate.

Planning and controlling labor costs involve major and complex area (i) Manpower (personnel) needs .(ii) Recruitment (iii) Training (iv) Job description and Evaluation (v) Performance evaluation (vi) Union negotiations and (vii) wage and salary administrations.

Labor costs in the broad sense, are composed of all expenditures of those employees by the firm, top executive, middle management personnel, staff officers, supervisors, foremen, skilled workers and unskilled workers. It is necessary to consider separately the different types of labor cost. Such labor cost is generally classified as two ways. They are direct labor and indirect labor. Some companies prepare a labor budget that includes both direct and indirect labor budget.

The advantages of labour budget are the following:

- i. It defines the direct and indirect labour force required.
- ii. It enables the personnel department to plan ahead in recruitment and training of manpower so that labour turnover can be reduced to the minimum.
- iii. It reveals the labour cost to be incurred in the manufacture, to facilitate preparation of manufacturing cost budgets and cash budgets for financing the wage bill.

2.1.4.5 Overhead Budget or Plan

A. Introduction

To accomplish planning control objectives of the organization, overhead budget also play a significant role. It is important for every organization to classify expenses by responsibility, designed controllable or non-controllable and estimated with respect to their cost behavior pattern.

Mangers should view expenses planning and control as necessary to maintain reasonable expenses levels to support the objectives and planned programs of the

enterprise. Expenses planning should not focus on decreasing expenses, but rather on better utilization of limited resources. Viewed in this light, expenses planning and control should focus on the relationship between expenditures and benefits derived from those expenditures. The desired benefits should be viewed as goals, and sufficient resources must be planned to support the operating activities essential for their accomplishment.

The planning and controlling of the three broad categories of expenses are

- i. factory or manufacturing overhead*
- ii. selling and distribution overhead, and*
- iii. General administrative expenses.*

The knowledge of cost behavior which is essential in cost planning and control is the response of a cost to different volume of output. There are three kinds of expenses based on output as follows:

- 1) Fixed Expenses:** These are those expenses which remain constant at all levels of production. They do not tend to increase or decrease with the changes in volume of production. For example, rent, insurance of factory building, salaries, property taxes, depreciation etc. remain the same for different levels of production.
- 2) Variable Expenses:** These expenses tend to vary with the volume of output. Any increase in the volume of production results in an increase in the variable expense and vice-versa. For example, direct material, direct labor expense, etc.
- 3) Semi-variable expenses:** The expenses which are neither fixed nor variable and possess some features of both are semi-variable expenses. It changes in

same-direction but not in proportion of output changes. For example, telephone bill, electricity bill, etc.

B. Factory or Manufacturing Overhead Budget

Manufacturing overhead is that part of total production cost which is not directly identifiable with specific product or job. Manufacturing overhead consists of all items such as indirect materials, indirect labour and indirect expenses. Indirect expenses include power, fuel, taxes, insurance, depreciation, suppliers, utilities, repairs, etc.

While developing the manufacturing overhead budget, the following steps should be taken:

- i) Compute the planned departmental output or activity by translating the requirements specified in the production plan into output or activity in each department.
- ii) Plan departmental overhead expenses.
- iii) Allocate the planned departmental expenses to the producing departments.
- iv) Allocate the producing department expenses to the products.

From the above steps, per unit overhead rate for each product could be computed add by adding the direct material cost and direct labor cost for each product, we are in position to compute the cost of goods manufactured.

Manufacturing overhead involves the following two problems:

- i. Control of manufacturing or factory overhead.
- ii. Allocation of manufacturing or factory overhead to products manufactured.

C. Selling and distribution expenses (Overhead) Budget.

Selling and distribution are indispensable aspects of the profit earning function. At the same time, the pre-determination of these costs is also very difficult. Selling overheads include the costs incurred in promoting sales and retaining customers. These costs are, therefore, incurred to maintain and increase the level of sales. All expenses connected with advertising, sales promotion, sales office, salesman, credit collection, market research, after sales service, etc are generally grouped together to form part of the responsibility of the sales manager. Distribution overheads include the costs of the process which begins with making the packet product available for dispatch and ends with making the reconditioned return of empty package, if any available for reuse. It includes transport cost, storage and warehousing costs, etc. In many companies, this cost is a significant percentage of total expenses. Careful planning of such expenses affects the profit potential of the firm.

Selling and distribution overheads may be controlled by the following methods:

- i. Comparison with past performance
- ii. Budgetary control
- iii. Standard costing

D. Administrative Expenses Budget

Expenses other than manufacturing and distribution are included in administrative expenses. These expenses are incurred in the responsibility center that provide supervision and service to all function of the enterprise, rather than in the performance of one function. These expenses mostly policy costs and are therefore, fixed in nature. The most practical method to follow in preparing estimate of these expenses is to follow the past experience with due regard to anticipated changes neither in general policy or the volume of business. To bring such expenses under control, it is necessary to review them frequently and to

determine at regular intervals whether or not these expenses continue to be adjusted. Examples of such expenses are: audit fees, depreciation of office equipment, insurance, subscriptions, postage, stationery, telephone, office supplies, etc. The administrative expenses center, after preparation by the respective managers, should be subject to approval by higher management in the same manner was discussed for all other budgets.

2.1.4.6 Research and Development Budget

The research and development budget is the most important tool for planning and controlling research and development costs. It compels management to think in advance about the fairness of these expenses both in total amounts and in each field of a research programme. It helps in coordination with the company's other plans and projects. Since the research and development programmes compete with other desirable activities in allocation of funds, coordination is needed to balance financially immediate and long term company plans. Also, this budget guides the research and development department to plan correctly the staff and equipment requirements and special facilities needed for the work.

2.1.4.7 Capital Expenditure Budget

A. Introduction

The term capital budgeting means planning for capital assets. The Capital budgeting decision means a decision as to whether or not money should be invested in long-term projects such as the setting up a factory or installing a machinery or creating additional capacities to manufacture a part which at present may be purchased from outside. It includes a financial analysis of the various proposals regarding capital expenditure to evaluate their impact on the financial condition of the company and to choose the best out of the various alternatives. A capital expenditure is the use of funds to obtain operational assets that will (a) help

to earn future revenues or (b) reduce future costs. Capital expenditures budget is the firm's formal plan for the expenditure of money to purchase fixed assets. It is an internal corporate document that lists the allocated investment projects for a given focal period. It is a part of the firm's formal planning process for the acquisition and investment of capital. Capital projects are those that are expected to generate returns for more than one year. Capital budgeting refers to the process of planning capital projects, raising fund and efficiently allocating resources to those capital projects. Capital budgeting involves the generation of investment proposals: the estimate of cash flows for the proposals, the evaluation of cash flows; the selection of projects based upon an acceptance criterion, and finally, the continual revaluation of investment projects after their acceptance

B Capital Expenditure Budget Process

The management should design a systematic process to develop the long-term and short-term capital expenditure budget because of the importance of sound capital expenditure decisions. The primary phase of a yearly budget process for planning and controlling capital expenditure are summarized below.

Phase Component (activity)

- Identify and generate capital addition projects and other needs, this activity should be continuous in most cases.
- Develop a capital additions proposal, collection of relevant data about each proposal, including any related alternatives.
- Analyze and evaluate all capital additions, proposals, and alternatives. Emphasis should be given to the validity of the underlying financial and operational data.
- Make capital expenditure decisions to accept the best alternative and assignment of project designation to select- alternatives.
- Develop the capital expenditure budget.

- Strategic plan- Re-plan and extend the long-term plan by dropping the past year and adding one year in to the future,
 - Tactical plan- Develop a detailed annual capital expenditure budget by responsibility center and by time, that is consistent with the comprehensive profit plan.
- Establish control of capital expenditure during the budget year by using periodic and special performance report by responsibility centers.
 - Conduct post completion audits and follow-up evaluations of the actual result from capital from expenditure in periods after completion.

C Capital Expenditure Decisions

The conical capital expenditure decisions are the choices of management from the competing capital expenditures alternatives (e.g. projects). Such decisions must focus on two over riding problems.

- Investment decisions selecting the best alternatives based on their economic worth to the company-called investment worth.
- Financing decision-determining the amounts and sources of funds needed to pay for the selected alternatives. This cash constraint may necessarily limit the projects and proposals that can be initiated.

D Techniques of Measuring the Economic Value of a Capital Expenditure

At each point of time a business manager will have a number of proposals regarding various projects in which he can invest money. He has to compare and evaluate all these projects and decide which one to take up and which one to reject. Of course, apart from the financial considerations, there are many other factors which are important in making capital budgeting decisions. The major consideration in taking a capital budgeting decision is to evaluate its returns as compared to its investments. Numerous techniques of measuring the economic

value, also called investment worth of an investment, are developed. The most widely used techniques for this purpose are:

1. Discounted Cash Flow (DCF) Method.
2. Short cut and simple method.

1. Discounted Cash Flow Method

Under discounted cash flow method, there are two types of method viz:

a. Net Present value (NPV)

This method compares the present value of the cash inflows with the present value of the initial net cash cost of capital expenditure project. The difference between these two present values is termed as net present value. The net cash inflows are discounted to present value by using a target or minimum rate of return. The Formula to calculate NPV is:

$$NPV = \sum_{t=1}^T \frac{C_t}{(1+r)^t} - C_0$$

Where,

NPV = Net Present Value

Σ = Sum of different year's transactions

C^t = Cash flow at the end of year t (t = 0 ... n)

R = Cost of capital or target rate of return

T = No of years i.e. life of project

C_0 = Initial cash outflow (investment)

b. Internal rate of return (IRR)

IRR is that rate at which the discounted cash inflows are equal to the discounted cash outflows of the investment project. It is the discount rate

which makes net present value equal to zero. The formula to calculate IRR is:

$$\text{IRR} = \text{Lr} + \frac{\text{NPV at Lr}}{\text{NPV at Lr} - \text{NPV at Hr}} \times (\text{Hr} - \text{Lr})$$

Where,

NPV = Net Present Value

LR = Low Rate

HR = High Rate

2. Shortcut and simple method

This method does not consider the time value of money. There are mainly two methods under this category as follows:

- a. **Pay Back Period (PBP):** This method computes the period within which the cost of project will be completely recovered. It is the period within which the total cash inflows from the project equal the cost of project. Cash inflow means profit after tax but before depreciation. The formula to calculate PBP is:

$$\text{PBP in years} = \frac{\text{Cost of Project / Investment}}{\text{Annual Cash Inflows}}$$

- b. **Accounting or Average rate of Return (ARR):** Accounting or average rates of return means the average annual yield on the project. Under this

method profit after tax and depreciation as percentage of total investment is considered. This method represents the ratio of the average annual profits to the investment in projects. The formula to calculate ARR is:

$$\text{ARR} = \frac{\text{Average Cash Flow}}{\text{Average Investment}} \times 100$$

From the above, after analyzing the techniques of evaluation of capital budgeting proposals, the decision criteria can be summarized as follows:

Methods

<i>NPV</i>		<i>Higher the NPV</i>
<i>IRR</i>		<i>Higher the IRR or</i>
<i>IRR</i>	>	<i>cost of capital (k)</i>
<i>PBP</i>		<i>Lower the PBP</i>
<i>ARR</i>		<i>Higher the ARR</i>

E. Advantage of Capital Expenditure Budget

The advantages of capital expenditure budget are the following:

- It outlines the capital development programme and estimated capital expenditure during the budget period.
- It enables the company to establish a system of priorities. When there is a shortage of funds, capital rationing becomes necessary.
- It serves as a tool for controlling expenditure.
- It provides the amount of expenditure to be incorporated in the future budget summaries for calculation of estimated return on capital employed.

- This enables the cash budget to be completed. With other cash commitments capital expenditure commitment should also be considered for the completion of the budget.
- It facilitates cost reduction programme, particularly when modernization and renovation is covered by this budget.

2.1.4.8 Planning and Controlling Cash Flows

A. Cash Budget

A comprehensive profit planning and control or managerial budgeting program establishes the foundation for realistic cash budget. To plan, control and safeguard the cash assets of the enterprise is one of the important responsibilities of the management. The planning and control of the cash inflows and cash outflows is important and cash budget is an effective way for this. Cash budgeting not only plans and controls the cash inflows and outflows but also assess cash needs and effective use of excess cash. The cash plan or budget is prepared from the previously completed budgets such as the sales, materials, and labor, overhead and capital expenditure budgets.

A cash budget shows the planned cash inflows, outflows and ending position by interim periods for a specific time span. Most companies should develop both long term as well as short term plans about their cash flows. The short-term cash budget is included in the annual profit plan. A cash budget basically includes two parts: (i) the planned cash receipt (inflows) and (ii) the planned cash disbursement (outflows). Planning cash inflows and outflow gives the planned beginning and ending cash position for the budget period. Planning the cash inflows and outflows includes: (i) the need for financing probable cash deficits and (ii) the need for investment planning to put excess cash to profitable use. The cash budget is directly related to other plans, such as sales plan, accounts receivable and the expenses budgets and the capital expenditures budgets.

B. Objectives of Cash Budget

The preparation of a cash budget has the following objectives:

- It indicates the effect on the cash position of seasonal requirements, large inventories, unusual receipts, and slowness in collecting receivables.
- It indicates the cash requirements needed for a plant or equipment expansion programme.
- It points up to the need for additional funds from sources such as bank loans or sales of securities and the time factors involved.
- It indicates the availability of cash for taking advantage of discounts.
- It assists in planning the financial requirements of bond redemption, income tax installments, and payments to pensions and retirement funds.
- It shows the availability of excess funds for short-term investments.

C. Techniques for Improving Cash Flow

Planning the cash flow of company should include consideration of how to improve cash flow. Improving cash flow basically involves increasing the amount of available cash on a day-to-day basis. To accomplish this objective, the management should focus on (a) the cash collection process to speed up cash collection (b) the cash payment process to slow-down the payment of cash and (c) the investment policies for the investment of idle cash balances to maximize interest earnings.

Some of the ways often used to improve the efficiency of the cash collection process are as follows:

1. Review the lag from the date of sales of goods and services on credit to the mailing of (a) invoices (b) the first billing.
2. If cash discounts are given to customers for early payment, review their effect on early cash collection and whether the discount is too high or too low.
3. Review the credit granting process to determine whether bad credit risks are being screened out.
4. Consider ways to decrease the time between the date the customers pays by cheque and the date that the cash is available for use in the company's bank account.

Some of the ways often used to improve the efficiency of the cash payment process are as follows:

- 1 Make all payments on the latest non-penalty day. Do not pay early.
- 2 Make all payments by cheque, preferably on Friday to maximize float in favor of the company.
- 3 Take all cash discounts allowed for early payment.
- 4 Establish a policy of no cash advance to both outsiders and employees.
- 5 Establish policies, and a payment process to minimize the possibility of fraudulent payments by company's employees.

A company should develop a specific policy about the investment of temporary idle cash. The policy should be specific about such issues as (a) types and mix of acceptable securities (b) monthly reporting and monitoring of the portfolio and (c) safeguarding and disposal of temporary investments.

2.1.5 Components of a Comprehensive Profit Planning and Control

A comprehensive profit planning and control program encompasses much more than the traditional idea of periodic budget. Moreover, it encompasses the application of a number of management's concepts through a variety of approaches, techniques and sequential steps. Basic components of comprehensive profit planning and control program are as follows:

1. Evaluation of the potential effect of all relevant variables on the enterprise.
2. Specification of broad objectives of the enterprise by executive management.
3. Establishment of specific goals for the enterprise.
4. Development and evaluation of enterprise strategies
5. Preparation and evaluation of project plans.
6. Preparation of planning premises.
7. Development and approach of a tactical short- range profit plan.
8. Development of Supplementary analyzes.
9. Implementation of plans.
10. Development, dissemination and utilization of performance reports
11. Implementation of follow-up actions.

Some of the components are described below:

1 Evaluation of Relevant Variables Affecting the Enterprise

Variables which have a direct and significant impact on the enterprise are relevant variables. Variables may have their different relevancy according to the nature of the market. For a large firm with a national market, the relevant variables obviously be broad in scope where as a small firm would be concerned primarily with regional and local variables operating within the narrow environment of enterprise these relevant variables include the environmental variables, which have a deep concern in the continuation of the enterprise. Political, social, legal points have a sharp impact and which constitute the strength and weakness of the

enterprise. Profit Planning or Managerial budgeting program begins with the identification of these variables.

2 Specification of the Broad Objectives of the Enterprise

The statement of broad objectives is viewed as a pervasive and general expression of the philosophical objectives of the enterprise. The broad objectives normally should avoid specific statement of quantitative goals; rather they should focus on such broad factor as long-range economic potentials, attitudes toward customers, product and service availability, employee rational and attitudes toward owners.

The statement of broad objectives should express the mission, vision and ethical tone of enterprise. It tends to provide enterprise identity, continuity of purpose and definition. Purpose to specification of broad objectives is as follows:

- i. To define the purpose of the company.
- ii. To clarify the philosophical character of the company.
- iii. To create a particular "climate" within the business.
- iv. To set down a guide for managers so that the decisions they make will reflect the best in interests of the business with fairness and justness to those concern.

Thus, the objectives should be specified. So, as to serve as the foundation of the company and they should be 'believable' to be grasped easily by every part concerned to the enterprise i.e. shareholders, customers, government, employees and so on.

3 Development and Approval of Strategic and Tactical Profit Plans

The strategic long-range and tactical short-range profit plans normally should be developed concurrently for all particular purpose and that the executives in charge of each of the responsibility centers throughout the firm should participate in their development in harmonize with planning premises. Meaningful participation in the planning process generates positive behavioral effects. A manager of each responsibility center has to initiate immediate activities within his own functional sphere to develop a strategic long-range profit plan (say five years) and in harmonally with the five years plan a tactical short-range profit plan (one year) as soon as he receives the planning premises and procedural instructions.

4 Development of Supplemental Analysis

A number of important analyses may be developed supplementary to the short and long-range profit plans. These analysis apply many useful managerial techniques in the decision making process, specific important analysis are planning model simulation, cost-volume-profit (break even), marginal cost, return on investment, linear programming models (LPP), variables expenses budget, and accessory statistics (both historical and prospective).

5 Implementation of Plans

Implementation of management plans that have been developed and approved in the planning process involves the management function of directing subordinates in the accomplishment of enterprise objective and goals; communication is an especially important aspect of direction. Thus, component management at all levels requires that enterprise objectives goals, strategies and policies be keenly appreciated and understood by subordinates, There are many facets involved in management directions and objectives and goals should be realistic and attainable, yet they should present a real challenge to the overall enterprise and to each

responsibility center. The plans should have been developed with the managerial conviction that they are going to be met or exceeded in all major respects. If these principles are made effective in the development process, the various executives and supervisors certainly should have a clear understanding of their responsibilities and the expected level of performance.

Expectation of the managerial plans is assured through dynamic and flexible control. Thus, performance report must be measured and reported to each level of management.

6 Implementation of Follow-Up

Follow-up is an important aspect of effective control and re-planning performance reports, since indicate the status of performance by responsibility, provide a basis for certain follow-up actions. It is important to distinguish between cause and effect. The performance variations are effects (the result), the management must determine the underlying causes. The identification of causes primarily is responsibility of line management. Analysis and determination of underlying causes of both favorable and unfavorable performance, after identifying the basic cause, as opposed to the result and having selected what appears to the most fruitful alternative for corrective action, the manager must initiate its implementation. In addition, special type of follow-up procedure should be implemented continuously, it should be designed.

- i. To determine the effectiveness to the corrective actions and
- ii. To provide a basis to improve future planning and control procedures.

2.1.6 Objective of Profit Planning

The main objectives of Profit Planning are as follows:-

- To state the firm's goal in clear formal term to avoid confusion & facilitate their attainability.
- To communicate expectation to all concerned with the management of the firm so that they are understood supported and implemented.
- To provide a detailed plan of actions for reducing uncertainty and for proper direction of individual and group efforts to achieve goal.
- To co-ordinate the activities and effort in such a way that the use of resources is maximized.
- To provide a means of measuring and controlling the performance of individual and unit and to supply information based on which the corrective action can be taken.

2.1.7 Advantages or Importance of Profit Planning

A profit plan is a financial and narrative expression of the expected results from the planning decisions. It is called the profit plan (the managerial budget) because it states the goals in terms of time expectation and expected financial results (return on investment, profit, costs) for each major segment of the entity.

The chief advantages of comprehensive profit planning and control are:

- It compels and motivates management to make an early and timely study of its problems. It generates a sense of caution and care, and adequate study among managers before decisions are made by them.
- It provides a tool through which managerial policies and goals are periodically evaluated, tested and established as guidelines for the entire organization.

- It requires adequate and sound organization structure that is there must be a definite assignment of responsibility for each function of the enterprise.
- It helps in directing capital and other resources into the most profitable channels.
- It compels departmental managers to make plans in harmony with the plans of other department and of the entire enterprise.
- It requires that management put down in figures what is necessary for satisfactory performance.
- It develops an attitude of “cost consciousness,” stimulates the effective use of resources, and creates an environment of profit-mindedness throughout the organization.
- It requires adequate and appropriate historical accounting data.
- It compels management to plan for the most economical use of labor, material and capital.
- It provides a norm, basis or yardstick for measuring performance of departments and individuals working in organizations
- It instills at all levels of management the habit of timely, carefully and adequate consideration of the relevant factors before reaching important decisions.
- It reduces cost by increasing the span of control because fewer supervisors are needed.
- It encourages productive competition, provides incentive to perform efficiently and gives a sense of purpose to each individual in the organization.
- It frees executives from many day-to-day internal problems through predetermined policies and clear-cut authority relationship. It thereby provides more executive time for planning and creative thinking.

- It tends to remove the cloud of uncertainty that exists in many organizations, especially among lower levels of managements, relevant to basic policies and enterprise objectives.
- It pinpoints efficiency and inefficiency.
- It promotes understanding among members of management of their co-workers problems.
- It forces management to give adequate attention to the effect of general business conditions.
- It aids in obtaining bank credit, banks commonly require a projection of future operation and cash flows to support large loans.
- It checks progress or lack of progress toward the objectives of the enterprises.
- It forces recognition and corrective action (including rewards).
- It rewards high performance and seeks to correct unfavorable performance.
- It forces management to consider expected future trends and conditions.
- Budgeting, if executed in nearly every enterprise, helps the total national economy by providing stability of employment, economic use of resources and effective prevention of waste.

2.1.8 Disadvantages of Profit Planning

The profit plan should not be regarded as ends of the organizations rather it should be applied as means to accomplish the predetermined objectives of the organization. It is one of the best tools yet devised for advancing the affairs of a company and the individuals in their various spheres of managerial activity. It is not assumed that any profit plan is perfect. The most important consideration is to make sure by intelligent use of the profit plans that all attainable benefits are derived from the plans rendered.

The main arguments usually given against profit planning are as follows:

- Profit planning may or may not be true, as they are based on estimates.
- Profit planning is considered as rigid document.
- It is difficult, if not impossible, to estimate revenues and expenses in the company realistically.
- It is not realistic to write out and demand on management time, especially to revise budgets constantly. Too much paper work is required.
- It takes away managements flexibility.
- Budgets cannot be executed automatically
- It creates all kinds of behavioral problems.
- It places the managements in a straitjacket.
- It adds level of complexity that is not needed.
- Its implementation is quite expensive.

2.1.9 Assumption and Limitation of Profit Planning

Profit planning system is more common in larger companies to serve management. Still the usefulness of profit planning or Managerial Budgeting to very small business could have been circumvented by an early attempt to the dreams of head strong but sloppy thinking entrepreneurs who never directly faced the uncertainties of their venture.

There are so many assumptions in using profit- planning programs. Firstly, the basic plans of a business must be measured in terms of monetary, if these are to be any assurance that many will be available for the needs of the business. Secondly, it is possible to plan for the future of a business in a comprehensive way coordinating every aspects of the business with very other aspects to establish optimum profit goals. Thirdly, profit planning is pre-planning not merely what to

do if things, workout as forecasted, but also what to do if things, workout differently from the forecast.

Effective budgeting requires co-ordinate planning. It is essential that all persons participating in the building of budget are planning toward the same objectives and are contemplating the some company, industry and general economic conditions that can be accomplished by issuing a statement of basic assumption prior to the start of the budgeting system.

In developing and using a profit-planning program, the following limitation should be kept in mind:

- Planning, budgeting or forecasting is not an exact science; it uses approximations and judgment which may not be cent per cent accurate. At best, a budget is an estimate; no one knows precisely what will happen in the future.
- The success and utility of budgeting depends on the cooperation and participation of all members of management. Many a time budgeting has failed because executive management has paid only lip service to its execution.
- A budget is only a tool and does not eliminate nor take over the place of management. Executives generally feel “circled in” by a budget and its related figures. They fail to understand that budget is meant to provide detailed information, goals and targets which may help them in achieving the company objectives.
- The establishment of profit planning process takes time. Also, sometimes too much is expected from a budget and in case expectations are not fulfilled, the blame is put on the budget.
- Excessive emphasis on profit planning may result in attempts by lower level management and employees to buck the system by providing

inaccurate estimates of future costs and revenues. As the end of budget period approaches and employees realize that actual expenses have not been as great as allowed by the budget, there may be a temptation to spend excessive amounts in order to “use up” the budget allowance. Such activities result in sub-optimal profits for the company.

2.2 Review of Literature

In order to make a research on the subject some other literature should also be reviewed. Main purpose of literature review is to find out the works done in the subject on areas of research. Some possible studies and conceptual perspectives available in this respect have been reviewed. For this purpose different book reports, journals and research study published by various institutions and some thesis submitted by master’s level students have been reviewed.

2.2.1 Telecommunication Development in Ninth Plan

This five-year plan has covered the year 1997-2002. In 9th plan Nepal Government has given a vital emphasis to the telecommunication sector. The following objective has been formulated related with telecommunication sector.

- a. Develop the information and communication sector as an infrastructure for the development by expanding and information & technology.*
- b. Involvement of participation of private sectors in information and communication sector for effective developments of information technology.*
- c. Assess the telecommunication services in remote and rural by appropriate technology.*
- d. Optimum utilization of available resources will be focused.*

To fulfill the above objectives, the policy level formulated following policies in ninth plan.

- a. Make excess participation of private sector in the monopoly situation of corporation.*
- b. Adopt appropriate and best strategies to mobilize the available capital, resources and other available means of the corporation.*
- c. Development of the international telecommunication transit by coordinating with various countries.*

Some physical targets of ninth plan are as follows:

Capacity of 4, 00,000 lines will be installed. Among this, 3, 00,000 will be installed through Nepal Telecommunication Corporation and 1, 00,000 will be installed through participation of private sector.

Physical target of the ninth plan in telecommunication sector

Development regions	Telephone lines
Eastern	38,500
Central	2,02,900
Western	31,300
Mid-Western	9,600
Far-Western	8,500
Total	2,90,800

Sources: Annual Report 2065/66

2.2.2 Telecommunication Development in Eleventh Plan

This five-year plan covers the year 2007-2012. In 11th plan NG has given a vital emphasis in the telecommunication sector. Nepal government has targeted easy access of telecommunication facility for all Nepali citizens. So NTC has formulated three years planning for achievement of objectives of 11th plan. The following objectives relating to telecommunication sector has been formulated.

- a. Optimum utilization of available resources will be focused in periods of eleventh plan.*
- b. Make access the telecommunication services in remote and rural by appropriate technology.*
- a. Develop the information and communication sector as an infrastructure for the development of the nation.*
- b. Involve the participation of private sector in the information and communication sector for the effective development of information technology.*

To fulfill the above objectives, the policy level has formulated the following policies in eleventh plan.

- a. Development of the international telecommunication transit with coordination of various countries.*
- b. Make excess participation of private sector in the monopoly situation of corporation*
- c. Adopt appropriate and best strategies to mobilize the available capital, resources and other available means of the corporation.*

Some physical targets of eleventh plan are as follows:

Capacity of 2566145, 2062517 & 2062517 lines during the fiscal year 2007/08, 2008/09 & 2009/10 respectively will be installed.

Physical targets for the Eleventh plan in telecommunication sector

Line Capacity Addition in 11th Plan	Fiscal Year 2007/08	Fiscal Year 2008/09	Fiscal Year 2009/10
PSTN	178,921.00	124,331.00	125,238.00
GSM	2,150,000.00	1,020,000.00	850,000.00
CDMA	225,000.00	845,000.00	766,000.00
ADSL	22,224.00	63,186.00	50,000.00
Internet	100,000.00	10,000.00	10,000.00
Total Lines Addition Planned	256,615.00	2,062,517.00	1,801,238.00

Sources: Annual Report 2065/66

2.2.3 Review of Dissertation:

Reviews of dissertation on master degree level in the related subjects are as follows:

Mr. Lok Raj Bhatta (2005) has conducted a research on the topic of “*Revenue planning and cash management of public utility in Nepal “A case study of Nepal Telecom, using secondary sources of data collection and other necessary information.* Mr. Joshi has pointed out the following objectives and major findings.

The main objectives of the study were:

- To analyze the gap between budgeted and actual revenue and its demand.
- To examine cash collection and disbursement.
- To review cash flow from operation, investing and financing activities.
- To have information control and security over cash balances and payment systems.

Major findings:

- There is no practice of preparing monthly revenue earning reports.
- The cash collection efficiency is better through which the company can maintain desire level of cash balance but the company has not determine optimum cash balance.
- There is lack between a Sales budget shows is sectors sales revenue is main revenue sources of Nepal telecom, which contributes more than 40% in average.
- The revenue plan prepared by the branches and sub branches were not taken as reference for preparation of central revenue plan.
- Because of high demand of telephone line there exist small gap between actual production and actual sales in lines.

Recommendations:

- There should start the practice of preparing monthly budget for sales revenue.
- There should be prepared with cash management system which helps to minimize of fund cost and optimum cash management shows the good liquidity position.
- Nepal telecoms economic planners must be properly trained for the effective revenue planning and cash management.

- Price cost volume profit relationship should be considered while formulating the revenue plan.

Mr. Laxman Prasad Rimal (2006) has conducted a research on the topic “*A study of Profit planning in Nepal Telecommunication*” using secondary sources of data collection and other necessary information. Mr. Rimal has pointed out the following objectives and major findings:

The main objectives of the study were:

- to examine the practices and effectiveness of profit planning in NTC.
- to examine the present comprehensive profit planning system applied by NTC
- to analyze the various function plan formulated and implemented in NTC
- to evaluate the targeted variable and actual variable of NTC
- to analyze the financial position of NTC with the help of ratio analysis

The major Findings were as follows:

- There seems to be lack of systematic profit planning and control plans are prepared on ad-hoc basis.
- The sales revenue of NTC is increasing year by year but the unit price of the increase is not stable.
- Actual production lines are more variable than budgeted production line.
- Profit pattern of NTC is on increasing trend.
- Variable analysis is completely ignored in the corporation.

Recommendations:

- There should be prepared profit planning and control plans with systematic manner that support to achieve the mission of the organization.

- It should be formulating revenue plan in short term as well as long term and that compare with the present situation with upcoming condition. So it clearly shows the relationship between sales revenue and unit price.
- There should be prepared well budgeted production line which will be achievable with reality there not be fluctuate so much.

A study was done by **Mr. Roshan Pandey, (2007)** entitled with “*A comparative financial performance Analysis between Nepal Electricity Authority and Nepal Telecommunication Corporation*”.

Objectives:

The main objectives of this study were as follows:

- To present the existing financial performance of NTC and NEA.
- To analyze and compare the financial performance of NTC and NEA by using the different indicators and standards like profitability, liquidity, capital structure, turnover etc.

Findings:

Mr. Pandey has listed the following major finding in respect of Nepal Electricity Authority and Nepal Telecom under comparative financial performance:

- The mean current ratio maintain by NTC (1.52) and NEA (1.762) over a study is blow the standard current ratio i.e. 2:1. There is no significant different between these firms in this regard. However NTC is found to be more consistent than NEA is maintaining the said ratio
- The major portion of the total assets is invested in fixed while in both. NTC has better utilized the fixed assets that NES, but they are more of less equally inconsistent in terms of utilization of the said assets.

- NEA is observed as high- levered firm than NTC. The proportion of debt in its financial structure is observed as 147.8% of equity.
- NTC is significantly better than NEA in terms of making net profit. Net profit margin ratio over a study period in NEA is still in minus 6.98%. NEA has been operating in very low rate of return on net worth. It is still, on average, in minus 1.14%.

Recommendations:

Mr. Pandey has listed the following major finding in respect of Nepal Electricity Authority and Nepal Telecom.

- The average acid test ratio maintained by NTC and NEA, over a study period. However NTC is noticed to be significantly better than NEA in a ratio concern.
- Although, there has no significant differences between NEA and NTC in the terms of receivables turnover and receivable collection during period. It is conspicuous that NEA has been better improving the receivable situation than NTC. However, NTC is noted as more consistent than NEA in this concern.
- It is considered as undesired blend of debt and equity. NTC, on an average, has fairly 8 lower combination of debt in this regard.
- NTC has fairly reasonable rate of return on stockholder's investment. Even more, NTC is found to be more consistent than NEA in this regard.

A research study done by **Mr. Prem Lal Adhikari, (2008)** entitled with “*An evaluation of financial position of Nepal Telecommunication Corporation*”

Objectives:

The main objective of the study was as follows:

- Main objective of this study was to highlight about the NTC in various aspects.
- The other main objective was to analyze, examine and interpret the financial position as well as other policy level planning of NTC by using various tools and techniques.
- The last objective is to give workable recommendation, if there is some weakness incurred in making study of the corporation.

Findings:

Major issues under case study by Mr. Adhikari are as follows:

- There is no proper utilization of assets in NTC.
- NTC is seriously facing the problem of higher outstanding debts.
- Costs of production and other costs are regularly increasing but the management of NTC is not interested on adopting the policy of cost control.
- Profit earned by NTC is not sufficient to make NTC self- reliance in its activities.
- NTC is not able to fulfill the requirements of funds through the successful operation of corporation's activities. It has been taking a huge amount of loan to fulfill the requirement of fund.
- NTC is not conducting under the business principal. NTC has no policy while facing the competition. NTC is enjoying the monopoly situation but it should prepare to face the competition in the nearest future.

Recommendations:

- The current ratio of NTC is 1.15 times. It shows the better liquidity position of NTC. But it does not indicate that there is any liquidity problem in NTC. Current ratios are affected by change in current assets and current liabilities which is positively correlated. Thus, corporation is following on a uniform policy to finance current assets and current liabilities.
- NTC has invested the huge amount on purchasing the fixed assets. In comparison to revenue generating the fixed assets is very low. By which it is clear that there is no effective and proper utilization of available assets and other resources.
- There is increasing trend on total assets turnover but not significantly increasing. These ratios are still too low. Which it is clear that NTC management is still not managing to use the assets properly because gross operating revenue in comparison to total investment on assets is very low.
- The analysis of financial position and different financial statements, we have clear that the portions of sundry debtors are most sensitive sector for the management of corporation. Collection period is below from the standard average collection period. Due to taking long period on collecting the outstanding debt there is not using the sound receivable management policy.
- NTC is operating on profit on the study period of five years. But the return on total assets shows very poor performance of NTC. In this period NTC is able to earn only 3.88% return on the return made by NTC is not sufficient in relation to increase in the investment of assets.

Mr. Damodar Niraula (2008) has conducted a study entitled “*Impact of budgeting in profitability of Nepalese Public Enterprise*” A case study of Nepal Electricity Authority.

Objectives:

The main objective of the study was as follows:

- To analyze the various functional budget of NEA.
- To analyze the true picture of managerial budgeting adopted by NEA.
- To analyze the variance between budgeted and actual achievement of the authority.
- To point out the major shortcoming and recommendations for improvements.

Findings:

Major issues under case study by Mr. Niraula are as follows:

- Actual and budgeted sales are found to be significant but the difference between budgeted and actual production is found to be vague. In spite of the fact, there is perfect correlation between budgeted and actual sales and production respectively.
- NEA has adopted the practice of preparing strategic as well as managerial budgeting, but even the strategic plan cannot play a vital role for its development.
- Actual sales are always less than actual production due to poor loss which is a main problem of NEA, which affects its profit directly.
- It is bearing a high fixed cost due to the technology that is being used, overstaffing and many more.
- It has not classified its overhead systematically, which has created difficulties in analyzing the expenses properly.
- The information system of NEA was not effective. The lower levels staffs normally do not get information properly and clearly. Instead of the fact, there is no any plan to develop an effective information system till now.

- Account receivable and average collection period are found to be increasing within the study period. It is also upgrading the condition of cash shortage.
- NEA has no sufficient cash surplus to pay for expenditure; it has to borrow loan to meet minimum cash balance and we can say that it is the result of poor cash plan. It is paying huge amount of interest each year and the trend is of adding on it rather than of paying back.

A study was done by **Mr. Suman Acharya (2009)** on “Profit Planning in Public Utility Undertaking of Nepal (specific reference to *Nepal Electricity Authority and Nepal Telecommunication Corporation*)”.

Objectives:

The main objectives of this study were as follows:

- To analyze and compare the financial performance between both enterprises.
- to present the financial position and performance of both company
- to point out the nature of management; quality of managerial knowledge and prevailing practices of profit planning and premises for adoption of profit planning

Findings:

Mr. Acharya has listed the following major finding in respect of Nepal Electricity Authority and Nepal Telecom.

- NTC’s goals and objectives are not identified to the lower level staffs. There is the absence of management by objectives (MBO) principle of participates management.

- There is lack in communication between top- level management to lower level management and also one department to another department.
- There is not any concept of profit planning system.
- There is high deviation between budgeted data and actual data.
- This enterprise is suffering from the high fixed cost.
- There are some problems to the cost control because there is not classified systematically overhead.
- NTC is suffering from the idle cash and bank balance.
- Also, there is a problem of autonomy; government directly interferes to the PEs. Any decision like pricing; service personnel etc. should be approved by the Nepal Government.

Recommendations:

Mr. Acharya has suggested various recommendations to improve formulation and implementation of the profit planning system of these enterprises. Among them the major common recommendations are as:

- Adequate computer facility is also an essential factors for revenue collection. To fulfill this purpose, provision of necessary counter according to the load of customers, adequate employer's provision in each counter, making systematic Que. System in line, making heating, lighting and drinking water facilities can collect their revenue effectively.
- Another important attention should be give for payment facility. Behind this banking facility should provide to customer.
- Government offices are the main defaulters for increasing the outstanding bill. Therefore they should issue circular for all to pay their outstanding bill at time.
- There must reduce overstaffing and need to provide the training and development to their staffs for improvement.

- There is necessary to improve their present accounting system.

Mainali, Guru Prasad (2011) has conducted a research on Cost -volume -Profit Analysis as a tool in Profit Planning and Control: A case study of Salt Trading Corporation Limited.

Objectives:

The main objectives of the study are as follows:

- To analyze the cost and profit and loss of STCL
- To study the relationship of cost, volume and profit
- To analyze the impact of cost –volume- profit on performance of STCL
- To provide suggestions for the betterment of selected organization

Findings:

Mr. Mainali has listed the following major finding in his study:

The company sold different products, among them agricultural material and machine equipment on total sales are found nominal. But other products made highest contribution on total sales,

- Expenses of STCL are fluctuating. Variable as well as fixed cost fluctuate during the period. It has no details of systematic plan.
- The corporation has high BEP ratio which concludes that the condition of the corporation is not so sound.
- Contribution margin of the corporation is not stable and satisfactory
- Financial position of the corporation is not so good.. Net profit margin and profitability ratios are not satisfactory.

Recommendations:

- STCL should apply cost-volume-profit analysis.
- Costs should be segregated systematically and scientifically.
- STCL should follow CVP analysis to reach BEP that helps in preparation of sales plan, purchase plan and pricing policy.
- STCL should increase the fixed costs and attempt to reduce variable cost in its cost structure to be a leverage organization.
- Some portion of the profit should be allocated to research and development program so that new technology can be found to provide more competitiveness in the market
- There are many new and popular management theories like management by objective, participative management, etc. These principles can be more effective for better performance of STCL.

2.3 Research Gap

All above-mentioned studies are about profit planning system of Nepal Telecommunication Corporation. Their finding and recommendation are almost same. All of them have pointed out that there is no proper planning and control system in NTC. This research is emphasizing the budgets roll in the comprehensive profit planning system which incorporates the revenue as well as expenses planning of NTC.

CHAPTER III

RESEARCH METHODOLOGY

3.1 Introduction:

Research refers to looking for something more out of systematic investigation. "Research is a systematic and organized effort to investigate a specific problem that needs a solution. This process of investigation involves a series of well thought out activities of gathering recording analyzing and interpreting the data with the purpose of finding answers to the problem. Thus, the entire process by which we attempt to solve problem or search the answers to questions is called research" (*Wolf and Panta: 1996:45*)

The major objectives of this research are to analyze the revenue planning practice in Nepal Telecom Company Limited, its effectiveness, use of short term and long term revenue planning tools, to evaluate the variance in budgeted and actual result and find out financial strength and weakness. This research work has followed the following research methodology.

3.2 Research design

Research design is like a philosophy of life, no one is without one, but are more aware of some of their problems and thus able to make more informed and consistent decisions.

The research design of the study is analytical as well as descriptive approach. This study is an examination and analysis of revenue planning and its impact on profitability of NTC. Various functional budgets and other related accounting

informations and statement of the enterprise are the materials to analyze and evaluate the revenue planning system of the enterprise.

3.3 Population and Sample

All the public enterprises partly or fully owned by government are the population of this study. The current study is only related with the revenue planning of Nepal Telecom Company Limited as Sample Company. The present study is undertaken for a period of past 10 years from fiscal year 2001/02 to 2010/11. For the variance analysis actual data for the fiscal year, 2010/11 is taken.

3.4 Sources of Data

The data plays a crucial work for an effective research. The data for the purpose of this research are taken from its origin to the extent possible. For this research work all the quantitative data are collected directly from NTC. For the data regarding functional budget, data are collected from secondary source of data. Some qualitative data are collected from the persons directly or indirectly related with NTC. Some descriptive data are collected from office staffs of the NTC and some data are collected from annual reports. Some data are also gathered from previous researchers.

3.5 Data Collection Technique

There are different data collection procedures for the research work. For this study different techniques and procedures are adopted to collect necessary and authentic data and information. Since the study is related with budgeting practice most of data are collected from secondary source. As secondary source of data, published functional budget and financial statement are taken. They are collected directly

from accounts department, planning department and functional department of NTC.

3.6 Data Analysis Tools

Data collected from various sources are managed, analyzed and presented in proper table and formats. Such table and formats are interpreted and explained wherever necessary.

Financial and statistical tools mostly used are financial ratio, CVP analysis and flexible budgets. Similarly, the statistical tools used are mean correlation, regression line, time series, coefficient of variance, standard deviation, graphical diagrams, etc as per requirement.

CHAPTER IV

PRESENTATION AND ANALYSIS OF DATA

4.1 Sales Budget of NTC

Sales Budget is the primary step in developing the overall budget procedure. It is the primary source of cash and all other functional budgets are prepared on the basis of sales budget. It is an estimation of sales for a certain period of time.

Sales plan is prepared on the basis of sales forecast. A sales forecast has to be translated into the sales plan and various factors have to be taken into consideration. The sales plan include sales forecast, marketing plan, advertising and expenses budget and selling expenses budget. The overall responsibility of preparing sales budget is upon the sales manager, although, chief executive should also be involved in each activities.

The sales plans are foundation for periodic planning in the firm because particularly all other enterprise planning is built on it. The primary source of cash is sales; capital addition need the amount of expenses to be planned, the manpower requirement, the production level and other important operational aspect depend on the volume of sales. Therefore, the sales plan must be realistic.

NTC has a long experience of preparing sales budget, which is known as long term load forecast. Sales budget is prepared by NTC according to the nature of consumers; Consumers are categorized viz domestic, commercial, non-commercial, Local, STD, ISD, Telephones user and mobile users.

The previous sales performance and their respective budgets are presented to know about sales trend of past and to forecast the future sales trend of NTC.

Table 4.1 presents the sales budget and actual sales achievement in unit and in Rs. from fiscal year 2001/02 to 2010/11.

Table No 4.1
Budgeted Sales and Achievement

(NRs. Millions)

Fiscal Year	Budgeted (NRs.)	Actual (NRs.)	Achievement (%)
2001/02	6,558.50	6,159.20	93.91
2002/03	7,032.23	7,208.87	102.51
2003/04	8,221.50	8,312.50	101.11
2004/05	8,125.25	8,584.44	105.65
2005/06	10,267.30	10,523.17	102.49
2006/07	10,947.85	13,967.32	127.58
2007/08	15,692.45	16,788.36	106.98
2008/09	18,745.34	20,646.69	110.14
2009/10	22,711.36	25,058.30	110.33
2010/11	27,564.13	26,409.00	95.81

Sources: Annual Report of NTC

Table 4.1 shows the budgeted sales and actual sales of Nepal Telecom Company Limited during the supply period of last 10 years period.

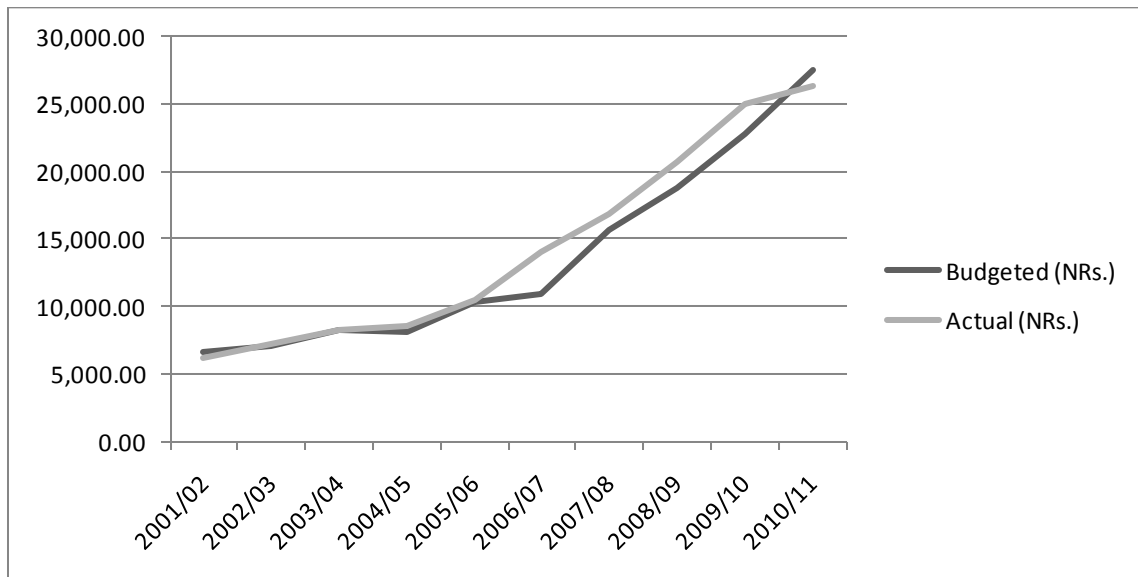
There has been satisfactory achievement in sales as compared to budget in F/Y 2002/03 to F/Y 2010/11. The achievement was satisfactory in the initial period of the study due to its monopoly in the market. The highest achievement was in F/Y 2006/07 with 127.58% of budgeted sales whereas in the F/Y 2010/11 the

performance was only 95.81 % of budgeted sales. It may be due to increase in competition in the market and entrance of new rivals.

Following graphical presentation also make clear of the relationship of budgeted and actual sales during the study period.

Figure 4.1
Budgeted and Actual sales revenue of NTC

(NRs in Millions)



Source: Table 4.1

The graphical presentation shows the fluctuation trend between the budgeted and actual sales during the study period. In the above diagram, we can notice that there is no remarkable difference between budgeted and actual sales upto F/Y 2005/06. The gap is remarkable in the FY 2006/07. Actual sales achievement was satisfactory till F/Y 2009/10.

Table No 4.2
Budgeted and Actual Sales Relationship

(NRs. Millions)

Particulars	Budgeted Sales (X)	Actual Sales (Y)
Mean	13,586.59	14,365.79
S.D.	6,918.27	7,129.15
C.V.	0.51	0.50

Sources: Appendix no. 1

Table 4.2 shows the result of calculated statistical tools and technique. According to the calculation mean of actual sales is greater than budgeted sales i.e. Rs.14,365.79 million and Rs.13,586.59 million respectively. Similarly, standard deviation of actual sales (i.e. Rs.7,129.15) is greater than budget (i.e. Rs.6,918.27). Moreover, coefficient of variation of actual sales is 0.50 and coefficient of variation of budgeted sales is 0.51.

It indicates that actual sales are less variable than budgeted sales during the study period which proves the consistency of sales in different years.

Another statistical tool, correlation of coefficient can be used to analyze the relationship between budgeted sales and actual sales. There should be positive correlation between budgeted sales and achievement. To find out the correlation between budgeted figures and actual figures, the help of Karl person coefficient of correlation denoted by ('r') can be taken. After calculating the r it can be examined if there is positive correlation between budgeted sales and actual sales. To calculate the value of r, the budgeted sales has been assumed as independent variable 'X' and actual sales as dependent variable 'Y'.

For this purpose, the calculated value of r is 0.985 (refer appendix 1). The value of r shows that there is highly positive correlation between the budgeted and actual sales.

After examining the relationship between the variables, the significance of r can be examined and it can be tested by the help of probable error. If correlation coefficient (r) is greater than probable error P.E. (r) = 0.009 (refer appendix 1). Thus, significant of (r) = $0.009 \times 6 = 0.054$. Thus, it can be said that value of r is significant or there is perfect positive correlation between budgeted and actual sales.

A regression line also can be calculated to show the degree of relationship between the budgeted and actual sales and to estimate the possible actual sales for coming year with given planned sales for the year. It is assumed that actual sales is dependent variable, denoted by 'Y' where as budgeted sales denoted by 'X'. Then the regression line of actual sales on budgeted sales or Y on X as: $Y = 1.015X - 364.81$.

This regression equation shows that actual sales is in increasing trend and 1.015 represents the increment in the value of dependent variables (Y) when the value of independent variables (X) changes by one unit. By the help of the regression equation the expected sales achievement with given value of budgeted sales(X) can be estimated. The budgeted sales (X) for the FY 2011/12, i.e. 27,612.78 million in units' sales achievement is calculated as $(Y) = 1.015 \times 27,564.13 - 364.81 = 27,612.78$ million.

Time element is also an important factor for the study of trend of actual sales. Least square method and time series study can also be used to analyze the trend of actual sales and to estimate possible future sales for a given period of time. A

straight line trend shows the relationship between actual sales and year to fit the straight line trend. The time factors are considered as independent variables and actual sales is considered as dependent variables.

Here, the straight line trend by the least square trend method for actual sales up on time is expressed by $Y_c = a + bx$

Where,

Y=actual sales

X= time (years)

Table no: 4.3

Calculation of straight line trend by least square

Fiscal Year	Actual Sales (Y)	Deviation from the Middle Year (X)	X²	XY
2001/02	6,159.20	-4.5	20.25	-27,716.40
2002/03	7,208.87	-3.5	12.25	-25,231.05
2003/04	8,312.50	-2.5	6.25	-20,781.25
2004/05	8,584.44	-1.5	2.25	-12,876.66
2005/06	10,523.17	0.5	0.25	5,261.59
2006/07	13,967.32	0.5	0.25	6,983.66
2007/08	16,788.36	1.5	2.25	25,182.54
2008/09	20,646.69	2.5	6.25	51,616.73
2009/10	25,058.30	3.5	12.25	87,704.05
2010/11	26,409.00	4.5	20.25	118,840.50
Total	ΣY= 143,657.85	ΣX= 0	ΣX²= 82.5	ΣXY= 208,983.71

Sources Annual Reports of NTC

FY 2005/06 (Mid Year) is assumed as base year. Therefore, the value of X or mid time is zero and the value is negative before the base year and positive after the base year. So, regression equation is as: $Yc=14,365.79 + 2,533.14 X$ (refer: *appendix 1*)

The trend line indicates the positive sales figure for future. If the sales trend of the previous year continue in the future the sales will be increased by 2,533.14 unit in million every year.

4.1.1 Tactical Sales Budget and Achievement

Short term budget or tactical budget is concerned for a period of less than one year for any specific product or all. It is based on long term budget and planning lay down by managements. It includes details for each major products or group. Short term budget is developed in amounts, detailed by time period and covered in details by marketing responsibility centre.

Since short term budget is the part of long term budget, effective implementation of long term budget depends upon the accomplishment of short term budget and policies. So, while developing short term budget, it is necessary to use participatory budgeting techniques so that everyone responsible for revenue generation should made responsible for achievement of sales budget and a reliable sales budget can be made. NTC has also a practice of developing tactical sales budget.

NTC has categorized its services in major products and groups. Product wise revenue for F/Y 2010/11 is given below.

Table No 4.4
Nepal Telecom Company Limited
Actual Sales & Sales budget
(By product group)

(In NRs)

Product	Actual Sales	% of Actual sales	Budget Sales	% of Budget Sales
PSTN Services				
Basic telephone	3,053,535,823.00			
Local				
Domestic Trunk	577,728,280.00			
International Trunk	249,184,330.00			
Leased Circuits	96,927,274.00			
I N Service	8,787,259.00			
Internet	11,537,026.00			
ADSL	695,651,487.00			
SIP Call	4,672,462.00			
Other	173,903,597.00			
Total	4,871,927,538.00	18.45%	5,625,446,701.00	20.41%
GSM Mobile Services				
Basic Telephone call	934,103,329			
Domestic trunk	28,538,334			
International Trunk	91,469,179			
Roaming	159,467,953			
Prepaid Cards	185,143,361			
Recharge Cards'	11,648,282,959			
GPRS Charges	19,708,112			
Others	233,700,293			
Totals	13,300,413,520	50.36%	14,297,951,800	51.87%

CDMA Services				
Basic Telephone call	258,044,279			
Domestic trunk	24,752,605			
International Trunk	12,985,160			
Data Services	17,888,617			
Prepaid Cards	210,658,830			
Recharge Cards'	1,832,273,393			
Others	74,708,742			
Totals	2,431,311,626	9.21%	2,950,038,061	10.70%
Intra Admin. Income	5,805,846,515			
Total	5,805,846,515	21.98%	4,690,697,717	17.02%
Grand Total	26,409,499,199	100%	27,564,134,279.00	100%

Sources: NTC Annual Report 2010/11

Table 4.4 shows that the GSM Mobile Services constituting 50.36% provides highest contribution in total revenue. In this category revenue from Recharge Cards is the maximum considerably dominating other services. Similarly, CDMA Services constituting 9.21 % provides lowest contribution in total revenue.

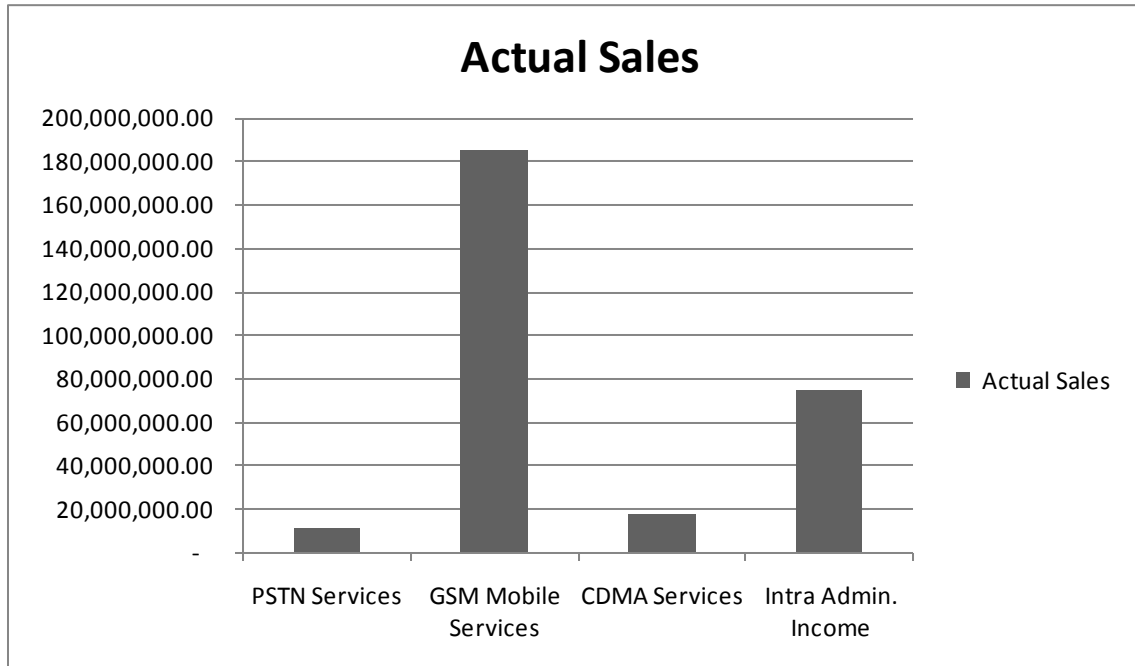
Vilfredo Pareto, a nineteenth century Italian Economist noticed that 80 % of the wealth of Milan was owned by 20 % of its citizens. This phenomenon or some kinds of approximation of it say (70: 30 etc.) can be observed in different business situations. The management can use it in number of different circumstances to direct management attention to key control mechanism or planning aspect. In the case of a firm dealing with multi products like NTC, it would not be possible for it to analyze cost–volume relationship for all of them. In practice, in case of such firm approximately 20 % of products may account for about 80 % of total sales

revenue. In the above table, it is noticed that 50.36 % of total revenue of NTC is earned from GSM Mobile Services. Similarly, among PSTN Services, the contribution of Basic Telephone Local is the highest and increase of GSM mobile and CDMA Services revenue from “Recharge Cards” are very significant. This can also be seen in bar diagram (figure 4.2). Therefore, in line of Pareto analysis, key management should give major attention to these services adopting more sophisticated pricing methods.

The management should conduct necessary research in products yielding lower revenue and take necessary steps.

Figure 4.2
Nepal Telecom Company Limited
Actual Sales
(By Service group)

(In NRs).



Sources: Table 4.4

The above graphical presentation also shows the actual revenue by product group in F/Y 2010/11.

To conclude the sales budget of NTC in overall, the following points can be pointed out:

- a. NTC has a practice of preparing short-range sales budget whereas long-range sales budget is not prepared in details.
- b. There is perfect positive correlation between budget and achievement and correlation coefficient is highly significant As $(r) = 0.985$. Probable Error $(r) = 0.009$.

- c. The regression equation shows the positive relationship between budgeted and actual sales and straight line trend shows the positive figure of sales for the FY 2011/12 i.e. 27,612.78 million in units.
- d. The overall target sales is not fluctuating however the authority unable to fulfill the consumer demand.

4.1.2 Sales and Profitability

Profit and loss account of any organization shows the operating result for any specific time period. This is the 'scoreboard' of the organizational performance. The main objective of preparing profit and loss account is to see the operating position of an organization. Generally, in profit making organization, profit and loss account is prepared to show profit or loss during any period. In non-profit making organizations, income and expenditure account is prepared to show net surplus or deficit for any specific time period.

Nepal Telecom Company Limited is obtaining profit each and every year after its incorporation. Below is the table which shows the historical profit and loss situation and sales revenue of Nepal Telecom Company Limited.

Table No 4.5
Analysis of Sales and Profitability

(NRs .in Millions)

Fiscal Year	Actual Sales	Growth %	Profit	Growth %	Net Profit Ratio
2001/02	6,159.20	-	1,463.95	-	23.77
2002/03	7,208.87	17.04	1,722.77	17.68	23.90
2003/04	8,312.50	15.31	5,334.94	209.67	64.18
2004/05	8,584.44	3.27	5,665.41	6.19	66.00
2005/06	10,523.17	22.58	6,843.73	20.80	65.03
2006/07	13,967.32	32.73	7,983.32	16.65	57.16
2007/08	16,788.36	20.20	10,871.46	36.18	64.76
2008/09	20,646.69	22.98	13,633.99	25.41	66.03
2009/10	25,058.30	21.37	14,441.09	5.92	57.63
2010/11	26,409.00	5.39	16,390.00	13.50	62.06

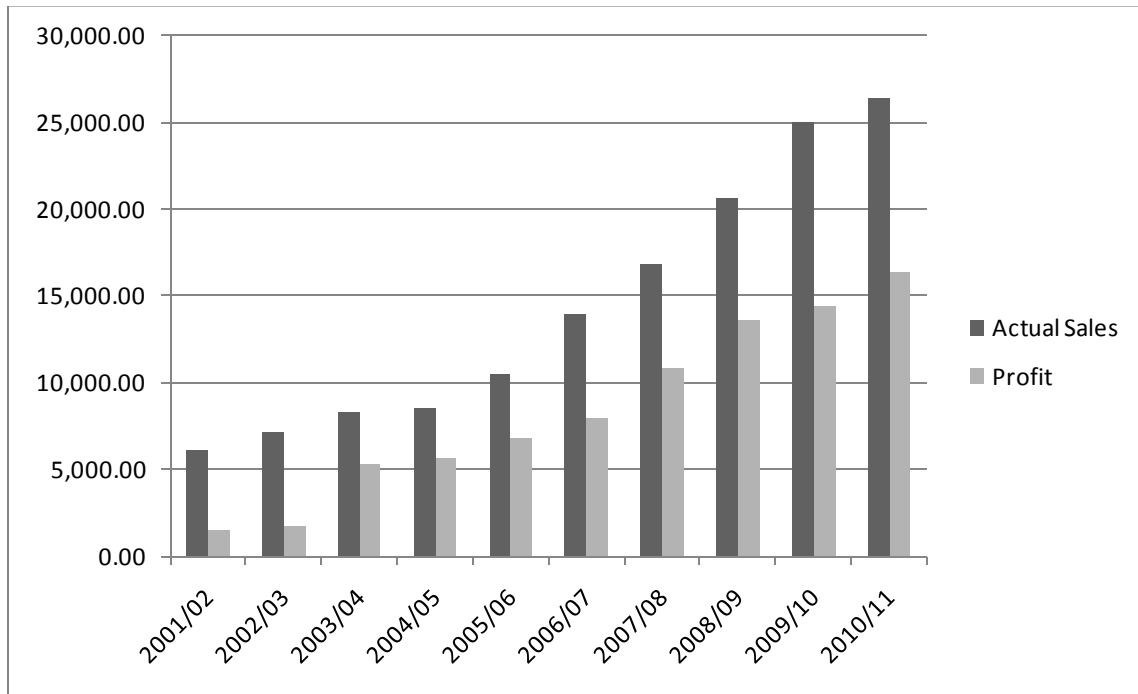
Sources: NTC Annual Report 2010/11

Table 4.5 shows the relationship between sales and profit. It is evident that there is high percentage of profit on sales. Average net profit on sales during the period is 55 %. It may be to low cost and efficiency in operations. Similarly, there is growth in profit with growth in sales during the period. However, growth in profit is not in line with growth in sales. It may be due to high fixed cost and low variable cost of NTC.

The above relationship can be depicted in the graph as follows:

Figure 4.3
Analysis of profitability

NRs. in million



Sources: Table 4.5

4.2 Overhead Budget

After analyzing the sales budget and production budget the service utility PEs analyze the overhead budget. NTC prepares the overhead budget in a combined way and is named ‘operating and maintenance expenditure’ budget. This budget includes (a) employment cost (b) bonus (c) incentive packages (d) depreciation (e) administrative expenses (f) loss/gain on foreign currency (g) royalty (h) loss on sale of telephone & other goods (i) license fee & deferred expenses etc.

Nepal Telecom Company Limited doesn't prepare the separate budget like manufacturing overhead, administrative overhead and selling and distribution overhead budget. It reveals that NTC doesn't have practice of preparing overhead budget in systematic way. NTC aggregates all the expenditures and prepare the 'operation and maintenance expenditure' budget that is why, there is difficult to analyze its overhead budget separately.

The past trend of NTC 'operation and maintenance expenditure' representing total expenditure is shown in the following table:

Table No 4.6
Actual overhead Cost of NTC

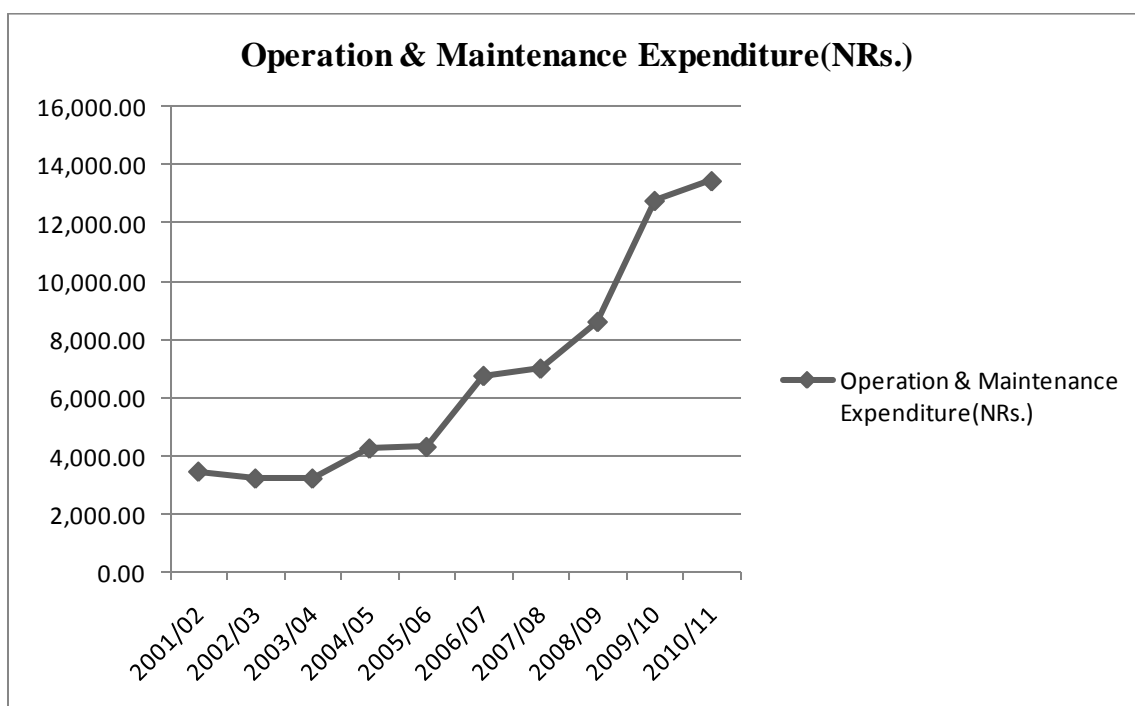
(NRs. Millions)

Fiscal Year	Operation & Maintenance Expenditure(NRs.)	Increase/ Decrease %
2001/02	3,477.96	-
2002/03	3,241.15	(6.81)
2003/04	3,241.15	-
2004/05	4,272.77	31.83
2005/06	4,324.77	1.22
2006/07	6,768.30	56.50
2007/08	7,017.85	3.69
2008/09	8,623.72	22.88
2009/10	12,779.97	48.20
2010/11	13,459.52	5.32

Sources: Budget Book of NTC from 2000/01 to 2010/11

Table 4.5 can be presented in diagram as follows which more clarifies operation and maintenance expenditure as expended year by year.

Figure 4.4
Actual Overhead Cost of NTC



Sources: Table 4.7

Figure 4.4 reveals overhead expenditure trend from 2001/02 to 2010/11. As per figure, the total operation expenditure is in increasing trend except in the year 2002/03 and 2003/04 was decreasing as compared to previous year. It was due to decrease in sales because of the internal political situation of the country. Then after operation and maintenance expenditure is increased due to increment in sales and responsibility of NTC to broaden its service. The percentage increment is significant in F/Y 2006/07 and F/Y 2009/10 comprising of 56.5 % and 48.2 % respectively. It may be accounted for increase in capacity.

4.3 Profit and Loss of NTC

Profit and Loss account of any organization shows the operating result for any specific time period. This is the 'scoreboard' of the organizational performance. The main objective of preparing profit and loss account is to see the operating position of an organization. Generally, in profit making organization, profit and loss account is prepared to show profit or loss during any period. In non-profit making organizations, income and expenditure account is prepared to show net surplus or deficit for any specific time period.

Nepal Telecom Company Limited is obtaining profit each and every year after its incorporation.

4.4 Budgeted Balance Sheet

Balance Sheet of any company shows the financial position in specified time period. So this is the main part of comprehensive financial statement. It shows all the financial information needed for financial statement analysis of a company. It shows assets, liabilities, profit and loss, capital, reserves, etc. i.e. all the sources of fund and their application for a financial period. Generally it is prepared at the end of any financial period or at the date of preparing financial statements.

In Nepal Telecom Company Limited, there is no practice of preparing budgeted financial statements. The actual balance sheet summary of NTC for last ten years is given below:

Table No 4.7
Nepal Telecom Company Limited
Comparative Analysis of Balance Sheet Items

Rs. in Millions

Balance Sheet Items	Fiscal Year									
	2001/ 02	2002/ 03	2003/ 04	2004/ 05	2005/ 06	2006/ 07	2007/ 08	2008/ 09	2009/ 10	2010/ 11
Fixed Assets	6840	7608	8094	9040	10088	11361	12897	15366	14144	13311
Current assets	15337	18424	20214	20598	22527	23520	24180	28837	35015	30379
Investments	1081	1770	3395	3339	4157	4884	8370	11167	13034	24894
Work in progress	1858	1923	1377	2453	2443	3765	3923	3317	3972	4577
Current liabilities	2943	3675	3631	3858	4476	5712	7915	6718	6929	7858
Share Capital	2054	2054	15000	15000	15000	15000	15000	15000	15000	15000
Loan	300	234	11	24	0	1192	0	0	0	0
Reserve and surplus	14874	17468	5580	5826	8686	11794	20344	26629	32150	38893
Provision	5111	6462	8999	10864	11189	9963	7099	5688	6732	7083

Sources:-Annual Reports, NTC

In the above table, investment in current assets is higher than fixed assets in every year. However, it cannot be ignored the fact that fixed assets are in increasing trend except in fiscal year 2009/10 and 2010/11; it means funds invested in fixed assets are in increasing trend which may otherwise be available for working capital. However, there is sufficient fund for current asset too; it does not create any problem for NTC. The increment is due to expansion in capacity.

It has been maintaining a constant amount of share capital since F/Y 2003/04. Reserve and surplus have increasing trend. So, it has sound prospect for future expansion. NTC has overall sufficient working capital because current assets are

always higher than current liabilities. It has no long term debt for the periods under review. So, it has no risk for long term operating, however, it may not avail benefit of leverage.

4.5 Reconciliation of Revenue

There are unreconciled differences between telephone calls as per the history card and as per customer ledger at NTC. There are also unreconciled differences between revenue control account and consumer ledger account. Presently revenues are accounted on receipt instead of at the time of their actual reporting by the telephone calls.

4.6 Analysis of Account Receivable

Account receivable management is very important for timely revenue collection. It is important to analyze past year's data to evaluate NTC efficiency to manage account receivable properly.

Table No 4.8
Nepal Telecom Company Limited
Analysis of Account Receivable

Fiscal Year	Sales Revenue Rs. in million	Account Receivable Rs. in million	Collection Period	Debtor Turnover ratio
2001/02	6,159	2,468	146	2.50
2002/03	7,208	3,030	153	2.38
2003/04	8,312	2,669	117	3.11
2004/05	8,584	2,826	120	3.04
2005/06	10,414	3,099	109	3.36
2006/07	13,967	3,456	90	4.04
2007/08	16,788	3,483	76	4.82
2008/09	20,646	3,593	64	5.75
2009/10	25,058	4,296	63	5.83
2010/11	26,409	3,906	54	6.76

Sources: Annual Report of NTC, FY 2010/11

Table 4.8 shows the relationship between sales revenue and accounts receivable from which the receivable turnover and average collection period can be analyzed.

The debtors' turnover and average collection period were 2.50 times and 146 days respectively in Fiscal Year 2001/02. But in FY 2002/03 the debtors turnover was decreased to 2.38 and average collection period increased to 153 days. This has shown increase debtors collection period and lower debtor's turnover ratio during the year.

Debtor's turnover ratio is in increasing trend from F/ Y 2004/05. Similarly, collection period is in decreasing trend from the same period. From the trend it can be concluded that there is increment in cash sales reducing blockage of fund in trade receivables and effective receivable management.

4.7 Cost–Volume Profit Analysis

4.7.1 Identification of Cost variability

Identification of variability of cost is very important for profit planning. Generally cost behaves in two ways with relation to volume of output. First, it changes proportionately with the change in volume of output; it means that is variable nature, called variable cost. Second, it does not change with the change in volume; that is fixed nature, called fixed cost. Cost behavior gives answers to what happens in each expense when the output changes. Cost can be classified in three categories according to their behavior. They are fixed cost, variable cost and semi-variable cost. Fixed cost remains constant for the certain time for certain level of activity. Variable cost is fluctuating nature. Variable cost increase or decrease proportionately with the increase or decrease in output. There is direct relationship with the output. Semi-variable cost is neither variable nor fixed.

Classification of cost is very important for planning and controlling cost. It helps to determine the desired level of output for desired profit. But NTC has no any clear-out vision about classification of cost. The classification of cost in fixed and variable is as under:

Table No 4.9
Cost Items and Cost Behavior of Nepal Telecom limited
Based on FY 2010/011

S No.	Cost Items	Behaviors of Cost	Amounts(NRs.)	
			Fixed	Variables
1	Employment Cost	Fixed	3,683,263,215	-
2	Operation and Maintenance Costs	Variable	-	2,191,433,710
3	Administrative Cost	Fixed	1,528,097,284	
4	Royalty/	Variable	-	1,056,380,124
5	Contribution on Rural Dev. Fund	Fixed	528,190,062	-
6	Interest on Subscriber's Deposit	Variable	50,911,839	-
8	Depreciation	Fixed	3,285,511,829	-
9	Exchange Gain/Loss on Currency	Variable	151,986,280	
10	License Fee	Fixed	59,805,733	-
12	Frequency	Variable	100,000,000	
13	Bonus	Fixed	342,388,685	-
14	Incentive Package	Variable	481,552,937	
Total of Amounts			10,211,707,864	3,247,813,834

Sources: Annual Report 2010/11

The costs as depicted in above table are based on the transaction of F/Y 2010/11 in which fixed cost incurred during the year is Rs. 10,211,707,864 and variable cost is Rs. 3,247,813,834.

4.7.2 Analysis of Contribution Margin, Break Even Point and Margin of Safety

Cost- volume-profit analysis requires computation of various ratios which are significant in revenue planning. Contribution is the difference between sales revenue and variable cost. This amount equals with fixed cost and profit. The profit volume ratio is the relationship between the contribution and sales value. It is expressed as a percentage shown as under:

$$\text{P/V ratio in percentage} = \frac{\text{Total Contribution} * 100}{\text{Sales Revenue}}$$

The P/V ratio is considered to be the indicator of the profitability. In the case of a firm enjoying steady business conditions over a period of years, the P/V ratio will also remain steady.

The Break Even Point (BEP) to a business is the point or a business situation at which there is neither a profit nor a loss to the concern. In other words, it is at this point where the contribution equals fixed expenses.

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

$$\text{BEP (in units)} = \frac{\text{Fixed expenses}}{\text{Contribution margin per unit}}$$

The margin of safety represents the difference between the sales at breakeven point and the total sales. It can be expressed as a percentage as well as in value.

The size of the margin of safety shows the strength of the business. If the margin of safety is small, it may indicate that the firm has large fixed expenses and is more vulnerable to changes to sales. In other words if margin of safety is large, a slight fall in sales may not affect the business very much but if it is small even a slight fall in sales may adversely affect the business.

$$\text{Margin of Safety (in terms of percentages)} = \frac{\text{MOS in absolute terms}}{\text{Actual sales}} * 100$$

Table No 4.10
Break Even Point (BEP) Analysis

(NRs Million)

Fiscal Year	2006/07	2007/08	2008/09	2009/10	2010/11
Sales Revenue	13,967	16,624	20,646	25,058	26,409
Variable Cost	1,337	1,984	2,397	3,014	3,247
Contribution	12,630	14,640	18,249	22,044	23,162
P/V Ratio	90%	88%	88%	88%	88%
Fixed Cost	5,431	5,049	6,116	9,707	10,212
BEP	6,006	5,733	6,919	11,034	11,644
BEP on sales %	43%	34%	34%	44%	44%

Margin of Safety	7,961	10,891	13,727	14,024	14,765
MOS on sales %	57%	66%	66%	56%	56%

Sources: NTC Annual Report 2006/07 to 2010/11

In table no 4.10, the classification of cost is done as mentioned in table 4.9. The contribution is in increasing trend and we can notice that there is steady P/V ratio that it was 90% in the fiscal year 2006/07 and after that it is 88% which reflects its steady business condition over the period. We can also notice that BEP are increasing with increase in sales and expenses over the period but sales is always more than the BEP, it means the organization is always in profit during this period.

Similarly, the MOS is high during the period (average 60%) which concludes that a slight fall in sales may not affect the business very much i.e. NTC is financially in strong position. There is satisfactory position of NTC in term of cost volume profit analysis.

4.8 MAJOR FINDINGS

- NTC has not adopted practice of preparing monthly revenue earning reports.
- NTC has maintained sound liquidity to pay the current debt and maintained well financial health.
- Idle capacity of installed telephone lines is in increasing trend, which affects revenue generation.
- The revenue plan prepared by the branches and sub branches were not taken as reference for preparation of central revenue plan.
- There was consistency between planned sales and actual sales.

- Planned sales revenue was highly and positively correlated. The correlation of actual sales revenue is also positive and high.
- The analysis of category-wise revenue plan shows that achievements in domestic, non-commercial, commercial and industrial categories are highly consistent. But the achievement in remaining categories is fluctuating.
- The achievement in sales as compared to budget is only 95.81 % in F/Y 2010/11 which may be due to increase in competition in the market and low switching cost for customers.
- Average Consumption
 - Average Consumption of domestic sector shows consistent in the first two years thereafter it increased and remained constant in two years
 - Average consumption of non-commercial shows increasing trend except in one year
 - Average consumption of commercial category shows fluctuating trend.
 - Average consumption of public booth call had increasing trend for the first three years of analysis and thereafter it increased slowly.
- Contribution in Revenue
 - GSM Mobile Services constituting 50.36% provides highest contribution in total revenue
 - Domestic Category was the second highest contributor in revenue and has remained profitable
 - Contribution of non-commercial category has remained about 25 percent
 - Commercial category contributed about 29.25 percent of sales unit and 35.66 percent of sales revenue.
 - Public sector category was the second largest contributor of revenue.

- Mobile and CDMA phone sets is smaller contributor of revenue. Average selling price of this category is very low; it does not contribute to profit.
 - Card phone and coin phone categories were the smaller contributor in the revenue.
 - The satellite phone service is very low in comparison with other category.
- Sales and profit are in increasing trend with high net profit ratio.
 - Operation and maintenance expenditure is in increasing trend as a result of increment in sales and responsibility of NTC to broaden its services.
 - Collection period showed decreasing trend and debtors turnover ratio showed increasing trend concluding effective receivable management.
 - High P/V ratio reduced the break even level of the company and margin of safety is at average 60 %.
 - Reserve and surplus are in increasing trend which concludes sound prospect for future expansion.
 - It has no long term debt in capital structure, so it may not avail leverage benefit.
 - The Telecom maintains its periodic performance report systematically.
 - NTC has a practice of preparing both strategic long term and tactical short term revenue plan. But the study is mainly focused on tactical short term revenue plan of Telecom.
 - Missed use of telephone was high due to technical or other reasons. It has been affecting on operational and financial sectors of NTC. The theft of Telephone line is 12.23 % at present which is too high.
 - Mobile service is better than land line, but most of the times it has faced with networking problem.

- NTC has launched various services for its customers to increase revenue; however, it has not been able to fulfill the demands of customers in rural areas.
- NTC has practiced Nepal accounting standard as well as general accepting practices for preparation and presentation of financial statements.

CHAPTER V

SUMMARY, CONCLUSION & RECOMMENDATION

5.1 SUMMARY

After the Second World War many countries got political independence. Their desire of repaid growth to reach at the level of developed countries gave way to planned economy and establishment of PEs. Nepal, being an under-developed country, adopted this principle and several PEs were established realizing that the rapid development of the country depends on industrialization, development of agricultural and proper utilization of abundant water resources. HMG established NTC for development of communication between public to government, a major infrastructure requirement for nation development.

NTC had a monopoly market for a long time. However, at present there are many competitors. Therefore, it is introducing different services and decreasing its price of services gradually to face the market competition. Though, its profit is gradually increasing in recent years, market is being more competitive day by day. Its most strong aspect is that it is very old network with its goodwill which it can easily capitalize and it has no external loan to finance it. Moreover, it has high amount of retained earnings to finance any new project. It is responding to its competitors with its excellent strategies as a result of its efficient management.

Business or corporate planning is reasoning out how a business will get where it wants to go. The essence of corporate planning is to scan the environment for finding opportunities and threats in it and exploit the opportunities and combat the threats. Long term strategies are developed on the basis of such opportunities and threat. Similarly, planning is the essence of management because without proper plan, management task cannot be effective. Planning is thinking in advance for

future course of action. It provided bases for measurement of performance and the road map for future activities to meet the goal.

Business budgeting or profit planning and control is a systematically devised tool to help management for corporate planning, it is a process of established goals, planning for attainment and subsequently comparing actual performance with performance goal. Thus, it provides bases for comparison of the future performance that it fixes the standards for efficient management.

In NTC, revenue results from the sales of Telecom services and is measured by charges made to customers. Revenue is influenced by both external factors and planning which coordinates the efforts of revenue department, production department and all other departments.

Many factors should be considered for revenue planning including revenue trends, limitation of supply, market demand and opportunities of expansion, potential competitors and general level of economy. NTC must consider revenue planning as the starting point for its overall planning.

The long term objective of NTC is to generate economic production, CDMA sets and sky phone sets of telecom and proper utilization of huge amount of communications like internet service, Web SMS and similarly ISD and STD phone Services. NTC has articulated its mission as “Nepal Telecom as progressive, customer spirited and consumer responsive entity, is committed to provide nation-wide reliable telecommunication services to serve as an impetus to the social, political and economic development of the country”.

NTC has been adopting planning practice to fulfill its mission and objectives. Revenue planning is the most essential aspect as revenue is the base on which future of the authority depends.

As for as revenue planning in NTC is concerned there are some major flaws. The starting point is in the revenue planning i.e. demand forecast lacks consideration of some major demand determinates. Though NTC has achieved the target of planned revenue in overall basis, category-wise planned figures have not been achieved. NTC has not adopted the practice of preparing monthly budget. The communication essential for effective planning is not proper. The trend of revenue is increasing and management has to manage huge amount of revenue in future. Thus, NTC should apply corrective measures to eradicate the flaws in revenue planning.

NTC is using planning to fulfill its mission and objectives. Revenue planning is most important aspect because its future depends on future revenue.

NTC should try to reduce its technical loss by improving its transmission system, and non- technical loss by adopting legal, managerial, social and other measures.

5.2 CONCLUSION

The analysis of the present practice of revenue planning in Nepal Telecom Company Limited clarifies that there are many lapses noted, strengthening of which may lead to maximize revenue generation and consumer satisfaction. NTC has not considered demand determinants such as family income, price of call per minute, connection charges, cost of alternatives available, cost of auto generation of telecommunication and reliability of NTC service which helps in forecasting demand. The company has no major planning for distribution of SIM cards to its consumers and target growth in sales revenue though achieved, is not properly planned. The study also signifies that while setting the target sales for next year, NTC has not considered other factors such as growth of consumer and other relevant factors. It has the practice of using 10% increment over the figure of the

past year to forecast next year's sales as "benchmark". The relationship between budgeted and actual sales is positive from which it can be concluded that the actual sales revenue in future has the probability of increment.

NTC has better trading profit in comparison to other public enterprises however, it has not adopted the practice of preparing monthly budget, which is a requisite for better and proper planning and control. NTC central office ignores suggestions of branches and sub-branches. Network problems are faced by both mobile and land line users of NTC. The company is not able to overcome the issue.

The loss accrued due to the technical and non-technical reason may be attributed to the irresponsible and unauthorized use of telephone. Other factors contributing to non-technical losses are faulty billing devices in use, unaccountable public installation such as coin telephone and card phone, and NTC's inefficiency to records its own consumption. NTC's overdue amount of receivable is increasing year by year. The cash collection efficiency in Nepal telecom is better through which the company can maintain desired level of cash balance but the company has not determined optimum cash balance. NTC has no clear cut boundaries to separate cost into fixed and variable. The classification of cost is not scientific and systematic.

Additionally NTC has not adequately considered controllable and non-controllable variables affecting the organization.

5.3 RECOMMENDATIONS

After analyzing the present practices of revenue planning in Nepal Telecom Company, there are various sectors where NTC can improve its services and increase revenue as well. The following recommendations are made:

- NTC should consider demand determinants such as family income, price of telephone sets, SIM cards and cost of alternatives available, cost of self-mobile service such as voice mail cost, message cost and reliability of NTC service while forecasting demand.
- It should prepare plans and program for network related problems to increase consumer satisfaction.
- Realistic forecasting to increase sales revenue must be focused which can be achieved by preparing monthly budget for sales revenue.
- Regular inspection, evaluation and monitoring of activities of the branches and sub branches should be undertaken by the central level.
- Suggestions from branches and sub branches should also be considered while preparing central budget of NTC.
- Nepal Telecom should follow popular management theories viz management by objectives (MBO) and participative management techniques to maintain coordination, cooperation and self motivation among the different regional branches, departments and employees.
- NTC should achieve their activity highlights such as PSTN Switch Expansion, Prepaid Calling Card (PCC) Service and IVR Technology.
- It should avoid the practice of using 10% increment as benchmark figure in the preparation of budget.
- It should introduce programmed action plans for solving network related problems and loss due to stolen telephone lines and miss use of telephone calls.
- NTC should effectively check and control the unauthorized use of telephones.
- NTC should put more effort to manage the supply in the profitable sectors such as domestic, national and international wise.

- NTC should focus on providing more facility to its customer in comparison to other telecommunications such as Hello Nepal, N-cell Mobile and United Telecom.
- The company should focus on revenue planning and cash management by setting clear boundaries about fixed and variable cost, price, cost volume profit relationship and an effective cost control program.
- Most of the Nepalese enterprises are facing problem of government interfere in setting out its vision, mission and objectives and its process of decision making and planning. NTC has not been aloof for the same. Government should not issue unproductive directives and take effective control of its activities so that it can cope with its competitors by providing satisfactory service with a reasonable price to its consumers.

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APPENDIX-1

Sales Relation Calculations

(Units in millions)

F/Y	Budgeted Sales (X)	Actual sales(Y)	$U = X - \bar{a}$	U^2	$V = Y - \bar{b}$	V^2	UV
01/02	6,558.50	6,159.20	-7,028.09	49,394,063	-8,206.59	67,348,037.36	57,676,626.18
02/03	7,032.23	7,208.87	-6,554.36	42,959,648	-7,156.92	51,221,432.32	46,909,004.56
03/04	8,221.50	8,312.50	-5,365.09	28,784,201	-6,053.29	36,642,259.29	32,476,424.87
04/05	8,125.25	8,584.44	-5,461.34	29,826,246s	-5,781.35	33,423,950.01	31,573,896.48
05/06	10,267.30	10,523.17	-3,319.29	11,017,693	-3,842.62	14,765,690.04	12,754,757.39
06/07	10,947.85	13,967.32	-2,638.74	6,962,954.1	-398.47	158,774.36	1,051,445.93
07/08	15,692.45	16,788.36	2,105.86	443,4642.1	2,422.58	5,868,869.63	5,101,601.37
08/09	18,745.34	20,646.69	5,158.75	26,612,691	6,280.91	39,449,767.62	32,401,612.39
09/10	22,711.36	25,058.30	9,124.77	83,261,409	10,692.52	114,329,877.03	97,566,729.40
10/11	27,564.13	26,409.00	13,977.54	195,371,596	12,043.22	145,039,027.54	168,334,507.35
	$\Sigma X =$ 135,865.9 1	$\Sigma Y =$ 143,657.8 5	$\Sigma U =$ 0	$\Sigma U^2 =$ 478,625,144. 16	$\Sigma V =$ 0	$\Sigma V^2 =$ 508,247,685.19	$\Sigma UV =$ 485,846,605.92

Source: Annual Report of NTC

Here,

Actual sales is assumed Y

Budgeted sales is assumed X

1. Calculation of mean

For Actual Sales (Y)

We have,

$$\text{Mean } (\bar{Y}) = \frac{\Sigma Y}{N}$$

$$= \frac{143,657.85}{10}$$

$$= 14,365.79 \text{ (Units in millions)}$$

For Budgeted Sales (X)

We have,

$$\text{Mean}(\bar{X}) = \frac{\Sigma X}{N}$$

$$= \frac{135,865.59}{10}$$

$$= 13,586.59 \text{ (units in millions)}$$

2. Calculation of Standard deviation

For Budgeted Sales (X)

We have,

Standard Deviation

$$\begin{aligned} \text{S.D. } (\sigma X) &= \frac{\sqrt{\Sigma U^2}}{N} \\ &= \frac{\sqrt{478,625,144.16}}{10} \\ &= 6,918.27 \end{aligned}$$

$$\text{Coefficient of Variation} = \sigma / \bar{X} = 0.51$$

For Actual Sales (Y)

We have,

Standard Deviation

$$\begin{aligned}
 \text{S.D. } (\sigma Y) &= \frac{\sqrt{\Sigma V^2}}{N} \\
 &= \frac{\sqrt{508,247,685.19}}{10} \\
 &= 7,129.15
 \end{aligned}$$

$$\text{Coefficient of Variation} = \sigma / \bar{Y} = 0.50$$

3. Calculation of Correlation Coefficient

$$\begin{aligned}
 R_{xy} &= \frac{\Sigma UV / N}{\sigma_x \times \sigma_y} \\
 &= \frac{485,846,605.92 / 10}{6,918.27 \times 7,129.15} \\
 &= 0.985
 \end{aligned}$$

$$\begin{aligned}
 \text{4. Calculation of Probable Error}(r) &= \frac{1 - r^2}{\sqrt{n}} \\
 &= \frac{1 - (0.985)^2}{\sqrt{10}}
 \end{aligned}$$

$$= 0.009$$

5. Calculation of regression Equation:

Formula:

$$(Y - \bar{Y}) = \frac{r_{xy} (x - \bar{x}) * \sigma_y}{\sigma_x}$$

Where,

$$\begin{aligned} \bar{X} &= 13,586.59 \text{ (Units in millions)} \\ \bar{Y} &= 14,365.79 \text{ (Units in millions)} \\ \sigma_x &= 6,918.27 \text{ (units in millions)} \\ \sigma_y &= 7,129.15 \text{ (units in millions)} \\ r_{xy} &= 0.985 \end{aligned}$$

$$\text{Or, } Y - 14,365.79 = 0.985(X - 13,586.59) * 7,129.15 / 6,918.27$$

$$\text{Or, } Y - 14,365.79 = 0.985 (X - 13,586.59) * 1.0305$$

$$\text{Or, } Y - 14,365.79 = 1.015X - 14,000.98$$

$$\text{Or, } Y = 1.015X - 364.81$$

6. Calculation of Straight Line trend by least square method:

$$Y_c = a + bx$$

Where,

Y=actual sales

X= time (years)

Calculation of straight line trend by least square

F/Y	Actual Sales (Y)	Mid time (X)	X²	XY
2001/02	6,159.20	-4.5	20.25	-27,716.40
2002/03	7,208.87	-3.5	12.25	-25,231.05
2003/04	8,312.50	-2.5	6.25	-20,781.25
2004/05	8,584.44	-1.5	2.25	-12,876.66
2005/06	10,523.17	0.5	0.25	5,261.59
2006/07	13,967.32	0.5	0.25	6,983.66
2007/08	16,788.36	1.5	2.25	25,182.54
2008/09	20,646.69	2.5	6.25	51,616.73
2009/10	25,058.30	3.5	12.25	87,704.05
2010/11	26,409.00	4.5	20.25	118,840.50
Total	ΣY=143,657.85	ΣX=0	Σ X²=82.5	ΣXY=208,983.71

Sources Annual Reports of NTC.

Substituting the value in straight line equations,

$$Y_c = a + bx$$

Where,

$$\begin{aligned}
 a &= \frac{\Sigma Y}{N} \\
 &= \frac{143,657.85}{10} \\
 &= 14,365.79
 \end{aligned}$$

$$b = \frac{\Sigma XY}{\Sigma X^2}$$

$$= \frac{208,983.71}{82.5}$$

$$= 2,533.14$$

$$Y_c = 14,365.79 + 2,533.14X$$

APPENDIX- 2

Brief Introduction

Year	Milestone Details
1913	Establishment of first telephone lines in Kathmandu
1914	Establishment of Open wire Trunk Link from Kathmandu to Raxaul (India)
1935	Installation of 25 lines automatic exchange in Royal Palace
1936	Installation of Open Wire Trunk line from Kathmandu to Dhankuta
1950	Establishment of Telegram Service
1950	Introduction to High frequency Radio System (AM)
1950	Establishment of CB telephone exchange (100 lines) in Kathmandu
1951	Installation of Open Wire Trunk line from Kathmandu to Palpa
1955	Distribution of telephone line to general public
1962	First Public Telephone Exchange in Kathmandu (300 lines CB)
1964	Beginning of International Telecommunications Service using HF Radio to India and Pakistan

1965	First Automatic exchange in Nepal (1000 lines in Kathmandu)
1971	Introduction of Telex Services
1974	Microwave transmission links establishment for internal trunk
1982	Establishment of Standard "B" Type Earth Station for international circuits
1982	Establishment of SPC telex exchange
1983	Establishment of digital Telephone Exchange
1984	Commencement of STD service
1984	Reliable Rural Telecom Service (JICA)
1987	Commencement of STD service
1995	Installation of Optical Fiber Network
1996	Conversion of all Transmission link to Digital transmission link
1996	Automation of the entire Telephone Network
1996	Independent Int. Gateway Exchange established
1996	Introduction of VSAT services
1997	Digital Link with D.O.T. India through Optical Fiber in Birgunj - Raxual

1998	Direct Link with Bangladesh
1999	Launching of GSM Mobile service
2000	Implementation of SDH Microwave Radio
2000	Launching of Internet Service
2001	Launching of Payphone Service
2002	East West Highway Optical Fiber Project
2003	GSM Prepaid Service
2004	NEPAL TELECOM (Transformation from Corporation to Nepal Doorsanchar Company Limited)
2004	Pre-paid Calling Card Service (IN Services)
2005	Soft launch of CDMA
2005	Access Network Services
2005	Outsourcing of Enquiry Service (197)
2006	PSTN Credit Limit Service - PCL (IN)
2006	Home Country Direct Service – Nepal Direct (IN)
2006	MCC (198) Complaint Registration via IVR in Kathmandu Valley
2006	CDMA Limited Services in Kathmandu Valley
2007	National Roaming for CDMA Mobile (Sky Phone) started

- 2007 Expansion of Internet Bandwidth via Optical link between Nepal & India
- 2007 PSTN Bill Enquiry Service started via 1606 IVR Service
- 2007 VOIP Call Complaint Registration started via 188 IVR Service
- 2007 GPRS, 3G and CRBT Services introduced in GSM Mobile
- 2008 Broadband ADSL Service launched
- 2008 IVR Service 1607 started for GSM and CDMA PUK Enquiry
- 2008 IVR 198 service extended for ADSL Fault Complaint Registration
- 2008 PSTN VMS Notice Board Service Launched
- 2009 IVR 1606 Service extended outside Kathmandu Valley
- 2009 SMS Service from GSM to CDMA mobile started
- 2009 Postpaid CDMA Mobile Service started
- 2010 EVDO Service started
- 2010 Soft Launch of Easy Phone IP Call Service
- 2011 GSM post paid mobile, PSTN and ADSL bill payment through Namaste prepaid recharge card
- 2011 MPos (Pin Less Recharge Service)

