

**EFFECTIVENESS OF SALES PLANNING
IN
NEPAL TELECOM**

Submitted by
Khagendra Panday
Shanker Dev Campus
T.U. Reg. No. 7-2-327-383-2003
Roll No. 380/063

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RECOMMENDATION

This is to certify that the Thesis

Submitted by

Khagendra Panday

Entitled

EFFECTIVENESS OF SALES PLANNING IN NEPAL TELECOM

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

.....
Mr. Joginder Goet
(Thesis Supervisor)

.....
Prof. Bishweshor Man Shrestha
(Head of Research Department)

.....
Prof. Dr. Kamal Deep Dhakal
(Campus Chief)

Date:

VIVA VOCE SHEET

We have concluded the viva-voce examination of the thesis presented by
Khagendra Panday

Entitled
Effectiveness of Sales Planning in Nepal Telecom

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

Viva Voce committee

Head of Research Department _____

Member (Thesis Supervisor) _____

Member (External Expert) _____

Date:

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Khagendra Panday

Roll No.

Date:

DECLARATION

I, hereby declare that the work reported in this thesis entitled "Effectiveness of Sales Planning in Nepal Telecom" submitted to Shankar Dev Campus, Faculty of Management, Tribhuvan University, is my original research 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 and guidance of Mr. Jogender Goet, Lecturer of Shankar Dev Campus.

Khagendra Panday
Researcher
Roll No. 380/063
Reg. No.: 7-2-327-383-2003

Date:

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ABBREVIATIONS

A/C	Account
&	And
B.S.	Birkram Samwat
BEP	Break Even Point
CDMA	Code Division Multiple Access
C.V	Coefficient of Variation
Co	Company
etc	Etcetera
FY	Fiscal Year
F.C.	Fixed Cost
GDP	Gross Domestic
ISTD	International Subscribe Trunk Dialing
Km.	Kilometers
Ltd.	Limited
MIS	Management Information System
Mos	Margin of Safety
MBA	Masters in Business Administration
MBS	Masters in Business Studies
NT	Nepal Telecom
NTC	Nepal Telecommunication Corporation
%	Percentage
P.a.	Per Annum
Pvt.	Private
P.E.	Probable Error
PCO	Public Call Office
PCC	Profit Planning & Control
P/V	Profit Volume
Rs.	Rupees
S.D	Standard Deviation
SWOT	Strength, Weakness, Opportunity and Threat

STD	Subscribe Trunk Dialing
T.U.	Tribhuvan University
V.C.	Variable Costs
VSAT	Very Small Apprebox Terminal
WLL	Wireless Local Loop

CHAPTER I

INTRODUCTION

1.1 General Background

Nepal is a small developing country situated in South East Asia. It covers the total area of 147181 sq.km., Which is 0.03% of the world and 0.3% of the Asia. It is a small land locked country, surrounded by tow big economic giant China and India. It has a rapid population growth rate 2.25% p.a. compared to the least developed countries. Geographically Nepal is divided in to three regions, in which the Himalayan region covers 15% (22077.15 sq.km.), the Hilly region covers 68% (100083.08 sq.km.), the Terai region covers 17% (25020.77 sq.km.) of total area of the country. Nearly 40% of the total population still lies below absolute poverty line. It has only \$260 per capital income, Nepal Year Book; 2006: 24.

Nepal has dual (Market as well as substance) economy. It is dominated by agricultural sector. More then 80% of the people are depending upon agriculture and near 41% of GDP are covered by agriculture sectors. Private sectors are not influenced to invest in the sectors where most public concern but they seek for higher return on their investment. DUE to this Government has to take imitative of public concern and balanced development of the country. Even in such a system the private sector has to play a predominant role in market oriented and competitive economic activities in order to increase production through efficiency enhancement in resource use. However, the government involvement in some of specific services, development, pre-requisites services and industries assisting in the improvement of economic condition of the rural poor and down trodden and relating to important defenses matter is still inevitable. For economic growth and prosperity industrialization is a key factor. To cope the challenges of the globalization in the competitive environment industrialization is essential for developing country like Nepal.

Public enterprises play the major roles in achieving the twin objectives of social and economic development in envisaged in the national policy. Public enterprises are

enterprise set by the government. It has to be efficient and at the same time accountable to the government and the public are autonomous bodies which are owned and managed by the government and which provides goods and services for a price. The ownership with the government should be 51 or more to make an entity public enterprise, Lamxi Narayan; 1972:42. They have been established in many sectors for the overall development of the country with different goals and objectives. In Nepal, some public enterprises have been set up under various legal entities such as special characters (i) Manufacturing PEs I.e. Janakpur cigarette factory, Heatauda cement factory, Udayapur cement factory etc. (ii) Commercial PEs (iii) Financial PEs (iv) Public utilities PEs (v) Social service PEs.

1.2 Brief Overview of Nepal Telecom Ltd.

1.2.1 Historical Background of NT.

Telecommunication is a system which facilitates conveying information quickly over a distance with a cheap cost. In this globalization and scientific era, telecommunication is one of the important, useful and necessary media of information. In developing country like Nepal the role, importance and contribution of telecommunication in the economic development of country cannot be exaggerated as there is no sector where telecommunication has not play role.

The history of telecommunication development is not long. The first telecommunication services were started in Nepal during the regime of Maharaj Chandra shamsheer in the year 1970 B.S. It was the first time and a good opportunity for Nepalese people to transmit message from Katmandu to Brigung. This telephone line attributed as magnet contacted Birjung with Katmandu under the name of "Shree Chandra Telephone." Through no remarkable development has been found at the time of shree Chandra shamager. In 1971 B S. open wire Trunk Link Line from Katmandu to Raxaul (India was established), another telephone line connecting at Katmandu, Hargamani Gaur has been installed in the year 1980 B.S. In the year 1992 B.S. 25 lines automatic exchange in palace were installed. In 1993 B.S telephone line Katmandu to Dhankuta (518km) was started. The telecommunication office was first established near Ranipokhari, Katmandu, Nepal Doorshanchar Sasthan, 2056:48.

Nepal Telecom was established to provide the telecommunication services all over the country on 1st of Ashad 2032 B.S as government statutory corporation. ‘The Nepal Telecommunication Corporation was dissolved and converted to Nepal Doorsanchar Company Limited (NEPAL TELECOM) from 1st of Baisakh 2061 B.S (13th April 2004). The new company (Nepal Doorsanchar Company Limited) was registered with the Company Registrar Office on 2060-10-11 under Company Act 2053, and the motive to this effect was published in Nepal Gazette dated 26th Chaitra 2060. However the company shall also know to general public by the name NEPAL TELECOM as registered trade mark” (Annual Report, NT 2002/2003:3). The main objective of NT is to provide national wide, low cost, reliable and readily available telecommunication service to general public.

Increasing demand of telecom service in general and mobile service in particular all over the country including rural areas is a clear indication of the fact that telecom sector has become one of the most vibrant and dominant service industries in the country. Recent entry of private operators in the sector should, therefore, we have considered as governments, initiative to make the sector grow at faster pace both in terms of quantity and quality. But the fact remains that in spite of new liberal Telecom Act 2053, due to various reasons the market share achieved by private sector is still less than 10% of the total telecom business volume. Hence the incumbent Nepal Telecom shall have to make the responsibility of expanding infrastructure at faster pace covering nooks and corners of the country, not only as competitive strategy but also to cater ever-increasing demand from general public for both voice as well as data services, Annual Report; NT,2005:3.

1.2.2 Role of NT

In Nepal, there are other means of communication also a number of transportation, postal service etc. But there are slower expensive and less convenient. There fore, telecommunication is one of the quickest, cheapest and scientific means of communication. It brings coordination among different government entities which ultimately promotes administrative efficiency. The effects of telecommunication on the rural areas and their contribution to rural development are potentially extremely important, Yet rather difficult to measure. NT has played a crucial role to promote

agriculture sector, which is a main source of national income. Telecommunication has significant impact on agriculture production by providing information on prices and market condition.

In developing country like Nepal, the role of importance and contribution of telecommunication in the developing country cannot be explained. The international telecommunication system contributors to link the overseas countries the field of economy as well as politics. It also contributes in the development of tourist industry. Thus the telecommunication system plays vital role to strengthen the national economy and bring national unity among the national and international people creating a brotherhood relationship among the people.

1.2.3 The Mission, Vision and Goal of NT.

The Mission Statement

“Nepal Telecom as a progressive, customer spirited and responsive entity, is committed to provide national-wide reliable telecommunication services to serve as an impetus to the social, political and economic development of the country.”

Nepal Telecom Vision

”Vision of Nepal Telecom is to remain a dominant player in telecommunication sector in the country while also extending reliable and cost effective services to all.”

Nepal Telecom goal

Goal of Nepal Telecom is to provide cost effective telecommunication services to every nook and corner of the country, NT Annual Report;

1.2.4 Objectives and Duties of NT

Since its establishments, NT is dedicated towards providing reliable and affordable telecommunication services through out the country as a sole national telecommunications operator of local, mobile, long distance and international telecom

services. The main objective of Nepal Telecom is to provide essential national wide low cost, reliable and readily available and economic development. The duty of the corporation will be to provide telecommunication services throughout the country that is as far as practicable, very reliable and cost effective. As per the Communication Corporation Act 2028, Nepal Telecom shall undertake the following duties:

1. To improve the work implementation procedures for maintaining a high grade of telecommunication services.
2. To promote the business activities of the corporation.
3. To establish necessary telecommunication media for linking different parts of the kingdom of Nepal.
4. To try to establish necessary telecommunication link with foreign telecommunications administration.
5. To produce the middle level technical manpower necessary for the installation, operation and maintenance of the different telecommunication systems.
6. To provide national wide reliable telecommunication services to serve as an impetus to the social, political and economic development of the country.

1.2.5 Capital formation of NT:

Authorized capital of NT is Rs.2500,00,00,000, divided in to 2500,00,000 shares of Rs.100 each. Issued and subscribed capital is Rs.1500,00,00,000, divided in to 15,00,00,000 shares of Rs. 100 per share.

Following table shows the distribution of shares:

S.N Name of Subscriber: No. of shares:

1. Ministry of Information and Communication 7,50, 00,000
2. Ministry of Finance 7,49, 46, 000
3. Ministry of Industry, commerce and Supply 1000
4. Ministry of Law, Justice and Parliamentary 1000
5. Department of Information 1000
6. Citizen Investment Trust 50,000

1.2.6. Services Provided by NT

The main services provided by NT are as follows:

- 1) Local calls
- 2) National Trunk Calls
- 3) International Trunk Calls
- 4) International Telegram
- 5) Domestic Telex
- 6) International Telex
- 7) Leased Lines
- 8) Operator-Assisted Int'l Telephone
- 9) Packet Switching Data Telephone
- 10) ISDN (Integrated Services Digital Network)
- 11) Pay Phone
- 12) Intelligent Network Services
- 13) PCC Easy Call Services
- 14) HCD Services
- 15) AFS Advanced Free phone Services
- 16) Universal Access Number Services
- 17) PSTN Credit Limit Services
- 18) Mobile
 - a) Postpaid
 - b) Prepaid
 - c) Roaming (incoming and outgoing)
 - d) SMS
- 19) CDMA
- 20) Internet and E-mail

1.3. Statement of Problem

Since its establishment, Nepal Telecom has enjoyed monopoly in the field of telecommunication. But, at present telecommunication sector is kept open for private sector. So, it has to compete with private sector also further more. Government has plan to privatize this organization and primary studies are being undertaken. At present among PEs of Nepal, NT is regarded as one of the few successful corporations. But how long can this prosperity be continued? This question is hunting and daunting to each and every conscious person. The monopoly of NT in telecom

sector has ended. In this competitive and complex situation it should focus more towards customer.

This study will focus on following question to find out the budgeting study of NT.

1. What are the reasons for poor performance being unrealistic and improper uses of budgeting in NT?
2. Whether NT has prepared sales budget with theoretical prescription or not?
3. Is there any fluctuation of sales in unit (lines) in different months, quarters and years?
4. Is there any close relationship between actual sales and budgeted sales or not?
5. Is the sales plan of NT is effective or not?

1.4. Objectives of the study

The basic objective of the study is to analyze the present sales budgeting and planning system of NT, review the relationship sales plan with other and evaluate the effectiveness of such plan followed by NT. The major objectives of this study are highlighted as below

1. To analyze the existing sales planning system of Nepal Telecom, with seasonal demand.
2. To study the relationship between sales plan with other expenses.
3. To analyze the relation between sales and profit
4. To analysis BEP of Nepal Telecom.
5. To provide suitable suggestion and recommendation on the basis of study

1.5. Significance of the study

This research work is based mainly on effectiveness of sales planning in Nepal Telecom. Profit does not just happen, it needs to be managed. Profit is the main aim of every organization and profit is made through sales. Profit planning is the heart of management and sales planning is primal planning in overall budgeting, therefore to achieve organizational objectives, sales planning should made in careful way. This study is needed because planning process will significantly contribute to improve the profitability as well as the overall financial performance of an organization with the help of the best utilization of resources. Sales also act as an instrument for minimizing future risk, maximizing the output from scare resources, predict the future uncertainty and make managerial decision because those planning. The need of the study is to

examine whether the NT is applying theoretical tools of sales planning in relation with profit planning of sales. Besides this, this study is designed to describe the relationship of sales with other budget and how they support to sales budget

As this one the public enterprise, the finding can be equally important to other public enterprises too. Many other organizations taking care of profit planning and control in management also can be benefited from it. Sales planning and other information of the study can be useful for further research to university students and other too. Lastly, the suggestions and recommendations will serve the concerned people while making sales plan.

1.6. Limitation of the study

This study is based solely on Nepal Telecom .A research is a full blaze and vast investigation study for the settlement of problem. So it needs full time, finance and authentic information. The main focus of this study is on sales planning of fixed line telephone and cellular mobile. Following factors have limited the scope of this study.

1. This study covers only last five years (i.e. from fiscal year 2061/62 to 2065/66 or 2004/05 to 2008/09) trend and data are analyzed.
2. The comprehensibility and the accuracy of this study is based on the data provided by NT management and published financial documents, planning documents, annual report of NT and budget book of NT.
3. The analysis is concentrated in accounting and financial aspect of the organization. It does not cover all the areas of the enterprise.

Since, dissertation is submitted in partial fulfillment of required of MBS Degree, so due to constraints of time and resources it was not possible to carry out a detailed research in the subjective area.

1.7. Research Methodology

This study intends to show the effectiveness of the sales planning in the field of profit planning and control. It requires an appropriate research methodology. To fulfill the objective and requirement of this study mainly secondary data are used. The secondary data are collected from published materials available, newspaper and some previous studies done in this field, etc. To analyze the selected data some financial and

statistical tools, such as mean, stranded deviation, co-efficient of variance, correlation and regression analysis, break even analysis, trend analysis, graph etc. are used as required.

1.8. Organization of the Study

As specified format of the research study, this study also comprises of five major chapters: they are.

Chapter One: Introduction:

This chapter contains will be the brief introduction of the subject matter i.e. General Background of this study, Brief Overview of Nepal Telecom, Statement of problem, Objectives of the study, Significance of the Study, Limitations of the Study, and Organization of the Study.

Chapter Two: Review of Literature:

This chapter will be describes towards the review of literature of related studies. It contains conceptual review and major studies related with this research

Chapter Three: Research Methodology:

This chapter acknowledges the research methodology will be used in this study. It includes Research Design, Nature and Sources of Data, Period Covered, Data Processing Procedure, Financial and Statistical tools used for the Study.

Chapter Four: Presentation and Analysis of Data:

Various data are gathered from the application of the different methods and presented and decorated as required by the research objectives. In this chapter data are interpreted and analyzed with the help of various analytical tools and techniques and findings are drawn.

Chapter Five: Summary, Conclusions and Recommendations:

This chapter wills states Summary, Conclusions and Recommendations of this Study.

CHAPTER-II

REVIEW OF LITERATURE

Review of literature means reviewing research studies or other relevant propositions in the related area of the study so that all the past studies, their conclusions and deficiencies may be known and further research can be concluded. It is an integral and mandatory process in research work (Joshi, 2003:25). It supports the researcher to explore the relevant and true facts for the reporting purpose in the field of study. It also helps to find out the lacuna in the earlier research work and to stop duplication of the previous work. Literature here means the related printing materials about the subject matter of the research work. It may be various forms like book, booklet, thesis reports etc.

Planning is the primary function of business. A business can't succeed or grow in today's global competitive environment without previous planning of activities. In most cases, preparation of sales plan is considered the most important sales plan provides basic management decision about marketing.

This chapter has divided into two sections:-

1. Review of Conceptual Framework
2. Review of Previous Related Studies.

2.1 Review of Conceptual Framework

It is a part of review of literature. In this framework of decision about theoretical review from text books, reference books and practice in profit planning and control are considered.

2.1.1 General Concept of Profit Planning and Control Profit:

Profit is the primary measure of business in any economy. Profit means a peculiar gain, excess of return over the outlays. It is reward of business. Profit is obtained by subtracting total cost from total revenue. Profit does not just happen, profit are managed (Lynch and Williamson, 1989: 100). There are several interpretations of the term "Profit". An economist may say that profit is the reward for entrepreneurship, for

20 risk taking. A labor leader might say that, it is a measure which can be used to examine the efficiency of labor because profit is produced by the labors and it provides a base for negotiation a wage increase. An investor will view it is a gauge of the return on his or her money. The accountant will define it simply as the excess firm revenue over the expenses of producing revenue in a given fiscal year.

Profit may be considered for making innovation, a reward for accepting risks and uncertainty and the result of imperfection in the market structure (Grayson, 1990:102).

Profit as the residual payment that is left to the producer's income after all other payment has been met (Honsen, 1991:105).

The surplus of current income over past cost is profit.

Management thinks profit as (Lynch and Williamson; 1989: 100).

1. A tangible expression of the goals it has set for the firm.
2. A measure of the performance toward the achievement of its goals.
3. A measure of maintaining the health, growth and continuity of the company.

The accounting concept of company profit is a concept of net business income. The sales transaction of a period are regarded as bringing new assets into the business and a profit results if there are in excess of the assets leaving the business in the same period. Profit is thus the surplus income that remains after paying expenses and providing for that part of capital that has been consumed in producing revenue (Willsmore, 1986:28).

It is quit clear that there is not exact definition of profit. Whether the definition may be, profits are residual income left the payment of the cost factor of production. The success of business depends largely of management is reflected upon the volume of profit/surplus of business. Profit is the ultimate measure of its effectiveness, and in a capitalist society, there is no future for private enterprise which always incurs losses.

“The survival measure of how well a business performs economically. Profit is a signal for the allocation of resources and yardstick for judging managerial efficiency (Kulkurni, 1985:245).

Finally, it can be concluded that profit is the excess of revenue over the costs of doing business. Without obtaining sufficient profit, no firm can operate for long-term period.

Planning:

Planning is the future oriented activity, which is the first essence of management, also all other functions are performed within the framework of planning. It is the sole concept of any business organization. Without the proper and efficient planning, no firm can accomplish its predetermined goals and objectives. Hence it is the life blood of any organization, which makes them efficiently run toward competent environment.

Planning is the continuous process, selecting and developing the course of action to accomplish an objective. It is the basis from which future management actions spring. “Planning is the process of developing organizational objectives and selecting a future course of action to accomplish them (Welsch, et. al., 1992:3).

1. Establishing enterprise objectives.
2. Developing premises about the environment in which they are to be accomplished.
3. Selecting a course of action for accomplishing the objectives.
4. Initiating activities necessary to translate plans into action.
5. Current re-planning to correct deficiencies.

To plan is to look ahead and chalk out future course of operations. It is the determination of a course of action to achieve a desired result (Kulkarni, 1985:187). Planning is a method or technique of looking ahead a constructive reviewing of future needs so that present actions can be adjusted in view of the established goals, George R. Terry.

Planning is done for the specified period i.e. planning covers a period. As per period covered by planning it is divided into two types:

a) Strategic Long-Range Planning

Long range planning covers the time horizon of 5 to 10 years. It is a top management function in which organization’s purpose, mission and overall objectives and policies

are developed to position the organization advantageously in its operating environment. It is an important for present competitive and industrial age; long range planning is closely concerned with the concept of the corporation as a long institution.

The main purpose of long range planning is:

1. To implement capital plan.
2. To keep enterprise in strong position.
3. To be alert toward new techniques.
4. For focusing long-term opportunities.

b) Tactical Short-Range planning

Generally short term planning is used for short period. It is for the period of one year. The short term planning is selected to conform to fiscal quarter or year. Because of the practical need for comforting plans to accounting periods and some what arbitrary limitations of the long range it is usually based on the prevailing benefits that the degree of uncertainty over long period makes planning of questionable value. Short term planning is used by management for short period

The main purpose of tactical planning is:

1. To acquire and facilitate resource, personnel, and raw material.
2. To control cost through planned acquisition and avoid higher cost purchasing.
3. To create new opportunities through assessing the environment and evaluating resources.
4. To avoid problems related to red tape.

Control:-

Control refers to measurement and correction of performance to achieve the goals of a new venture. It is based on feedback.

Financial Control: Entrepreneurs must ensure proper allocation and utilization of financial resources. This is needed to control costs and minimize wastage.

Production Control: Entrepreneurs must achieve proper combination of inputs for production. Quality control should be ensured. Supervision should be effective. Efficiency should be improved.

Management Control: Entrepreneurs must ensure management control in the new venture. They should make key decision themselves (Agrawal, 2002:27).

Profit planning

Profit planning is the heart of management. Without proper planning of profit it will not just happen. So every enterprise should systematically plan for profits in proper way. Various function budgets are the basic tools for proper planning of profit and control over them, profit planning in fact is a managerial techniques and profit plan is such written plan, in which all aspects of business operations with respect to a definite future period are included. It is a formal statement of policy, plan, objective and goal established by the top management in respect of some future period. It is a predetermined detailed plan of action developed and distributed as an audit to current operations and as a partial basis for the subsequent evaluation of performance. Thus, we can say that profit planning is a total which may be used by the management in planning the future course of action and controlling the actual performance (Gupta, 1992:521).

When the management plans for profit for a certain period of time, it is called profit plan. Profit plan is define as, An estimation and predetermination of revenue and expressed that estimates how much income sill be generated and how it would be spent in order to meet investment and profit requirement. In the case of institutional operations it presents a plan for spending income in a manner that does not result in loss. It represents an overall plan of operations, covers a definite period of time and formulates the planning decision of management.

Profit planning is a detailed plan of action during a period of one year or less. Profit planning helps a firm's financial manager to regulate flow of funds which is primary concern, Pandey.

Fremgen say that, "Profit plan is a short financial plan. It is an action plan to guide managers in achieving the objectives of a firm. A profit plan is a comprehensive and coordinate plan resource of an enterprise for some specific period in future (Fremgen, 19761:44).

Since profit plan is flexible and depends upon the size of the firm, So that the formats and rules regarding profit plan also varies according to the nature of business organization. Profit plan is prepared with in the environment of relevant variables and strength and weakness. Organizational broad objectives are defined and there specified in particular goals. Basic strategy and communicated to the line and staff managers.

Generally two types of profit plans are generated, for long term objectives strategic plans and short term objectives tactical plans are developed. The type of Profit plan depended upon the nature of business entity.

In summary profit planning means the developing of objectives, goals, and moving and organization efficiently to achieve the objectives and goals.

Profit Planning and Control

The foundation of Profit planning and control is that management must have confidence in its ability to establish realistic objectives and to devise efficient strategies to attain these objectives. The market theory argues very little for the concept of profit planning and control. There are conceptual or philosophical disagreements in both business agreements to the role of management in both business and non business entities. A brief look at the extreme positions in this conceptual disagreement many add to our insights. One extreme pole has been labeled the market theory at the opposite end of the spectrum is the planning and control theory (Welsch, et.all, 1999:7).

Profit planning in fact is a managerial techniques and a profit plan is such a written plan, in which all aspects of business operation with respect to definite future period are included. It is a formal statement of policy, plan, objective, and goal established by the top management in respect of some future period. Profit planning is a predetermined detailed plan of action developed and distributed as a guide to current operations and as a basis for a subsequent evaluation of performance (Gupta, 1992:521).

The PPC model involves (Lynch and Williamson, 1989:30).

1. Development and application of broad and long-range objectives of the enterprise.
2. Specification of enterprise goals.
3. Specification of a tactical short-range profit plan detailed by assigned responsibilities (division, department, projects).
4. Development of a strategic long-range profit plan in broad terms.
5. Establishment of a system of periodic performance report detailed by assigned responsibilities.
6. Development of follow-up procedures.

The broad concept of profit planning and control in few words as, The PPC means the development of objectives and goals and moving organization efficiently to achieve the objectives and goals (Welsch, et.all, 1992:30).

2.1.2 Planning Vs Forecasting

The distinction between forecasting and planning is not an easy one. According to Webster, "To plan ahead as the leading deification for forecast". 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.

Forecasting is the pre-requisite for planning; a forecast is not a plant. It is statements of expected future conditions about a particular subject based on one or more assumption. Management may change the forecast. It is only, an input of a comprehensive plan. Decisions that are based on the forecast, other inputs of a comprehensive plan. Decision that are based on the forecast, other inputs and management judgments about such related item as sales volume, price, sale efforts production and financing. A forecasting is conditional but planning is not conditional. Forecasts are the statement of expected future conditions definitive statements of what actually happen are potently impossible. Expectation depends upon the assumptions made. If the assumptions are plausible the forecast has a better chance of being useful (Gupta, 1992:81).

Forecasting is the pre-requisite of planning. Forecasts are the statements of expected future conditions. It is an attempt to find the most provable course of events or at best a range of probabilities(Kuchhal, 1976:67).

Therefore, a forecasting is not a plan; rather it is a statement and or a quantified assessment of future condition about a particular subject based on one or more explicit assumptions. A forecast should always state the assumption, which it is based. A forecast should be viewed as only one input into development of plan.

2.1.3 Budgeting: As a Tool of Profit Planning

Profit does not emerge of their own record. They have to be influenced by management. The quality of management is often judged by the size of profit figures at the end of the financial year. For its own protection in the interests of the business, management must plan to make profit and the accepted basis for this is the annual budget properly supported by the long term planning and operational planning. Budgeting is an expression of a firm's plan in financial form for a period of time in future; it is an estimate of future needs calculated for a definition period. It anticipates income for a given period and costs as well as expresses of obtaining this income are set or limited with in the ideas of earning a desired profit or an aid in controlling losses. A business budget is a plan covering all phases of policies, plans, objectives and goals laid down in advance by top management for the undertaking as a whole and every subdivision there of.

Budget, as a tool of planning and control is closely related to the broader system of planning and control in an organization. Planning involves the specification of the basic objectives that will guide it. In operational terms, it involves the step of setting objectives, specifying goals, formulating strategies and expressing budgets. A budget is a comprehensive and coordinated plan expressed in financial terms for the operations and resources of an enterprise for some specified period in future” (Khan and Jain,1993:158).

A budget is a written plan for the future. The managers of firms, which use budgets, are forced to plan ahead. Thus, these firms tend to do well because they anticipate problem before they occur. Firms with out financial goals may find it difficult to

make proper decisions. A budget helps a firm to control its cost by setting guidelines for spending money for unneeded items because they know at all cost will be compared to the budget. If costs exceed the budgeted cost and explanation will be required. Frequently exceeding the budget may even be ground for dismissal. One of the primary objects of an annual budget is to measure the profit expectation for the next financial year with due regard to all circumstances that can influence the trading prospects. A budget helps to motivate employees help in setting up budget. The master budget consists of many functional budgets. These budgets include a sales budget, a production budget, a purchase budget, an expenses budget, an equipment purchase budget, and a cash budget. Once all of those budgets are complete, the master budget for the entire firm is prepared. A budget is a quantitative expression of a plan of action and an aid to coordination and implementation. Budgets may be formulated for the organization as a whole or for any sub units. Budgeting includes sales, production, distribution and financial aspect of an organization. Budget programs are designed to carryout a variety of functions planning, performance evaluation, coordinating activities, implementing plans, communicating, motivating and authorizing actions (Horn Green, 1976:123).

Characteristics of good budgeting:

1. A good budgeting system should involve persons at different levels. While preparing the budgets, the subordinates should not feel it as only imposition on them.
2. There should be a proper fixation of authority and responsibility. The delegation of authority should be done in proper way.
3. The targets of the budget should be realistic. If the targets are difficult to be achieved, they will not enthuse the persons concerned.
4. A good system of accounting is also essential to make the budgeting useful.
5. The budgeting system should have a wholehearted support of the top management.
6. The employees should be imparted budgeting education. There should be meeting and discussions and targets should be explained to employees concerned.

2.1.4 Objectives of Budgeting:

The main purpose of budgeting is to ensure the planned profit the enterprise. So, it is considered as a tax of planning and controlling the profit. One of the primary objectives of an annual budgets is to measure the profit expectations for the next financial year with due regard to all the circumstance favorable and unfavorable that can influence the trading prospect.

The main objectives of budgeting may be summarized as under:

1. To forecast and to plan for the future to avoid losses and to maximized profits, i.e. to help planning.
2. To communicate expectations to all concerned with the management of the firm so that they are understand, supported and implemented.
3. To define objectives for all the executive's communications and plan to state the firm's expectations in clear formal terms to avoid confusion and to faculties their attainability.
4. To bring about coordination between different function of an enterprise i.e. to help in coordination.
5. To control actual actions by ensuring that actual are in true with targets, i.e. to help in controlling.

2.1.5 Sales Budget or Sales Plan:

Preparation of sales budget is the starting point of profit plan. All the budget planning begins with the forecast of sales. Using the information supplied by the sales person, Lynch. Sales plan is the starting point in the preparation of the comprehensive profit planning and control. All the other plans and budget is dependent both in units and `amounts of the sales revenue or sales volume. The preparation of sales plan is based upon the sales forecast. A variety of methods are used to forecast the sales for the planning period.

The sales planning process is necessary part of PPC because (a) It provides for the basic management decisions about marketing, and (b) based on these decisions, it is an organized approach for developing a comprehensive sales plan. If the sales plan is not realistic, most if not all of the other parts of the overall profit plan also are not

realistic. Therefore, if the management believes that a realistic sales plan cannot be developed; there is little justification for PPC (Welsch, et.al, 1992:172).

A comprehensive sales plan includes two separate, but related, plans the strategic and the tactical sales plan. A comprehensive sales plan incorporates such management decisions as objectives, goals, strategies and premises. These translate in to planning decisions about planned volume (units or jobs) of goals and services, prices, promotion and selling efforts (Welsch, et.al, 1992:172).

The primary purposes of a sales plan are:

- To reduce uncertainty about future revenues.
- To incorporate management judgments and decisions into the planning process (e.g. in the marketing plans).
- To provide necessary information for developing other elements of comprehensive profit plan.
- To facilitate management's control of sales activities.

Sales Planning Vs Sales Forecasting:

Sales planning and forecasting often are confused, "Although related, they have distinctly different purposes. A forecast is not a plan; rather it is a statement and a quantified assessment of future conditions about a particular subject based on one or more explicit assumptions. A forecast should be viewed as only one input into the development of a sales plan. The management 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 as sales volume, prices, sales efforts, production and financing.

A sales forecast is converted to a sales plan when management has brought to bear management judgment, planned strategies, commitments of resources and the managerial commitment to aggressive actions to attain the sale goals. In contrast, sales forecasting is a technical staff function. For example, Tennessee Gas Transmission in its 1986 brochure, "Tradition and Tomorrow," stated.

It is important to make distinction between sales planning and forecasting because they are often confused. The preparation of sales plan is based upon the sales forecast. Sales forecasting is known as prediction, estimation and expectation for future related to sales. “Sales planning and forecasting often are confused. Although related, they have distinctly different purposes. A forecast is not a plan; rather it is a statement and/or a quantified assessment of future conditions about a particular subject (e.g. sales revenue) based on one or more explicit assumptions. A forecast should always state the assumptions 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 as sales volume, prices, sales efforts, production, and financing.

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Strategic and Tactical Sales Plan

A comprehensive sales plan includes both strategic long-term and tactical short-term sales plan. Both sales plans must be prepared in comprehensive profit plan. The usual case is a five or ten year strategic sales plan and one year tactical sales plan. Many sales and product decisions commit a large amount of resources involving a life span of many years.

Sometimes it may be helpful to view the development of the long-range and short-range sales plan as separate activities. However, they must be integrated because the short-rang sales plan dovetail with the strategic long-range plan in all major respects.

Strategic Sales Plan:

Strategic sales plan is also known as long-range sales plan. It covers 5 to 10 years. A company may schedule completion of the strategic long-term sales plan as one of the first steps in the overall planning process. Long-term sales plans usually involve in depth analyses of future market potentials, which may be built up from a basic foundation such as population changes, state of the economy, industry projections and finally company objectives. Long-term managerial strategies would affect such areas as long-term pricing policy, development of new products and innovations of present products, new directions in marketing efforts, expansion or changes in distribution channels, and cost patterns. The influence of managerial strategy decisions is explicitly brought to bear on the long-term sales plan primarily on a judgmental basis.

Tactical Sales plan:

Tactical sales plan is also called short-range sales plan. It is prepared for one year or less than one year. Short-range sales plan or tactical sales plan is prepared to plan sales for twelve-months, into the future detailing the plan initially by quarters and by months for first quarter. At the end of each months or quarter throughout the year, the sales plan is restudied and revised by adding a period in the future and by dropping the period just ended. Thus, tactical sales plan are usually subject to review and revision on a quarterly basis. The short-term sales plan includes a detail plan for each major product and for groupings of minor products.

A Short-range sales plan should include considerable detail. To establish policy about detail in the short-range sales plan, the main question is use of the results. First, the major consideration is to provide detail by responsibility for planning and control purposes. Second, the short-range sales plan must provide detail needed for completing the profit plan components by other functional managers. Third, the amount of detail also depends on the type of industry, size of the firm, availability of resources and use of the results by management (Welsch, et.al., 1992:173).

Table 2.1
Components of Comprehensive Sales Plan

Component	Strategic Plan	Tactical Plan
1. Management Policies	Broad and general	Detailed and Specific for the year
2. Marketing Plan (Sales and Services revenues)	Annual amounts; major groups.	Detailed; by product and responsibility
3. Advertising and promotion Plan	General; by year	Detailed and specific for the year.
4. Distribution (Selling expense Plan)	Total fixed and total variable expenses; by year.	Fixed and variable expenses; by month and by responsibility.

Developing a Comprehensive sales Plan:

Welsch, Hilton and Gordon have mentioned the following steps in developing a comprehensive sales plan (Welsch, et. al., 1992:177-186).

Step 1- Develop management Guidelines for sales planning

All management participants in the sales planning process should be provided with specific management guidelines to be followed in sales planning. Fundamentally, these guidelines should specify sales planning responsibilities. The purpose of these guidelines is to attain coordination and uniformity in the sales planning process. The guidelines should emphasize enterprise objectives, goals, and strategies. The guidelines also should direct attention to such areas as product emphasis, general pricing policies, major market thrusts, marketing strategies, and competitive position.

Step 2- Prepare Sales Forecasts

One or more sales forecasts should be prepared. Each separate forecast should use different assumptions, which should be clearly explained in the forecast. The management guidelines (step 1 above) should provide the broad assumptions. The forecast should include strategic and tactical forecasts that are consistent with the time dimensions used in the comprehensive profit plans.

Forecasting methods are broadly classified as (a) quantitative, (b) technological, and (c) judgmental. These forecasting methods include time-series smoothing, decomposition for time series, advanced time series, simple regression, multiple regression, and modeling.

Step 3- Assemble Other Relevant Data

In addition to steps 1 and 2, all other information relevant to developing a realistic sales plan should be collected and evaluated. This information should relate to both constraints and opportunities. The primary constraints that should be evaluated are:

1. Manufacturing capacity.
2. Sources of raw materials and supplies, or goods for resale.
3. Availability of key people and a labor force.
4. Capital availability.
5. Availability of alternative distribution channels

Opportunities are seldom given adequate attention during the sales planning process. Sales planning opportunities include redesign of old products and introduction of new products, changes in sales territories, pricing innovations (e.g. customer bonuses), attractive packaging, advertising innovation, and new marketing strategies. In all instances, the effects of expected competitors should be evaluated.

Step 4- Develop the Strategic and Tactical Sales Plans

Using the information provided in steps 1, 2, and 3; the management develops a comprehensive sales plan. To do this, the planning process must be structured to maximize (a) motivation of sales force and (b) realism in the sales plan. This process should recognize the importance of management goals- both strategic and tactical. For both the behavioral motivation and judgmental imperatives, the process should involve participation by the sales managers from the bottom up to the fullest extent possible. When it is feasible, salespersons who deal directly with customers should participate because they are often able to obtain relevant information from the customers about their future purchasing plans and competitive pressures. This means that all participants should be provided information relevant to their participative role that was generated in steps 1, 2, and 3. Extensive participation by middle and lower

level managers is more appropriate and useful in developing the tactical (short-term) sales plan than in developing the strategic (long-term) term sales plan. The latter should primarily involve top-management participation.

An important part of a participative approach to develop a tactical sales plan is the opportunity to present, explain, defend and respond to questions about a proposed sales plan for each major practicing group. One scenario would be for the manager of each sales region, in conformity with a preplanning schedule, to present a recommended regional sales plan to a sales planning group headed by the top sales executives. The give and take in such sessions, if unbiased and depersonalized, is invaluable in making sound managerial judgments. Later, the top sales executive would make a similar presentation of the proposed company sales plan to the top executive committee. The latter committee would then, after any changes, recommend it to the president for approval.

The process of developing a realistic sales plan should be unique to each company because of the company's characteristics- its products, its distribution channels, and the competence of its marketing group. Four different participative approaches widely used are characterized as follows:

- a. Sales force composite (maximum participation)
- b. Sales division managers composite (participation limited to managers only)
- c. Executive decision (participation limited to top management)
- d. Statistical approaches (technical specialists plus limited participation)

Sales Force Composite: This approach emphasizes the judgments and expertise of the sales force because it provides for a series of evaluations and approvals. A high level of participation, from the bottom up, is emphasized. The approach is limited primarily to tactical short-term sales planning. This approach has many variations. It is used more frequently by small companies and by those having a small number of products.

Sales division Managers Composite: This approach emphasizes the responsibilities of the district or product sales managers rather than the individual sales persons. This approach is commonly used for short-term sales planning. It operates in a manner

almost except identical with that outlined above for the sales force composite approach except that the initial sales estimates are prepared by the sales managers rather than by the sales persons.

Executive Decision: Some companies find it inappropriate to send representatives into the field or to ask the sales force to make initial sales estimates. This is especially so when sales persons are not trained to perform this function or when the market situation is complex. Therefore, it is not uncommon for sales planning to be essentially completed by the higher managers. This approach has numerous procedural variations.

Statistical Approaches: A forecasting method is sometimes adapted for direct use as the initial step in developing a sales plan. Use of any statistical method for this narrow purpose requires a technically trained person. Each plant manager may decide to use one or more of them in developing the profit plans for the plant. Starting with the statistical forecast of sales, the plant managers develop their own profit plan.

Step 5- Secure Managerial Commitment to Attain the Goals in the Comprehensive Sales Plan

Top management must be fully committed to attaining the sales goals that are specified in the approved sales plan. This commitment requires full communication to the sales manager of the goals, approved marketing plan, and strategies by sales responsibilities. The commitment must be strong and ever present in day-to-day operations.

2.1.6 Production Budget or Plan

When the sales plan is completed the next step in building the profit plan is to develop a production plan. The production plan involves determining the number of units of each product that must be manufactured to meet planned sales and maintain the planned inventory levels of finished goods. Planning production requirements necessitates another decision about input that is the management decision about inventory levels of finished goods that are to be planned (Welsch, et.all., 1992:136).

Production plan is based on estimated sales. Production must be planned follow sufficient time to manufacture the products before the estimated date of sales. It is prepared in the basis of

- (i) Sales budget
- (ii) plant capacity
- (iii) opening inventory of finished goods and
- (iv) policy of the management. Production budget is divided into monthly budget for the purpose of production planning,

In production planning the following factors are determined

- (i) economic batch quality
- (ii) delivery schedules
- (iii) seasonal conditions
- (iv) optimum utilization of plant capacity
- (v) optimum utilization of labor with out much overtime and idle time
- (vi) reduction of bottlenecks such as shortage of man, material, etc
- (vii) work in progress.

2.1.7. Material Purchase Budget

The purchase budget specific the estimated quantities to be purchased and the estimated cost for each raw material and the required delivery dates. The material and part budget provides the purchasing manager with the data responsibility for preparing a detail plan of purpose. It is direct responsibility of purchasing manager to be knowledge about the market for items that must be purchased, and to plan the unit cost for use in the purchased and amount to purchase materials. The purchase budget is directly concerned with the timing of actual receipt of raw material rather than with the timing of usage or purchase orders. The purchase manager orderly maintains the time of purchase materials and inventory requirement by material.

2.1.8. Labour Budget

Planning labour cost involves major complex problem areas.

- (a) Personal needs,
- (b) Recruitment,

- (c) Training,
- (d) Job description and evaluation,
- (e) Performance measurement,
- (f) Union negotiations, and
- (g) Wage and salary administration. A comprehensive profit-planning program would incorporate appropriate approaches application to each problem, but it direct careful consideration to them and aids in placing them in perspective. Effective planning of long and short labour cost will benefit both the company and it's complies.

2.1.9. Cash Budget

Cash budget generally indicates the cash outflow and inflow. The key point in investment analysis is to focus. Exclusively on difference in expected future cash flows are treated the same whether they arise from operations, purchase or sale of equipment or investment in or recovery of working capital. The opportunity cost and the time value of money are tied to cash flowing in or out of the organization not to the source of the cash (Khan and Jain, 1993:175).

Cash budgets are necessary in business operation. Payments must be made in cash, and receipts are deposited in the case amount. Cash is a “none earning” assets in the sense that, although it is needed to pay for labour and materials, to buy fixed assets, to pay taxes, to service departments and so on. Cash itself earns no interest. Thus, the goal of cash budget is to reduce cash holdings to the minimum necessary to conduct business.

2.1.10. Accounting policy of Nepal Telecom

2.1.10.1 Basis preparation of financial statement

The financial statements are prepared on the historical cost convention and in accordance with international accounting standard.

The company follows accrual system of accounting in the preparation of account except where otherwise stated (Dahal & Mishra., 2007:145).

2.1.10.2 Revenue Accounting

Revenue

1. Revenue is recognized on accrual basis.
2. Operating revenue represents the value of services rendered, sale of terminal equipment & its accessories and other income directly related to the telecommunication business.
3. Total revenue of the organization is inclusive of telephone calls made through service lines, within limit, and minimum rental charges on non-service lines provided as employee benefit, as the case may be, depending upon the facility provided to various service and non-service lines as per the rules of the company.
4. Penal interest is accounted on cash basis and shown under operating income.
5. Non-operating revenue includes interest, dividend, proceed from sale of assets and scrape and other income which are not directly related to telecommunication business.
6. Dividends from investment in shares are recognized when right to receive payment is established and classified as non-operating income.
7. Interest income is recognized on accrual basis however interest from staff loan is recognized on cash basis.
8. Insurance claims are accounted for as and when admitted by the party concerned.
9. Liquidated damage charged by the company on account of delay in execution of contracts and delay for short supply of materials and services by the contractors and suppliers including contracts for capital assets are taken as revenue income as and when admitted by the concerned party and shown under non-operating income.

Accounting

1. Revenue from service provided shall be accounted on accrual basis and accounted under separate head according to the nature of service provided.
2. Revenue collected against the connection charges shall also be accounted on accrual basis and account for on separate account head 'Telephone connection charges account'. Any connection charges received in advance shall be separately shown and cannot be treated as income for the period. Such amount come under the suitable account head in balance sheet and shown as income in the year the telephone is connected.

3. Collection on deposit shall be accounted for in separate head. Such deposit shall be shown Current Liabilities in Balance Sheet.
4. Collection of panel interest and fine shall be accounted for in cash basis. Such recovery shall be shown under separate account head 'Penal Interest & Fine Account.'
5. Provision shall be made for all debts (except inter-administration and government dues) outstanding for more than one year. Specific provision shall be made wherever doubtful debts are identified.
6. In case of debtor whose services are permanently disconnected, dues shall be shown after adjusting the deposit.
7. In case the line temporarily disconnected, minimum rent for three months shall be recognized and after three months rental shall not taken income. If the line is not reconnected such revenue booked for three months shall be reversed.
8. Bad Debt shall be written off with the approval of the competent authority and after security of proper case.
9. Revenue from sale of Telephone sets shall be shown under separate account head 'Sale of Telephone Set Account'
10. Revenue from sale of fixed assets shall be shown under separate head 'Loss/Gain on Sale of Fixed Assets'.
11. Interest from bank deposit shall be shown under head in gross amount before 'TDS. Such amount is debited to separate account head 'TDS Receivable' and the amounts lying under this head are adjusted on payment of income tax after final assessment.
12. Deposit (of Rs.75000.00) collected from PCO operators shall be shown under separate account head 'Deposit form PCO Operators'.
13. Excess amount collected under OYT scheme shall be shown as income under separate account head.
14. Other charges collected against transfer of telephone, transfer of name shall be shown under Miscellaneous Income head.
15. Insurance claim shall be recognized as revenue only after loss has been admitted by authority concerned.
16. Any income other then mentioned above shall be accounted under head of Miscellaneous Income.

17. Any commission (including fixed monthly commission) paid to PCO operators be treated as expense instead of deducting from revenue.
18. Any other discount shall be treated as expense and shall not be deducted from revenue.
19. All the income of company will be divided into Operating Income and Non-operating income as follows:

Operating Income consists of:

- Income from local calls, STD, International calls
- Income from Inter-administration
- Income from Telegraph
- Income from Telex
- Income from Leased Circuits
- Income from Tele-Fax
- Income from sale of telephone sets of other terminal equipment and accessories.
- Income from other services, which are directly linked to the business of company.
- Penal Interest collected from customer.

Non-Operating Income consists of:

- Interest income and income from other Investment
- Income from Intelsat
- Gain in foreign exchange
- Miscellaneous Income
- Liquidated damage charged to the suppliers
- Insurance claim received

2.1.10.3 Foreign Currency Transactions

1. Transactions denominated in Foreign Currency are recorded in the exchange rate prevailing at the time of the transaction.
2. Any income or expenses on account of exchange difference between the date of transaction and settlement or on translation is recognized in the profit and loss

- account as income or expenses except in case where relate to the acquisition of fixed assets in case they are adjusted to the cost of asset.
3. Monetary items denominated in foreign currency at the year-end translated at the rate prevailing on the balance sheet date.
 4. Nepal Telecom has foreign currency transaction on regular basis on day to day of its operation. Difficulties are being experienced on recording these transactions due to frequent fluctuation in exchange rate.
 5. All the transaction in foreign currency should be recorded by applying exchange rate prevailing on the date of transaction. Any difference arising on exchange rate between exchange rates should be debited / credited to 'Exchange Fluctuation Account'.
 6. Since the exchange rate keeps on fluctuating each and every day it will be difficult to record the exchange rate of all days. So for convenience, exchange rate for first working day shall be applied to record all the transactions falling with in that month. However, such difficulty would not arise in case of exchange rate for settlement date as same is recorded at exchange rate prevailing on the date of payments/receipt.
 7. In case of purchase of goods, transaction date should be the date on which goods are cleared from custom. In practice, such date will be date on which goods receipt report was prepared. Such transactions are recorded by applying the exchange rate prevailing on the first working day of the month in which the receipt report was prepared. These transactions should be recorded in both foreign currency and Nepalese currency in separate column. In such case settlement date will be the date on which payment was made to the creditors.
 8. In case of income, transaction date should be the date for which invoice was raised. In practice, such transactions are recorded at exchange rate prevailing on the first working day of the same in which invoice was raised. Settlement date for such cases will be the date on which the amount was realized. In all the cases transactions should be recorded in both Nepalese and foreign currency in separate column.
 9. The different arising in between transaction date and settlement date should be debited / credited to Exchange Fluctuation Account.
 10. All the receivable received in foreign currency shall be accounted at buying rate of the transaction date.

11. All the payment made in foreign currency shall be accounted at the selling rate prevailing on the date of payment except the payment made out of own foreign currency which shall be accounted for on buying rate prevailing on the payment date.
12. All assets denominated in foreign currency shall be valued at buying rate prevailing on balance sheet date. All liabilities denominated in foreign currency shall be valued at selling rate of balance sheet date (*Dahal and Mishr, 2007: 159*).

2.2 Review of Previous Research Work:

This part is a descriptive presentation of the literature work done by the various authors and previous researcher. The main objective of this part is to analyze the previous research study. The purpose of literature review is thus, to find out what research studies have been conducted in one's chosen field of study. And what remains to be done. It provides the foundation for developing a comprehensive theoretical framework from which hypothesis can be developed for testing. The literature survey also minimizes the risk of pursuing the dead ends in research.

So far as known to the researcher, studies on effectiveness of sales planning and budgeting are very few. Numerous studies have been made in the area of profit planning and control in manufacturing enterprises but to explain the detail study on sales budgeting has not been conducted by most of them. Some of the notable literatures relevant to the study are reviewed in this study to identify the relevance of the present study. Some reviews are as below:

Prasad (2002) has conducted a research on "Profit Planning in Nepal Telecommunication Corporation". This research work was to Central Department of Management, T.U., Kirtipur.

His Main Objectives:

- To analyze the various functional budgets those are prepared in NTC.
- To analyze the variance between budgeted and actual achievement of the NTC.

- To sketch the trend of profit planning in NTC.
- To draw picture of capacity utilization of NTC.
- To examine the present planning premises adopted by NTC on the basis of budgeting.
- To suggest some remedies for improving profit planning system.

His Major findings:

- The sales of NTC are increasing every year, but the increasing rate is not fixed. Actual sales lines are always below than budgeted sales but actual sales revenue are always high than budgeted. But in FY 2062/63 actual sales revenue is low than budgeted sales revenue.
- The balance sheet of NTC shows huge amount of cash bank balance (requiring) lying idle and this indicates some deficiency of the corporation to utilize its liquid assets.
- Actual production lines are of the nature of high variability than budgeted production line.
- NTC prepares both long-range and short-range sales budget, but these are not prepares in detail. Also there is a system of keeping management information system (MIS) report in this corporation.
- The cost-volume profit analysis in NTC shows that BEP (Break even point) is satisfactory.
- Working capital ratios are going in increasing trend and net working capital ratios are going increasing trend which shows that NTC has earned more profit. Also the assets turn over ratio are moving to increasing trend, which is good sign for NTC.

His Major recommendations:

- NTC has no practice of allocating overhead costs into different headlines which makes problem in controlling costs. So NTC should allocate overhead costs into appropriate heading. Actual overhead of NTC crosses the budget limit, so for the effective operating of the corporation, budget discipline should be established.
- The corporation liquidity position is satisfactory. However, it is important for this corporation to behave like entrepreneur to make the best use of liquidity funds. It

has no estimate of how much fund is needed for immediate use and all the unused funds should be invested in marketable securities to generate some income. If idle fund of working capital is not invested, NTC will sacrifice some amount.

- To increase the net profit of NTC there should be control in the operating as well as non-operating expenses. There is increasing some unnecessary and wasteful expenses which are bad debts written off, repair and maintenance expenses, management and committee fees etc. There is possibility to bring down those unproductive expenses if the management and staff of NTC are to be more careful in cost factor.
- The corporation's staffs are the main brain to utilize the corporation's assets more effectively and efficiently through which NTC can increase its profit earning capacity.
- The corporation must prepare the highly, qualified, dynamic and energetic personnel.
- There should be proper coordination between various directorate of the corporation in regard of budget formation and implementation of the budget.
- Profit plan manual should be communicated from the top to lower level and all the personnel of the corporation must get the chance of participating in decision making and planning process.

Mishra (2003) has carried out an investigation topic "Profit planning and control in manufacturing company" the basic objective of his research is to examine the present comprehensive profit planning system applied by Nepal Lever Limited. Overall objective is to guide and provide future direction and prospectus to the organization.

His specific objectives:-

- To examine the variance between the actual and the budgeted production.
- To measure the effectiveness of the organization in terms of capacity utilization.
- To analyze the financial performance of Nepal Lever Limited.
- To highlight the P.P.C. system adapted by various departments of Nepal Lever Limited.

- To forecast future production and sales of Nepal Lever Limited and to recommend and suggest for improving the profit planning.

His major findings:

- Specific goals and strategy for the organization are set up by the top-level executives and the management is totally governed by the Hindusthan Lever Limited.
- The organization is licensed to produce 10 varieties of product but it is only producing and products at present.
- The co. has no proper practice of segregation of costs into fixed, variable and controllable and uncontrollable costs. Even though F&L is produced at separate plant but it is not separately in record.
- Authorities and responsibilities are not clearly defined among various departmental working managers. Role conflict and lack of co-ordination among them is paramount.
- In term of capacity utilization only 36% of installed capacity is utilized by fair and lovely.
- Application of profit plan is not realistic. Everything is prepared on ad-hoc manner.
- Nepal Lever Limited faces a major problem in utilization of raw material. A major portion of raw material is imported from other countries; very less portion of Nepalese raw material is consumed by the organization.

Sah (2005) has conducted a research on the topic “Impact of Budgeting on Profitability (A Case Study Of Nepal Telecom Ltd.)” This dissertation was submitted to the Central Department of Management, Tribhuvan University.

His main objectives:

- To examine the variance between target and actual sales, production, overhead and profit.
- To highlight the budgeting activities adopted by NT.
- To assess the financial performance of NT by using BEP analysis and ratio analysis.

- To forecast future sales and profit trend of NT.
- To acknowledge about the NT's present condition, its services to the public and its contribution to the economic development of Nepal.
- To recommend effective suggestions, based upon the findings, to the organization.

His major findings:

- Specific goals and strategy for the organization are set up by the top-level executive and the management is totally governed by HMG.
- Application of profit planning is not realistic or systematic. Plans are prepared on "ad hoc basis".
- NT has the practice of preparing short-range sales budget but long range sales budget is not prepared in detail.
- The actual sales achievement in units is below than budgeted sales an average it is about 84.18%. But the achievement in Rs. is above than budgeted sales. On an average it is 104.77%. The correlation between target and actual sales is positive. It reveals that the corporation is able to meet its goal as specified in annual program.
- Although the company has set the sales target, it has no practice of preparing production budget. Sales budget is treated as production budget.
- The correlation between target and actual production is positive. That means the actual production's relationship with budgeted production is positive.
- The regression equation shows the increasing trend of actual production and the straight line trend shows the positive figure for future.
- The corporation has no proper practice of segregation of cost in to fixed and variable and controllable and uncontrollable cost. There is no practice of identifying semivariable cost. It create problem to analyze its expenses properly. etc.

His recommendations:

- Budgeted sales and budgeted productions are two different aspects of profit plan. But in NT budgeted sales are considered as budgeted production. So it should draw these two plans separately.
- Sales budget should make on the realistic ground. Because all other budgets depends upon sales budgets. The NT's management should look carefully into

the basis of setting target for sales and achieving that target meaningfully. Thus, the realistic long range, medium-range, and short-range forecast should be made.

- NT should develop its overhead budget in a well-classified and scientific way. All indirect expenses related with production of telephone line generation should be included in direct overhead or in manufacturing overhead and similarly administration and selling and distribution overhead should be classified systematically.
- It is strongly suggested to establish a separate costing department as well as a separate costing system so as to segregate cost into fixed, variable, controllable, uncontrollable, direct, indirect etc. This will help to make the control system very effective and dynamic. On the other hand, it will help to reduce unnecessarily increasing cost.
- Cost-volume-profit analysis should be strictly considered while formulating profit plan. As BEP is increasing each year, it is not good symptom for the corporation. The management should try to minimize the BEP as far as possible.
- Variance analysis should be effective. Variance should be classified as favorable and unfavorable and causes of unfavorable variance be diagnosed and identified timely. - Controllable unfavorable variance should be controlled in time and respective officials should be made responsible for any deficiency.
- NT should be very well aware of its strengths and weakness. The monopoly of NTYC in telecom sectors has ended. In this competitive and complex situation many other industries are found to develop in same sector. Hence it should be aware of strategies of other companies and should develop its own policy in a systematic way towards comprehensive profit planning. Etc

Bhatt (2006) has conducted a research on “Revenue planning and cash management of Public Utility in Nepal (A case study of Nepal Telecom)”, was submitted to office of the Dean, faculty of Management Tribhuvan University.

The main objectives of the study are as follows:

- To analyze the gap between budgeted and actual revenue and its trend.

- To examine cash collection and disbursement.
- To review cash flow from operating, financial and investing activities.
- To have information, control and security over cash balances and payment system.

His major findings:

- The lack of accurate and proper sales forecast is one of the important contains that affect the financial performance of the company. In Nepal Telecom, there is consistency between planned sales line and actual sales. The analysis of distributed sales line and revenue shows that the achievement is highly consistent. So, if the company forecasts the expected sales accurately, it can manage the various activities accordingly.
- Sales budget shoes ISD sector's sales revenue is main sources of Nepal Telecom, which contributes more than 40% in average.
- Because of high demand of telephone line there exist small gap between actual production and actual sales in lines. The local calls are increasing at this stage but the revenue per line is decreasing. It is due to bad governance and slow economic growth. Correlation and coefficient value shows that there are positive correlations between budgeted and actual sales units and Rs, by the regression line, it is clear that future revenue will increase with compare to budgeted if other things remaining same. Etc.

His recommendations towards the corporation are:

- Nepal Telecom should be made effective plan and programmed and it should be analysis on the basis of company's ability. It is because; the company made maximum pay on ad hoc basis. So, system of proper sales forecast and budgeting needs to be adopted and followed.
- Revenue per line decline is due to bad governance and slow economic growth, and not due to increase of lines. Thus, Nepal Telecom should followed management by objectives techniques to maintain co-ordination cooperation and self-motivating among departments and employees.

- Installation capacity of Nepal Telecom is not fully utilized but the demand of telephone line is higher. If installed capacity is utilized, then revenue will be increased and operating expenses will be gone down.
- Nepal Telecom is paying a huge amount as interest on long term loan, which is not good for company. So it should emphasized internal financing to minimize such burden. A Nepal telecommunication corporation was converted to company act. And, to reduce burden of paying interest, the company must restructure its capital structure and for this it can issue the shares and can refund the debt.
- Nepal Telecom should try to reduce overdue amount of receivables. Nepal Telecom should provide incentive to staff to encourage them for collection of overdue amount of receivable and it should be establish separate department for collection old debt (defaulters) that will help to monitor collection revenue. In revenue collection any kind of pressure (especially political), nepotism and biases should strictly be discouraged.

Pokherel (2009) has conducted a research on “Sales Planning in Nepalese Public Enterprise (A case study of Dairy Development Corporation)”, was submitted to office of the Dean, faculty of Management Tribhuvan University. The basic objective of his research is to raise the practice of sales planning system and it’s effectiveness, applied by DDC.

His main Objectives:

- To identify the sales planning process of DDC.
- To examine the formulation and implementing procedure of sales plan in DDC.
- To evaluate the variance between budgeted and actual sales of the DDC.
- To examine the effectiveness of sales plan in DDC.
- To suggest and recommend for improvement of the planning system in DDC.

His Major findings:

- In Nepalese manufacturing PEs goal and objectives are written but not adequate and are not properly follow up the development of the enterprise.

- DDC has not been clearly defining its main objectives in annual goals or target for achieving the basic objectives. There is no defined such operational as expansion and contraction of product line, geographic areas, share of market growth of trends etc all the departmental goals and target are fixed in paper but not in action.
- DDC has not followed participatory management, even middle level of management are not participated in policy making. Only top level of management is directly involved in policy making.
- Like in other PEs in Nepal, there is only annual target is supplied by the top management for the major department. There is no details and formal guidelines to the lower level management or departmental manager for the purpose of developing profit plan which also seen is DDC.
- There is neck to neck competition between other emerging dairy product industries and DDC, in the valley and other parts of country as well. So for better sales, advertising should be effective DDC should invest on more advertising strategies.

His Major Recommendations:

1. Now the time has changed, so DDC should be operated in commercial basis. It should revised and make a study of its products and if there is any loss-oriented product, that should be promoted, advertised , if positive result is not obtained then dropped out. DDC should be revising the price of its product.
2. Corporation should develop the profit planning process systematically. There should be effective planning of substantive plan and financial plan to achieve the goals and objectives of the enterprise. it may be impossible without long-term and short term planning.

3. There must be communication, co-ordination and participation of different levels of management as well as other employees in formulation and evaluation of enterprises goal and objectives.
4. Only top level managers should not be involved in decision making, there must be the participation of lower level personnel too. Decision making process is a group effort or an integrated process.
5. The performance evaluation should be established in DDC.
6. Government should not interfere on DDC. Government should give autonomy responsibility and authority to the management of DDC. It is always seen that the board members of corporations are changed with the change in government that should be avoided.
7. DDC should consider demand. Market study while making the plan. It should also consider the price; supply and policies of other private dairies DDC should attract the booth centers and consumers towards its products.
8. The enterprise should define its goal and objectives clearly among the different levels of management. The management should select the goals and objectives on the basis of their needs.
9. The duties and responsibilities of the employees should be defined on a clear-cut way. It would be better that the right person in proper place can perform the work effectively.
10. Monitoring and evaluating system should be scientific, regular and appropriate. Highly interfering policy should be avoided. Punishment and rewarding system must be continuously followed with non-ambiguously according to their performance.
11. For the better planning and budgeting process (Task) persons having adequate practical and theoretical knowledge about budgeting profit planning and

control should be appointed in planning and budgeting section. Training workshops and other programs should be held time to time to provide knowledge about PPC (Especially sales strategies) to the managers and other employees.

12. DDC should cut down the unproductive expenses.

13. DDC should consider the sales plan on the time of planning production.

14. The sales manager should be appointed a well trained, qualified and, having knowledge of market study.

2.3. Research Gap

A brief review of the mentioned dissertations, it is seen that most of the enterprise are not operating effectively. The previous researchers have not applied details concept of budgeting, application of profit planning and control system and also implementation of 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 in corporate the revenue as well as expenses planning of NTC.

CHAPTER - III

RESEARCH METHODOLOGY

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; 2005:89.

3.1 Research Design

Research design is a framework for the researcher in a particular task. The research design of this study is analytical as well as a descriptive approach. The main objectives of study are an examination and evaluation of sales planning procedure of NEPAL TELECOM. The study is closely related with the various functional budgets and other proposed accounting statements as well as actual result over the budget.

3.2 Period Covered

This study covers a time period of 5 years from FY 2061/062 to 2065/066 (2005/06 to 2009/010), to analyze the strategic plan and tactical plan is analyzed on the basis of 1 year i.e. 2065/066.

3.3 Nature and source of data

The significance of the research depends upon the nature, availability and accuracy of information. To fulfill the objectives of this study, mainly secondary data have been used. Data have been taken from published and unpublished articles, financial statement of NT, magazine, newspapers and booklets, MIS report of NT, budget bank of NT, similar previous dissertations, financial report of financial ministry etc.

3.4 Data Analysis Tools.

The data were collected in raw and crude form from various sources are arranged, analyzed and presented in proper tables formats and graphs such tables and formats are interpreted and explained wherever necessary. To analyze the collected data, basically two types of tools are used:

Statistical Tools

1. Mean

$$\text{Mean } (\bar{X}) = \frac{1}{n} \sum_{i=1}^n x$$

2. Standard Deviation and Coefficient of Variance

$$\sigma = \sqrt{\frac{1}{n} \sum F_i (X_i - \bar{X})^2}$$

Where \bar{X} is the arithmetic mean of the distribution and $\sum F_i = N$

3. Correlation

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

4. Regression

$$r = \frac{N \sum XY - \sum X \sum Y}{\sqrt{N \sum X^2 - (\sum X)^2} \times \sqrt{N \sum Y^2 - (\sum Y)^2}}$$

$$PE = 0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

5. Trend Analysis

$$Y = a + bX$$

$$\text{Where } a = \frac{\sum Y}{n} \text{ and } b = \frac{\sum XY}{\sum X^2}$$

6. Time Series analysis

7. Percentage, graphs, diagrams etc.

Financials & Budgetary Tools:

1. Ratio Analysis

2. CVP Analysis

3. Variance Analysis

4. Flexible Budget etc.

3.5 Research Variables

The basic research variables of this study are mainly related with the budget practiced by NT. Such budgets are sales budget, production budget, income statement, call revenue, balance sheet etc of NT.

3.6 Research Questions

This Research work has tried to answer the following research questions to fulfill the objectives of the study.

1. Whether NT is applying planning and budgeting system properly or not?
2. What are the major problems faced by NT to maintain the effective planning /budgeting in NT?
3. What is the financial position of NT?
4. What types of pricing method has been accepted by NT?
5. What suggestions can be recommended?

3.7 Research Procedure Followed:

- i. The various books are collected and explored.
- ii. Useful secondary data are used.
- iii. Data are described and explained in the light of theoretical basis.
- iv. The collected data are presented and arranged in tabulation forms and analyzed by applying the various statically and financial tools.

CHAPTER - IV

PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

Presentation and analysis of data is an important stage of the research study. The main purpose of analyzing the data is to change it from an unprocessed form into an understandable presentation. The analysis of data consists of organizing data by tabulating and then placing that data in presentable form by using figures and tables. The main purpose of this study is to examine the current practice of sales planning and its effectiveness in non-manufacturing public enterprise. NEPAL TELECOM has been selected as the case study to accomplish these objectives. This chapter of the paper analyzes and presents sales planning of the NT. It compares actual and target sales figures and identifies related sales variances of the company and other sales-related analysis also done such as production planning of NT and its effect on sales planning, C-V-P analysis, financial ratios related to sales, variance analysis, performance report etc.

The sales, production and other related figures of the previous year are presented and analyzed to know the overall economic and financial trend and to estimate the possible future trend of NT. This study covers the period of 5 years from 2061/062 to 2065/066 (2005/06 to 2009/10)

4.2 Sales Plan and Achievement of NT.

Formulation of sales budget is the first and important step in developing the overall budget procedure. It is the foundation for effective planning in business organization and it is the primary source of cash and all other functional budgets are prepared on the basis of sales budget. The sales plan is that step which opens the door for future which is not certain, when actual sales is not far from the planned sales then it is known as good plan.

For this, sales budget preparation should be done in realistic ground. If sales budget is not realistic all other budgets will not be realistic. So, it is also referred as a market

penetration plan. A sales plan is a comprehensive statement of broad objectives; specific goals, basis strategies and planning premises. It is developed for a certain future period ie. It can be prepared quarterly, monthly or yearly. Sales plan is prepared on the basis of sales forecast but sales forecast in itself is not a sales plan.

The preparation of sales plan involves the following four interrelated steps:

- a) The sales forecast
- b) The Marketing Plan
- c) The advertising and Promotion expenses budget
- d) Selling & Distribution expenses budget.

Sale budget is prepared by product, by interim time periods and by sales territory. The overall responsibility of preparing sales budget is upon the sales manager although chief executives should also be involved in such activities. The objectives of the Nepalese public enterprises the objectives are mainly social welfare and commercial, in the case of fulfilling the social obligation. There is no realistic sales plan in Nepalese manufacturing PE's. Profit is less important for PE's but at the same time there is commercial obligation, in this case the corporation should earn certain profit also.

Nepal Telecom has a practice of preparing sales budge. It has practice of preparing sales budget for the coming year. NT prepares sales budget according to the nature of its consumers. And consumers are categorized like government, business organization, residential, special, service, non-service, and others. The overall responsibility of preparing sales budget is upon planning directorate of NT. Maintaining coordination with revenue section, the sales budget is prepared by planning directorate. Now, the attempt begins to present the corporation previous sales performance and their achievement to know about the sales trend of past and to forecast the possible future trend of the NT. For this purpose we have to analyze the past sales data of corporation.

The following table presents the sales budget and actual sales achievement in lines and in Rs. from the fiscal year 2061/062 to 2065/66.

Table 4.1
Sales Target and Sales Achievement of NT.

Fiscal Year	in			in Rs. (Rs. in million)		
	Budgeted	Actual	Achievement %	Budgeted	Actual	Achievement %
2061/06	116171	164885	141.93	7316.55	8318.97	113.70
2062/06	189433	115531	60.99	8819.06	8584.144	97.34
2063/06	186895	430868	230.54	8696.68	13413.65	119.74
2064/06	198767	532391	267.8	15739.0	16788.36	106.6
2065/06	204657	562162	274.68	18708.05	20646.62	110.36

Sources: MIS Report of NT, Ashad, 2066, 17 Issues

The above table shows the target and achievement of sales lines and sales revenue (operating revenue) of NT from F.Y. 2061/062 to 2065/066. From the above table, we can see that, there is not consistency in target as well as actual sales in lines. Sales target in units till 2065/066 is in increasing trend but in 2063/2064 it has decreased. At the same time, the actual sale in lines till 2062/2063 is decreased and after that it is increasing trend. Again it has increased in 2063/064. but increasing rate is slower after that till 2065/066. The actual distribution exceed target because of network expansion and high distribution of Pre-Paid Mobile.

When we analyze the budgeted and actual sales revenue, we can say that actual sales achievement of NT is highly consistent with target sales. Actual sales revenue in every year exceed target except in F.Y. 2062/063. In F.Y. 2062/063 revenue collection has decreased due to close of server some period of time. Actual revenue exceeds budgeted revenue because distribution and revenue collection from Mobile Service and value added service (SMS, VAS) is very high. This indicates that consistency of sales plan and realistic targets. Effective presentation of the above data in graph and Bar Diagram is as follows:

Graph 4.1

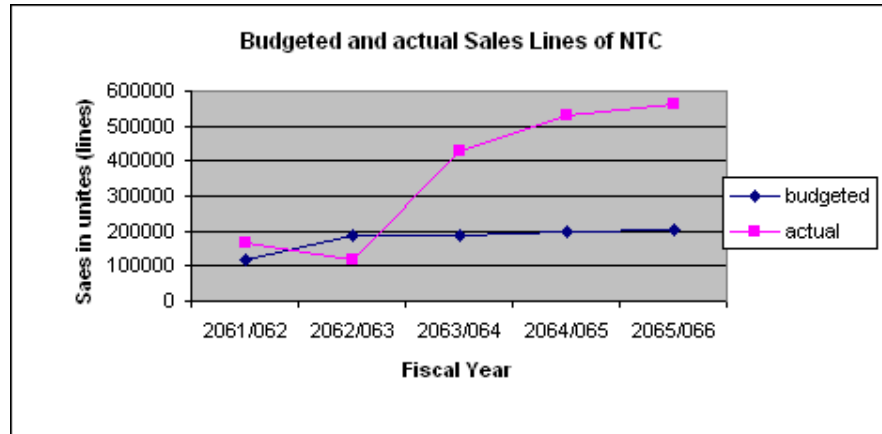
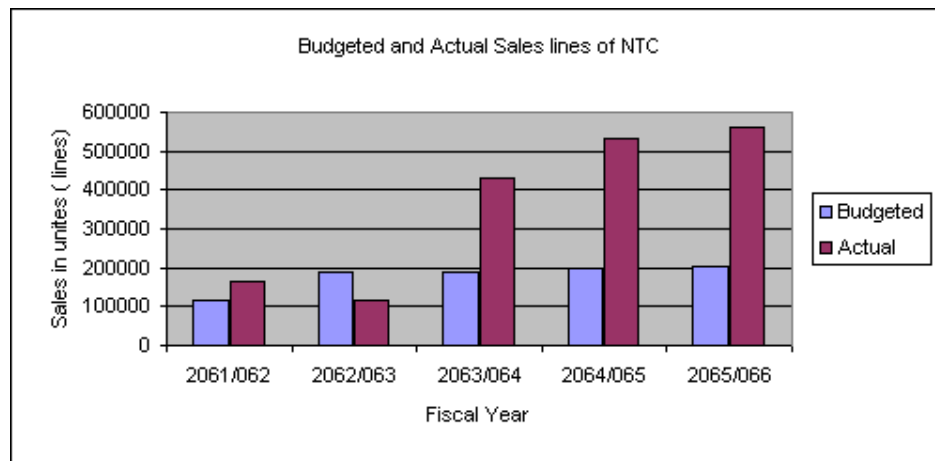


Diagram 4.1



These above graph and bar diagram shows that there is huge gap between budgeted and actual sales in F.Y. 2063/06

The following table represents the budgeted and actual sales lines of PSTN tel. service of NT.

Table 4.2

Sales Target and Sales Achievement of PSTN Tel. Service of NT in Lines

Fiscal Year	Budgeted	Actual	Achievement in %
2061/062	55696	36601	65.72
2062/063	60083	45058	74.99
2063/064	61895	32522	52.54
2064/065	68494	53239	77.73
2065/066	72698	56216	77.32

Source: MIS Report of NT, Ashadh, 2066.

The above table shows the target and achievement of sales units of PSTN Tel. from F.Y.

2061/062 to 2065/066. From the above table, we can see that, there is not consistency in target as well as actual sales in units. Actual sales units has not meat target in each year, it was due to the lack of sufficient network, cables, exchange center and availability of alternative services like, Pre-Paid Mobile, Post-Paid Mobile, CDMA, UTL's Phones etc. Presentation of above data in graph and bar diagram is as follows.

Graph 4.2

Budgeted and Actual Sales Lines of PSTN Tel. Service of NT

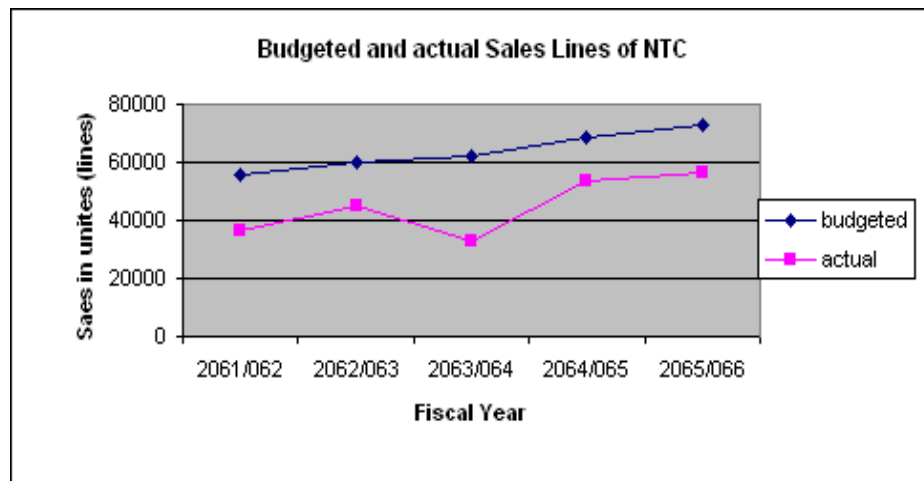
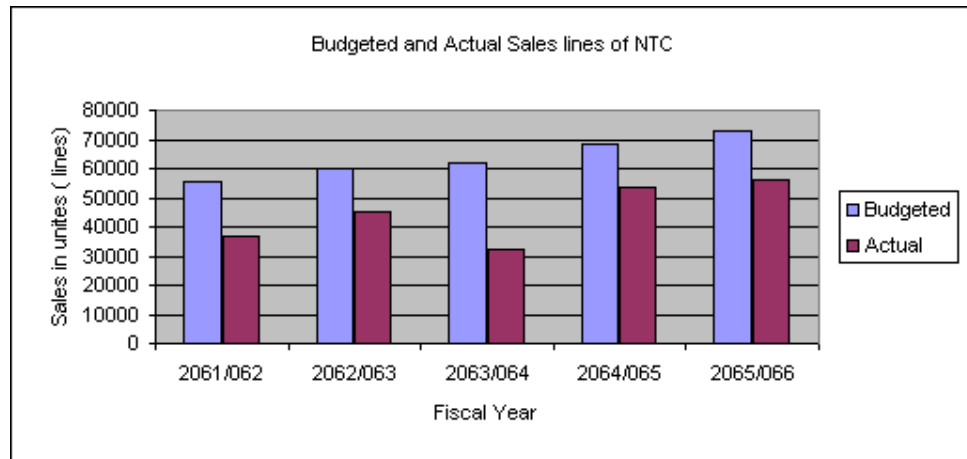


Diagram 4.2

Budgeted and Actual Sales Lines of PSTN Tel. Service of NT



These above graph and bar diagram shows that there is huge gap between budgeted and actual sales till 2065/065.

In order to find out the nature of variability of sales budget and actual sales of different years we have to calculate the arithmetic mean, standard deviation and coefficient of variation of the budgeted and actual figures of NT for 5 years from FY 2061/062 to 2065/066.

Table 4.3

Statistical Information Table of Target and Actual Sales in Lines

Statistical Tools	Target Sales in Lines	Actual Sales in Lines
Mean	179185	361167
Standard Deviation (σ)	32148	186246
Coefficient of Variation(C.V.)	17.94%	51.56%
$r_{xy} = 0.6300$ $PE(r) = 0.25$		

As stated on statistical information table no. 4.3, mean, standard deviation and coefficient of variation of actual sales is greater than budgeted sales. It shows that actual sales in lines is more variable and less consistent than budget. For the calculation of correlation (r), Budgeted sales figure is assumed as independent

variable (X) and actual sales figure is assumed as dependent variable (Y). From the above figure, there is positive correlation between budgeted and actual sales units. It indicates that actual sales increase as target sales increase. The significant of r is tested with probable error. Value of r_{xy} is more than PE (r) so it may conclude that value of r_{xy} is significant. So the actual sales will go in same direction that of budgeted sales.

Regression analysis is used as a tool of determining the strength of relationship between two variables. It is a statistical device, with the help of which we can estimate or predict the value of one variable when the value of other variable is known. Here, a regression line also can be fitted to show the degree of relationship between the budgeted and actual sales and to estimate the possible actual sales for up coming year with given budgeted sales for the year, we may assume that sales depends upon budgets. As we assumed actual sales as Y and budgeted sales as X, the regression equation of actual sales (Y) on budgeted sales (X) is as follows:

$$Y - \bar{Y} = r_{xy} \frac{\sigma_y}{\sigma_x} (X - \bar{X}) \dots\dots\dots(i)$$

	Budget (X)	Actual (Y)
Mean (in '000' lines)	$(\bar{X}) = 179.185$	$(\bar{Y}) = 361.167$
S.D. (in '000' lines)	$(\sigma_x) = 32.148$	$(\sigma_y) = 186.246$

Then, substituting the corresponding value in equation (i), we can get

$$Y - 361.167 = 0.6300 \times \frac{186.24}{32.118} (X - 179.185)$$

or, $Y = 3.6478 (X - 179.185) + 361.167$
or, $Y = 3.6478X - 6.53.645 + 361.167$
or, $Y = 3.6478X - 292.4780 \dots\dots\dots(ii)$

Thus the regression equation shows that there is negative relationship between target and actual sales achievement. With this regression equation, we can ascertain the expected sales achievement with given value of target sales, say X, if we use this equation to Ascertain the expected sales achievement for fiscal year 2066/067, the following result is achieved.

For example, the budgeted sales lines for F.Y. 2066/067 are 225568 lines. From this we can achieve the expected sales as follows. i.e.,

$$\begin{aligned}
 Y &= 3.6478X - 292.4780 \\
 &= 822.8269 - 292.4780 \\
 &= 530.3489 \text{ lines}
 \end{aligned}$$

If the relationship between budgeted and actual sales remains in same direction as previous year, the actual sales for the F.Y. 2066/067 will be 530348 lines.

The following table represents the statistical information of target and actual sales lines of PSTN Tel. Service of NT.

Table 4.4
Statistical Information Table of Target and Actual Sales Lines of PSTN Tel. Service.

Statistical Tools	Target Sales in Units	Actual Sales in Unit
Mean	63773	44727
Standard Deviation (σ)	6072	9160
Coefficient of Variation(C.V.)	9.52%	20.48%
$r_{xy} = 0.0827$		
$PE(r) = 0.2995$		

As stated on statistical information table no. 4, Mean and S.D. of target sales is greater than actual sales of PSTN Tel. Service. But the coefficient of variation (C.V.) of actual sales is more than budgeted sales. It shows the higher variability and less uniformity, consistency in actual sales than budgeted sales. For the calculation of correlation Coefficient(r), budgeted sales figure of PSTN Tel. Lines are assumed as independent variable(X) and actual sales figure of PSTN Tel. Lines is assumed as dependent variable (Y). From above table there is positive correlation between budgeted and actual sales in units. It indicates that actual sales increase as target sales increase. The significant of r is tested with probable error. r_{xy} is more than PE(r) so it may conclude that value r_{xy} of is significant. So the actual sales will go on same direction that of budgeted sales.

To find regression equation, actual sales units of PSTN Tel. Lines are assumed as Y and budgeted sales units of PSTN Tel. Lines are assumed as X, the regression equation of actual sales (X) of PSTN Tel. Service is as follows:

$$Y - \bar{Y} = r_{xy} \frac{\sigma_y}{\sigma_x} (X - \bar{X}) \dots\dots\dots(i)$$

	Budget (X)	Actual (Y)
Mean (in '000' lines)	$(\bar{X}) = 63.773$	$(\bar{Y}) = 44.727$
S.D. (in '000' lines)	$(\sigma_x) = 6.072$	$(\sigma_y) = 9.16$

$$r_{xy} = 0.827$$

Then, substituting the corresponding value in equation (i), we can get

$$Y - 44.427 = 0.0827 \times \frac{9.16}{6.072} (X - 63.773)$$

or, $Y = 1.2467 (X - 63.773) + 44.27$

or, $Y = 1.2476X - 35.2932 \dots\dots(ii)$

This regression equation shows positive relationship between target and actual sales achievement. It shows that actual sales are in increasing trend and the actual sales will be increased by 1.2476 units (lines) as per units (lines) increase in budgeted sales.

By the help of the regression equation (ii) we can estimate the expected sales achievement with given value of budgeted sales (X) for F./Y 2066/067. If we use the equation (ii) the expected sales achievement (Y) will be as follows:

Let, the budgeted sales units (lines) for F/Y 2066/067 = 79670

Then substituting the value of X (in '000' lines) = 79670

Expected sales achievement

$$Y = 1.2476 \times 79670 - 35.2932$$

$$= 1.2476 \times 79670 - 35.2932$$

$$\approx 64103.092 \text{ lines}$$

Thus, if relationship between actual sales and budgeted sales of PSTN Tel. Service remain same as previous year, then sales for FY 2066/067 will be 64104 lines as stated by above regression equation (ii)

Statistical tool "Time Series Analysis" can be used to analyze the trend of actual sales. It helps in understanding the past behavior of a variable in the time series and helps in future forecasting and planning with the helps of past and present data. It also helps in evaluating the present accomplishment. The actual performance can be compared with the expected performance and analyze the causes of such variation. Some methods will be used for measurement of trend. They are:

Semi -Average Method

Moving - Average Method and,

Least Square Method

To find out the long term actual sales trend semi-average method is used.

Data from FY 2060/061 to 2065/066 is used or study purpose.

Table 4.5

Calculation of Trend Line of Sales Lines by Semi-average Method of NT

Fiscal Year	Sales in Unit(Lines)	Semi-total	Semi-average
2060/06	7262		
2061/06	16488	353045	11768
2062/06	11553		
2063/06	43086		
2064/06	53239	1525421	508473
2065/06	56216		

Source: MIS Report of NT, Ashad 2060 to Ashad 2067

Here,

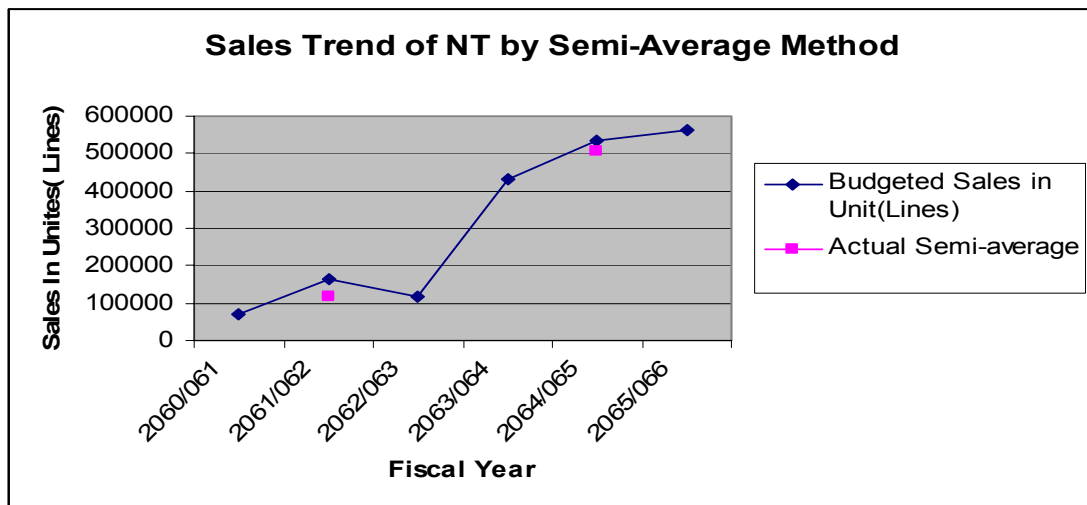
N = 6, so the data are divided into two equal parts i.e.

First part = from 2060/2061 to 2062/063

Second part = from 2064/065 to 2065/066

Now the actual sales figure from FY 2060/061 to 2065/066 and semi-average trained figure is plotted with the help of following graph.

Graph 4.3



As constructed semi-average trend line, graph 4.3 shows the sales made by NT till F.Y.2065/066 is in increasing trend. But it has decreased in F.Y. 2062/063 and again it has increased in F.Y. 2063/064. Sales of F.Y. 2063/064 are above semi-

average and peak point. And sales of F.Y. 2060/061 are below semi-average and also trough point.

Semi-average trend line of PSTN Lines is computed as follows. Data from F.Y. 2060/061 to 2065/066 is used for study purpose.

Table 4.6
Calculation of Trend Line of Actual Sales Lines for PSTN Tel. Service by Semi-average Method

Fiscal Year	Sales in Lines	3 Years Semi-total	Semi-average
2060/061	4415		
2061/062	3660	125816	41939
2062/063	4505		
2063/064	3252		
2064/065	5323	141977	47326
2065/066	5621		

Source: MIS Report of NT, 2066 Ashadh, 2017 Issue P. 40/82

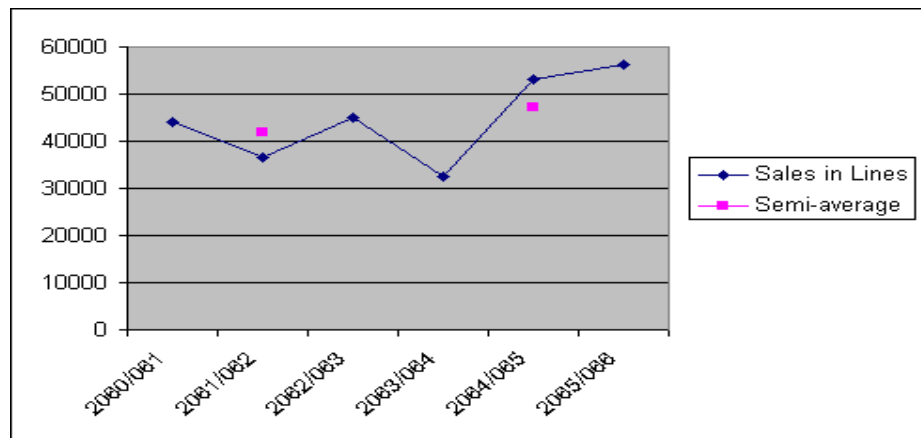
Here, n= 6, So the data are divided into two equal parts

First Part = From 2060/061 to 2062/063

Second part =From 2063/064 to 2065/066

Now, the actual sales figure from FY 2060/061 to 2065/066 and semi-average figure is plotted with the help of following graph.

Graph 4.4
Sales Trend of NT by 3-Yearly Semi Average Method



As constructed semi-average trend line graph 4.4 shows the sales made by NT in different years is much fluctuated. Sales of FY 2062/063 are above

semi-average and peak point. And sales of FY 2060/061 are below semi-average and also trough point.

To find the long term actual sales trend moving average method is also be used under this method the trend is found by smoothing out the fluctuations of the data by means of moving averages (arithmetic averages) of successive overlapping groups of time. The effect of averaging is to give another curve and to lessen the fluctuations that pull the actual figure from the general trend.

Table 4.7

Calculation of Trend Line of Sales Lines by 3-yearly Moving Average

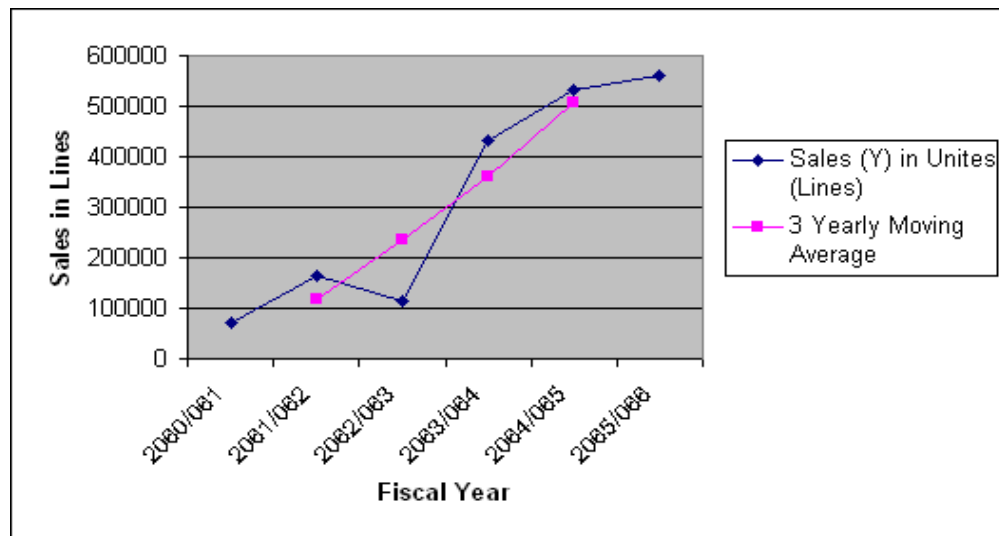
Method of NT

F.Y. (B.S.)	Sales (Y) in Units (Lines)	3 Yearly	3 Yearly Moving Average	Short-term Fluctuation
2060/061	72629			
2061/062	164885	353045		4720
2062/063	115531	711284		-121564
2063/064	430868	1078790	359597	71274
2064/065	532391	1525421	508474	-23917
2065/066	562162			

Source: MIS Report of NT, Ashadh 2061 to Ashadh 2066

Now, the actual sales values and trend values are plotted in the graph as follows:

Graph 4.5



As per constructed 3-yearly moving average trend line, graph-5 shows the sales made by NT are in increasing trend.

Now, trend line of PSTN tel. service is calculated as follows

Table no 4.8

Calculation of Trend Line of PSTN Lines by 3-yearly Moving Average Method:

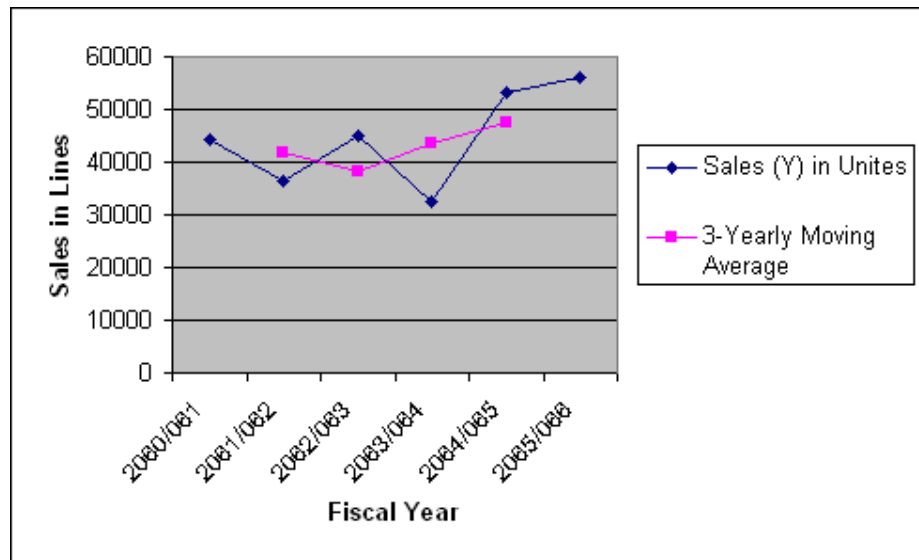
Fiscal Years	Sales (Y) in units (Lines)	3 Yearly Moving Total	3 Yearly Moving Average	Short term fluctuation (Y-Yc)
2060/061	44157			
2061/062	36601	125816	41939	-5338
2062/063	45058	114181	38060	6998
2063/064	32522	130819	43606	11084
2064/065	53239	141977	47326	5913
2065/066	56216			

Source: MIS Report of NT. Ashadh 2066, P. 40/82

Now, the actual sales values and trend values are plotted in the graph as follows:

Graph 4.6

Sales Trend of NT by 3-Yearly Moving Average Method of PSTN Tel. Survive



As per constructed 3-yearly moving average trend line, graph -6 shows the sales (PSTN Lines) made by NT in different year is very fluctuated.

A widely and most commonly used method to described the trend is the method of least square. The trend line obtained from this method gives the line of best fit and

with this method; prediction of the values for the future is possible. This method show the relationship between time (Years) and actual sales of the relevant years. In this method, it is assumed that sales are consistently changing in time and such change can be expressed by competent of time series. To fit the straight line, the time factor is considered as independent factor (X) and actual sales is considered as dependent variable (Y) upon time.

Let the trend line between the dependent variable Y (ie Actual sales) and the independent variable X (i.e. Time) be represent by

$$Y = a+bX \dots \dots (i)$$

Where, Y = Actual Sales

X = Time (year)

Then for any given value of independent variable x, the estimate value of Y denoted by

Y_c given by above equation is

$$Y_c = a+bx \dots \dots (iii)$$

a = Y intercept or value of Y when X = 0

b = slope of the trend line or amount of change that comes in Y for a unit charge in X. Calculation of straight line trend by least square method of total actual sales in units (lines) is as follows:

Table 4.9
Calculation of Straight Line Trend of Total Actual Sales by Least Square Method

(Lines in “000”)

F.Y. (X)	Total Actual	x=X-2060/061	x^2	xy	Trend Value $Y_c=a+bx$
2061/062		-2	4	-329.77	118.89
2062/063		-1	1	-115.531	240
2063/064	430.868	0	0	0	361.16
2064/065	532.391	1	1	532.391	482.31
2065/066	562.162	2	4	1124.324	603.45
	$\Sigma Y = 805.837$	$\Sigma X = 0$	$\Sigma X^2 = 10$	$\Sigma XY = 1211.41$	

Source: MIS Report of NT, Ashadh 2061 to Ashadh 2066.

Note: F.Y. 2063/064 is assumed as based year, therefore the value of x is zero.

Here, $\Sigma X = 0$, $\Sigma Y = 1805.837$, $\Sigma X^2 = 10$, $\Sigma XY = 1211.44$, $n = 5$
 Since, $\Sigma X = 0$;

$$a = \frac{\Sigma Y}{N} = \frac{1805.837}{5} = 361.1674$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{1211.44}{10} = 121.44$$

We, have,

$$y_c = a+bx \dots\dots\dots (ii)$$

Substituting the value in equation (ii)

$$y_c = 361.1674+121.44x$$

The required trend line is,

$$y_c = 361.1674+121.44x \dots\dots\dots (iii)$$

This trend line shows the positive figure. The sales will be increased by 121.144 units or 121144 lines every year if the sales trend of past years continues for future.

For trend values: When,

$$x = -2, \quad Y_c = 361.1674+121.44 \times (-2) = 118.89$$

$$x = -1, \quad Y_c = 361.1674+121.44 \times (-1) = 240$$

$$x = 0, \quad Y_c = 361.1674+121.44 \times (0) = 361.16$$

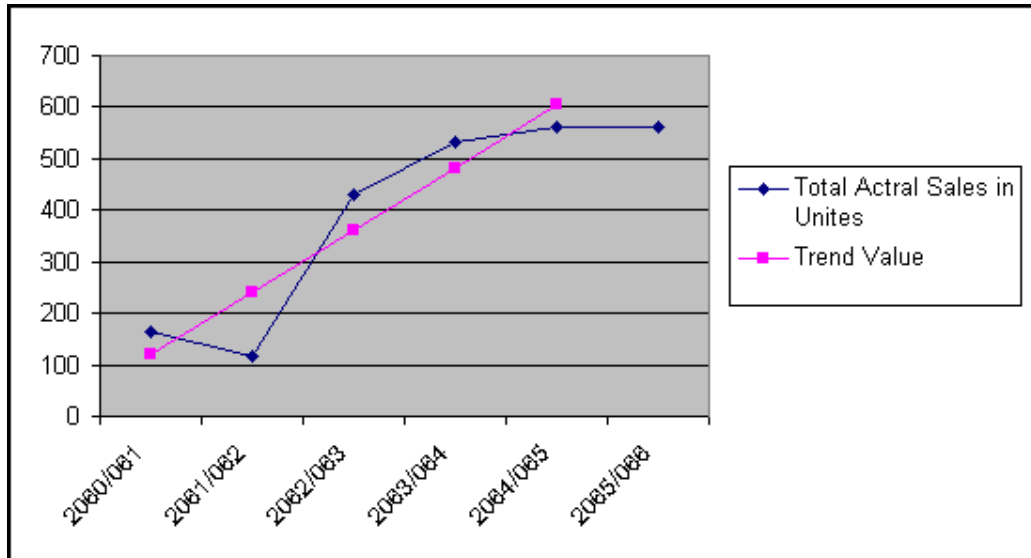
$$x = 1, \quad Y_c = 361.1674+121.44 \times 1 = 482.31$$

$$x = 2, \quad Y_c = 361.1674+121.44 \times 2 = 603.45$$

Now, the actual sales and trend values are plotted in the graph as follows:

Graph 4.7

Total Actual Sales in Lines and Trend line of NT.



The graph shows the trend line of total actual sales is in increasing trend. By using this trend equation, we can estimate the actual sales for F.Y. 2066/067. The value of x for the F.Y. 2066/067 is equal to 3 for base F.Y. 2063/064.

Where, X = 2066/067

$$\begin{aligned} X &= X - 2063/064 \\ &= 2066/067 - 2063/64 \\ &= 3 \end{aligned}$$

Then, sales for F.Y. 2066/067 are; $Y = 361.1674 + 121.44 \times 3$

$$= 725.487$$

or, 725487 lines.

If the trend does not change, the possible total sales for F.Y. 2066/067 will be 725487 lines.

Again, calculation of straight line trend of PSTN tel. service by least square method is as follows;

Table 4.10

Calculation of Straight Line Trend of PSTN Tel. Service by Least Square Method

F/Y (X)	Actual Sales in Units(Y) '000'	X = (X- 061/062)	X ²	XY	Trend Value = Y _c = a+bx
2061/062	36.601	-2	4	-73.22	35.24
2062/063	45.058	-1	1	-45.058	39.98
2063/064	32.522	0	0	0	44.72
2064/065	53.239	1	1	53.239	49.46
2065/066	56.216	2	4	112.432	54.20
	ΣY = 223.636	ΣX = 0	ΣX ² = 10	ΣXY=47.393	

Source: MIS Report, NT.

FY 2063/064 is assumed as base year, therefore the value of x is zero.

Here, Σx = 0, Σy = 198.012, Σx² = -10, Σxy = -47.393, n=5

Since, Σx = 0

So,

$$a = \frac{\Sigma y}{n} = \frac{223.628}{5} = 44.72$$

$$b = \frac{\Sigma xy}{\Sigma x^2} = \frac{47.393}{10} = 4.74$$

We have,

$$Y_c = a + bx \dots \dots \dots (ii)$$

Substituting the value in equation (ii)

$$Y_c = 44.72 + 4.74x \quad \text{or, } Y_c = 44.72 + 4.74x$$

The required trend line is

$$Y_c = 44.72 + 4.74x \quad \dots \dots \dots (iii)$$

This trend line shows the positive figure 4.74 for future. The sales will be increase by 4.74 units or 474 lines every year if the trend of past years continuous for future.

For trend values:

$$\text{When } x = -2 \quad Y_c = 44.72 + 4.74 \times (-2) = 35.24$$

$$x = -1 \quad Y_c = 44.72 + 4.74 \times (-1) = 39.38$$

$$x = 0 \quad Y_c = 44.72 + 4.74 \times 0 = 44.72$$

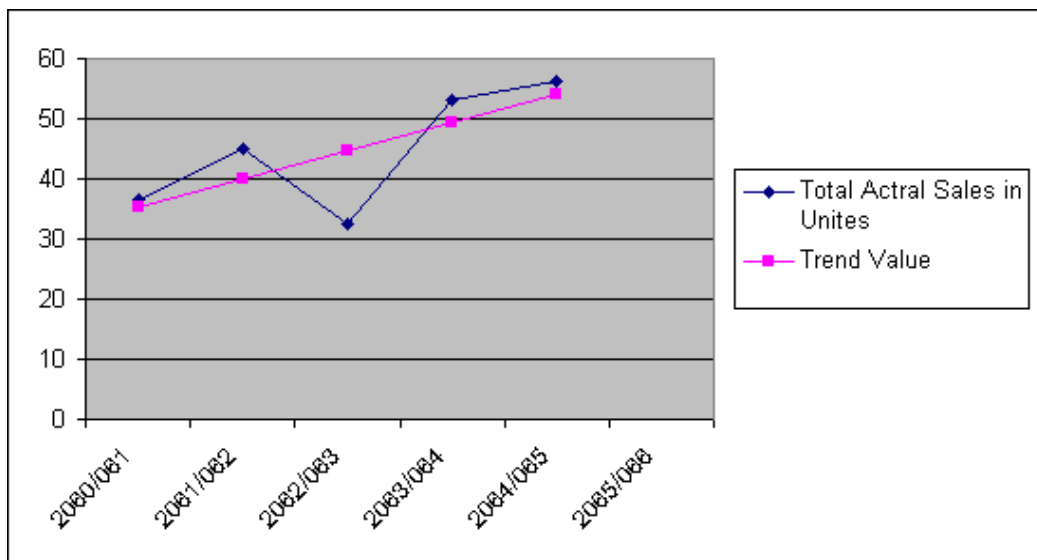
$$x = 1 \quad Y_c = 44.72 + 4.74 \times 1 = 49.46$$

$$x = 2 \quad Y_c = 44.72 + 4.74 \times 2 = 54.20$$

Now, the actual sales of PSTN lines and trend values are plotted in the graph as follows:

Graph 4.8

Actual Sales of PSTN Tel. Service in Lines and Trend Line of NT



This graph shows the actual sales are fluctuating every year and trend of actual sales is in decreasing trend. By using this trend equation, we can estimate the actual sales for F.Y.

2066/067. The value of x for the F.Y. 2066/067 is equal to 3 from base F.Y.

2063/064 where, $x = 2066/2067$

$$x = x - 2063/2064$$

$$= 2066/67 - 2063/64$$

$$= 3$$

Then, Sales for Fiscal Year 2066/67 is $Y = 44.72 + 4.74 \times 3$

$$= 58.94$$

or, 5894 lines

If the trend does not change, the possible sales for F.Y. 2066/067 will be 58940 lines. After analyzing the past trend of NT in respect of sales, now we are going to analyze the annual sales budget for the fiscal year 2065/066. NT has practice of preparing short range budget for coming year. The following table shows the summary of short range (tactical) sales budget and achievement of NT.

Table 4.11
Summary of sales budget and achievement of NT Ending F.Y. 2065/066

Particulars	Budget		Actual	
	Sales	%	Sales	%
Sales in lines	204657	-	5622162	-
Sales Revenue (Rs.in Million)	18708.25	-	20646.62	-
1. Local Calls	3749.60	20.04	4450.23	21.55
2. Domestic Truck calls (STD)	2173.89	11.62	1439.36	6.97
3. International Truck Calls (ISD)	1686.54	9.02	1563.52	7.57
4. Leased Circuit, PCC & Other Services	277.32	1.48	4060.25	19.66
5. Mobile, Internet & E-Mail	2806.30	15.00	3852.45	18.66
6. CDMA	2969.33	15.87	2642.33	12.80
7. Inter-administration Sharing	2250.00	12.03	2627.00	12.93
8. Other Operating Income	750.32	4.01	924.62	4.48
9. Total Operating Revenue (1-8)	17681	94.41	19375	93.84
10. Total Non-Operating Revenue (Interest on Investment & Others)	1027.606	5.49	1271.30	6.16
11. Total Revenue (9+10)	18708.05	100%	20646.62	100%

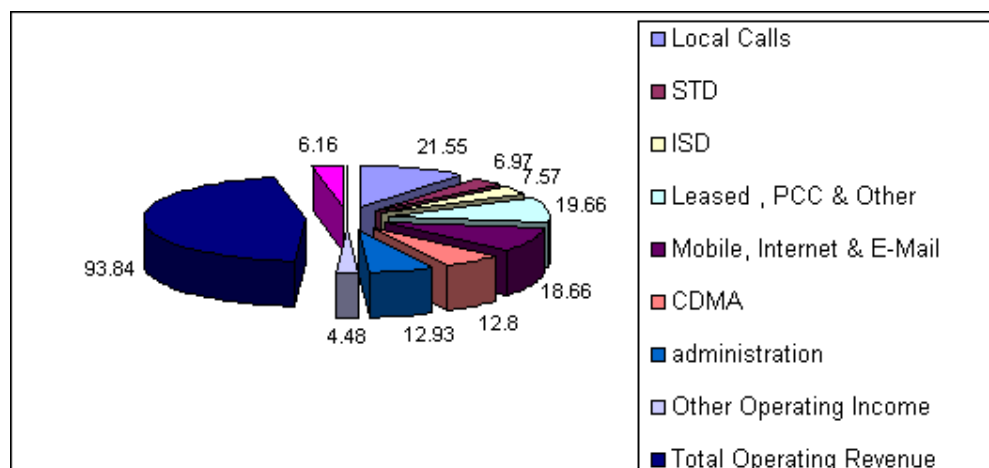
Source: Budget Book of NT, FY 2062/063, P. 8 and FY 2065/066.

MIS Report of NT, Ashadh, 2066.

The actual sales data of the above table can be presented with the help of following diagram.

Diagram 4.3

Total Actual Revenue Collection of NT.



The above table and diagram shows that NT's sales forecasting system is not based on realistic facts because there is substantial gap and variability between forecasting and Achievement of different sources of revenue collection. Actual revenue collection from most of sources is higher than budgeted but actual collection from STD sector is less than budgeted revenue. From above table we can observed that some old services are replaced by new services too. Lick, VSAT, WLL are replaced by Post-paid/Pre-paid Mobile, CDMA etc.

Now, to analyze the sales budget of NT only in IDS sector. This budget also covers five years sales trend of budgeted and actual sales in Rs. ISD sector.

Table 4.12

Sales Budget and Achievement of NT in ISD Sector (Rs. in Million)

F Y	Budget	Actual	Achievement %	Total Actual Revenue	% of total Revenue
2061/062	1153	1172.15	101.66	61	10.67
2062/063	1174.09	1235.76	105.25	7208.087	12.50
2063/064	1377.52	1469.36	104.49	8318.	14.42
2064/065	1480.56	1590.55	107.43	16624.25	28.82
2065/066	1686.54	1563.52	92.70	19375.37	33.59

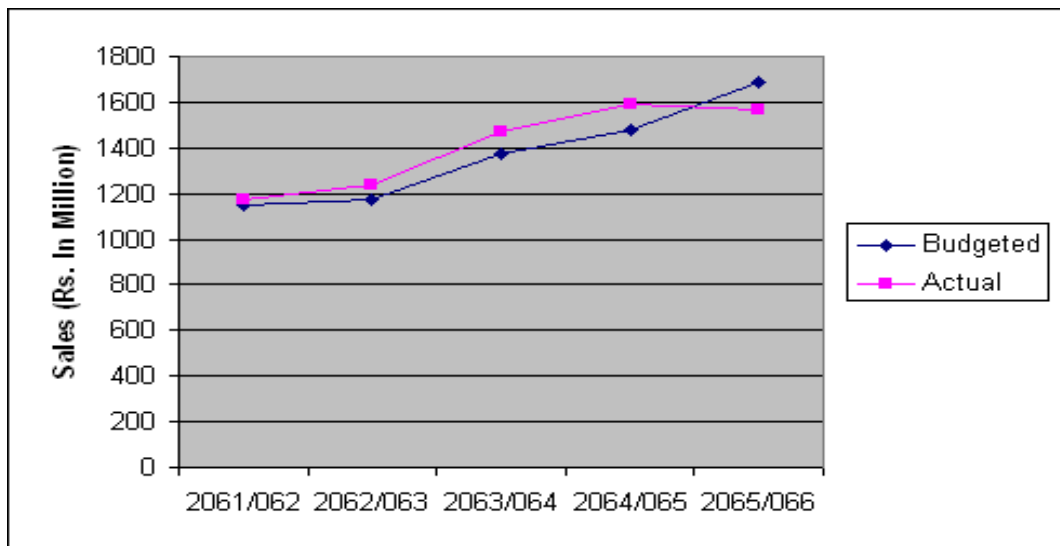
Source: Budget Book, NT, FY 2061/062 to 2065/066.

The above table shows great achievement of revenue collection in ISD sector every year. But in comparison to the total operating revenue it seems in decreasing trend. This is due to internet phone which has low rate in ISD phone call.

The above figure of budgeted and actual sales revenue presented in graphical form as follows:

Graph 4.9

Budgeted and Actual Sales Revenue of NT in ISD sector.



This graph shows higher actual sales than budgeted sales in every year. This graph shows higher actual sales than budgeted sales in every year.

Short term sales plan and achievement detailed by services (lines), 4-months and by year for various years is presented below on table 4.13

Table 4.13
Budgeted and Actual Sales Units (Lines) of NT Detailed by Services (Tel. Lines), Total of 4 Months & by Year.

Years & Services in Lines	Total			1 st 4 Months			2 nd 4 Months			3 rd 4 Months		
	Target	Actual	Ach.	Target	Actual	Ach. %	Target	Actual	Ach. %	Target	Actual	Ach.
2061/062												
PSTN V-	65253	39674	61	21692	8153	38	21456	17335	81	22107	14186	64
SAT	200											
WLL	102											
Cellular Mobile	6360	7846	123	1781	2656	149	2036	2732	134	2543	4215	166
Total	71915	47520	66	23473	10809	46	23490	20067	85	24650	18401	75
2062/063												
PSTN	75363	44143	59	25122	14366	57	24629	14299	58	25612	15478	60
V-SAT	200											
WLL	99											
Cellular Mobile	20000	28486	142	5600	3805	68	6400	4737	74	8000	19978	250
Total	95662	72629	76	30722	18171	59	31029	19036	61	23612	35456	105
2063/064												
PSTN	55696	36601	66	18659	12388	66	18201	10438	57	18836	13775	73
V-SAT	275	82	30	78	16	21	78	35	40	109	31	28
WLL	200	25	13	56	4	7	64	16	25	80	5	6
Post-paid Mobile	20000	16833	84	56000	9041	161	6400	3927	61	8000	3865	48
Per-paid Mobile	40000	111344	278	13322	37873	284	13332	15570	117	1336	57901	434
Total	116171	164885	142	37725	59322	157	38085	29986	79	40301	75577	187
2064/065												
PSTN	60083	45058	75	19673	11435	58	19378	13777	71	21102	19846	94
V-SAT	250	193	77	68	3	4	81	120	148	101	70	69
WLL	100	4	4	27	4	15	32	0	0	41	0	0
Post-paid Mobile	20000	8445	42	5400	3193	59	6400	5252	82	8200	0	0
Per-paid Mobile	109000	61831	57	29430	61125	208	34880	706	2	4690	0	0
Total	189433	115531	61	54528	75760	139	60771	19855	33	74134	19916	27
2065/066												
PSTN	72698	56216	77	28175	23738	8	23267	15236	65	21256	17242	8
V-SAT	721318	666045	92	215439	195015	11	220303	215515	97	20500	18919	9
CDMA (C-phone) Post-	90237	108785	120	24079	27263	11	28067	31621	14	34907	49901	14
paid Mobile Per-paid	233652	290049	124	45550	66683	14	72053	92365	12	116047	131000	112
Mobile												
Total	3220777	3731539	115	747280	912847	122	922174	1186029	128	1237142	1396067	112.84

Source : MIS Report of NT, Ashadh 2061 to Ashadh 2066

Table 4.13 shows target and Achievement of NT, detailed by services in lines, total of 4 months and by year. From the above table, in F.Y. 2061/06261 the tel. services V-SAT and WLL has not distributed due to lack of network and other infrastructure. Sales achievement of PSTN, V-SAT, and WLL is less than target due to insufficient network and other infrastructure for distribution of these services. But sales of achievement of Post-paid and Pre-paid Mobile exceed target, it is because expansion of mobile network and high demand of these services. 4 months wise sales target and achievement in lines is presented in table 4.14

Table 4.14

4 Months wise Sales and Achievement in Lines of NT.

Table of 4 Months	Fiscal Year	Target Sales in Units (Lines)	Actual Sales in Units (Lines)	% Achievement of Sales
1st 4 Months	2061/062	23473	10809	46.05
	2062/063	30422	18171	59.15
	2063/064	37725	59322	122.15
	2064/065	54528	75760	138.94
2nd 4 Months	2061/062	23490	20067	85.43
	2062/063	31029	19036	61.35
	2063/064	38085	29986	78.73
	2064/065	60771	19855	32.67
3rd 4 Months	2061/062	24650	18401	74.65
	2062/063	33612	35456	105.49
	2063/064	40361	75577	112.84
	2064/065	74134	115162	26.84

Source: MIS Report of NT, Ashadh 2061 to Ashadh 2066

Average Achievement of 1st 4 Months=97.76% Average Achievement of 2nd 4 Months=77.35% Average Achievement of 3rd 4 Months=86.53%

From the above table we can see that actual sales achievement of last 4 months of five fiscal year i.e.86.53% is higher than 2nd month's average. It is because the pressure if installation of remaining lines of the end of fiscal year and it may be due to the extended capacity utilization maximized during the last four months. For effective presentation of above data, following diagram can be used.

Diagram 4.4

Target and Actual Sales for 1st 4 Months

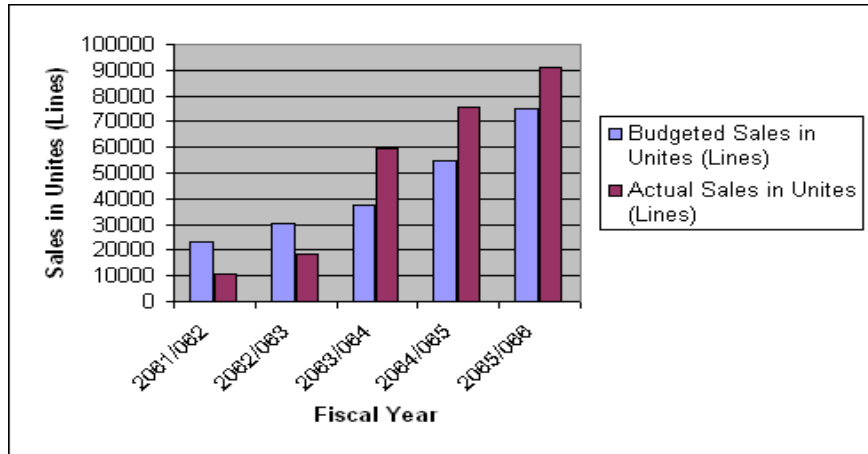


Diagram 4.5

Target and Actual Sales for 2nd 4 Months

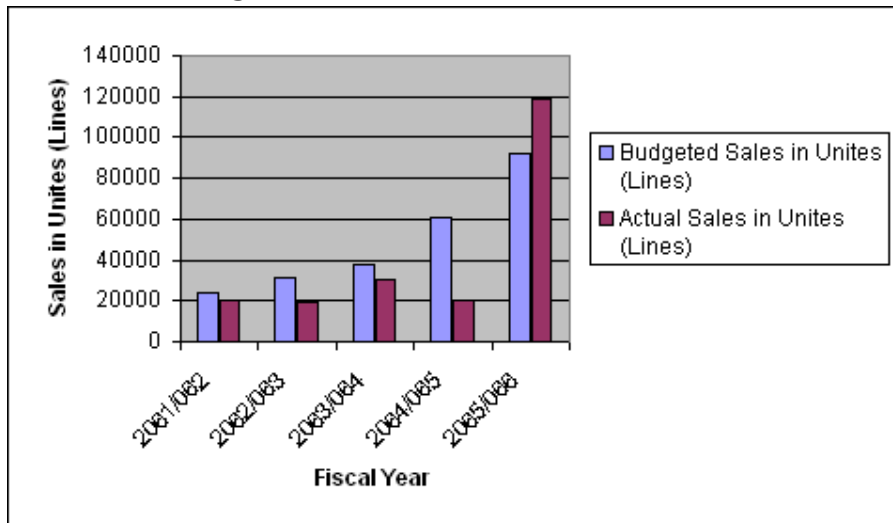
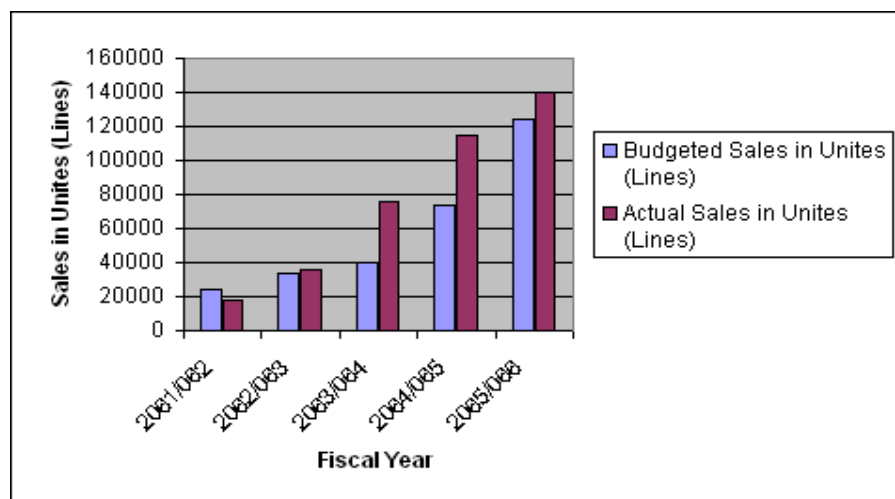


Diagram 4.6

Target and Actual Sales for 3rd 4 Months



Above diagram shows fluctuated sales target and achievement of NT. Short term sales plan and achievement of NT detailed by months, 4 months, and by year for PSTN Tel. Service is presented below on table 4.15.

Table 4.15

Budgeted and Actual Sales in lines for PSTN Telephone Service of NT, Detailed by Months, 4 Months, and by Year.

Sales units & Year Month, 4 monthly total	Sales Target Units (Lines)						Actual Sales Units (Distributed Lines)					
	2061/ 062	2062/ 063	2063/ 064	2064/ 065	2065/ 066	Average	2061/ 062	2062/ 063	2063/ 064	2064/ 065	2065/ 066	Average
Shrawan	7051	8208	6089	6590	6868	6961	2819	4252	4349	3482	5577	4095
Bhadra	7209	8339	6214	6713	7891	7273	1584	3226	3070	2645	6731	3451
Ashwin	4169	3768	2785	3896	5702	4064	2488	4400	1788	2882	4191	3149
Kartik	3263	4807	3571	2404	7714	4351	1225	2474	3181	1966	7239	3217
Total of 1st 4 months	21692	25122	18659	19603	28175	22649	8116	14352	12388	11435	23738	13912
Mansir	4661	5370	3944	4208	4366	4509	1910	2765	2063	2604	4307	2729
poush	5385	6147	4621	4988	5993	5426	4049	4097	2988	3635	3770	3707
Magh	5336	6105	4492	4666	7924	5704	6467	3646	2306	3068	4885	4490
Fagun	6072	7027	5144	5516	4984	5748	4909	3790	3081	4472	2274	3705
Total of 2nd 4 months	21454	24692	18201	19378	23267	21398	17335	14298	10438	13779	15236	14217
Chaitra	5266	7000	4489	4888	5060	5340	4116	3105	3021	5843	4282	4073
Baishkh	6217	7205	5309	5795	5937	6092	2667	2925	2554	4355	4044	3309
Jestha	5495	6376	4690	5135	5250	5389	3594	4514	3506	4810	4152	4115
Ashadh	5129	5924	4348	5284	5009	5138	3809	4949	4584	4836	4764	4588
Total of 3rd 4 months	22107	25612	18836	21102	21256	21782	14186	15493	13775	19844	17242	16108
Total of the year	65253	75363	55696	60083	72698	65818	39637	44143	36601	45058	56216	52249

Source: MIS Report of NT.

Table 4.15 shows sales target and achievement of NT for PSTN Tel. Service, detailed by months, total of 4 months and by year. Monthly average for F.Y. 2061/062 to 2065/066 is shown to make it very informative and it will help to understand this study on different stage. According to the table, we can see that the average high sales month's wise sales target and achievement in units (lines) of NT for PSTN Tel. lines is in the month of Shrawan and Bhadra i.e.6961 units and 7273 units respectively. It may be due to begging months of a new financial year and the undistributed lines in stock of last year. And the average high sales achievement is in the month of Ashad i.e.4588 units. It may be pressure of selling remaining lines of the year in the closing months of those fiscal years.

4 months wise sales target and achievement in Units (Lines) of NT for PSTN Telephone Service are presented in table 4.16

Table 4.16
4 Months Wise Sales Target and Achievement in Lines of NT for PSTN Telephone Service.

Table of 4 Months	Fiscal Year	Target Sales in Units (Lines)	Actual Sales in Units (Lines)	% Acheivement of Sales
1st 4 Months	2061/062	21692	8116	37.41
	2062/063	25122	14352	57.13
	2063/064	18659	12388	66.39
	2064/065	19603	11431	58.33
2nd 4 Months	2061/062	21454	17335	80.8
	2062/063	24629	14298	58.05
	2063/064	18201	10438	57.35
	2064/065	19378	13779	71.11
3rd 4 Months	2061/062	22107	14186	64.17
	2062/063	25612	15493	60.49
	2063/064	18836	13775	73.13
	2064/065	21102	19844	94.04

Source: MIS report, NT

Average of 1st 4 months = 60.72%

Average of 2nd 4 months = 66.55

Average of 3rd 4 months = 74.59%

From the above table we can see that the actual sales achievement of last 4 months of the five fiscal is 74.59%, which is higher than 1st and 2nd 4 months average. It is due to the pressure of installation of remaining lines of the end of fiscal year and it may be due to the extended capacity utilization maximized during the last four months. For effective presentation of above data, following diagram can be used.

Diagram 4.7

Target and Actual Sales in Lines of PSTN Telephone Service for 1st 4 Months of NT

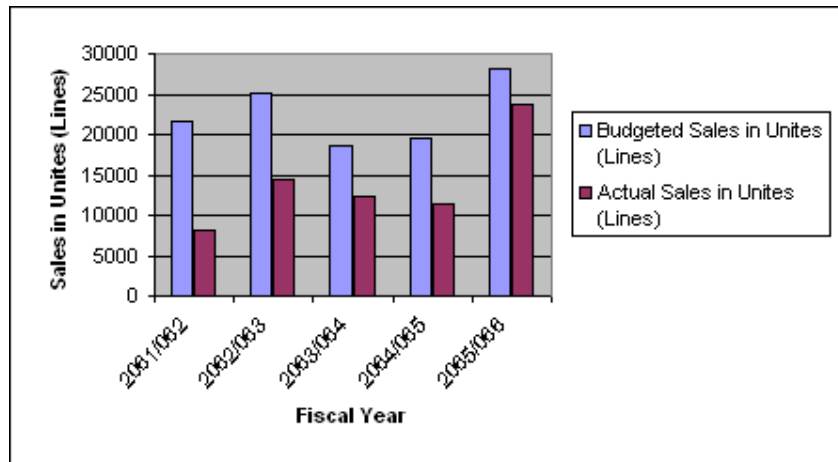


Diagram 4.8

Target and Actual Sales In Lines of PSTN Telephone Service for 2nd 4 Moths of NT

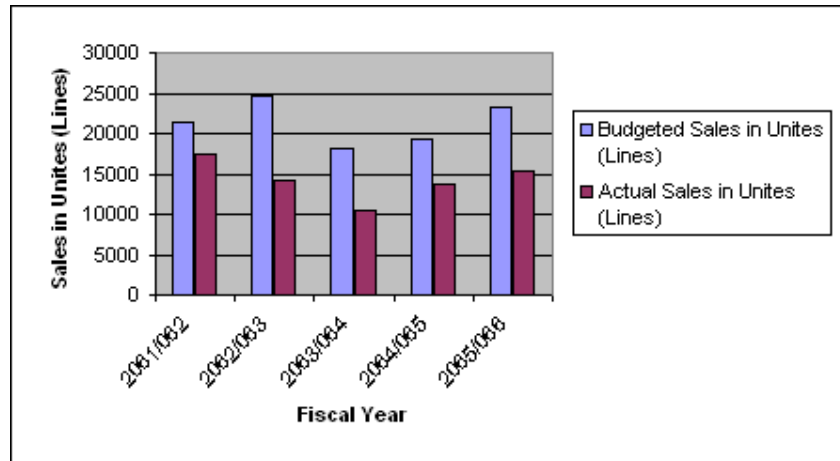
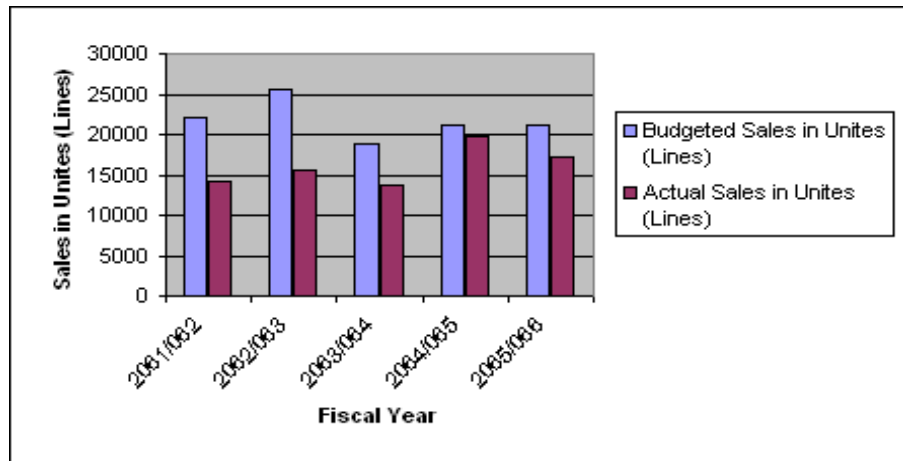


Diagram 4.9

Target and Actual Sales in Lines of PSTN Telephones Services for 3rd 4 Months of NT



Above diagrams shows fluctuated sales target and achievement of NT for PSTN tel

Table 4.17

Computation of Seasonal Indices of Actual Sales by months in lines for PSTN Telephone Service by months

Months	Shrawan	Bhadra	Ashwin	Kartik	Mansir	Poush	Magh	Falgun	Chaitra	Baishakh	Jestha	Ashad
2059/060	28	16	25	12	19	40	65	49	41	27	36	38
2060/061	43	32	44	25	28	41	36	38	32	29	45	49
2061/062	43	31	18	32	21	30	23	31	30	26	35	47
2062/063	39	26	29	20	26	36	31	45	58	44	48	48
2063/064	46	37	21	29	33	28	24	28	20	15	22	21
Total	199	142	13	118	127	175	179	191	181	141	18	203
Average	39.8	28.	27	23.	25.	35	35.8	38.2	36.2	28.2	37.	44.6
Seasonal	120.	86.	83	71.	77.	106.	108.	115.	109.	85.51	11	123.

Source: MIS Report of NT ephone service.

Statistical tools “seasonal index” is used to know the seasonal variation. Seasonal variations are absent of the times series is expressed annually. Seasonal Index for all months of different fiscal year are presented below to understand the situation of seasonal variation of sales in different month.

Where,

$$\text{Average of Shrawan} = \frac{\text{Total of Shrawan}}{\text{No. of year}}$$

$$= \frac{199}{5} = 39.8$$

And so on for all other months.

And so on for all other months.

$$\text{General} = \frac{\text{Sum of averages}}{\text{No. of averages}}$$

$$\frac{39.8+28.4+27+...+40.60}{12}$$

$$\frac{395.8}{12} = 32.95$$

$$\text{Season Index for Shrawan} = \frac{\text{Monthly average of Shrawan}}{\text{General average}} \times 100$$

$$\frac{39.8}{32.98} \times 100 = 120.68$$

and, so on, for all other months.

Above table the percentage sales fluctuation of NT in different months. As per table,

sales of NT in Ashad is in the highest point ie seasonal shows the highest percentage ie 123.10% in ashad, and the lowest in Kartik 71.56% other monts one Sharawan 120.68%, Falgun 115.85%, Jestha 112.80%, Chaitra 109.76%, Magh 108.55%, Bhadra 86.11%, Baishakh 85.5%, Aswin 83.08%, and Mansir 77.02%, respectively. Seasonal index shows the highest percentage in Ashadh or average high achievement is in the month of Ashadh, it may be pressure of selling remaining lines of the year in the closing moths of that fiscal year and the utilization of expended network. Seasonal index shows high percentage in Shrawan, it may be due to the beginning month of new fiscal year and the undistributed lines in stock of last year installed in this month.

There is six regional head of NT. Biratnagar, Kathmandu, Birgun, Bhairahaba, Nepalgunj, and Dhangadhi. The region wise sales in Units (lines) for PSTN telephone service is presented below on table 4.18.

Table 4.18
The Region Wise Sales Target and Actual Sales of NT in Lines for PSTN Telephone Service.

Year/Sales/Region	Target and Actual	2061/062	2062/063	2063/064	2064/065	2065/066	Average
Biratnagar	Target	11605	15545	10500	11285	10876	
	Actual	8185	7517	5690	7137	8279	
	Achievement%	70.53	48.36	54.19	6	76.12	62.44
Kathmandu	Target	25313	28350	22880	29150	38072	
	Actual	16061	18127	17579	21082	29825	
	Achievement%	63.44	63.94	76.83	7	78.33	70.91
Birgunj	Target	8750	10400	7440	8440	8243	
	Actual	4757	5032	5084	4301	6308	
	Achievement%	54.36	48.38	68.33	50.96	76.52	59.71
Bhairahaba	Target	12748	13228	8796	5041	9616	
	Actual	6023	9374	4343	9263	7406	
	Achievement%	47.25	71.62	49.37	183.75	77.01	81.56
Nepalgunj	Target	3460	3845	4428	4945	3536	
	Actual	1882	2702	2304	1415	2538	
	Achievement %	67.02	48.43	61.02	4	71.77	85.80
Dhangadhi	Target	3375	3995	1652	1222	2351	
	Actual	2329	2131	1203	97	1858	
	Achievement %	69.01	53.34	72.82	7	79.03	70.64

Source: MIS Report of NT

Regional sales target and achievement is presented in the following diagrams.

Diagram 4.10

Target and Actual Sales of PATN Telephone Service in Lines on Biratnagar Region.

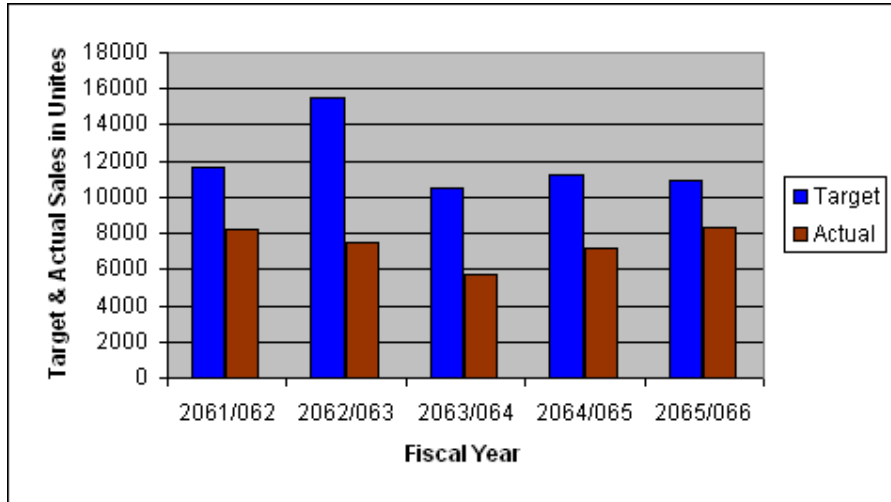


Diagram 4.11

Target and Actual Sales of PSTN Telephone Service in Lines on Kathmandu Region.

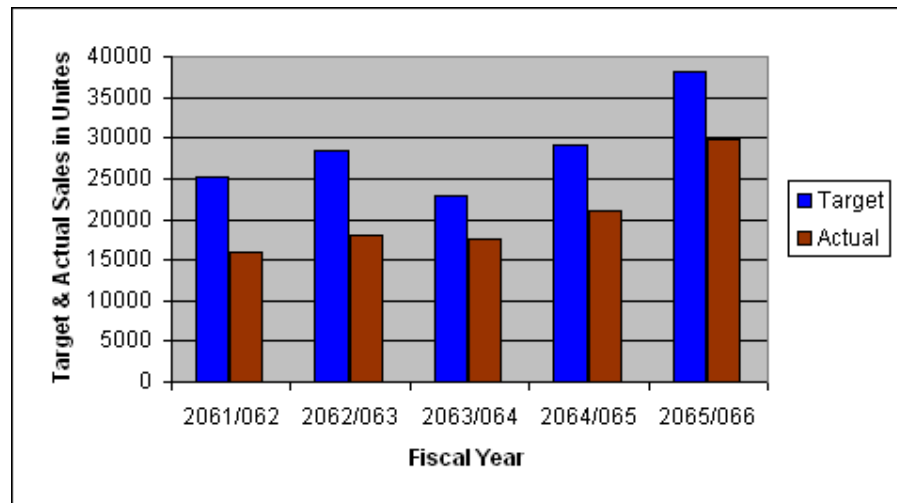


Diagram 4.12

Target and Actual Sales of PSTN Telephone Service in Lines on Birgunj Region.

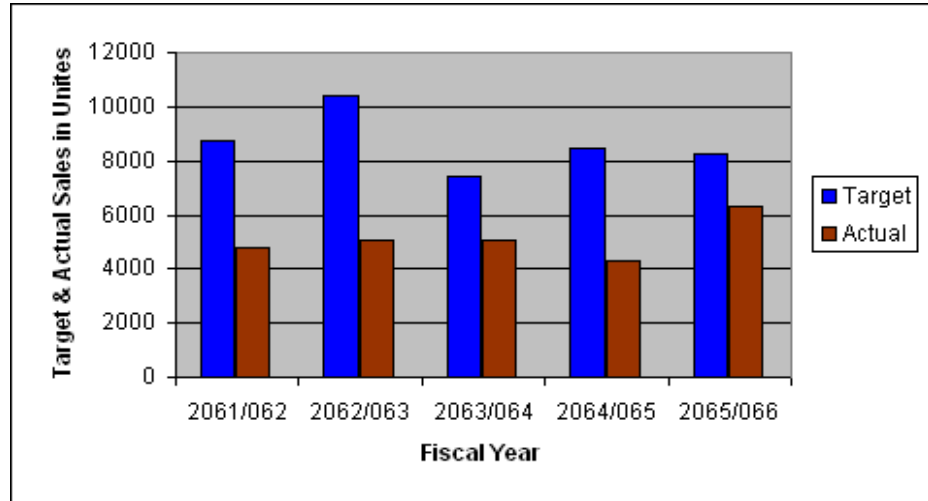


Diagram 4.13

Target and Actual Sales of PSTN Telephone Service in Lines on Bhairahaba Region.

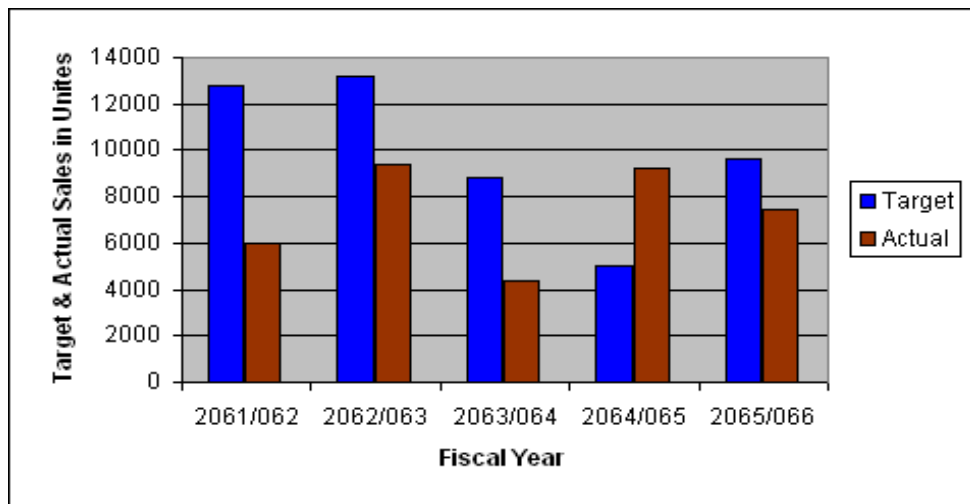


Diagram 4.14

Target and Actual Sales of PSTN Telephone Service in Lines on Nepalgunj Region

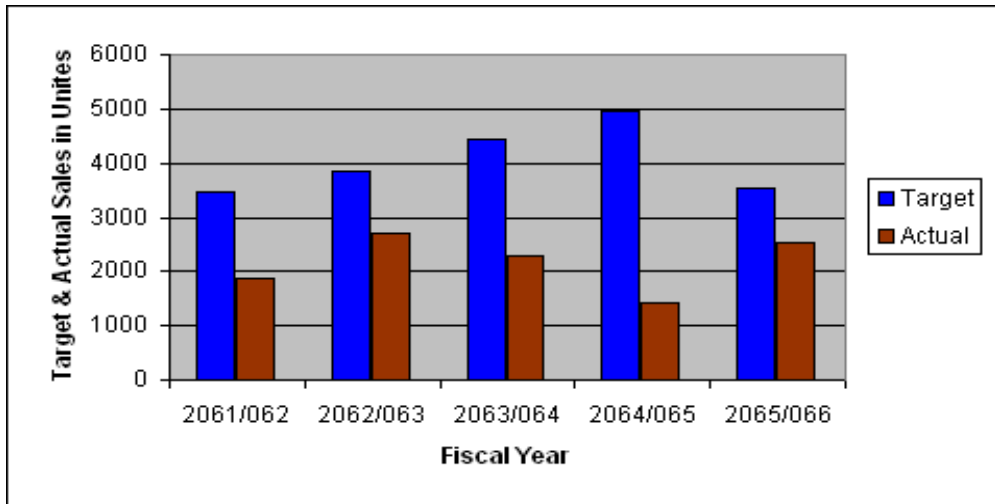
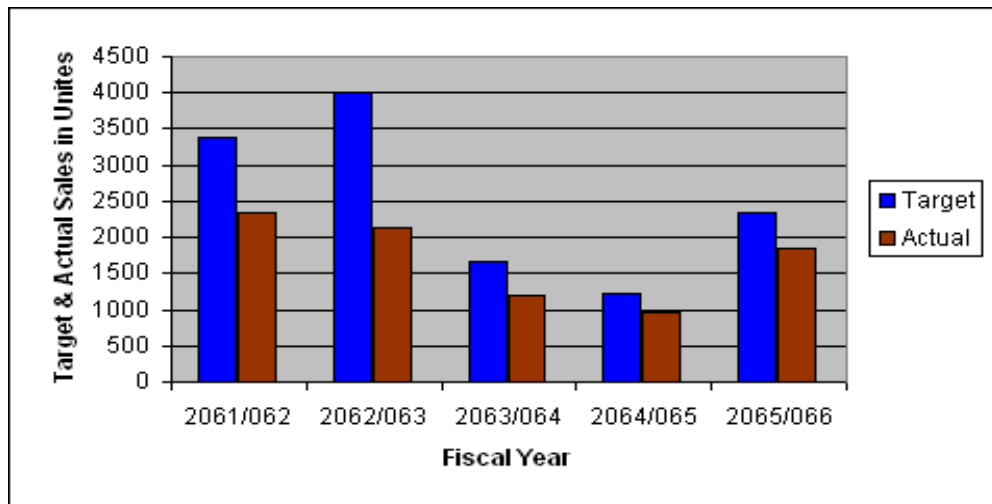


Diagram 4.15

Target and Actual Sales of PSTN Telephone Service in Lines on Dhangadhi Region.



$$\text{Average percentage Achievement of Biratnager} = \frac{312.20}{5} = 62.44$$

$$\text{Average percentage Achievement of Kathmandu} = \frac{354.54}{5} = 70.91$$

$$\text{Average percentage Achievement of Birjung} = \frac{298.53}{5} = 59.71$$

$$\text{Average percentage Achievement of Bhairawa} = \frac{407.79}{5} = 81.56$$

$$\text{Average percentage Achievement of Nepaljung} = \frac{429}{5} = 85.80$$

$$\text{Average percentage Achievement of Dhangadi} = \frac{353.20}{5} = 70.64$$

We can see that, the highest achievement is 183.750 in FY 2064/065 in Bhairawa region and the lowest percentage achievement is 47% in FY 2064/065 in Nepalgunj region. Average high percentage for the 5 fiscal year is 85.80% in Bhairahawa region. And average low percentage achievement for the 5 fiscal year is 59.71% in Birgunj region.

From the above table we can see that actual sales man achievement of PSTN telephone service in Kathmandu region is more than 62% in every year and more PSTN lines were distributed in this region because population density and demand of telephone lines as well as infrastructure development of Kathmandu region is more than other regions. We can conclude that NT should utilize the full capacity of all regions and it should make proper target setting which is suitable to all regions.

4.3 Average revenue per line

Average revenue per line from PSTN Exchange Billing in Rs. of NT is as follows for FY 2061/062 to 2065/066.

Table 4.19

Average Revenue Collection per Line From PSTN Billing System of NT.

Fiscal Year	Average Revenue Per lien in Rs.	% increased/decreased
2061/062	1157	-
2062/063	1039	-
2063/064	1026	-
2064/065	997	2.18%
2065/066	1025	-0.028

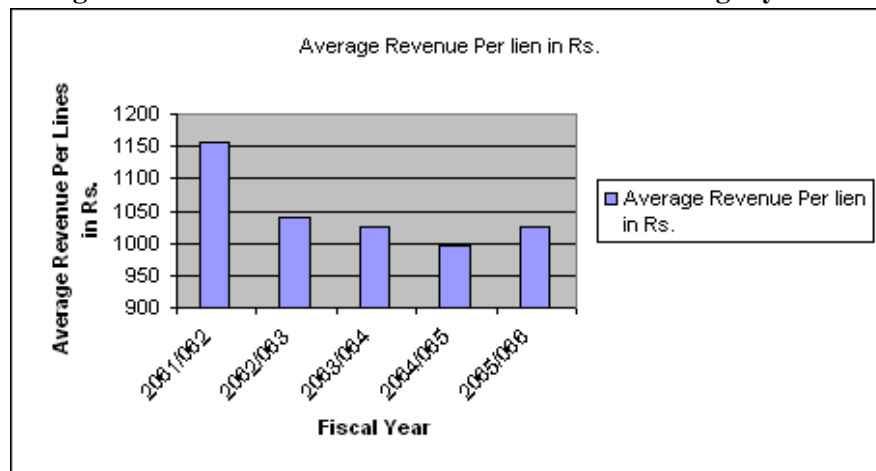
Source: MIS Report, NT, Ashad, 2066 p. 81/82

From the above table, we can see that the average revenue is in decreasing trend till F.Y.

2061/062 to 2063/064 but it has increased in F.Y. 2064/065 by 2.81%. In between the five fiscal years, we can say that the average revenue per line from PSTN telephone service has decreased by 11.41% [i.e. $(1157-1025)/1157=11.41\%$]. From the above information, we can conclude that average revenue has decreased due to modern technology and reduced in calling rate. The reduced in calling rates affected the revenue collection per line. So we can say that, it will certainly beneficial for customers and helps to increase sales (lines).

Diagram 4.16

Average Revenue Collection Per Line From PSTN Billing System of NT.



From the above diagram the average revenue per line of NT is in the decreasing trend.

4.4 Sales and Waiters

For connection of telephone lines of NT, a customer first fill the firm stating that he wants a line of telephone with the rule and regulation the after certain year of waiting he finally gets a line from NT who have fill the firm, are stargazed as no. of waiters. In NT, there is huge number of waiters waiting for a telephone line. The following table no.25 shows the accumulated number of waiters for fives years.

Table 4.20
Number of waiters of NT

Fiscal Year	No. of Waiters	% Increased/Decreased
2061/0	31729	10.93
2062/0	31951	0.67
2063/0	31769	-
2064/0	31440	-
2065/0	31061	-

Source: MIS Report, NT Ashad 2066 P. 39/82

We can see on the above table that the number of waiters has increased in FY 2061/062 and 2062/063, but it has decrease in fiscal year 2063/064 to 2065/066 and From this we can say that the possible customer might have to take the telephone line from the private company.

If NTC wants to retain them competitors will make then the future sales of telephone line will be decreased after year. Therefore NT should make them then as consumer as far as possible. For this it will give them line on demand immediately.

4.5 Sales Per Employee

Sales revenue per employee of NT is as follows in the table.

Table 4.21
Sales Revenue Per Employee

Fiscal Year	Total Sales Revenue (in Rs. '000')	No of Employees	Sales per Employee (in Rs. '000')	% Increase /Decrease
2061/062	882308	4850	1819.239	13.20
2062/063	9194296	5709	1610.492	-11.47
2063/064	11058914	5717	1934.391	20.11
2064/065	14751624	7030	2098.381	8.47
2065/066	17889310	7088	2523.887	20.27

Source: Budget books of NT (FY 2061/062 to 2066/067) MIS Report of NT.

Note: Total Actual sales revenue includes both operating as well as non-operating income.

We can see in the above table that the sales revenue per employ is in increasing trend till FY 2061/062 to and it has decreased in FY 2062/063 and in 2064/065. But overall sales revenue per employee has increased by 38.295% [i.e. $(2523.887 - 1610.492) / 1610.492 = 56.715$].

4.6 Profit on Sales Achievement of NT

Profit is considered as one of the major element of each and every business endeavor for survival further development and fulfilling social expectation. In modern business, efficiency and effectiveness of any business organization or management are measured from earning power of profit. In cases of PES in Nepal, the basic establishment objectives are to mobilize the resource and generate revenue or surplus for substantial economic development, so that PES have to get some profit too. NT prepare a projected profit and

loss. account in advance and the end of each financial year. NT as a PE is also required to generate surpluses for its severity of the unforeseeable adverse circumstances. Following table shows the profit patter of NT.

Table 4.22
Profit Pattern of NT

Fiscal Year	Net Profit After Tax (Rs. in '000')	% Increase /Decrease
2061/062	2622591	-16.40
2062/063	3700557	41.10
2063/064	4936647	33.40
2064/065	5652688	14.50
2065/066	7942902	40.51

Source: Budget book of NT (FY 2061/062 to 2065/066)

The above table shows the much fluctuated net profit trend of NT. Net profit after tax of NT has increased by 41.10% it is good performance but it has decreased in FY 2063/064 by 8%. It is because increase on tax rate and increase of interest expenses on borrowings. Again it has shown high performance in FY 2065/066 Net profit after tax has increased due to increase in total sales revenue. Overall profit achievement of NT is remarkable.

Forecasted and actual net profit of NT for FY 2061/062 to 2065/066 has shown in the table, graph and diagram as follows.

Table 4.23
Forecasted and Actual Net Profit after Tax of NT (Rs. in Million)

Fiscal Year	Forecast	Actual	Achievement in %
2061/062	3073.59	2622.591	85.33
2062/063	3794.93	3700.557	97.51
2063/064	3479.56	4936.647	141.8
2064/065	4132.25	5652.688	136.7
2065/066	5462.68	7942.902	145.40

Source: Budget Book (FY 2061/062 to 2065/066)

Graph 4.10

Forecasted and Actual Net Profit after tax of NT

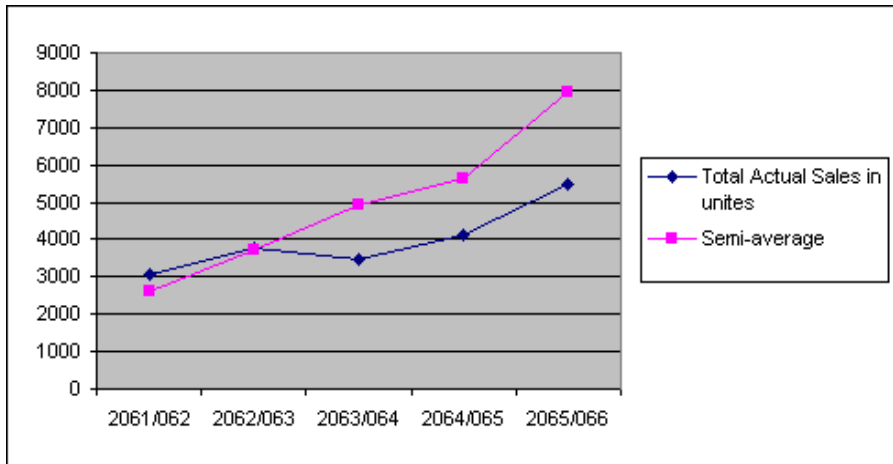
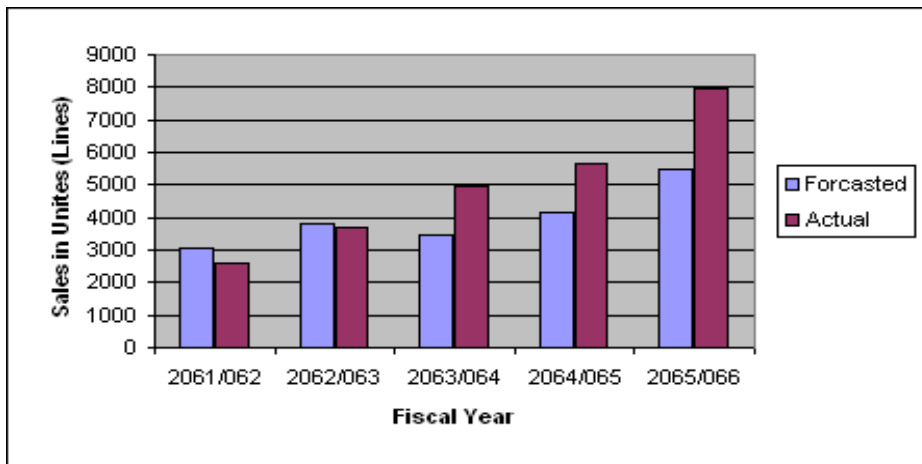


Diagram 4.17

Forecasted and Actual Net Profit after Tax of NT



From the above table graph and diagram we see that the forecast of NP after tax is not realistic. Most of the year achievement of NP after tax is higher than forecasted.

Another way to see the net profit of NT is to compare it with sales revenue. So, table no 4.24 shows the net profit on sales revenue of NT.

Table 4.24

Net Profit on Sales Revenue of NT (in Million)

Fiscal Year	Net Profit after Tax	Total Sales Revenue	% of NP on Sales
2061/062	3073.59	8823.308	36.30
2062/063	3794.93	9194.297	40.91
2063/064	3479.56	11058.914	29.72
2064/065	4132.25	14751.624	28.01
2065/066	5462.68	17889.310	30.53

Source: Budget Books of NT, (FY2059/060 to 2064/065)

Note: Total sales Revenue include both operating revenue as well as non operating revenue.

In general business ethics, at least 10% profit on sales is necessary to move organization well but table no. 29 shows very high percentage of net profit on sales. It means NT could able to fulfill the general business objectives company but which shows that the NT has imposed high call rate to general public and exercising in monopoly market.

The following table shows mean, standard deviation, correlation coefficient and probable error of total sales revenue and net profit after tax.

Table 4.25

Statistical Information

Statistical Tools	Total Sales Revenue	Net Profit After Tax
Mean (Rs. In Billion)	8.6604	3.3554
Standard Deviation (σ) (Rs. in Billion)	1.7306	0.9116
Coefficient of Variation (C.V)	19.98%	27.17%
Correlation Coefficient (r_{xy}) = 0.89		
Probable Error P.E.(r) = 0.0627		

Source: MIS Report of NT.

The above analysis shows that S.D. of total sales revenue is higher than S.D. of net profit after tax, but coefficient of variation shows higher C.V. of net profit after tax than C.V. of total sales revenue. This indicated that net profit after tax is nature of high variability than total actual sales.

To analyze the relationship between total sales revenue and net profit after tax, a statistical tool correlation coefficient (r_{xy}) is used. Here total sales revenue is denoted by X which is assumed as dependent variable and net profit after tax is denoted by Y which is assumed as dependent variable. There is high degree of positive correlation between total sales rev and profit after tax. This indicates that net profit after tax increase as total sales revenue increase. Value of r_{xy} is more than 6 P.E (r), so it is concluded that calculated value of r_{xy} is significant.

4.7 Ratios: Related With Sales

The term "Ratio" referees to the numerical or quantitative relationship between two variables. A ratio is calculated by dividing one item of the relationship with the other based. In other word, ratio is in dictated quotient of two mathematical expression and relationship between or more things.

Financial analysis is the most essential factor to know the performance of organization which presents actual situation of the organization. It is a helpful tool which helps to measure the financial efficiency to achieve the goal of any enterprises. It is necessary to maintain financial strength and reduce financial weakness of any enterprise to encourage financial efficiency. Since financial soundness is vital demand to achieve the goal, the management of the organization should know in which condition the organization on is running. If the present condition in which the corporation is running is assessed then the management can predict the future financial position and can take so each enterprise need to analyze its financial position to acquire knowledge of the financial position of the corporation whether it's running effectively or not.

Here as per research requirement sum ratios related with sales are analyzed and presented in table 4. 26.

Table 4.26
Financial Ratios Related With Sales of NT

Type of Ratios	Formula	2061/	2062/063	2063/064	2064/065	2065/066	Average
1. Operating Profit Ratio	$\frac{\text{Operating Profit}}{\text{Net Sales}} \times 100$	43.96	53.99	49.57	50.90	57.46	51.27
2. Net Profit Ratio	$\frac{\text{Net Profit}}{\text{Net Sales}} \times 100$	36.30	40.91	29.72	40.44	55.96	38.92
3. Adm. Cost Ratio	$\frac{\text{Adm. Cost}}{\text{Sales}} \times 100$	14.41	10.62	15.49	13.01	4.90	11.67
4. Capital Turnover Ratio	$\frac{\text{Sales}}{\text{Total Capital}}$	0.38	0.39	0.41	0.44	0.44	0.41
5. Current Assets Turnover Ratio (in times)	$\frac{\text{Sales}}{\text{Current Assets}}$	0.43	0.42	0.38	0.45	0.46	0.43
6. Fixed Assets Turnover Ratio (in times)	$\frac{\text{Sales}}{\text{Fixed Assets}}$	0.75	0.80	0.95	0.80	0.83	0.83
7. Total Assets Turnover Ratio (in times)	$\frac{\text{Sales}}{\text{Total Assets}}$	0.26	0.26	0.26	0.29	0.65	0.28
8. Debtors Turnover Ratios (in times)	$\frac{\text{Sales}}{\text{Debtors}}$	2.66	2.38	2.99	3.04	3.36	2.89
9. Average Collection Period (in days)	$\frac{\text{Days in a year}}{\text{Sales}} \times \text{debtors}$	1037	153	122	120	109	128
10. Interest Expenses Ratio	$\frac{\text{Interest}}{\text{Sales}} \times 100$	1.63	1.28	1.02	0.63	0.62	1.04
11. Working Capital Turnover Ratio (in times)	$\frac{\text{Sales}}{\text{Net Working Capital}}$	0.90	0.93	0.84	1.56	1.52	1.15
12. Sales Growth Rate (in times)	$\frac{\text{Current Year's Net Sales}}{\text{Previous Year's Net Sales}}$	1.11	1.17	1.15	1.04	1.21	1.14

Source: MIS Report of NT.

(1) Operating Profit Ratio:

Operating profit ratio shows the relationship between operating profit and sales. It measures the profitability of the firm. Higher the operating ratio indicates higher the operating profit. The above table 4.31 shows the operating profit ratio for the fiscal year 2061/062 to 2065/066. The average operating profit ratios of NT is 51.27 which high achievement of NT among the PES.

(2) Net Profit Ratio:

Net profit ratio measure the overall profitability of the firm by establishing relationship between net profit and sales. Net profit margin of indicates margin of commensuration left to the owners for providing their capital after all expenses have been met. A high net profit margin would enable the firm to withstand adverse economic conditions and a low margin will have opposite implications.

From the above table 4.26, the net profit ratio of NT shows higher ratio, which is better than lower ratio, high net profit is a sign of good financial position and higher ratio shows better efficiency of the company.

(3) Administrative Cost Ratio

Administrative cost ratio shows that the relationship between administrative cost and sales. Lower the administrative cost ratio indicates the sign of efficient management. Hence lower percentage is preferable of the company. It is the highest in FY 2064/065 and lowest in the FY 2065/066.

(4) Capital Turnover Ratio

Capital employment is the amount entrusted by the owners and long term loan financiers to the firm. Capital employed turnover ratio is calculated to know the effectiveness in utilization of owner's and long term creditors' fund. The above table shows the capital turnover ratio of NT is very low. This indicates that the inefficient utilization of long term debt and fund. Therefore NT should increase the actual sales to increase the profitability.

(5) Current Assets Turnover Ratio

A ratio between sales and current assets is known as current assets turnover ratio. It measures the activity of the organization. The higher the value of current assets turnover ratio. The higher the value of current assets turnover the more efficient is the Management on utilization of current assets and vice versa. From the above table, this ratio is also not good. Which indicates that the management inefficiency on utilization of current assets.

(6) Fixed Assets Turnover Ratio

A ratio between sales and fixed assets is known as fixed assets turnover ratio. The fixed assets turnover ratio indicates the extent to which the investment in fixed assets contribution toward sales. This ratio measures the efficiency with which the firm is utilizing its investment in fixed assets. Higher the fixed assets turnover ratio indicates better business performance. The above table no.31 shows the degree of utilization of fixed assets in NT is quite satisfactory. We can say that NT is not able to utilize of its existing plant capacity of fixed assets effectively.

(7) Total Assets Turnover Ratio

A ratio between sales and total assets is known as total assets turnover ratio. Higher total assets turnover ratio, in general, indicates the proper utilization of assets of the firm and vice versa. It helps to show the firm's ability of generating sales from the resources available to the firm. Idle assets lead to lower assets turnover. The above table no.31 shows that this ratio in constant position during the five fiscal year. We can predict that the total assets turnover ratio of NT is not so good but quite satisfactory.

(8) Debtor's Turnover Ratio

This ratio indicates the velocity of debt collection of a firm. In other words, it indicates the number of times average debtors are turnover during a year. It is calculated by dividing sales by the trade debtors. The higher the value of its turnover the more efficient the management of debtors or more liquid the debtors and vice versa. From the above table, the debtors turnover ratio of NT is low, which means it requires long time to convert credit sales in to cash.

(9) Average Collection Period

It represents the average no. of days for collecting the cash from debtors. The debt collection period shows on average period for which the credit sales remain outstanding and measures the quality of debtors. The shorter the average collection period the better is the quality of trade debtors as a short collection period implies the quick collection of cash from debtor and three by lesion the risk of bad debt and vice versa. The above table no.31 shows that the average collection period in days

of NT is very high in first two fiscal years. And it is decreasing trend till FY 2064/065 and 2065/066. The average of the five fiscal years not good for NT. This indicates in efficiency in collection of credit sales on time.

10) Interest Expenses Ratio

The ratio between interest expenses and sales is known as interest expenses ratio. It measures the stability of the firm. The lower the value of interest expenses ratio, the more efficient is the management of utilization of external capital. The table no. 31 shows the decreasing trend of interest expenses ratio of NT, which indicated that the better and less utilization of external capital or borrowed capital. It shows the strong capability of management on utilization of external capital.

(11) Working Capital Turnover Ratio

The ratio between sales and working capital is known as working capital turnover ratio. This ratio shows the number of times the working capital is turned over in a stated period. The higher capital and the greater are the profits. From the above table, in FY 2064/065, there is the effective utilization of W/C because the W/C ratio is high in this fiscal year.

(12) Sales Growth Rate

A ratio between current years' net sales and previous year's net sales is known as sales growth rate. It is expressed in times. It measures the possibility in growth of organization. Higher the sales growth rate shows hither the sales performance of organization. The above table shows that the sales growth rate is in the increasing trend which is positive sign for further growth or organization.

From the above analysis, we can be concluded that the financial performance realizing with sales of NT gives mixed result. Some of the ratios are quite good and favorable to organization but some of them are not so good. In average the performance of NT is satisfactory.

4.8 Cost-Volume-Profit Analysis

Cost-Volume Profit (CVP) analysis is the process of costs and profits for a relevant range of activity and for a particular time frame. It helps to understand the inter

relationship between cost, volume and profit in an organization by focusing on interaction between price of products, volume or level of activity, per unit variables costs, total fixed cost and mix product sold. It is one of the most important and powerful analytical tool for short- term planning. It is a study of cost behavior generally cost behaves in two ways with relation with the volume of output is called variable cost and the second is called fixed cost which is in constant on certain level of production. Thus, CVP is an analytical tool to differentiate these two costs and interpret the required volume of production and estimated profit.

CVP analysis is an important tool of profit planning. It is generally used to determine break even point or to gain certain amount of profit. It is method to cover fixed, variable cost and have an estimation of profit. It is method to cover fixed, variable cost and have an estimation of profit. In ways it is a plan for future manufacturing activities. CVP analysis provides attention directing motive in the overall performance of the business enterprise. It indicates at which volume cost and revenue are in equilibrium. BEP is defined as those level of production where revenues and cost of firms are equal and their is neither profit or loss

Cost-volume profit analysis of NT is based on certain assumptions which are as follows:

- (i) Cost volume structure is based on the accounting data of FY 2065/066.
- (ii) Activity base is selected in terms of sales.
- (iii) All costs are classified into two categories fixed cost and variable cost.
- (iv) Selling price, variable cost ratio, fixed cost per annum is assumed to be constant for the whole year
- (v) There is no inventory
- (vi) The classification of expenses in fixed and variable components is as under:

Table 4.27
Classification of Cost (Rs. in '000')

S.N.	Expenses Items	Cost Behavior	Based on FY 2065/ 066
1	Employees Expenses	Fixed	1623.581
2	Operation & Maintenance expenses	Variable	840.580
3	Depreciation expenses	Fixed	1681.293
4	Administrative Expenses	Fixed	840.580
5	Interest (Borrowing, Subscriber Deposits)	Fixed	65.045
6	Royalty & RTDF	Fixe	819.299
	Total		5570.383

Source: MIS Report of NT, Ashadh, 2066.

Budget Book of NT 2061/062 & 2065/066

Total sales units (lines) =562162 lines

Total sales revenue = Rs. 20646628886 Total variable cost = Rs. 16806563886

Total variable cost = Rs. 655127000

Total fixed cost = Rs. 3840065000

With the help of above data, we can analyze the following relationship of cost, volume and profit.

(A) Variable Cost Volume Ratio (V.V. Ratio)

V.V Ratio shows the proportion of variable cost and sales revenue. The following formula is used to calculate the V.V. ratio.

$$\begin{aligned}
 \text{V.V Ratio} &= \frac{\text{Variable Cost}}{\text{Sales Revenue}} \\
 &= \frac{16806563886}{20646628886} \\
 &=0.81
 \end{aligned}$$

(B) Profit Volume Ratio. (P.V. Ratio):

This ratio shows the proportion o margin left for fixed cost and profit per rupee of sales.

$$\begin{aligned}
 \text{P.V Ratio} &= 1 - \frac{\text{Variable Cost}}{\text{Sales Revenue}} \\
 &= 1 - \frac{1680656886}{20646628886} \\
 &= 0.19
 \end{aligned}$$

(C) Break Even Point (BEP):

BEP may be defined as a point of which the firm's total revenues are exactly equal to total cost, yielding zero income. The no profit no loss point is a break-even point or a point of which loss ceases and profit begins with the help of PV ratio we can calculate the break even point (BEP) of NT fro F/Y 2065/066.

$$\begin{aligned}
 \text{BEP in Rs.} &= \frac{\text{Fixed Cost}}{\text{P.V. Ratio}} \\
 &= \frac{3840065000}{0.19} \\
 &= \text{Rs. } 20210868421
 \end{aligned}$$

Here NT's sales revenue (i.e. Rs. 20646628886) is higher than BEP sales (i.e. Rs. 20210868421). So, it indicates that CVP position of NT is very good. It means NT is in profit in current year.

Calculation of profit for FY 2065/066

$$\begin{aligned}
 \text{Profit} &= \text{Sales Revenue} \times \text{P.V. Ratio} - \text{Fixed Cost.} \\
 &= 20646628886 \times 0.19 - 3840065000 \\
 &= \text{Rs. } 482794488
 \end{aligned}$$

(D) Margin of Safety(MOS)

Margin of safety is the excess of budgeted (or actual) sales over the break even sales volume. It is the difference between the budgeted or actual sales revenue and the break- even sales revenue. MOS of NT for the FY 2065/066 is as follows:

$$\text{MOS} = \text{Actual Sales} - \text{B.E. Sales}$$

$$= 20646628886 - 20210868421$$

$$= \text{Rs. } 435760465$$

Margin of safety ratio for F/Y 2065/066 of NT

$$\begin{aligned} \text{MOS Ratio} &= \frac{\text{MOS}}{\text{Actual Sales}} \times 100 \\ &= \frac{435760465}{20646628886} \times 100 = 60.65\% \end{aligned}$$

Profit for the Year

$$\begin{aligned} \text{Profit} &= \text{MOS} \times \text{P/V Ratio} \\ &= 435760465 \times 0.937 \\ &= \text{Rs. } 7942901598 \end{aligned}$$

The above figure shows that the profit for FY 2065/066 will be Rs. 7942901598. From the above calculation of FY 2065/066 it seems that NT will be breakeven when sales revenue will be Rs. 435760465. At present cost structure the sales revenue Rs.20646628886 which is generating surplus. It indicates the good position of NT in terms of cost-volume-analysis.

4.9 Flexible Budget

A flexible budget is one which is designed to provide information as to sales, expenses and profit for different level of activity which may be attained. It is complementary to tactical budget. The essence of flexible budget is to present estimated cost data in a number that permits their determination at various level of volume. This mean that all the cost must be identified as to show their behavior with a change in volume whether they very remain fixed. However, NT does not prepare its flexible budget.

On the basis of the cost and other data of FY 2065/066 of NT, the flexible budget has been prepared bellow. Variable cost changes proportionally with change in level of activity but fixed cost remain constant for reasonable.

Table 4.28

Flexible Budget of NT Ending FY 2063/064. (Rs. in Million)

Description	Level of Activity				
	60%	70%	82%	100%	110%
Sales in Units (Lines)	323251	377010	430868	538585	592444
Sales Revenue	7810.24	911.947	10413.653	13017.068	14318.774
Less: V.C.	491.345	573.236	655.127	18.909	900.80
Contribution Margin	7318.895	8538.711	9758.384	12198.159	13417.974
Less: F.C.	3840.065	3840.065	3840.065	3840.065	3840.065
Net Profit before Tax	3478.83	4698.646	5918.319	8358.094	9577.909

Source: MIS Report of NT, Ashadh 2065 & 2066.

Note: Total installed capacity (PSTN lines) = 656070 lines

Total distributed lines up to 2063/064 = 509873 lines

$$\begin{aligned}\text{Level of Activity} &= \frac{509873}{656070} \times 100 \\ &= 77.71\% \approx 78\%\end{aligned}$$

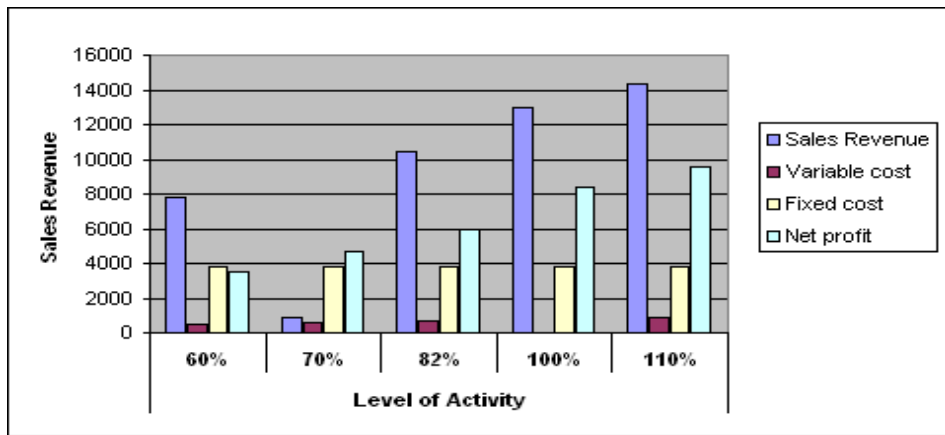
NT is operating on the 78% capacity (level of activity) in FY 2064/065

From the above table we can say that NT will be able to earn sufficient profit when it runs in full capacity level. The current performance is also good.

The flexible budget can also be presented in the diagram for the level of activity from 60% to 110% of capacity level.

Diagram 4.18

Sales Revenue, Variable Cost, Fixed Cost and Profit of NT.



4.10 Variance Analysis

Variance is the deviation between budgeted or planned goals and actual results. For better performance the next step it is necessary to analyze variances and to determine the underlying causes for managerial planning and control purpose variance are deemed to be favorable and unfavorable, depending on whether they reflect performance above or below standard. It is the basic features or performance report to indicate the variance between actual results and planned and budgeted goals. If a variance is significant, a careful study should be made management to determine the underlying causes. There are numerous ways to study or investigate variance.

- Direct observation
- Investigation by staff groups
- Internal audits
- Special studies
- On the spot investigation by line management.
- Analysis of work situation including the flow of work, coordination of activities effectiveness of supervision and other prevailing circumstance.

Variance analysis is an important tool that can increase the usefulness of period performance report. Rather taking action only on the basis of different between actual and planned or budgeted. Variance analysis has wide application in financial reporting. It is frequently applied in following situations.

- Investigation of variance between actual result and standard cost. The standard costs are used as the base.
- Investigation of variance between actual of the current period and the actual results of prior period. The prior period is considered as the base.
- Investigation of the variances between actual result and planned goals reflected in the profit plan. The planned goals are used as the base.
- Generally following steps involve in analyzing variances:
 - Setting standards.
 - Measurement of performance
 - Analyzing variances
 - Taking correlative action

Sales Variance of NT

I am going to analyze sales variance in units (lines) and Rupees as required for this research paper when actual sales are higher than budgeted sales it is known as favorable variance and such as variance is usually a sign of efficiency of the NTN and vice versa.

The following table shows the sales variance of NT of last five fiscal year.

Table 4.29
Sales variance of NT in lines

Fiscal Year	Budgeted Sales	Actual Sales	Variances (±)	Remarks
2061/062	116171	164885	48714	Favorable
2062/063	189433	115531	73902	Unfavorable
2063/064	186895	430868	243973	Favorable
2064/065	198767	532391	333624	Favorable
2065/066	204657	562162	357505	Favorable

Source: MIS Report of NT

From the analysis of the above table we find that the actual sales achievement in F.Y 2062/063 is unfavorable and it is Favorable in remaining F.Y.

The following table shows the sales variance of PSTN telephone service on NT for last five fiscal years.

Table 4.30
Sales Variance of NT in lines

Fiscal Year	Budgeted Sales	Actual Sales	Variances (±)	Remarks
2061/062	55696	36601	19095	Unfavorable
2062/063	60083	45058	15025	Unfavorable
2063/064	61895	32522	29373	Unfavorable
2064/065	68494	53239	15255	Unfavorable
2065/066	72698	56216	16482	Unfavorable

Source: MIS Report of NT, Ashad 2065

From the analysis of above table we find that the actual sales is low in each fiscal year, which remarks or shows that variance are unfavorable for every fiscal year.

Table 4.31
4 Months Wise Sales Variance of NT in lines

Total 4 Months	Year	Budgeted Sales	Actual Sales	Variances (μ)	Remarks
Total of 1 st 4 Months	2061/062	23473	10809	12664	Unfavorable
	2062/063	23490	20067	12251	Unfavorable
	2063/064	24650	18401	21597	Favorable
	2064/065	23473	10809	21232	Favorable
	2065/066	23490	20067	16556	Unfavorable
Total of 2 nd 4 Months	2061/062	24650	18401	3423	Favorable
	2062/063	23473	10809	11993	Unfavorable
	2063/064	23490	20067	8099	Unfavorable
	2064/065	24650	18401	40916	Unfavorable
	2065/066	23473	10809	26388	Favorable
Total of 3 rd 4 Months	2061/062	23490	20067	6249	Unfavorable
	2062/063	24650	18401	1844	Favorable
	2063/064	23473	10809	35216	Favorable
	2064/065	23490	20067	41028	Unfavorable
	2065/066	24650	18401	15894	Favorable

Source: MIS Report of NT

The above table shows unfavorable result most of the quarter of five fiscal years. But it performs high achievement in 3rd 4 months of F.Y. 2065/066, which indicates that the overall sales performance is satisfactory.

Table 4.32
4 Months Wise Sales Variances of NT in Lines for PSTN Telephone Service.

Total 4 Moths	Year	Budgeted Sales	Actual Sales	Variances (±)	Remarks
Total of 1 st 4 Moths	2061/062	21692	8116	13576	Unfavorable
	2062/063	21454	14352	10770	Unfavorable
	2063/064	22107	12388	6271	Unfavorable
	2064/065	21692	11431	8172	Unfavorable
	2065/066	21454	23738	4437	Unfavorable
Total of 2 nd 4 Moths	2061/062	22107	17335	4119	Unfavorable
	2062/063	21692	14298	10331	Unfavorable
	2063/064	21454	10438	7763	Unfavorable
	2064/065	22107	13779	5599	Unfavorable
	2065/066	21692	15236	8031	Unfavorable
	2061/062	21454	14186	7921	Unfavorable
	2062/063	22107	15493	10119	Unfavorable

Total of 3 rd 4 Moths	2063/064	21692	13775	5061	Unfavorable
	2064/065	21454	19844	1258	Unfavorable
	2065/066	22107	17242	4014	Unfavorable

Source: MIS Report of NT

The above table shows that the sales variance in all quarter of the five fiscal year has unfavorable result. This indicates about poor sales planning of NT. The following table shows the sales variance of NT in units (lines) in reasons wise for the five fiscal year.

Table 4.33
Reason wise Sales Variance of NT in Lines

Fiscal Year	Region	Budgeted Sales	Actual Sales	Variances (±)	Remarks
2061/062	Biratnagar	11605	8185	2320	Unfavorable
	Kathmandu	25313	16061	9252	Unfavorable
	Birjung	8750	4757	3993	Unfavorable
	Bhairahawa	12748	6023	6725	Unfavorable
	Nepaljung	3460	2319	1141	Unfavorable
	Dhangadi	3375	2329	1046	Unfavorable
2062/063	Biratnagar	15545	7517	8028	Unfavorable
	Kathmandu	28350	18127	10223	Unfavorable
	Birjung	10400	5032	5368	Unfavorable
	Bhairahawa	13228	9474	3754	Unfavorable
	Nepaljung	3845	1862	1983	Unfavorable
	Dhangadi	3995	2131	1864	Unfavorable
2063/064	Biratnagar	10500	5690	4810	Unfavorable
	Kathmandu	22880	17579	5301	Unfavorable
	Birjung	7440	5084	2356	Unfavorable
	Bhairahawa	8796	4343	4453	Unfavorable
	Nepaljung	4428	2702	1726	Unfavorable
	Dhangadi	1652	1203	449	Unfavorable
2064/065	Biratnagar	11285	7137	4128	Unfavorable
	Kathmandu	29150	21082	8068	Unfavorable
	Birjung	8440	4301	4139	Unfavorable
	Bhairahawa	5041	9263	4222	Favorable
	Nepaljung	4945	2304	2641	Unfavorable
	Dhangadi	1222	971	251	Unfavorable
2065/066	Biratnagar	10876	8279	6895	Unfavorable
	Kathmandu	38072	29825	8585	Unfavorable
	Birjung	8243	6308	6321	Unfavorable
	Bhairahawa	9616	7406	3432	Unfavorable
	Nepaljung	3536	2538	2935	Unfavorable
	Dhangadi	2351	1858	1205	Unfavorable

Source: MIS Report NT

In the above table only fiscal year 2064/065 in Bhairahawa region there is favorable sales variance but in the entire remaining region the sales variance has unfavorable. It shows that the regional sales budgets are not effective through out the five fiscal years. This means NT has poor regional sales planning in units.

The following table shows the sales revenues variance of NT in Rs. for the last five fiscal years.

Table 4.34
Sales Variance of NT in Amount (Rs. In Million)

Fiscal Year	Budgeted Sales	Actual Sales	Variance(±)	Remarks
2061/062	7316.55	8318.97	427.81	Favorable
2062/063	8819.06	8584.14	926.46	Unfavorable
2063/064	8696.68	13413.65	1423.30	Favorable
2064/065	15739.02	16788.36	60.279	Favorable
2065/066	18708.05	20646.62	1266.97	Favorable

Source: Budget Books of NT

From the analysis of NT above table we find that sales revenue variances are positive except in FY 2062/063. So that it is favorable, which means NT is operating in efficiently.

4.11 Major Finding

From the above analysis of the sales budgeting and financial position using different types of statistical and financial tools, we come to know that there are many problems in formulating and implementing of sales budgeting and planning. On basis of different analysis, observation and informal discussion the following major finding have been drawn.

- (1) NT has the practice of preparing short-range sales budget but long range sales budget is not prepared in detail. Also there is a system of keeping Management Information System (MIS) Report in this company.
- (2) The total actual sales units of NT are in increasing trend. Actual sales revenue is always higher than target except F.Y. 2062/063

- (3) The actual sales units of PSTN telephone service of NT is fluctuated every year.
- (4) Total actual sales units are nature of more variability than actual sales units of PSTN telephone service.
- (5) There is not clear information about total installed capacity for over all services.
- (6) But of PSTN telephone service is given in MIS report so, production budget is prepared only PSTN telephone service.
- (7) There is high degree of positive correlation of total sales units, but low degree of positive correlation of PSTN sales units.
- (8) The regression equation and straight line of trend shows increasing trend of overall sales.
- (9) Coefficient of variation of net profit after tax is more than C.V of total sales revenue, so net after tax is nature of more variable than total sales revenue. The correlation coefficient shows high degree of positive correlation between total sales revenue and net profit after tax.
- (10) Average revenue per line from PSTN exchange billing system of NT is in decreasing trend. It has decreased by 11.41% from FY 2061 /062 to 2065/066.
- (11) Number of waiter of telephone line of NT is in decreasing trend.
- (12) Profitability ratios i.e. Net profit ratio, operating profit ratio shows better performance of NT in generating profits from sales.
- (13) Low ratio of administrative cost indicates the better control of cost and efficient management of NT.
- (14) Capital Turnover Ratio of NT is very low, this indicates that the inefficient utilization of long term debt and fund.
- (15) Current assets turnover ratio fixed assets turnover ratio and total assets turnover ratio of NT are also not good. Which indicates the inefficiency on utilization of current assets fixed assets and total assets.
- (16) Debtor's turnover ratio and average collection period of NT are not good which indicate the inefficiency in collection of credit sales on

time.

- (17) There is no proper practice of cost segregation into fixed and variable cost and there is no systematic approach to record manufacturing costs. It creates problem for analysis.
- (18) The cost volume profit analysis of NT shows that BEP (Break Even Point) is satisfactory.
- (19) The installed capacity has not been fully utilized in NT. If the installed capacity is utilized, the operating expenses will go down.
- (20) There is lack of proper coordination between the various responsible departments and only the top level executives are involved in planning and decision making process. (21) Internal and external variables providing opportunity, threat, strength and weakness are not identified clearly.

CHAPTER V

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

In Nepal PES were established with the objectives of accelerating the rate of economic growth, mobilization of economic growth, mobilization of available resources, generate employment profit necessary for the development of the country. But, creating new Nepal is possible only when the political and economical situation could be favorable for development situation could be favorable for development of country. We can not imagine the concept of new Nepal in a present state of crisis, fundamentally rooted in a failure of productive organization associated with its economic and political under development. Most of the PES ineffectiveness due to lack of managerial efficiency for appropriate planning and control.

Sales plan or budget is first and important step in developing the overall budget procedure. Sales planning are the starting point in preparation of corporate profit planning and control. All the plans or budgets depend upon the sales budget. After having the planning premises of the organization the sales plan is developed, sales plan is the first plan or budget of profit plan. Profit planning is closely related with planning the sales, so sales plan plays every importance role in profit plan. Hence it is called and means of profit plan, which is the source of production for periodic planning in the firm planning practically all other enterprises planning, are built on it the primary source of cash is sales in any enterprises. All the business operations are directly linked with the sales budget and sales budget must be realistic. If the sales plan is not realistic, all the other elements of profit plan will be out of reality. Nepal

Nepal Telecom is a public utility concern entity, which is a leading corporation in the sector of telecommunication was established under the communication corporation act 2028. To provide essential national wide low cost reliable and readily available telecommunication service to the general public, government offices, business organization and the country as a whole there by supporting for the country. Public enterprises are strong means to develop infrastructure. It helps to provide required goods and service anthem country. But majority of the Nepalese PES has failed to

achieve financial capability and work efficiency and are still the depend on government grants. That is why the comprehensive profit planning is not practiced and implementation of sales plan and control and its effectiveness in Nepalese non manufacturing public enterprises. For this purpose Nepal Telecom (NT) is selected as sample PE for the study. The main objective of the study is to evaluate the current practice of sales plan and control and its effectiveness in Nepalese non-manufacturing public enterprises Nepal Telecom. It has tried to answer of certain questions started in the statement of problem.

This study has tried to examine the sales followed by NT and scope of the study is limited for five years FY 2061/062 to 2065/066 B.S. The study design of this study descriptive and analytical and research data has been collected mainly from secondary source. Related literature has been reviewed from the books, reports, thesis, government publications, journals, bulletin etc. statistical tools like mean, standard deviation, coefficient of variation semi-average trend, 3- years moving average trend, seasonal indices, correlation, regression , least square trend etc. have been used to analyze the data. Similarly, financial tools like ratio analysis, CVP analysis; variance analysis has been also used. The collected data has been also presented with the help of table, chart and diagram. This study has been organized in five main chapters i.e., introduction, literature review, research methodology, presentation and analysis of data and summary, major finding and recommendations.

5.2 Conclusions

After analyzing the practice of sales planning of NT it is concluded that, NT prepares both long term and short term profit plans but the long term profit plan is confined only to top level. Long range sales planning of NT are not shown according to category of consumer and time wisely. The overall actual sales lines are in increasing trend and it exceed target in All F.Y. Except in F.Y. 2062/063, but actual sales revenue of NT is always higher than budget. Correlation analysis shows the high degree of positive correlation between actual and budgeted sales in units, but low degree of positive correlation between actual and budgeted sales unit of PSTN telephone service. The correlation between actual and budgeted production also shows low degree of positive correlation. But, there is high degree of positive

correlation between actual sales and actual production of PSTN telephone lines. 4 month wise total sales target and achievement in lines is quite satisfactory. But monthly 4 months wise and regional sales target and achievement in lines of PSTN telephone service is not satisfactory. NTs budget is not realistic to its sales and production achievement. Idle capacity of installed telephone lines is as increasing trend. Which, affects to generate?

revenue. The high degree of positive correlation between total sales revenue and net profit after tax indicates that the net profit after tax increase as the total sales revenue increase. Net profit margin of NT is in increasing trend which shows positive aspect in profit planning. Average of sales related ratios shows satisfactory financial performance of the company. Cost-Volume-profit analysis shows that BEP is satisfactory but C.V relationship is not consider while developing the sales plan. There in not clear cut boundaries to separate cost into fixed and variable. The concept of variance analysis ignored in the company, it gives negative impacts on the sales planning of the company. NT fail to analyze its strengths and weakness in depth because of the absence of the competitors, it has become monopolistic consents concern, and hence, it is not alert towards its possible threats and opportunities.

5.3 Recommendations

After analysis of sales planning of NT, some suggestions have been recommended on the basis of the major findings of the study. It is hoped that these recommendations will be useful to the management of the NT, other concerned offices, individuals, institutions and other interested parties.

1. Sales budget should be made on realistic ground because all other functional budgets depend upon sale budget. Basis of setting target for sales and production should be defined carefully. Thus, the realistic long range, medium range and short range forecast should be made. .
2. Without giving more autonomy, NT management can not work effectively and the decision out taking government acceptance NT can not take any vital decision. Due to these causes NT can not takes vital advantage of opportunities. There fore government should provide more autonomy to the management of a NT and make them responsible and, accountable according to their work.
3. The number of waiters of telephone lines are very large. So, NT should expand its capacity immediately.

4. Sales variance of NT are unfavorable most of the time. So, variance should be analyzed variance should be diagnosed and identified timely. Favourable unfavorable variances should be controlled in time and respective officials should be made responsible for any deficiency.
5. Lower level management participation should be encouraged in profit planning and similarly, there should be proper communication to all level of management about the tactical and strategic plan of the corporation.
6. There should be proper coordination and interaction between various directorate of the corporation in regard of formulation and implementation of the budget.
7. Long term objectives should be clearly formed so as to make a clear destination between profit motives and social motives.
8. The financial position of the company should be timely evaluated through ratio analysis and other relevant financial and statistical tools, models are recommended to evaluate its financial position.
9. In NT the installed capacity has not been fully utilized. If the installed capacity is utilized the operating expenses will go down.
10. It is strongly suggested to establish a separate costing department as well as a separate costing system so as to segregate cost into fixed, variable, controllable, uncontrollable, direct, indirect etc. This will help to make the control system very effective and dynamic. On the other hand, it will help to reduce unnecessarily increasing cost.
11. When preparing the sales plan, NT has practice of CVP analysis, which brings problem in providing services. It is necessary to know that what the less profit at level is. So, NT should prepare the CVP analysis.
12. NT should develop systemic periodic perforce reports in detailed by assigned responsibility for accomplishing the planning objectives.
13. The huge projects like CDMA should be implemented timely and rapidly according to its policies and programs.
14. If huge competition will be there in future, it should be ready to fulfill the demand of telephone lines. So, NT should prepare for this task.
15. Sales related ratios are in favorable position but it is recommended to increase sales lines than this. If the sales will be more than revenue will be also increased.
16. The sales plan of NT should make on the basis of performance of company ability because maximum plan based on adhoc basis.

17. Finally, competition in telecommunication sector had begun. The monopoly of NT in telecommunication sector has ended. In the environment of big cut throat competition it should attract many customers by expanding extra capacity and should play leading role in this sector. It should be very well aware of its strength and weakness. It should be aware lead of strategies of its competitor's and should develop its own policy in a systematic way towards comprehensive profit planning.

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APPENDIX-I
Nepal Telecommunication Company Ltd.
Balance of Last five years

Rs. In hundred million

Particulars	2061/62	2062/63	2063/64	2064/65	2065/66
Capital & providend fund share capital	150	150	150	150	150
Provident fund and fund	58.25	86.86	117.94	203.43	266.29
Loan	0.24	-	1.91	-	64.78
Total	208.50	236.86	279.85	353.43	481.07
Assets:					
Total Assets:	191.68	214.12	242.34	272.41	313.89
Less Depreciation	(101.27)	(113.23)	(128.73)	(143.44)	(160.24)
Net Assets	90.40	100.88	113.61	128.97	153.65
Capital W.I.P.	24.52	24.43	37.64	39.22	33.16
Investment	33.38	41.56	48.83	83.70	111.67
Deferd Tax Assets	-	-	-	9.87	11.73
Current Assets:					
Inventory	3.09	3.29	3.27	4.16	1.80
Receivable	28.25	30.99	34.55	34.82	46.51
Bank & Advance	95.74	120.21	147.46	161.34	181.91
Loan & advance	78.88	70.76	49.90	41.47	56.99
Total current assets	205.98	225.26	235.19	241.80	287.21
Current Liability	38.58	44.75	57.12	79.15	67.18
Provision	108.64	111.89	99.62	70.98	88.63
Current Liability and Provision	-	-	-	150.14	155.81
Net current assets	58.75	68.61	78.44	91.66	131.4
Deffered expenses	1.42	1.36	1.31	-	3.33
Total	208.50	236.86	279.85	353.43	481.07

APPENDIX -II
Nepal Telecommunication company Ltd. P.L Account of Last Five year
Rs. In hundred million

Particulars	2061/62	2062/63	2063/64	2064/65	2065/66
Income:					
Operating income	85.84	104.12	139.67	167.88	217.08
Non Operating income	6.10	6.45	7.54	11.01	10.17
Total Income	91.94	110.58	147.51	178.89	227.25
Expenses:					
Staff Exp.	11.36	11.64	12.80	15.98	35.80
Repair and maintenance Exp.	1.32	5.52	6.55	7.97	15.78
Administration Exp	4.08	4.42	8.53	9.11	8.40
Pay to rural Development	0	0	2.70	3.35	4.09
Royalty	4.91	5.91	5.40	6.71	8.19
Interest on customer deposit					0.48
Interest on loan	0.0069	0.011	0	0.10	0
Depreciation	10.68	11.95	13.66	14.86	16.81
Foreign Exchange Gain/Loss	(2.51)	(2.80)	5.26	0.026	(4.96)
Liesense and Deferd Exp.	0.40	0.40	0.58	0.70	0.41
Loss on goods sold	0.38	0.18	5.23	0.22	0.11
Bonus provision	1.87	1.95	2.40	2.56	3.01
Provision for incentive	0.93	1.26	2.43	3.49	3.48
Total expenses	42.72	42.15	67.68	70.17	91.6
Income before tax	49.21	68.43	79.83	108.71	136.30
Tax	(13.79)	(19.07)	(23.30)	(31.30)	(36.42)
Net Income after tax	35.42	49.36	56.52	77.41	10.17
Last year profit	53.34	56.65	86.02	83.85	79.42
Last year tax adj.	-	(3.44)	0.14	0	0
Last year adjustment	1.58	0.012	2.18	0	0
Defered	0	0	0	2.01	3.33
Profit for allocated	90.35	102.58	132.10	0	265.45
Amt of dividend	(5.55)	(6.88)	(15.0)	0	(30.11)
Last year incomplete dividend	0	0	8.11	0	0
Net profit after dividend	84.80	95.69	117.10	79.42	235.34
Income tax return to retained earning	0	5.69	0	0	0
Capital fund return to retained earning	0	0.74	0	0	0
Payment of retain earning to Nepal Govt.	29.0	16.11	0	0	0
From sinking fund	0.85	0	0	0	0
Retaind earning transferred to B/S	56.65	86.65	117.10	79.42	83.65

APPENDIX-III
Nepal Telecommunication Company Ltd.
Economic Indicators

Particulars	2061/62	2062/63	2063/64	2064/65	2065/66
Total Income (Rs.)	9194297	110589148	14751623	17889310	21147582
Staff Exp. (Rs.)	1418530	1486851	1764933	2204296	3580212
Repair and Maintenance (Rs.)	5521615	6551270	7973975	1219001	1578348
Depn Exp. (Rs.)	1048435	1195081	1366504	1486129	1621293
Other Exp.(Rs.)	1253639	878128	2839465	2108427	1673739
Total Exp. (Rs.)	4272768	4215188	6768301	7017854	8513592
Income before Tax (Rs)	49215289	68437268	79833219	10871456	13633990
Income After Tax (Rs)	35424613	49366472	56526884	79429015	10178025
Net profit margin (%)	38.53	44.64	38.32	44.4	45.96
Total shareholder's equity	20825855	26686026	26794280	35343894	41629022
Total capital employed	20850093	23686026	27985960	35343894	46280626
Return on capital employed (%)	17.10	22.17	22.17	25.15	24.94
Return on share holder equity (%)	17.11	22.18	22.4	25.57	26.44
EBIDA margin	65.38	73.07	63.78	69.53	69.33
Book value per share (Rs)	138.84	157.91	178.63	235.63	277.53
Share number	150000000	150000000	150000000	150000000	150000
EPS (Rs)	23.62	32.91	37.68	52.95	67.85

APPENDIX-IV
Company's Work Performan Analysis

S.N.	Particulars	2061/62	2062/63	2063/64	2064/65	2065/66
1.	Staff					
	Allocated position	5759	6095	6984	7030	7088
	Working staff	5709	5717	5699	5592	5876
	All staff % 1000 line	8.38	5.05	3.61	2.05	1.33
2.	Technician					
2.1	PSTN telephone service	204	225	231	236	243
	Fit PSTN exchange district	71	72	72	72	73
	PSTN line capacity	552057	552057	656070	684942	726980
	PSTN distributed	453475	485997	509873	532391	562162
	PSTN density	1.79%	1.88%	1.93%	1.98%	2.04%
2.2	GSM mobile service					
	GSM mobile distributed	227316	622737	909483	1717230	3009962
	GSM Density	2.1%	2.4%	3.45%	6.37%	10.92%
2.3	CDMA service					
	CDMA distributed	-	23579	161155	480016	721318
	CDMA density	-	0.09%	0.61%	1.78%	2.62%
2.4	All telephone distributed (PSTN)+GSM+CDMA)	680791	1123313	1580511	2729637	4293442
2.5	All telephone density (PSTN+GSM+CDMA)	2.69%	4.4%	5.99%	10.12%	15.58%
2.6	International circuit Number	2606	3140	3423	4568	4841

APPENDIX-V
Nepal Telecommunication Company Ltd. Present Share Structure of Company

S.N.	Owner	Owners Number	Share number	Amount(Rs.)	%
A.	Institute	7	137290335	13729033500	91.52%
1	Ministry Information and communication		62290335	6229033500	41.52%
2	Finance Ministry		7494600	4794600000	49.96%
3	Ministry of Industry, Commerce and supply		1000	100000	0.00067%
4	Ministry of legal justice and constitutional assembly		1000	100000	0.00067%
5	Office of Auditor control		1000	100000	0.00067%
6	Information department		1000	100000	0.00067%
7	Citizen investment fund		50000	500000	0.0033%
B.	People	27260	5299690	529969000	3.53%
C.	Staff	5791	7409975	740997500	4.93%
	Total	33058	1500000000	15000000000	100%

APPENDIX -VI
Free Emergency Telephone Service

S.N.	Telephone Number	Institute and Service
1.	100	Police
2.	101	Fire controller
3.	102	Ambulance (not start)
4.	103	Traffic police
5.	104	Children search co-ordination center
6.	105	Nepal army
7.	106	Army center Army Police Gulm
8.	1098	Child help line

APPENDIX -VII
Future Plan of NTCL

Line capacity Addition in Eleventh Plan	Future Program in F. Y.	Future Programs in F. Y.
PSTN	124331	125238
GSM	1020000	850000
CDMA	845000	766000
ADSL	63186	50000
Internet	10000	10000
Total Lines addition planed	2062517	1801238

APPENDIX - VIII
Mile Stone of Nepal Telecom

Year Milestone Details

- 1913 : Establishment of first telephone lines in Kathmandu
- 1914 : Establishment of Open wire Turnk Line 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 Dhunkuta
- 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 Turnk line from Kathmandu to Palpa
- 1955 : Distribution of telephone line to general public
- 1955 : First public telephone exchange in Kathmandu (300 lines CB)
- 1963 : First Automatic exchange in Nepal (1000 lines in Kathmandu)
- 1964 : Beginning of International Telecommunications Services using HF Radio to India and Pakistan
- 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. Geteway Exchange established
- 1996 : Introduction of VSAT service
- 1997 : Digital Link with D.O.T. India through Optical Fiber in Birgunj- Raxaul

- 1998 : Direct Link with Banglades
- 1999 : Launching of GSM Mobile service
- 2000 : Implementation of SDH Microwave Radio
- 2000 : Launching of Internet Service
- 2001 : Launching of Payphone Service
- 2001 : International Roaming in G.S.M. Mobile
- 2002 : East West Highway Optical Fiber Project
- 2003 : GSM Prepaid Service
- 2004 : Nepal Telcom (transformation for corporation to Nepal Doorsanchar Company Limited)
- 2004 : Pre-paid calling card service (IN services)
- 2004 : IVR service by 1600 S.L.C. Result
- 2005 : Soft launch of CDMA
- 2005 : Tool Free Service
- 2005 : Access Network Service
- 2005 : Outsourcing of Enquiry Service (197)
- 2006 : IVR service by 1061 10 +2 result
- 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
- 2006 : PSTN voice mail service
- 2007 : Expansion of Internet Bandwidth through India-Nepal cross boarder optical link.
- 2007 : National Roaming for CDMA mobile (Sky phone)
- 2007 : IVR Service by 1606 PSTN
- 2007 : IVR service by 1888 free VOIP call complaint
- 2007 : In GSM mobile GPRS, 3 G/ CRBT service
- 2008 : ADSL Internet Service
- 2008 : IVR service by 1607 GSM and CDMA
- 2008 : IVR service by 198 ADSL complaint
- 2008 : Notice Board service
- 2009 : SMS service GSM to CDMA
- 2009 : CDMA postpaid mobile service
- 2009 : GSM voice mail service