# EFFECTIVENESS OF SALES AND PRODUCTION BUDGETS THE SELECTED PRODUCTS OF CHAUDHARY GROUP OF NEPAL

By

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A Thesis Submitted to: Office of the Dean Faculty of Management Tribhuvan University

In partial fulfillment of the requirement for the degree of Master of Business Studies (MBS)

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1

# RECOMMENDATION

This is to certify that the thesis

### Submitted by:

### **PRITAM MISHRA**

### **Entitled:**

# EFFECTIVENESS OF SALES AND PRODUCTION BUDGETS THE SELECTED PRODUCTS OF CHAUDHARY GROUP OF NEPAL

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

Asso. Prof. Yamesh Man Singh	Prof. Bishweshor Man Shrestha	Prof. Dr. Kamal Deep Dhakal
(Thesis Supervisor)	(Head, Research Department)	(Campus Chief)

# **VIVA-VOCE SHEET**

We have conducted the viva -voce of the thesis presented

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Entitled:

# EFFECTIVENESS OF SALES AND PRODUCTION BUDGETS THE SELECTED PRODUCTS OF CHAUDHARY GROUP OF NEPAL

And found the thesis to be the original work of the student and written according to the prescribed format. We recommend the thesis to be accepted as partial fulfillment of the requirement for the degree of

### Master of Business Studies (MBS)

### **Viva-Voce Committee**

Head, Research Department......Member (Thesis Supervisor).....Member (External Expert).....

### **DECLARATION**

I hereby declare that the work reported in this thesis entitled "Effectiveness of Sales and Production Budgets the Selected Products of Chaudhary Group of Nepal" submitted to Office of the Dean, Faculty of Management, Tribhuvan University, is my original work done in the form of partial fulfillment of the requirement for the degree of Master of Business Studies (MBS) under the supervision of Asso. Prof. Yamesh Man Singh of Shanker Dev Campus, T.U.

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# **ABBREVIATIONS**

&	:	And
BNL	:	Bottlers Nepal Limited
CG	:	Chaudhary Group
DOL	:	Degree of Operating Leverage
et.al	:	Others
i.e.	:	That is
Ltd.	:	Limited
MD	:	Managing Director
NEA	:	Nepal Electricity Authority
Pvt.	:	Private
Rs.	:	Rupees
T.U	:	Tribhuvan University
USA	:	United Sates of America

# CHAPTER-I INTRODUCTION

#### **1.3 Introduction**

Budget is that instrument which enables enterprises to achieve broad objectives and specific goals. Budgeting is the process of preparing budget whereby a number of types of budget; both revenue and capital expenditure budget are prepared in a comprehensive and systematic manner. The term budgeting can be used in the same context and sense as the term comprehensive profit planning and control, managerial budgeting and business budgeting.

According to James M. Fremgen "Budget is a comprehensive and coordinated plan, expressed in financial terms, for the operations and resources of an enterprise for some specific periods in the future" (Fremgen, 1956:88).

Profit planning and control is newly developed concept for accomplishing the objectives of the firm. Therefore it is extensively used in the business literature. It is not the concept of simple budgeting but a way of management, mostly in well-managed firms. Therefore, the term comprehensive profit planning and control is defined as a systematic and formalized approach for performing significant phase of management planning and control functions. The concept of comprehensive budget covers in it the planning, organizing and controlling all the financial and operating activities of the firm for the fourth coming period. A budget is the plan of the firm's expectations in the future.

Profit planning and control is an important approach which has been developed for facilitating the effective performance of management system mainly in profit- oriented enterprises. It is a way of management, which focuses directly upon a rational and systematic flexibility in performing the management process. Profit planning and control refers to the organizational technique and procedure, whereby long and short range budget are formulated, considered and approved.

Profit planning and control represent overall plan of operations, providing guidelines to management and acting as single light for the management. It enables the management to correct its policy. Profit planning and control consists of three main budgets.

- Operational Budget: Budget related with revenue and expenses such as Sales budget, production budget, purchase budget etc.
- 2. Financial Budget:-Budget Related financial Statements such as balance sheet, income statement etc.
- 3. Appropriation Budget: Budget related with advertising and publicity expenditure etc.

So the Sales budget and the production budget are the part of operational budget. In other words, profit planning and control is a overall plan of operations providing guidelines to management where the Sales and production budget are the parts of profit planning and control. An effective budgeting system is vital to the success and survival of a business firm. Without a fully coordinated budgeting system management cannot know the direction of the business is taking out. Organization that do not plan likely to wonder aimlessly and ultimately succumb to swirl of current events.

A budget is needed in a business form for the following purpose.

- ) To definite goals and objectives.
- ) To compel and motivate the management to achieve the goal.
- ) To increase the efficiency.
- ) For the comparison of evaluation performance.
- ) To reduce and reveals weakness in inefficiency and deviations in the organization and etc.

### **1.4 Company Profile of Chaudhary Group, Nepal**

The catastrophic earthquake of 1933 crippled commerce and social infrastructure in Nepal. This acted as the catalyst, which augmented the need for rebuilding.

Under the Rana Regime, the first row of shops along the popular Juddha Sadak (the present at New Road) took shape. It was here that the founder Mr.Bhuramull Chaudhary was given a shop on a yearly rental fee of Rs. 200, which eventually increased to Rs 500. It was situated opposite the present Bishal Bazaar and dealt in textiles imported from various parts of India. The late Bhuramull Chaudhary started his business in a humble manner by importing fabrics from India was also one of the few privileged businessmen permitted to enter the then Rana palace of Shri Shri Shri Judha Shamsher Jung Bahadur Rana. Mr. Bhuramull Chaudhary along with his son carried items from his shop to the palace with the help of several porters and arranged an open shop in the courtyard for the Queen, courtiers and the King's people. This operation functioned under the informal name of Bhuramull Lukaran Das (those were the days when no registration of private business firms was required) After the death of the founder, Mr. Bhuramulla Chaudhary, young Lukaran Das Chaudhary took over the reins of the business at the age of 23 and took it to a whole new dimension. He embraced one lucrative business of exporting jute from Biratnagar to USA and Europe. He imported fabrics from Japan and Korea under the name of Bhuramulla Lukaran and Arun Impex.

Modern Hosiery Industries Pvt. Ltd.-1965 A modern hosiery industry producing high Quality of Hosiery goods under the brand name of RHINO, although a pioneer in this field, the industry maintains its leadership by marketing its products competitively with imported substitute. Nepal Spinning, Weaving and Knitting Pvt. Ltd, it Was established in 1965 AD modern textile unit manufacturing synthetic fabrics from imported yarn .This Industry has been licensed to manufacture 6.3 million meters ,process/finish 8 million meters of fabric and produce 1,166 meters of partially oriented yarn.

Ratna Stainless Steel Pvt. Ltd, it was established in 1967 in Birgung, It is a leading manufacturing unit of stainless steel utensils and tableware, which is also a semiautomatic plant.

After 1971, that was the first ever furnishing outlet in Nepal under the banner of Flooring and Furnishing center .In a short time period the center had setup several major branches all over the country and had also established linkage with leading manufacturing of flooring and furnishing materials from India as well as abroad. By this time, Mr. Lunkaran Das Chaudhary had carved for himself a niche in the fabric trade and this encouraged him to start the Arun Emporium in 1968.This was the first and largest modern departmental arcade in Nepal with individual departments for ladies, gents, electronic and household goods. It was situated in Khichapokhari, the heart of the capital. The department marketed the worldwide renowned products.

### Vision of the Chaudhary Group

To establish a corporate, conglomerate with core competence in foods and beverages, financial services infrastructure, real estate and hospitality industries and to achieve the coveted position amongst the leading companies (Global Growth Company) in South East Asia (<u>www.chaudharygroup.com</u>)

### **Mission of the Chaudhary Group**

- ) Understand consumer insights and meet their needs with safe, effective and world-class products.
- ) Integrate our dealers, distributors, retailers, suppliers and JV partners into the Chaudhary family.

) Recruit, develop, motivate & retain the best talents with-in the country, recruit if needed from abroad & provide them a challenging and demanding environment.

Foster a strong emotive feeling of oneness and ownership with the company. Emerge as a Model Corporate Institution and contribute effectively towards the upliftment of Nepalese society and the country at large (www.chaudharygroup.com).

#### **Management Philosophy**

### **Creating Value for the Customer**

The whole purpose is to create value for the products and services and to serve the customers in everything it does. With satisfied customers, the Chaudhary Group will naturally, continuously and consistently innovate and develop to achieve our goal of providing the utmost value for customers.

### **Creating Value for the Nation**

The Group is to contribute for the upliftment of the nation's economy, equalizing the infrastructural and entrepreneurial capability of Government of Nepal with other developing nations and to create employment opportunity for the eligible Nepalese candidates.

### Management based on Esteem for the Human/Dignity

People are the origin of all values in all management activities. Management based on human dignity helps us to achieve all goals. People should practice Company's vision, sense of value and goal in view of ownership of the Company.

### **Core Values**

Chaudhari Group (CG.) believes in a harmonious business environment and sincerity in dealing with our business Associates. CG recognizes the competitiveness in all our business and prepares ourselves in terms of efficiency & cost effectiveness so as to be ahead.CG believes in a clean business culture so required to uphold the honor and image of the company.CG provides equal opportunities to all employees in building their career in the organization.CG sets high goals & performance standards by making sure that necessary support, guidance, technology and personnel are provided.CG welcomes creativity and innovation and is willing to accept failures and mistakes as an opportunity to learn and grow.CG continuously strives for excellence in work (www.chaudharygroup.com).

### Achievement

Today, the picture has expanded to a multifarious landscape: quantum leap from its humble beginnings. At the helm of affairs of Nepal's largest corporate house with a growing market presence in the South Asian/South East Asian region and the trust of partner's worldwide, maybe the Chairman of Chaudhary Group has yet another vision. A vision that the world has duly learned to heed.

The Chaudhary Group's progress over the last sixty-seven years has been a trial-blazer on the Nepalese horizon. Today, a conglomerate of over 40 businesses, the group has an unmatched investment outlay of over \$250 million. In a land-locked, developing third world nation, this spells nothing short of very hard-earned success.

Apart from being a responsible citizen, Chaudhary Group forms an intrinsic part of every realm of life from Food & Beverage, Electronics & Home Appliances, Beer, Cigarette, Financial Services, Infrastructure (Power & Water), Hotels & Real Estate, Automobile, Health Care and Education. Distinguished as the first Nepalese company to have a distribution network spanning the sub continent, the group is poised to become the first Nepalese corporate entity with a growing presence in the South Asian/South East Asian region's fiercely competitive in food and beverage sector.

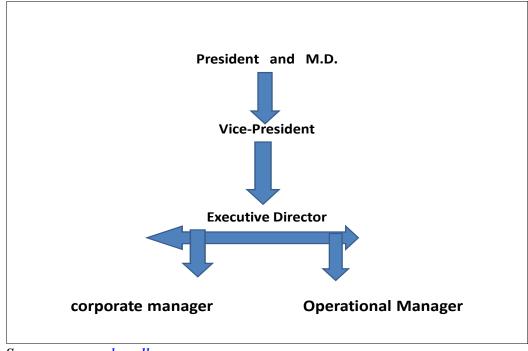
Since its inception, Chaudhary Group has contributed to the upliftment of the nation's economy, equalizing the infrastructure and entrepreneurial capability of Nepal with other developing nations.

Spearheaded by the dynamic prowess of Mr. Binod K. Chaudhary, Mr. Basant K. Chaudhary and Mr. Arun K. Chaudhary and empowered by a taskforce of over 4,000 dedicated people, the group has the best human resources to ensure qualitative cover on all its ventures.

As Nepal's cast investment potential progressively draws the attention of leading multinationals, Chaudhary Group continues to lead, harnessing global partnerships in core sectors and offering cost-effective procurement affiliation to corporate worldwide.

# Company Chart of Chaudhary Group of Nepal Figure 1.1

### **Top Management Team of Chaudhary Group of Nepal**

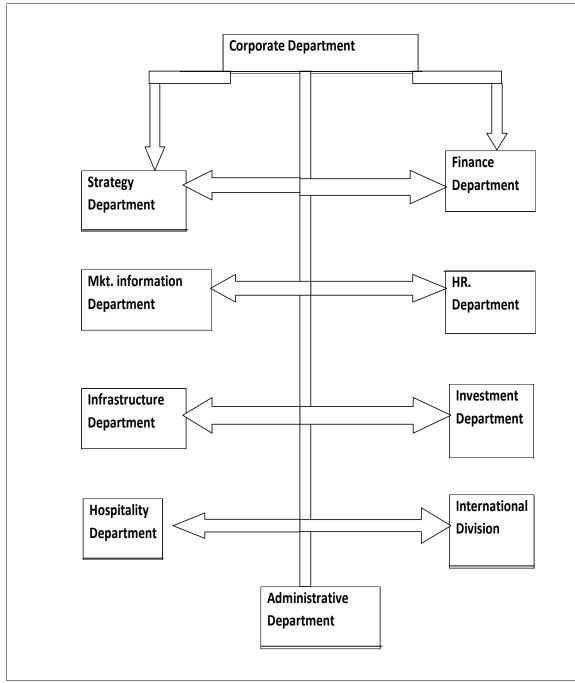


Source: <u>www.chaudharygroup.com</u>

Corporate manager handles the corporate department with the help of corresponding department managers and similarly operational manager handles the operation department with the help of the corresponding department managers.



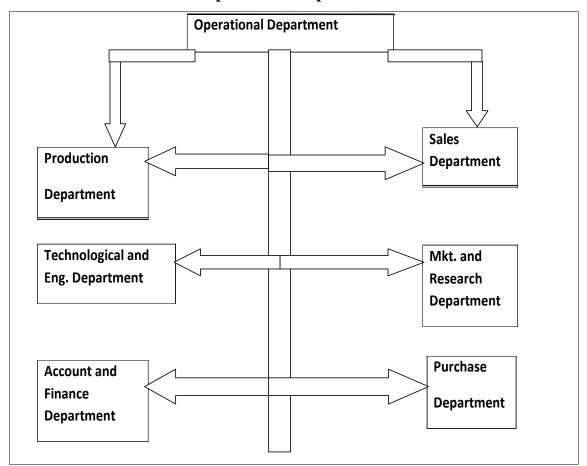
**Corporate Department** 



Source: <u>www.chaudharygroup.com</u>



**Operational Department** 



Source: <u>www.chaudharygroup.com</u>

### **Corporate Division**

### **Strategic Planning Department**

The Strategic Planning Department is a think tank of the company, which primarily scans the environments around the business and exploits the opportunities through short and long range planning with respect to Human Resource, manufacturing facilities includes Research & Development, marketing and financial Strategies and systems. Vision, Mission and Corporate Cores will also be monitored periodically by the department.

# Corporate Finance, Operational Review, Treasury, Audit and MIS Department

Corporate Finance department broadly controls overall finance of the organization. Along with fiscal matters, it plays active decision-making role in investment, acquisition, company formation, joint venture/partnership agreement and restructuring in cooperation with Business Units. It carries out consolidation of yearly plan periodic operations review. Benchmarks are discussed and appropriate corrective and preventive measures are initiated. Treasury oversees cash flows of the organization. Internal check and balance of pre-defined system/policies are taken care by audit department in order to keep the operations on right course.

#### **MIS (Management Information System) Department**

A management information system is designed to provide information access and decision- input capabilities to support management decision-making at all levels. Most of the data are derived from continuous monitoring of operations units and regular reports from outside. This information retrieval can be tapped by individual managers to assist their particular needs. Periodic information reports in which the dates have been statistically analyzed are generated for more general dissemination.

# Human Resource Development, Corporate Communication and Information Center

HRD concentrates on finding and making the qualified and motivated work force. It also concentrates on placement, orientation, motivation, training and development, appraisal as well as counseling. HRD will initiate HR strategies planning, HR Philosophy, HR key processes, set up and follows up. It plays one of the key roles for forming corporate culture based on company's vision, mission and values. It also manages the Information Center from where the related information's are disseminated to the concerned department.

### Administration Department (Admin, GR, PR, IR, Security)

This department concentrates on security of the company premises, Industrial Relation, Public Relation and Guest Relations. It is also responsible for employees' logistic needs in the office and the company provided flat as per the company rules. Guest relation assures that every visitor of the company feels comfort and warmly welcomed. Public relation makes the company well known to the people. It keeps managers at all levels informed of the current status and of changes. This includes communication by way of all established media and means the company policy and action. Industrial relations concerns with the manpower of the enterprise –including machine operators, workers and managers etc.

### **Project Department**

This corporate project department is constantly guiding, exploring and monitoring the entire project activities relating to power, water, telecommunication and Information Technology etc.

#### **Financial Services**

This department supports and monitors the activities of United Insurance Company as well as the United Finance Ltd. and support a large multinational bank

### **Infrastructure Department**

The infrastructure department monitors the day-to-day activities of the division and also extends total support system.

### **Hospitality Department**

The corporate hospitality department controls and monitors the overall activities of the division.

### **Investment Department**

The corporate investment department plays an active decision making role in diversified investment portfolio for optimum use of all surplus funds at the best available return.

### **International Division**

Due to liberalization and globalization of economy it has become imperative to start thinking globally in terms of technology, investments and knowledge based services including hospitality and infrastructure for a competitive edge over the competitors. Accordingly, International Business Division has been set up towards this objective to exploit the business opportunities beyond the territory of the Republic of Nepal.

### **Operation Division**

### **Production/Maintenance Department**

A Production Department operation is directly concern with the making of best quality products, including the processing of material. It also includes various services to these productive operations; production planning, plant service, receiving, storage etc. Keeping the machines running and maintaining the plants in good conditions is the services are rendered by the laboratory, quality control, packaging and development staff.

### Technical Department (R & D, Engineering, Projects, TQM)

Technical department supports the production department in relations to improvement of system, modernization, plant up gradation, various cost reduction measures through substitutions of materials, processes designs etc for ultimate cost reduction. Technology support towards expansion, effluent treatment plants etc. TQM (Total Quality management) makes sure that quality is maintained and scrutinizing right down to the tiniest speck. The responsibility of TQM, which keeps up with the company promise to the costumers, It care?

R & D (Research & Development) continuously carries out for improvement of existing products, processes and productivity. It also develops, introduces new products to cater to the emerging needs of the customers and markets.

### **Accounts and Finance Department**

The Account and Finance Department collects records and processes information, which Management needs to direct and control the enterprise. Wherever possible, this information is passed on together with analysis and submits various formatted reports to the Top Management for decision-making, Business Plan Preparation and its monitoring.

### **Commercial (Purchase) Department**

The efficiency of a business activity deeply depends on supply of materials and equipments at the proper time and price. The purchasing department is driving with cost efficiency in various purchasing activities and its processes with buying all the material requirements of the Company.

### **Sales Department**

Sales are company's closest ambassador to the customers. It focuses on Channel strategy, net-working, net-work management, promotional activities and customer satisfaction. The department focuses on maximum profit and market shares. CG's far-ranging dedicated sales forces go about their accustomed rounds each day to different locations.

RCM Network: Apart from the dealers network Chaudhary Group is the pioneer in Nepal in implementing Retail Chain Management. RCM will obviously strengthen the company's retailing network.

### Marketing, Research and Communication Department

The good market and the reputation of our products are attributable to our market research and advertising efforts - which cover activities such as interviewing, promotion, visual vans, and programs over the radio or sponsored shows on TV, advertisement in daily newspapers or favorite magazines. Innumerable exciting themes, stories, strategies, language media etc. are conceived, laid out and coordinated. Its Marketing team is basically working on 5 P principles i.e. Price, Product, Placement, Promotion and People to lead the market regardless of tough competitions.

### **Production Department**

### **Chaudhary Food Complex**

This is a model centralized Quality Food Production unit of Chaudhary Group on the southern fringe of Lalitpur district. It houses the latest food production technology available in the region. FUDCO is divided into 3 main sub units:-

- / Nepal Thai Foods(NTF)
- J Gold Beverage (Nepal) (GBN)
- Kwik Foods (Nepal) (KF)

Name of the	Products Manufactured	
factory		
NTF	Wai Wai, Big Mimi, Wah Wah, Mimi, Mama 1	
	minute	
GBN	Rio	
KF	Cheese Balls, Tomato Balls, Prawn Crackers,	
	Vegetable Crackers, Chicken Crackers, Choco	
	Balls, Tic Tic	

Apart from these three sub units, the firm has a strong TQM / R&D center.

The group's steel and electronics complex at Satungal on the outskirts of the capital, Kathmandu was established in an effort to counter the nation's

dependence on imported steel and electronic goods. Starlec is divided into two sub-units

- Apollo Steel (Industries) Pvt. Ltd. (ASI)
- J Gold Star Nepal (Industries) Pvt. Ltd. (GSN)
- ) LG Display Showrooms

Name of the factory	Products Manufactured
ASI	Galvanized, Plain & corrugated Sheets
GSN	Color Televisions

#### **Financial Depart (CG FINCO)**

The Group's financial services projects come under the holding company, CG FINCO Pvt. Ltd. Chaudhary Group's vision to bring in quality and reliable services in the financial sector has led to its ever-increasing presence in commercial banking, insurance, merchant banking, hire-purchase, leasing and other peripheral services.

CG Finco has entered into an agreement with Western Union Financial Services Inc, USA as the principal agent for the entire country. This involves inward money transfer from different parts of the world. Over 200 outlets spread throughout the country has been providing efficient money transfer service in every corner of the country.

United Insurance Company (Nepal) Ltd. in which Chaudhary Group has a substantial stake is considered to be one of the most dynamic and successful second generation insurance companies operating in Nepal for the last 12 years. United Finance Ltd. established in 1992 was promoted with the aim to provide highly professional banking & financial services. The group is one of the major promoters of the company.

The group has also set up Speed Remit Pvt. Ltd., a joint venture with Nabil Bank for inward money transfer from different parts of the world's-pay ® Pvt. Ltd. is established to redefine Citizen Services by providing one-stop services relating to State & Central Governments and Private Services, in a user-friendly manner across the same counter through a chain of Citizen Facilitation Centers. In the near future, Chaudhary Group intends to expand its presence in the financial services sector through participation with new ventures in life insurance, housing finance and venture capital.

### **Specialties**

### **Apparel & Accessories**

Located into the industrial hub of Birgunj, Megha Woolen Mills Pvt. Ltd. utilizes modern European and American technology in the spinning and processing of 600 Metric Ton of acrylic viscose fiber for the production of economical synthetic woolen knitwear for the Nepalese masses. At present the production focuses on acrylic yarn and knitwear for the domestic market.

### Packaging

The Group's packaging unit - Flexible Packaging Pvt. Ltd. serves a sizeable need of the nation's packaging needs for soaps, cigarettes, snack foods, biscuits, Vanaspati, etc. Producing high-quality packaging material like waxed paper, laminated and BOPP film, cellophane etc. the unit primarily cater to the Group's food production units for the packaging of various food products.

### Trading

The Group's trading wing spans the entire gamut of products from the auto industry and sophisticated electronic medical equipments to various food products.

### Tobacco

The tobacco division was established in 1998 under the name of Perfect Blends (Nepal) Pvt. Ltd. It has been producing & marketing several brands of cigarettes catering to the needs of vast middle class segments of the rural & urban population. The group has made strategic alliance with one of the largest tobacco manufacturers in the world KT&G, South Korea launching Pine Lights & Pine Gold brands of cigarettes. The plan is to convert the production center as an export hub for entire South & South East Asia.

### Beer

The Sungold Brewery (Nepal) Pvt. Ltd. (SBN), with its state of art production plan at CUG, has tied up with Shaw Wallace & Inertia India for producing international brands like Haywards 5000, Royal Challenge, Kalyani Black Label and Zingaro, which are exported to India. Haywards 5000 has been recently launched in Kathmandu city after an encouraging market response in the other cities of Nepal.

### **Phyto Chemicals**

Chaudhary Biosys (Nepal) Limited (CBNL) is new venture of Chaudhary Group in the field of herbal farming and production of essential oils of international quality in Nepal. CBNL helps in socio-economic development generated by the industry to uplift the rural Nepalese by using the gift of natural resources. The products derived from medicinal and aromatic extracts from natural herbs available within Nepal have good potential to bring the country on the international arena of aromatherapy and herbal products prominence. The social and economic development generated by such industry will help to uplift the rural Nepalese by using the gift of natural resources. It will encourage not only the foreign exchange and enhance employment of the people of Nepal but also channelize the energy of the rural people towards positive financial and social betterments, rather than indulging into negative work in the society and causing more harm than good.

### **Global Partners & Associates**

CG has global alliance, LG Electronics (South Korea), Thai Preserved Factory Co. Ltd. (Thailand), Independent Power Corporation (UK), Innovation Group (Singapore),Western Union Financial Services(USA), Manipal K-12Education pvt. Ltd (India) are the major business Partner.

### 1.3 Sales Plan/ Budget

Sales budget is the starting budget for the development of profit plan. According to R. M. Lynch, "All budget planning begins with the forecast of sales. Using information supplied by sales person" (Lynch and Williamson, 1989: 67). Sales budget is one of the functional or operating budgets and is especially a forecast of sales to be affected in a budget period. In fact sales budget defines the quantities and values of expected sales in total as well as product wise and area wise. During a definite future period sales budget forms the fundamental basis for other functional budgets and it is needed to coordinate the production function with expected demand for a particular product. "The preparation of sales budget required forecast of quantities to be social and also the standard prize at which these quantities may be sold" (Gupta, 1992:49).

The sales planning process is a necessary component of profit planning and control because (a) It provides basic management decisions about marketing and (b) it is an organized approach for developing a comprehensive sales plan. If the sales plan is not realistic, certainly all the other parts of the profit plan also not realistic.

The sales plan is the foundation for periodic planning in the firm because particularly all other planning is built on it. It is a primary source of cash. The capital addition needed the account of expenses to be planned, the manpower requirement. The production level and other important operational aspects depend in the volume of sales. Therefore the sales plan must the realistic. There are two types of sales pans called strategic and tactical sales plan.

Strategic sales plan is known as long range sales plan. Usually 5-10 years. It requires depth analysis of future market potentiality which may build up from a basis foundation such as population changes, state of economy, industry projections and company objections. The effects of long term strategic are also brought to been as the long-term sales plan. They would affect in such area as pricing development of new product line innovation of product expansion of distribution channel and cost patterns.

In other hand tactical sales plan is to be developed for short term period in a company for future 12 months detailed by months and quarters. Tactical sales plan include detailed plan for each major products and forms groupings of minor products short term sales plans are usually developed in terms of physical units, jobs and in sales rupees.

Profit planning is heart of management and sales planning is primal planning in overall budgeting. Therefore to achieve organizational objective, sales planning should be made in careful way. The present study is intended to analyze and examine the relation of sales planning with production planning inventory cost volume profit analysis, leverage, ratio analysis etc and its effectiveness in Chaudhary Group.

### **1.4 Production Budget/Plan**

The marketing plan specifies the planned volume of each product (or groups of similar products) for each time period throughout the planning period. The next step in a manufacturing enterprise is to develop a production plan. For planning and controlling purposes short-term sales plans and production plan must be developed by sales responsibility. Because short term profit plan provides major consideration for planning and controlling proposes. It is also necessary for completing other component of profit plan.

Accomplishment of objectives in every organization depends up on the application of resources. The financial performance of an organization depends purely on the use of its resources. Therefore planning is the key to productive financial planning if the planning process of organization is effective and result oriented, the path of development naturally steps forwards.

This entails the development of policies about efficient production levels, use of productive facilities, and inventory levels (finished goods and work in progress inventory). The quantities specified in the marketing plan, adjusted to confirm to production and inventory policies give the volume of goods that must be manufactured by represented in this way:

Sales Volume ±Finished Goods Inventory Change = Production Requirements.

### **1.5 Focus of the Study**

This study is focused in evaluating the use of different types of functional budgets and corporate planning system for the effective implementation of profit planning and control in Chaudhary Group Nepal. The study is designed to focus the purpose of different kinds of budget used, the way they are constructed and finally settled and the way they assist the policy making for financial control of Chaudhary Group. The study is intended to clarify the purpose of different budget and to identify the person responsible for different budgets.

Strategic long range profit plan and short range profit plan are equally important for the successful operation of a company but this study is designed so as to give more consideration in short range planning. In this context the process and technique of preparing them, responsibility to prepare them, their drawback and other relevant facts as well as their role on overall profit planning will be discussed in detail.

### **1.6 Statement of the Problem**

Most of the manufacturing companies are suffering from performance and loss. Therefore, they have to adopt a systematic profit planning to improve their financial performance and run the organizational profitability.

Unstable political situation of the country, labor union pressure, strike and lack of electricity are the common problem of Nepalese companies. Being a part of the Nepalese industry Chaudhary group is also suffered from the all problems. Even there are so many problems Chaudhary group is a best company of Nepal. A survey conducted by the Boss magazine in 2008 for the top 50 brands of Nepal it is found that in Kathmandu Valley and Urban area Chaudhary group is in leading position to sell the noodles and electronics but in rest of urban area Chaudhary group is in second position. But in case of beverage it can neither lead in Kathmandu valley and all urban areas nor in rest of urban areas. So there are some problems in Chaudhary group. Some major problems are presented here. Major problems are presented here.

- ) Budget is not prepared in modern way; it is prepared in traditional method.
- Chaudhary Group is being a synonym of noodles Most of all sales amount is collected by noodles. Their focus is in noodles, so they have to change their strategy for to sale the other products as noodles sales
- ) There is no stable growth rate.
- ) Sales in the urban areas is more but could not lead in the rest of the urban market.

Apart from that the Chaudhary Group progress over the last sixty-seven years has been a trial-blazer on the Nepalese horizon. Today, a conglomerate of over 40 businesses, the group has an unmatched investment outlay over Nrs.15000 million. In a land-locked, developing third world nation, this spells nothing short of very hard-earned success.

Apart from being a responsible citizen, Chaudhary Group forms an intrinsic part of every realm of life from Food and Beverage, Electronics and Home Appliances, Beer, Cigarette, Financial Services, Infrastructure (Power and Water), Hotels and Real Estate, Automobile, Health Care and Education.

The present study made analysis and review of the profit planning aspect of Chaudhary Group and this study is mainly designed to solve the problem of profit planning and management control system by taking into account the role of budgets in planning. How the business is being operated largely depends on how the business operation is planned therefore this study attempted to focus also on the operational aspects of profit planning.

With the help of this study, it has attempted to find out the following basic research questions.

- a. What are the fundamental principles adopted in short term and long term planning of Chaudhary Group?
- b. What are the major factors affecting profit planning in C.G?
- c. What are the mains roles of functional budgets and its relation in profit planning in C.G?
- d. What is the present practice of overall profit planning?
- e. What should be its profit planning &control system?
- f. What steps should be taken to improve profit planning system in C.G?

### **1.7 Objectives of the Study**

The objectives of profit planning and control have the ultimate of attaining the optimum profit. The general objectives of the study are to review the present practices of comprehensive profit planning system applied in Chaudhary Group Nepal and its effectiveness. The study aims to identify the issues and problems of Chaudhary Group in general in Nepal.

The specific objectives of the study are as follows:

- ) To evaluate the present trend of sales and production budgets of Chaudhary Group.
- ) To analyze the variance if any between the budgeted and actual of sales and productions.
- ) To give suitable suggestions and recommendations for improving the production and the sales strategy of Chaudhary group.

### **1.8 Importance of the Study**

Profit planning is the primary function of management every company. A company always wants to earn maximum profit through the available resources and means with the help of the profit planning. PP measures the success of any company, so management uses various budgets, which are the main key to profit planning. Profit planning is such a key, which helps to predict the future and minimize future risks and maximum output from the scarce resources and means and means and also helps for managerial various kind of decision making. Therefore, profit planning is very important.

In the context of Nepal, most of the manufacturing companies are suffering from poor performance and financial conditions, which is not satisfactory. Most of the companies were operated at loss, so this study analyzed the profit planning, its practicable difficulties.

The study also evaluates the use of different type of functional budget and corporate planning system for effective implementation of profit planning and control system in Chaudhary Group. This study design to describe the purpose of different type of budget used how they are prepare and how these budget facilities to prepare policies and make financial control.

The previous researchers in the area of profit planning in Nepalese context have not focused in budgeting as key of profit planning. So, this study focuses on budgeting as a key factor in profit planning position of this kind of company. It will help specially to Chaudhary group management and shareholders, government, entrepreneurs, public people, future researcher and others. Ultimately since suggestion and a find package will be made.

### **1.9 Limitation of the Study**

This study was concerned with profit planning in Chaudhary Group. The detailed studies of profit planning aspects are difficult therefore the study has the following major limitation;

- ) The comprehensive and accuracy of this study was based on the secondary data available from Chaudhary Group and other documents, published books, booklets etc. provided from Chaudhary Group.
- ) This study was focused on some financial and accounting aspects and it did not cover the other areas of the Chaudhary Group.
- ) It dealt only with short-term profit plan covering sales and production only.

### 1.10 Scheme of the Study

The first chapter is introduction; it included a brief introduction of Chaudhary Group, Focus of the Study, Statement of the Problem, Objectives of the Study, Importance of the Study, Limitation of the Study, Scheme of the Study.

The second chapter is Review of Literature. It included Review of Profit Planning, i.e. Review of books, Review of Journals and Periodicals, Unpublished Master level thesis of T.U. The third Chapter is Research Methodology. It included General, Research Design, The population of the sample, Period covered, Data Collection Procedure, Method of Analysis and presentation and Research Variables.

The fourth Chapter is Data Presentation and Analysis; it includes Presentation of data, data analysis and major findings.

The fifth chapter is concerned with Summary, Conclusions and Recommendations.

# CHAPTER - II REVIEW OF LITERATURE

# 2.1 Profit

Profit is the primary measure of business success. A firm is organized to make profits. Profit is a controversial term and many authors defined it in different ways. In simply, profit is the excess of income over cost of product. In general sense "Profit" is regarded as income accruing to the equity holders. The meaning of the profit is different to different people. Labour says that profit is accruing as wages for their effort. Profit is rent of assets and interest on their investment made by the money lender. So a layman, profit means all income that flow to the investors. As an accountant, profit is the access of revenue over all paid out costs including both manufacturing and overhead expenses. In the economic sense, profit is surplus of revenue and above all paid out cost, including manufacturing overhead expenses plus opportunity cost. Besides in economic, profit is considered to be a short terms phenomenon, it does not exist in the long run, especially under perfectly competitive condition (Welsch, Hilton and Gordon, 1988:11).

According to economist's perception, some economist said that profit is a rent of ability. Some says profits as reward for risk bearing of business. It is also said that profit is return to uncertainly bearing of business. It is also said that profit is a return to uncertainly bearing or it is also a reward for innovation. No company can survive long without profit, for profit is the unlimited measure of its effectiveness and in a capitalized society there is no future in private enterprises, which always increase losses. The survival measures of the effective performance of a business is profit, which really is a measure of how well a business performs economically, profit is a signal of allocation of resources and a yard stick for judging managerial efficiency (Welsch, Hilton and Gordon, 1988:30).

# **2.2 Profit Planning**

Profit planning is one of the most important management tools to plan and control business operations. Budgets or plans are financial plans prepared as a guide to and control of future operations.

It is viewed as a process designed to help management effectively perform significant phase of the planning function. It is a managerial tool which is applied in every business endeavors or units. Moreover, various strategies, policies programs and procedures and applied by management for achieving prescribed objectives.

Profit plan can be broadly divided into functional plan and financial plan. Functional plan includes sales plan, production plan, raw material plan, direct labor plan and capital expenditure plan. After preparing these functional plan and financial plan the possible future profit could be known and one can modify or re-adjust the plan achieve expectation profit.

Profit planning in fact is a managerial technique. It is a formal statement of policy, plan, objective and goal established by the top management for some future period. Profit is a predetermined detailed plan of action developed and distributed as guide to current operations and as a partial basis for the subsequent evaluation of performance. Thus, it can said that profit planning is a tool which may be used by the management in planning the future course of action and in controlling the actual performance.

The essence of profit planning is managerial determination and control of long range destine of the enterprises. This over righting concept implies that objectives and responsibilities must be definitely determined, critically evaluated as to their potential impact on the success of the enterprises and fully communicated to the various levels of management (Agrawal, 1989: 348).

Profit planning fits with the total system concept that integration all the functional and operational aspects of an enterprise. Integrations and interrelationships of all areas in a business (Production, Finance, Marketing, Personnel and Administration) are the essential for effective management from all the subdivision of the enterprises. It covers the entire origination from the chief executive officer-right up to front line supervisor.

Profit planning through volume cost analysis, however is a modern concept of management planning, a tool designed primarily for industrial enterprises. It involves study of what a business cost and expenses should be and will be for different levels of operations and it includes a study of the resultant effect upon profit due to this changing relationship between volume and cost.

Mostly, profit planning program helps the management perform its planning function by developing a strategic (long-range) profit plan and a tactical (short-range) profit plan. Both of these plans include monetary expectation (goals) for assets, liabilities, profit and return on investment. The foundation for the strategic profit plan (usually extending three, five or ten years into the future) includes the objectives, broad goals planning premises and strategies of the enterprises as developed by top management. The tactical (short range) profit plan can actually be viewed as the first year of the strategic profit plan. It is the detailed plan for the enterprises and for each of its responsibility centers.

Profit planning is most recognizing that it is not a separate technique that can be thought of and operated independently of the total management process. The broad concept of numerous managerial approaches and techniques that might be exploited such as sales forecasting, sales quarter systems. Capital budgeting, cash flow analysis cost volume profit analysis, variable budgets time and motion study, standard cost accounting, strategic planning, production planning management by objectives, organizational planning manpower planning and cost control.

Profit planning in fact is a managerial technique and a profit plan is such a written plan, in which all aspects of business operations with respect to a definite future period are included. It is a formal statement policy; plan objective and goal established by the top management in respect of gone future period. It is predetermined detailed plan of action developed and distributed as a guide to current operations and as a partial basis for the subsequent evaluation of performance. Thus, it can be said that profit planning is a tool which may be used by the management in planning the future course of action and in controlling the actual performance. Profit planning as a decision tool involves establishment of specific goals for the enterprises, development of long range profit plans and short range annual profit plans which are prepared after integrating sales plan, production plan , administrative expenses budget , distribution expenses budget etc.

Generally the following plans are prepared in an organization according to their needs.

- ) Sales planning/ budget
- ) Production plan/budget
- ) Raw material purchase budget
- ) Inventory budget
- ) Labour cost/hour budget
- ) Manufacturing overhead budget
- Administrative expenses budget
- ) Selling and distribution expenses budget
- ) Cash budget

- ) Capital expenditure budget
- / Flexible budget
- ) Projected income statement
- ) Projected balance sheet
- ) Variance analysis and performance report.

The profit planning approach is especially useful in the selection and evaluation of the alternatives to overcome the financial problems encountered by the enterprises (Goet, Bhattarai and Gautam, 2005:11.3).

# 2.3 Components of Planning

The components of a profit planning program for a particular year are as follows:

# A. The Substantive Plan

This plan is represented by the following:

- 1. Broad objective of the enterprise
- 2. Specific enterprise goals
- 3. Enterprise strategies
- 4. Executive management planning instruction

Substantive plan represent the broad objective strategies, specific plans and programs of the organization and the non-current commitment of management to long-range a accomplishment of these objective and plans. It is characterized as the prose part of the plan rather than the number part of the plan. It gives the foundation for the financial plan.

# **B.** The Financial Plan

The financial plan quantities the planned financial results of implementing managerial objectives planned strategies, plans and policies. The financial plan

then represents a transaction into financial terms of objectives and strategies of management for specific period of time. The financial plan includes:

## 1. Strategic Long – Range of Profit Plan

- a. Sales, costs and profit projections
- b. Major, projects and capital additions
- c. Cash flow and financing
- d. Personnel requirements

# 2. Tactical Short-Range (Annual) Profit Plan

- a. Operating plan (Planned income statements)
  - ) Sales plan.
  - ) Production/Purchase plan.
  - Administrative expenses budget.
  - ) Distribution expenses budget.
  - ) Appropriate type budget. (e.g. Research and development, promotion advertising).
- b. Financial position plan (planned balance sheet.)
- c. Cash flow plan.

# 3. Variable Expenses Budgets

- 4. Cost-Volume Profit Analysis, Ratio Analysis
- 5. Performance Reports-Each Month and As Needed
- 6. Follow-Up, Corrective Action and Re-Planning Reports

# 2.4 Sales Plan/Budget

Sales budget reflects the income of business firm. It forecasts what the business and expects to sell to its customers during the budget period. Sales budget is the beginning point for the development of profit plan. According to R.M Lynch "All budget planning begins with the forecast of sales. Using the information supplied by sales person" (Lynch and Wlliamson, 1989:143). Sales budget is one of the functional or operating budgets and is essentially a forecast of sales to be effected in a budget period. Sales budget forms the fundamental basis for other functional budgets and it is needed to co-ordinate for a particular product .The preparation of sales budget requires forecast of quantities to be sold. The sales planning process is a necessary part of profit planning and control because (a) it provides for the basic management decision about marketing and (b) based on those decisions it is an organized approach for developing comprehensive sales plan if the sales plan is not realistic, most of the other parts of the overall profit plans is not realistic. The sales budget is a forecast of total sales of all the product expressed in terms of physical quantities prices and values in respect of each product expressed in terms of physical quantities prices and values in respect of each product of a future budget period. Sales plan is the starting point in the preparation of the comprehensive profit planning and control .All the other plans and budgets are depended upon the sales budget. The budget is usually presented both in units and dollars of the sales revenue or sales volume the preparation of sales plan in based upon the sales forecast. A variety of methods are used to forecast the ales for the planning period (Welsch, Hilton and Gordon, 2004:171).

A reasonable degree of accuracy is frequently hard to achieve in sale budget but it is imperative owing to the dependency of other budgets on sales budget. In case of degree of accuracy is not large some of the other predetermined figures, particularly the production estimates will be based on erroneous premises which may have serious consequences for the business. No method will ensure absolute accuracy but reasonable correct forecast are more likely to result from through market research an analysis and application of the knowledge of the individual circumstances of a particular business. The preparation of a sales budget is always difficult even in case where much experience has been gained by carrying out work over a number of years. Through such factors as experience, wise judgment, knowledge of market trends and business conditions are of almost help, they have to be used with great care and sometimes, even these are useless due to the development and sometime even these are useless due to the development and operation of circumstances as well as events which were impossible of prediction at the time, sales estimate were made.

The sales plan has three distinct parts (a) the planned volume of sales the planed sales price per unit for each product (b) the sales promotional plan (c) the sales expenses plan.

The primary purposes of a sales plan are:

- a. To reduce uncertainty about future revenue.
- b. To incorporate management judgment and decisions into the planning process.
- c. To provide necessary information for developing other elements of a comprehensive profit plan and
- d. To facilitate management control of sales activities (Welsch, Hilton and Gordon,1998:181)

#### 2.4.1 Sales Planning Compared with 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 /or a quantified assessment of future conditions about a particular subject cased on one or more explicit assumption .A forecast should always stare 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 contract, a sale plan and incorporates, management decisions that are based on the forecast, other inputs and management judgment about such related items as sales volume, prices, sales efforts, production and financing.

The term sales forecast provide the basic for the current year sales, plan and finished goods inventory plan. At the same time the influence of the long term sales forecast is related to the capital expenditure plan and in the finished goods inventory plan. The long-term sales forecast services at what might be called another end of the finished goods inventory plan. A sales forecast is converted to sales plan when management has brought to bear management judgment planned strategies, commitments of resources and the managerial commitment to aggressive action to attain the sales goals in contract, sales forecasting is a technical staff function.

The short term sales forecasting provides the basis for the current year's sales plan and finished goods inventory plan. As the same time the influence of the long term sales forecast is reflected in the capital expenditure plan. The long term forecast serves at what might be called the anchor-end of the finished goods inventory plan. Since inventory at the end of this year is the beginning inventory for next year business. It is necessary influenced by the current year's short term forecast. The long term sales forecast provides the basis for developing rough outline of the capital expenditure plan. That portion of the plan falling with in the current year is reflected in the capital expenditure budget.

It is important to make a distinction between the sales forecast and the sales plan primarily because the internal technical staff should not be expected or permitted to make the fundamental management decision and judgments implicit in every sales plan. Moreover, the influence of management actions of sales potentials is difficult to quantity for sales forecasting. Indentifying sales forecasting as only one step in sale. Planning is that sales forecast are conditional part sales volume; general industry and economic rendition relationship of sales to economic indicate market research studies, pricing policies. Advertising and other promotion, quality of sales force market competition nature of the product the method of distribution. The size of the business, plan capacity, the size of the business, plant capacity, seasonal variations and financial aspects are some of the consideration for die sales forecast.

Component	Strategic Plan	Tactical Plan
Management policy and	Broad and general	Detailed and specific for
Assumption		the year
Marketing plan (sales	Annual amounts;	Detailed; by product and
and Services revenues)	major groups	responsibility
Advertising and	General; by year	Detailed and specific for
promotion Plan		the year
Distribution (selling)	Total fixed and total	Fixed and variable
expense Plan	variable expense; by	expenses; by month and by
	year	responsibility

**Components of a Comprehensive Sales Plan** 

Source: Welsch, Hilton and Gordon, 2004: 176

# 2.4.2 Developing the Comprehensive Sales Plan

All level of personnel are involved in planning in distinct way, like sales representative, accountant, divisional sales manager etc. each will ultimately be responsible for carrying out his share of the plan. Assuming that the organization of the department is on the usual pattern i.e. sales manager, divisional sales manager, area sales manager and sales man each will estimate the sales in distinguishing between products. Researcher will forward his forecast to his area manager who will collect all such forecast from his area. After carefully considering each forecast the area manager will prepare his area budget and forward it to it to divisional sales manager. The latter will aggregate the sales down by each area budget and will be sent to the sales manager. In this way the sales budget will be built from the bottom and not from the top.

Welsch, Hilton and Gordon have mentioned the following steps in developing a comprehensive sales plan.

Step 1 Develop management guidelines specific to sales panning including the sales planning process and planning responsibilities.

Step 2 Prepare are (or more) sales (market) forecast consistent with specified forecasting guidelines including assumptions.

Step 3 Assemble all the other data that will be relevant in developing a comprehensive sales plan.

- a. Manufacturing capacity
- b. Sources of raw material and supplies or goods for sales
- c. Availability of key people and a labor force
- d. Capital availability
- e. Availability of alternative distribution channels

Step 4 Develop the strategic and tactical sales plans. There are different participatory approaches are used.

- 1. Judgmental approaches
  - a. Sales force composite (maximum participation)
  - b. Sales division supervisor composite (participation)
  - c. Executive opinion (decision participation limited to top management)
- 2. Statistical Approaches (tactical specialists plus limited participation)
  - a. Economic rhythm approach
  - b. Cyclical sequence approach
  - c. Special historical analogy
- 3. Specific purpose method's
  - a. Industry analysis

- b. Product line analysis
- c. End-use analysis
- 4. Combination of methods

Step 5 Secure managerial commitment to attain the goals specified in comprehensive sales plan

Source: Welsch, Hilton and Gordon, 1988:181

# 2.5 Production Plan/Budget

The budget specifies the planned quantity of goods to be manufactured during the budget period. To develop the production budget, the first step is to establish policies for inventory levels. The next step is to plan the total quantity of each product that is to be manufactured during the budget period. The third step is to schedule this production by interim periods. A complete production plan should show budget data classified by (a) products to be manufactured, (b) interim time periods, and (c) activities of each responsibility center in the manufacturing process.

The production budget is the initial step in budgeting manufacturing operations. In addition to the production budget, three other principal budgets are relevant to manufacturing: (1) the direct material and purchased components requirements, (2) the labor budget, which shows the planned quantity and cost of direct labor and (3) the manufacturing expense or factory overhead budget which includes the plan for all factory costs other then direct material and direct labor.

The production budget is prepared simultaneously with preliminary sales budget. When a tentative sales plan is completed, the next step for a manufacturing company is development of production plan. Production budget will assure a pattern of demand for the finished product, which is based on previous requirement of the selling department. It is the estimates of the total volumes of production, scheduling of operations days, weeks and months in quantitative terms. This entails the development of policies about efficient production levels, use of productive facilities, and inventory levels (finishedgoods and work-in-progress inventory). The quantity specified in the marketing plan adjusted to conform to production and inventory policies, gives the volume of goods that must be manufactured by product and by interim time period. Thus, the production budget can be represented in the following way.

Production Requirement = Sales Volume  $\pm$  Finished Goods Inventory Change The flow of planning activities from sales through the manufacturing plan shows on the following (Figure 2.1)

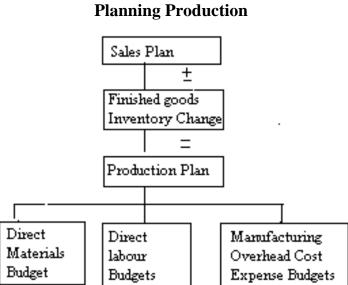


Figure 2.1

Source: Welsch, Hilton and Gordon: 2004: 211

# The Objectives of Production Budget/ Plan are:

- i. To bring t a common focus all the factors necessary to establish policies and to determine operation.
- ii. To project these establish policies into the future by an analysis of past performances.

- iii. To plan and control the operations being carried out to implement policies decided upon.
- iv. To make provision for materials at right time and place.
- v. To plan the sequence of operations required for economical production.
- vi. To co-ordinate the various aspect of factory operation as to make them a vital link in the chain of profitable programs.

At the time of production panning consideration should be given to:

- i. Sales Budget
- ii. Plant Capacity
- iii. Production Panning
- iv. Inventory Policy
- v. Policy of Manufacturing/Purchase of Component

# 2.5.1 Cost of Production Budget

After determining the volume of output, the cost of procuring the output must be obtained by preparing a cost of production budget. The budget is an estimate of cost of output planned for a budget period and may be classified in to Material Cost Budget. Labor cost budget and overhead budget because Cist of production includes material, labor and overhead cost.

## 2.5.2 Direct Materials Budget and Inventory Policy

The direct materials budget shows the estimated amount of materials and parts required to produce the number of units of finished goods planned in the production budget. The basis input is the number of units of each type of materials and part required to manufacture each units of each type of material and part required to manufacture each unit of finished goods. We can calculate Raw materials to be purchased by using following formula. Raw Material to be Purchased = Raw Material Consumption + Closing Inventory of Raw Material –Opening Inventory of Raw Material

Welch, Hilton and Gordon suggest the following points to be considered in developing inventory policies.

- i. Timing and quality of manufacturing needs.
- ii. Economic purchasing through quantity discount.
- iii. Availability of materials and parts
- iv. Lead time (order and delivery)
- v. Perish ability of materials and parts
- vi. Storage facilities needed
- vii. Capital requirements to finance inventory
- viii. Cost of storage
  - ix. Expected changes in the cost of materials and parts
  - x. Protection against storage
  - xi. Risk involved in inventories
- xii. Opportunity cost (inadequate inventory) (Welsch, Hilton and Gordon, 1988:213).

Before developing the inventory policy two questions should be answered. The first is showing how much to purchase at a time and second when to purchase. How much to purchase at a time is determined by a well known approach called Economic Order Quantity (EOQ). In EOQ, (units) ordering cost and carrying cost of the inventory will be minimum. EOQ (units) can be calculated by using following formula.

#### EOQ = 2AO/C

Where,

A = Annual quantity used in units

B= Average annual cost of placing on order

C= Annual carrying cost of an inventory

#### 2.5.3 Purchase Budget

The direct materials budget provides the data needed to develop a purchase plan. This requires a decisional input that is the management policy regarding the levels of materials and parts inventories to be maintained using the materials and parts budget and the inventory policy the number of units of each type of each item that must be purchased to support the production plans can be planned purchase budget specifies.

- 1. The quantities of each type of materials and part to be purchased.
- 2. The timing to those purchases and
- 3. The estimated cost of material and parts purchase

The following formula is used to compute the planned purchased of retail value.

Planned Purchases (at retail value) = Planned Net Sales + Planned Reduction + planned Ending of Month (EOM) Stock – Planning Beginning of Month (BOM) Stock.

#### 2.5.4 Direct Labor Budget

Direct labor budget may be classified in to two branches as labor requirement and labor recruitment. It will be developed on the basis of requirement of the production budget. Labor requirement for each department gives information about what number much and what kind of labor is required.

In other hand recruitment is based on labour requirement. This budget gives information about the personnel specification, for the jobs for which workers are to be recruited, me degree of skill and experience required and the rules to pay. The direct labour budget includes planned direct labour requirements necessary to produce the types and qualities of outputs planned in the production budget. Direct labour as a manufacturing cost is defined as those labour costs directly identifiable with the production of specific units of finished goods. The direct labour budget is to provide planning data about the amount of direct labour required, number of direct labour employees needed, labour cost of each product unit and cash plan requirements. The direct labour budget is established for control of direct labour.

There are four general approaches to develop standard labour times for each product.

- 1. Time and motion studies
- 2. Standard costs
- 3. Direct estimate by supervisors and
- 4. Statistical estimate by a staff group

# 2.5.5 Manufacturing Overhead Budget

This budget gives an estimate of the overhead expenses to be incurred in a budget period to achieve the production target. This budget includes the cost of indirect materials, labour and works overhead.

Manufacturing overhead is that part of total production cost not directly identifiable with specific products or jobs. It includes many dissimilar expenses therefore, it causes problems in the allocation of these cost to product. We calculate the manufacturing overhead using the following simple formula.

Manufacturing overhead = Indirect Materials + Indirect labor – Indirect works expenses or Indirect expenses of the factory

# 2.5.6 Expenses (Overhead) Budget

In developing a profit plan, expenses must be planned, planning expenses should focus on (i) Projecting Cash Flow and (ii) Effective cost. Managers should view expenses planning and control as necessary to maintain realistic expenses level essential to support the objectives and planned programs of the enterprise. Thus expenses planning should not focus as decreasing expenses but rather on better utilization of limited resources viewed in this light, realistic expenses planning and control may prompt either decreased or increased expenditure. Expenses planning and benefit must be developed as planned goals and sufficient resources must be planned to support the programs essential, for their accomplishment in harmony with the concept of participation are essential in developing realistic budgets for that center must be planned.

All these overhead are classified in accordance with its cost behavior. Cost behavior is response of a cost to different volume of output. There are three distinct categories of expenses when they are viewed in relation to change in output.

- 1. Fixed expenses: constant in total regardless of fluctuations in output
- 2. Variable expenses: per unit is constant and change in total directly " with change in output
- 3. Semi-variable expenses: neither fixed nor variable, change in the some direction of output but not proportionately. This budget should be in detail for each responsibility centers and by interim time periods. These are classified in to two sub budgets.
- 4. Distribution and promotional expenses budget.
- 5. Administrative expenses budget

# **2.5.7 Capital Expenditure Budget**

Capital expenditure budgeting is a process of planning and controlling of the long term and short term expenditure. For expansion, replacement and contraction of fixed assets, Capital budgeting is useful to earn future profit and to reduce future costs.

The capital expenditure budget gives on estimate of the amount of capital that may be needed for acquiring the fixed assets required for fulfilling production requirement as specified in the production budget. The budget is prepared after taking into consideration the available production capacities, probable reallocation of me existing assets and possible improvement in production techniques. Separate budget may be prepared for different items of fixed asset. Such as plant and equipment budget, building budget etc. the capital expenditure budget is an important budget providing for the acquisition of assets, necessitated by following factors.

- ) Replacement of existing assets
- ) Purchase of additional assets to meet a proposal increase in production due to increase in demand.
- ) Purchase of additional assets because of starting up of new lines of production
- ) Installation of an improved type of machinery so as to reduce cost of production

Thus, the capital expenditure budget enables are to know what new fixed assets are needed and what will be their costs and rates of return.

The investment decision of the firm is generally known as me capital budgeting, or capital expenditure decision. A capital budgeting decision may be defined as the firm's decision to invest its current funds most efficiently in the long-term assets in anticipation of an expected flow of benefits over a series of year.

Capital budgeting is the process of planning and controlling the strategic and tactical expenditure for expansion and contraction of investments in fixed assets.

# 2.5.8 Cash Budget

Cash budget is the process of forecasting the expected receipts and expected payments of cash to meet the future obligations. It is a detailed estimate for some future period of time of cash inflows from all sources and cash disbursement for all purpose.

Cash budget is extremely useful tool for financial planning which embraces arranging new loans and borrowings, replacing the existing debts, cash outlays, capital expenditures and dividend payments etc.

Cash budget is the most significance device to plan for and control the cash receipts and payments. A cash budget is a summary statement of the firm's expected cash inflow and outflows over a projected time period.

The primary purposes of the cash budget are:

- 1. Give the probable cash position at the end of each period as a result of planned operations.
- 2. Identify cash excesses or shortage by time periods.
- 3. Established the need for financing and the availability of idle cash for investment.
- Co-ordinate cash with (a) total working capital (b) sales revenue (c) expense (d) investment (e) liability of firm

5. Establish a sound basis for continuous monitoring of the cash position (Welsch, Hilton and Gordon, 2004: 137).

#### **2.6 Variances Analysis**

Variances refer to the deviation between planned and actual goals. They reflect performances above or below standard. Variances are analyzed according to their cause and the person responsible.

Variances analysis is an important tool that can increase the usefulness; of periodic performance reports. It helps management to better understand the causes of variances from planned perform and take corrective action through management by exception the decision investigate a variance is a cost benefit decision. The benefit derives from the possibility of retiring the production system to its efficient state. The cost is the use of management time to investigate the cause of the variance. Management time is usually viewed as a scare resource with a high cost per hour.

Comparison of actual results with planned or budget goals has been emphasized as integral part of the control process. A basic feature of performance reports is the reporting of variances between actual results and planned goals, if a variance is significant, a careful management study should be made to determine the underlying causes. There are numerous ways to study variances to determine the underlying causes.

- 1. Conferences with responsibility center mangers, supervisors and other employees in the particular responsibility center involved.
- 2. Analysis of the work situation includes the flow of work coordination of activity effectiveness of supervision and other prevailing circumstances by
  - ) Direct observation
  - ) On the spot investigations by line managers

) Investigations by staff group internal audits, special studies, and variance analysis

Variance analysis involves a mathematical analysis of two sets of data in order to gain insight into the underlying causes of a variance one amount is treated as the base, standard or reference point variance analysis has wide application in financial reporting. It is frequently applied in the following situation. But data is related to sales, materials, labor, and overhead. The prior period is considered following bases.

- 1. Investigation of variances between actual and standard cost. The standard cost is used as the base.
- Investigation of the variances between actual results and planned or Budget goals reflected in the profit plans. The planned or budget goals are used as the bases.

# 2.7 Flexible Budget

Flexible expense budgets represent only to expenses or costs. They are also called dynamic, activity or output adjusted expenses budget. It is complementary to tactical profit plan. They help to provide expenses plan for tactical profit plan and expenses plans adjusted to actual output for comparison with actual expenses in periodic performance report.

The fundamental concept of flexible budgets for expenses is that all expenses are incurred because of (a) the passage of time (b) productivity (c) a combination of time and output, if these premise reasonable in a business the expenses can be computed for planning and control that means.

- 1. Expenses must be identified as to their fixed and variable components, with related to output or productive activity.
- 2. Expenses must be reasonably related to output or productive activity.
- 3. Output or productive activity must be reliable measurable.

- 4. Flexible budget for each expense must be for a specified time period and for specified time relevant range of output or productive activity
- 5. For planning and control purposes, flexible budget formula must be developed for each responsibility center in enterprises.

# 2.8 Ratio Analysis

Ratio analysis of business enterprises refers quantitative measures of the firm to meet its future financial obligations or expectation. Present and part data are used for the purpose it is the mirror, which reflects the financial strength and weakness of the organization in terms of liquidity, profitability, capital structure and assets utilization. They are made to provide an indication of future performance. A ratio analysis is the process of determining and interpreting numerical relationship based on financial statement. Ratio analysis is the powerful tool of company's strength and weakness analysis. It is an index for evaluating the performance of the company. A comparison of ratios of the some over time is important in evaluating changes and trends in the firm financial condition and profitability. The relationship between two accounting figures is known as simply ratio. There are generally four types of ratios are in practices, liquidity, leverage and activity profitability.

The ratio analysis is invaluable aid to management in the discharge of its basic functions of forecasting, planning, co-ordination, communication and control. By an analysis study of the part performance of the business, it helps in predicting and projection the future it assist in communication by conveying and formulation, which is pertinent and purposeful to those for when it is meant, it promotes co-ordination by a study of the efficiency of the business it paves the way for effective control of business operations by undertaking on appraised of both the physical and monetary targets.

# 2.9 Costs-Volume Profit Analysis

The relationship between cost volume of sales and profit is known as cost volume profit analysis. It is an analytical tool for studying the relationship between volume, cost, profit and price. There are three factors in cost volume profit analysis, which are interconnected and dependent on one another. For example profit depends upon sales; selling price to a greater extent will depend upon the costs volume of production.

Cost Volume Profit Analysis answer the following questions:

- 1. What sales volume is needed to avoid losses?
- 2. What sales volume is necessary to earn a desired net profit?
- 3. What will be the effect of change in prices?
- 4. Which product or product mix is most profitable?
- 5. Which product or operation of plant should be discontinued?

The most descriptive title-underlying concept is break-even point. It is defined as that volume level at which revenue exactly equals total costs. It is a point of "no profit no loss". This analysis is directly concerned with the effect or profits of changes in fixed cost, variable cost, selling price, sales quantities, sales mix.

Cost volume profit analysis is an integral part of management administrative function. It provides a framework of various ways of organizing those operations. In addition cost volume profit analysis can be used to control current operations by comparing actual results with planned results.

The volume of cost volume profit analysis is limited by its static character and the assumption on which it is based but used with discretion by a skillful management account analyst; it becomes a patent weapon in management strategic arsenal.

#### 2.10 Leverage

Leverage represents influence of power. It is influence of one variable over some other related variable. "The term leverage may be defined as the employment of an assets or resource of funds for which the firm has to pay a fixed cost or fixed return" (Sthapit, 2006:110). There are three commonly used measures of leverage in financial analysis.

# **2.10.1 Operating Leverage**

It reflects the extent that fixed assets and fixed cost are utilized in the business firm. The firms have two options (a) To operate with high fixed cost or (b) To operate with high variable cost in first option. The risk is very high and as result profitability will also be high in second option the will low and side by side the profitability will also be low. A firm has a high degree of operating leverage if it using higher percentage of fixed cost out of the total cost.

A ratio between the rate of changes that take place in sales and net income is known as operating leverage. It is also a ratio between contribution margin and earnings before interest and tax (EBIT). It measures the sensitivity of EBIT to change in sales. The formula for finding out the degree of operating leverage is as follows:

$$DOL = \frac{\% \text{ change in EBIT}}{\% \text{ change in Sales}}$$

or

$$DOL = \frac{Sales - V.C}{EBIT}$$

It measures the % change in EBIT which result from a change of % in the level of output sales. For example, say DOL is 2, it denotes that increasing in sales by 1% result 2% increasing or EBIT or of sales increases by 50% then the EBIT increasing by 10.

#### 2.10.2 Financial Leverage

Financial leverage reflects the amount of debt used in the capital structure of the firm. The use of the source of funds with fixed charges such as debt and performance capital with the owner's equity in the capital structure is described as financial leverage. The leverage will be high in the case of higher proportion of borrowed capital in the total capital structure. It there is no borrowed capital in the total capital structure, the leverage will be one. It measures the % change in EBT, which results from a change of one % in EBIT. It enables us to understand how EPS would change given a certain change in EBIT. For finding out financial leverage the following formula can be used:

$$DOL = \frac{\% \text{ change in EPS}}{\% \text{ change in Sales}}$$

or

$$DOL = \frac{Sales - V.C - F.C.}{Sales - V.C. - Interest}$$

#### 2.10.3 Combined Leverage

The combination of operating leverage and financial leverage is known as combined beverage. The leverage is combined to assess the impact of all types of fixed changes. It can be found out by multiplying degree of operating leverage with degree of financial leverage.

$$DOL = \frac{\% \text{ change on EBT}}{\% \text{ change on Sales}}$$

or

$$DOL = \frac{Sales - Variable Cost}{EBT}$$

Degree of combined leverage is also known as degree of total leverage. It measures the % change in EPS, which results from a change of one % in the level of output or sales. It enables us to understand how EBIT would change by certain change in sales (Poudel, Baral, Gautam and Rana, 2007: 379).

# 2.11. Productivity

Productivity is a state of mind. It is an attitude that seeks continuous improvement of what exists. It is a conviction that one can do better today than yesterday and that tomorrow will be better than today. Furthermore: it required constant efforts to adopt economic activities to ever changing condition application of new theories and methods. It is a form of belief in the progress of Humanity (Monga, 1998:312).

Output is the result of the combined input of a variety of factors. (Materials, labor, capital, machines, and management). Productivity in relation to that particular factor of production, productivity is thus the power to produce and is related to better living standards, growth of the business and the achievement of human being.

Symbolically, productivity is the ratio of:

Higher the ratio, better it is high productivity increases production and reduces cost of production per unit and therefore, reduces selling process and increases profitability of the concern. Production should not be confused with production because the latter refers directly to the output while the former relates to the ratio of output in terms of input of materials, labour hours, machine hours, capital employed or any other factor of production. Thus in the broad sense, productivity means goods and devices produced in relation to resources utilized in producing the same. To improve productivity there two aspect play importance:

- i. Human Aspect and
- ii. Technological Aspect

# i. Human Aspect

The higher the co-operation between capital and labour the greater the productivity. So every effort should be made to have the willing cooperation between these two wings of production so that improvement in productivity may be made. Some of the improvement points of co-operation are listed below:

- Mutual trust and co-operation between capital and labour.
- Workers participation in management to give them the feeling that they have a voice in the Administration of the concern.
- ) Introducing rationalization and automation by taking the workers into confidence and giving them the assurance that they will not be retrenched due to rationalization and automation.
- Adopting two ways communication services where by information to and from workers would reach both ends unhampered.
- ) Giving various incentives to workers for greater productivity by adopting balanced wage structure and adequate system of recruitment, training, placement and promotion and a comprehensive labour welfare scheme.
- Adopting suggestion box scheme by the concern and making this scheme open to all employees for making suggestions or work simplification, improvement of working conditions or any other matter affecting the efficiency of the concern.

#### ii. Technological Aspect

The various technological aspects to which attention should be given for improving productivity are listed as follows.

## Location and Layout of the Factory

Place where the total transportation costs, both of finished goods and of raw materials should be minimum and layout of shops and machine tools to suit the flow of operations of processes.

## Design

Ensuring correct production designs so that faculty designs may be discontinued and make research regular features to modify the existing minimum cost and optimum quality.

# Management

Sure delegation of authority define live and staff relationship clearly standardization of product. Ensure application of technique of production control apply work study techniques. Application of better quality control etc.

#### Labour

Make suitable pay scale keeping view the characteristics of job concerned select right time at right job. Arrange training programmes give reward for efficiency and quality make good working condition and provisions of medical, housing, recreational and educational facilities to reduce labour turnover.

# Material

Purchase right type of material at right price. Fixing minimum ordering quality for each material to avoid shortage of material. Avoid over stock of material reduce the wastage of material.

# Machine

Maximum possible capacity of machine and make satisfactory arrangement for repairs and maintenance of machine and tools.

# Finance

Finance is capital budgeting, working capital and particularly laying emphasis or management of inventory and receivables.

# 2.12 Review of the Previous Studies

So far as known to the researcher, numbers of study on sales budgeting and production budgeting on different organizations were made but not exactly on Chaudhary Group of Nepal. It means, there is numerous research made on the topic Sales and Production under Profit Planning and Control related with different public enterprises. Those researches were made both related with manufacturing and non manufacturing concern. Whatever the research in the area of profit planning were made are not in depth. Also the research which has been made on this area are reviewed and put out their findings.

#### Kamal Prasad Dumre (1992)

Mr. Dumre has conducted a research on the topic "**Profit Planning in Manufacturing Enterprise of Nepal: A Case Study of Dairy Development Corporation (DDC) Company Ltd**, an unpublished master level thesis submitted to University Campus, Faculty of Management, T.U. The main objective of his research was to highlight the current practices of profit planning and control and its effective necessary in Nepalese PEs. The nature of data used was secondary as well as primary sources of data. The study covers the time period of 5 years i.e. from fiscal year 2045/46 to 2049/50.

# **Objectives**

1. To analysis statistic on DDC Identify tends over time in such variable as level of output prices cover of production value added by processing composition of output profitability.

- 2. To analyze the various functional budgets adopted in DDC.
- 3. Examine the practice and effectiveness of profit planning in DDC.

## **Major Finding of the Study**

- 1. In Nepalese manufacturing PEs goals and objective are written but are not adequate for development of enterprise.
- In Nepalese manufacturing PEs there exist planning section but there is no clear systematic of planning. Plans are prepared on basic without analysis of environment.
- 3. There is no proper planning for cost control mechanism and performance reporting.
- 4. There is no detail and formal guideline lower levels management or department manager for the purpose of developing PPC.
- 5. The enterprise is not position on bear the financing of research and to increase the plant capacity.
- 6. Costing is done by traditional method that is to precise distinction be made regarding the nature of the cost as variable and fixed as controllable and uncontrollable, direct or indirect etc.
- 7. The capacity utilization of BNL has been lowest.

## **Recommendation:**

- 1. BNL should define objectives target and programmes.
- 2. Soul analysis should be adopted.
- 3. Line and staff authority and responsibilities should be clearly defined.
- 4. Trained and qualified manpower of budgeting and planning should be hired and present manpower should be trained to develop the implement of profit plans effectively.
- 5. Market situation on demand and supply should be carried out.

- 6. The annual plans should be in line with the strategic plan modern strategic management system should be introduced instantly especially in the present context of privatization boom in the centuries.
- 7. It is strongly suggested to the BNL that is should be quite attentive while adding more capital and manpower.

# **Indira Ghimire (2002)**

Mrs. Ghimire has conducted a research on "**Profit Planning in Manufacturing Company in Nepal: A Case Study of Bottlers Nepal Ltd** (**BNL**), an unpublished master level thesis submitted to Shanker Dev Campus Faculty of Management, T.U. The nature of data used were secondary as well as primary i.e. published and unpublished relevant documents, report of auditor, personal interview, questionnaire etc. The study covers the time period of 5 years i.e. from the fiscal year 2051/52 to 2055/56.

# **Objectives**

- 1. To review the present practice of profit planning; its effectiveness and factors in Bottlers Nepal Ltd.
- To analyze the various functional budgets and actual achievement of Bottlers Nepal Ltd.
- 3. To analyze the variance if any between budget and achievement.
- 4. To draw the appropriate conclusion and give suitable suggestions and recommendations for improving the comprehensive profit planning on the basis of that study.

## **Major Findings of the Study**

- 1. The company has not maintained the broad and long range objectives and periodic performance report systematically.
- 2. There is lack of coordination between the executive levels and lower level personnel to develop the plan and strategy.

- 3. Company should have to utilize its capacity to meet the target production which will provide encourage to get profit.
- 4. There must be opened separate profit planning unit and have to appoint profit planning director to achieve company's goal.
- 5. Planned sales achieved only 70%.
- 6. Company should try to increase its market share.
- 7. It should be benefited to prepare a realistic sales plan.

# Recommendations

- 1. Firm should re-formulate its short term goals and policies.
- 2. To consider break even analysis while preparing sales plan.
- 3. To increase the good financial position.
- 4. It should analyze its variance in effective way.
- 5. Profit plan manual should be communicated from top level to lower levels.
- 6. Should try to increase its market share.
- 7. To concept profit planning and control should be applied in BNL to improve its overall performance.

#### **Damodar Niraula (2008)**

Mr. Niraula has made research on "**Impact of Budgeting Profitability of Nepalese Public Enterprises: A Case Study of Nepal Electricity Authority**" an un Published master level thesis submitted to Shanker Dev Campus, Faculty of Management, T.U .In this study Mr. Niraula has pointed out following specific objectives and findings.

# **Main Objectives**

- 1. To analyze the various functional budgets of NEA.
- 2. To analyze the true picture of managerial budgeting adopted by NEA.
- 3. To analyze the variance between budgeted and actual achievement of the authority.

4. To point out the major shortcomings and recommended suggestive measures.

# **Major Finding**

- 1. Actual and budgeted sales are found to be significant but the difference between budgeted and actual production is found to be vague. In spite of the fact, there is perfect correlation between budgeted and actual production respectively.
- 2. NEA is bearing a high fixed cost due to the lack of proper technology, overstaffing and many more.
- 3. Actual sales are always less than actual production due to the power loss.
- 4. It has not classified its overhead systematically, which creates difficulties in analyzing the expenses properly.

## Recommendations

- NEA has no sufficient cash surplus to pay for expenditure. It was to borrow the loan to meet minimum cash balance and it is because of the poor cash management. NEA should be clearly formulated long-term objectives so as to make a clear distinction between profit motive and social motive.
- 2. The company should be identified duties and responsibilities in clear-cut way between the employees.
- Entrepreneurship is the first requirement for any business success but in case of public enterprise no one seems serious towards the survival or insolvency. So either NEA should be privatized or it should operate under management contracts.
- 4. Fair motivation program and reward and punishment system should be conducted.

- 5. Forecasting should be made on realistic assumption which can include strategic and tactical costs that are consistent with the time dimension used comprehensive plans.
- 6. NEA should try to increase the sales volume of medicines for this it can utilize its full capacity.

# Sumitra Prajapati (2008)

Miss Prajapati conducted a research on "Impact of Sales and Production Budgeting on Profitability of Public Enterprises: A Case Study of Nepal Electricity Authority" an unpublished master level thesis submitted to the Shanker Dev Campus, Faculty of Management, T.U. The study was based on the Recent five fiscal periods and previous five fiscal periods. The main objectives, major finding and the some recommendations of are presented below.

# **Objective of the Study**

The main objective of the study is to analyze the sales and production budgeting along with analysis of supply system of electricity. Apart from this above are the other specific objectives.

- 1. To examine the practice and effectiveness of sales of sales and budgeting and production budgeting in NEA.
- To identify the effect of sales and production budgeting on profitability of NEA.
- To evaluate the variance between budgeted and actual achievement of NEA.
- 4. Comparative study of sales and production budgeting of recent five fiscal year (f/y) 2060/61 to 2064/65 and previous five fiscal year (f/y) 2054/55 to 2058/59.
- 5. To provide the valuable suggestions and recommendation to the NEA.

#### **Major Findings**

The major findings of the study on the basis of collection and analysis of data are presented below.

- 1. NEA has a practice of preparing both strategic and tactical managerial budgeting but tactical short range plan is prepared for external purpose and strategic plan is prepared for internal purpose.
- There is high degree of correlation between budgeted and actual sales i.e.
   0.99 approximately.
- 3. The coefficient of variation and standard deviation of actual sales are less than budgeted sales. IT indicated that budgeted sales are more variable than actual sales.
- 4. The NEA sales achievement has neither touched nor crossed the target sales during the study period. The sales achievement during fiscal five year is increasing every year.
- 5. The tariff rate of electricity is imposed on the basis of different category and voltage level.
- 6. The tariff rate of electricity is high in domestic, industrial, commercial, non-commercial and temporary supply but it is cheap in water supply, irrigation, community sales, transportations and bulk supply (India) categories.
- 7. Category wise sales analysis of NEA shows that the sales share in (GWH) of electricity of domestic, industrial, bulk supply (India) and commercial categories is high and sales share in (GWH) of community sales, temporary supply is low. The sales revenue of electricity in (Rs.) Of domestic categories is the highest and the least is in the temporary supply category.
- 8. The regression equation shows that there is positive relation between budgeted and actual sales. In the same way there is positive relation between budgeted and actual production.

- In compared to fiscal year 2054/55 to fiscal year 2058/59 the actual and budgeted sales and production are more consistent and less variable In fiscal year 2060/61 to fiscal year 2064/65.
- 10. There is positive correlation between budgeted and actual production but budgeted production is more variable than actual production.
- 11. The trend line of actual sales and production is increasing but on the other hand trend line of actual profit is decreasing.
- 12. Actual sales are less than actual production. It indicates that there are power losses in NEA.
- 13. There is positive correlation between actual production and actual sales as correlation coefficient is 0.83. Actual sales are more variable than actual production.
- 14. Higher standard deviation and coefficient of variation of actual profit than actual sales and actual production indicate higher variability and less.

#### Recommendation

Based on research study topic of "impact of sales and production budgeting on profitability of public enterprises: A case study of NEA" the following suggestions are recommended in this part to develop the mechanism of sales and production budgeting as a part of profit planning, to improve the budgeting system and practices of revenue and cost, also may help to the NEA to get rid of long series and losses and also assist to generate reasonable profit.

 NEA should be prepared sales budget on the realistic ground. Sales forecasting should be made after analyzing all variable that affect the sales of NEA. NEA should consider demand determinants such as family income, price of electricity, cost of alternative power, and cost of auto generation electricity and reliability of NEA service. And there should be effective management in generation and distribution of electricity to meet target sales.

- NEA should try to increase the sales volume and should reduce the power purchase. It can be done reducing power leakage and wastage, establishing new plants and increasing the capacity utilization.
- 3. NEA should prepare monthly sales budget which helps to estimated sales revenue rightly a year budget.
- NEA should maximize its operating profit so as to survive in the future. Because authority operating under huge loss annually can't be afforded by government.
- 5. NEA is enjoying monopoly market in power sector in Nepal. It is a good sign for authority as the sale of electricity is increasing every year in satisfied manner. In this context, NEA could have sufficient profit but unfortunately, it is suffering from huge loss due to over cost on unnecessary heads. So it needs to work hard to maintain the unnecessary cost.
- 6. NEA should be considered cost volume profit relationship while developing strategy. To maintain BEP, NEA should be control its high fixed cost and variable cost and increase its sales revenue.
- 7. Load shedding is a big issue in Nepal. The authority should try to avoid load shedding which help to increase its profit.
- 8. NEA should have proper co-ordination between budget formulation implementation and evaluation of achievement.
- 9. NEA should be implemented managerial budgeting efficiently and strictly to increase the sales and manage the costs minimum level with a view to increase the profit.
- 10. NEA has both the margin of safety and p/v ratio are low, so management of NEA should the possibilities of increasing the increasing the selling price, provided it does not adversely affect the sales volume or reducing variable cost by bringing improvement in the manufacturing process.
- 11. finally NEA should practice the approach of PPC scientifically and systematically only after considering, evaluating relevant variables,

factors, environments like PPC's all aspects, internal strength and weakness, external threats and opportunities, and only then sales and production budgeting becomes a reliable tool of profit planning and control in all public enterprises including NEA.

#### Prem Bahadur Shahi (2009)

Mr. Shahi has conducted a research on topic **"Sales Budgeting and Planning of A Trading Company: A Case Study of National Trading Limited"** an unpublished master level thesis submitted to University Campus, Faculty of Management T.U. This Research covers the time period of five fiscal years i.e. from2061/62 to 2065/66.The main objectives, major findings and some recommendations are as follows:

#### **Objectives of the Study**

The general objectives of this study are to examine and evaluate the planning system specially the sales planning system used by NTL. The major objectives of this study are highlighted as follow:

- 1. To examine the sales planning system used by NTL.
- 2. To examine annual sales budget of NTL to examine interrelationship between sales planning and profit planning.
- 3. To study sales trend and problem of NTL.
- 4. To provide recommendation and suitable suggestions to the company.

#### **Major Finding of the Study**

Major finding of the study are as follows:

- 1. Sales plan of National Trading Limited is not properly maintained.
- 2. NTL has not a system of forecasting.
- 3. Sales trend of NTL is fluctuating.
- 4. Actual Sales are more homogenous than planned sales
- 5. The variance is highly unfavorable in every year.

- 6. The average sales achievement of the study period is about 60% of planned sales.
- 7. The correlation coefficient is positive between planned and actual sales but it less consistent.
- 8. The straight line trend shows the unfavorable sales figure for future.
- 9. Both target and achievement sales indicate the unfavorable future of NTL.
- 10. The regression equation shows that there is positive relationship between planned sales and actual sales.
- 11. NTL has practice of preparing short-range sales budget but long range sales budget is not prepared in detail.
- 12. NTL is suffering from lack of proper inventory policy.
- 13. NTL does not apply any appropriate and effective action for the replanning.
- 14. The goals and objectives of the company are not clearly communicated to operating level of management.

#### Recommendation

In this topic some suggestions have been recommended on the basis of major finding of the study of planning system and sales budget in NTL. It seems necessary to develop and implement the system of planning and sales budget in the public enterprises from very beginning to the end. It is hoped that this recommendation will be useful to the management of NTL and other concerned persons.

- 1. National trading limited should formulate pointed goals, objectives, policies, long term plan, strategic plan, etc. Sales budget must be prepared on realistic, responsible and committed to accomplish with the specific period of time.
- 2. NTL should adopt a systematic approach to sales budget. To adopt this approach planning expert should be hired or existing planners should be

trained. Their implementation considerably contributes to increase the profitability of the company.

- All the managerial level personnel should be involved and information and advice of operation level personnel should be taken for preparation of NTL budget and future planning.
- 4. Budget prepared by planning department should be given importance.
- 5. Every managers of NTL should understand role of budgeting.
- 6. For the better handling and co-ordination both procurement and sales responsibilities should be with one department.
- 7. NTL should have in depth analysis of the corporation's strength and weaknesses. It should try to overcome its weaknesses by using the strength.
- 8. NTL should develop proper performance evaluation system to evaluate the effectiveness of the budgeting system.
- Continued improvement in the organization should be done in order to generation efficiency attain effectiveness and enable the organization to operate in competitive market.
- 10. Management information system should be developed. Information is required in respect to market trends, competitions activities, demand and supply and price situation general economic indications, marketing practices, distribution strategies, promotional policies, manpower strength, etc.
- 11. NTL should apply appropriate and effective action for the re-planning.
- 12. NTL must bring some sales promotional program and strategies to increase the decreasing sales.
- 13. NTL must be aware of private sector firms entering to do the similar types of business and must analysis their strength and weaknesses.
- 14. NTL must go for other products other than recently handling to increase sales and profit.

15. NTL must improve sales and decrease lost to increase profit, so as to save it from liquidation.

#### 2.13 Research Gaps

A brief review of the above mentioned dissertations, reported that most of the enterprise were not operating effectively and they have also not applied the full concept of budgeting i.e. application of profit planning system and have recommended for the effective implementation of profit planning system which is related on the major findings of their studies. This study so would be of different value as it focused on specific area of overall profit planning i.e. sales budget and production budgets with special reference to a manufacturing enterprise Chaudhary Group. This research paper used correlation and regression analysis between the budgeted and actual sales and production with other management tools of analysis.

It would be a significant step in knowing about the sales budget and production budget of Chaudhary Group. The study attempted to analyze the sales and production budgeting system of the manufacturing firm. This study will be very new study for the all stakeholders.

# CHAPTER - III RESEARCH METHODOLOGY

#### **3.1 Research Design**

The research design opted for the study was basically descriptive one. The necessary data and information required for the study were collected, evaluated and analyzed systematically to arrive at a certain conclusion. It included and outline of what the investigation will do from writing the hypothesis and their operational implication to the financial analysis of data.

The present study was mainly related with the quantitative plans and financial statements for five years shown by Chaudhary Group Nepal. Descriptive as well as analytical research design was followed and those five years statement attempts to show the real position of Chaudhary Group in regarding setting goals defining objectives and planning strategy. Quantitative aspects of this research such as, effectiveness of profit planning in these enterprise problems of formulating and implementing the profit plans, theoretical perspective and views of the top personnel and other middle staff are explained where over necessary.

#### **3.2 Period Covered**

Profit planning has two dimensions; strategic or long range and tactical or short range profit plans. Five fiscal years data is taken for long range planning. One year data for short range planning, long range trend analysis were made for the fiscal year from2061/62 to 2065/66.

# **3.3 Data Collection Procedures**

Secondary data was used to fulfill the objectives of the study. The research study has followed basically study of profit planning of Chaudhary Group to evaluate the budgeting system in use. It was based on account statement and other information covering fiscal years of Chaudhary Group. CVP analysis, flexible budget, variance analysis, ratio percent, means, correlation, regression as tools may be used as per need. The study covers sales, production, material, labour, expenses and profit and loss of Chaudhary Group.

Therefore, the documents used in the study covers:

- Annual Report of Chaudhary Group.
- Magazine, Newspaper, Booklets, Documents.
- Published Books, Journals Relating to Chaudhary Group.
- Government Report, Bulletin and Other published statement of Chaudhary Group.
- Previous Studies made in this field.

This research work was however, analytical as well as exploratory depending upon the nature of issue for necessary. For this purpose data had been managed in proper form, interpretation and explanations wherever necessary.

## 3.4 Method of Analysis and Presentation

Methods of analysis were applied as simple as possible. Results were presented in tabular form based on which clear interpretations were given. Detail calculations, which couldn't be shown in the body part of the report, were presented in appendices at the end of this study. More simple and easily understandable charts diagrams and graphs were used. And finally summary, conclusions and recommendation were presented.

#### 3.4.1 Tools Used

To analyze the selected data some financial and statistical tools were used. For the collected data are managed, analyzed and presented in proper tables and formats. Those tables and formats were interpreted and explained wherever necessary.

#### **Time Series Analysis**

It measures the average change in the value of Y as a result of one unit change in the value of X. in other words, it measures the rate of relationship of the sales achievement and target. It is the line gives the best estimates for the values of Y for any specified value of X.

The Straight Line Time Series found as y = a + bx

Where

b = Growthx = Independent variabley = Dependent variablea = Intercept of trend line

#### **Coefficient of Correlation**

Coefficient of correlation is used for measuring the magnitude of linear relationship between two variables. The value of coefficient of correlation always lies between +1 and -1. When coefficient of correlation (r) =+1, it shows there is perfect positive correlation between the variables, when (r) = -1, it means there is perfect negative correlation between the variables and (r) = 0 refers there is no relationship between the variables. The coefficient of correlation finds not only the magnitude of correlation but also its direction.

The coefficient of correlation found as:

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

Where

r = Coefficient of Correlation

n = Number of years

x = Sum of X series y = Sum of Y series xy = Sum of X and Y series  $x^2$  = Sum of square of X series  $y^2$  = Sum of Square of Y series X and Y = Financial variables

# **Regression Equation Analysis**

The regression analysis is used to estimate the likely value of one variable from the known value of the other variable i.e. in regression analysis we established a kind of average irreversible functional relationship between the two variables. The Regression Equation of sales achievement on sales target show the equation,

$$\mathbf{y} - \overline{\mathbf{y}} = \mathbf{b}\mathbf{y}\mathbf{x}(\mathbf{x} - \overline{\mathbf{x}})$$

Where,

 $byx = \frac{m \sum xy - \sum x \sum y}{m \sum x^2 - (\sum x)^2}$ byx = Regression coefficient of Y on X  $\overline{X}$  = Means of x series  $\overline{y}$  = Means of y series

#### **Probable Error (P.E.)**

The probable error of the coefficient of correlation helps in interpreting the value. It is possible to determine the reliability of the value of coefficient. It can be obtained as follows:

P.E. = 
$$0.6745 \times \frac{1 - r^2}{\sqrt{N}}$$

If the value of r is less than P.E. there is no evidence of correlation i.e., value of r is not significant. Then if the value of r is more than 6 times of the P.E., the coefficient of correlation is practically certain i.e., the value r is significant.

## **3.4.2 Graphical Presentation**

Presenting the information through the graph makes very easy to understand. The various in this study are presented in the different types of graphs and diagrams.

#### **3.5 Research Variables**

Financial and physical targets for specific goals, Sales, Production, Finished goods, Inventory Position, Capital Expenses, Man Power Planning, Cash Budgets relating to long term and short term periods of Chaudhary Groups Nepal are the research variables of present study.

#### 3.6 Limitation of the Study

This study was concerned with profit planning of business in Chaudhary Group. The detail study was difficult in profit planning aspects therefore the study has the following major limitations:

- ) The study covered the analysis of only five fiscal years.
- ) The comprehensive and accuracy of this study was based on the secondary data available from Chaudhary Group and other documents, published books, booklets etc. provided from Chaudhary Group.
- ) This study was focused on some financial and accounting aspects and it does not cover the other areas of the enterprise.
- ) It dealt only with short-term profit plan covering sales, production and expenses etc.
- ) This study evaluated the achievement of board objectives, goal basic strategies planning premises, project planning and strategic and financial planning.

# CHAPTER - IV DATA PRESENTATION AND ANALYSIS

#### 4.1 Sales Budget of the Chaudhary Group

Sales budget is the statement of budgeted sales for different time periods such as quarters or years. The preparation of all other functional budgets depends upon the sales budget. The prime objective of business is to earn profit so that the first consideration of business must be to prepare effective sales budget. Profit is the amount excess of revenue over cost. Therefore, the sales plan is the foundation for periodic planning in every firm as, sales based on which is cash and all other functional budgets are prepared on the basis of the sales budget.

A comprehensive sales plan comprises the sales activities. Sales are the basic source of revenue. Therefore, the sales budget is a part of revenue budgets. It is also referred to a market penetration plan. In manufacturing concerns, the volume of final products to be produced is determined by the sales units, which are budgeted. Generally, two types of sales budgets are prepared on the basis of time period covered. First is a long term sales budget, which covers the time period of three to five fiscal years and second, the short term sales budget covers the time period of accounting year.

4.1.1 Budgeted Sales and Actual Sales in Electronics of Chaudhary Group

The following table shows that the budgeted and actual sales in electronics of the Chaudhary Group in fiscal year 2061/62 to 065/66 and also the achievement in percentages.

#### Table 4.1

#### **Budgeted and Actual Sales in Electronics**

1,36,464

Average

			(RB: III Thousands)
Fiscal	Budgeted	Actual	% Of
Year	Sales	Sales	Achievement
2061/62	195680	105035	53.67
2062/63	108640	80550	74.14
2063/64	115000	95860	83.35
2064/65	128000	82100	64.14
2065/66	135000	103500	76.66

93,409

(Rs. in Thousands)

70.39

The table 4.1 shows that the budgeted and actual data of total sales of electronics product manufactured by Chaudhary Group during the study period. In the fiscal year 2061/62 the budgeted sales were Rs.1,95,680 thousand and actual sales were Rs. 105,035 thousand. Chaudhary group achieved only 53.67% of budgeted sales as compared of the target it had set for that fiscal year. Similarly, Chaudhary group achieved 74.14% of target which was Rs. 80,550 thousand in fiscal year 062/63. In that fiscal year Chaudhary Group budgeted sales were minimum than that the previous fiscal year but made remarkable achievement than the targeted sales of the previous fiscal year. The result of achievement was 83.35%. Again the achievement of sales were Rs.82,100 thousand in the fiscal year 2064/65. In the fiscal year 2065/66 the targeted sales again increased Rs.1,35,000 thousand and achievement sales also increased to Rs. 1,03,500 thousand recording 76.66%.

The budgeted sales and actual sales in electronics of Chaudhary Group are presented with bar diagram below.

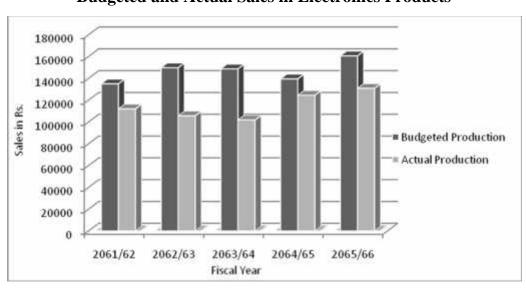
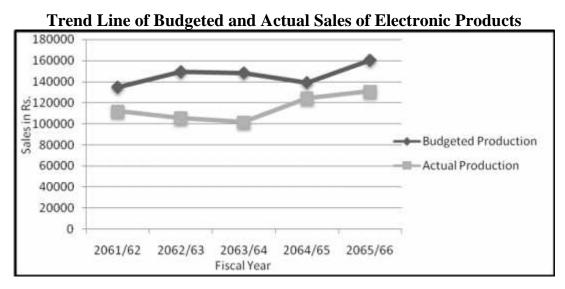


Figure 4.1 Budgeted and Actual Sales in Electronics Products

In the beginning of the research year 2061/62 there was the highest target on sales and the following year it is found that the low figure of budgeted sales. There after Chaudhary Group decreased the targeted budgeted sales but there was fluctuating on achievement. In comparison the budgeted sales, the firm achieved minimum sales in the fiscal year 2062/63 and maximum on year 2065/66. In the fiscal year 2063/64 Chaudhary Group made more success on sales based on budgeted and actual sales then other fiscal years where as the minimum difference of budgeted and actual sales.

The Figure 4.2 shows the Trend Line sales of electronics in different fiscal years based on budgeted and actual sales of electronics.





In the figure 4.2 it is presented the budgeted sales and actual sales in electronics product on the base of different research year. In y axis the budgeted and actual sales and x axis of diagram research year is presented. From the trend line it is found that initially budgeted sales were nearly Rs.2,00,000 thousand but it decreased in the following fiscal year up to Rs.1,08,640 thousand thereafter increased up to 1,35,000 thousand. In the beginning of research year actual sales were Rs.1,05,035 thousand and Rs.1,03,500 thousand at the end.

Summary of statistical calculation of budgeted sales and achievement (Annex-1)

Coefficient of correlation (r) = 0.669Coefficient of determinations  $(r^2) = 0.45$ Regression of achievement on target = 0.223 Probable error (P.E.) = 0.16  $6 \times P.E. = 0.96$ Test of significant Budgeted Sales Actual Sales = 34695.80 = 11578.50

$$a = 136464$$
 $a = 93409$  $b = -15170$  $b = -383.75$ 

The correlation coefficient between budgeted and actual sales was 0.669 which a moderately positive correlation between the variable. This shows that these two variables moved in same direction of achievement and budgeted sales of Chaudhary Groups on electronics products. Since P.E. < r < 6 P.E. (0.16<0.669<0.96), coefficient of correlation between budgeted and actual data is found to be insignificant. It shows the result of budgeted and actual sales of electronics products was not satisfactory or Chaudhary Group could not achieve the budgeted sales in any of the research year. Coefficient of determinants ( $r^2$ ) was 0.45 which means that only 45% of variation in the actual data is explained by the budgeted data and the rest 55% variation is due to other factors. Growth rate of both budgeted and actual sales obtained negative due to its negative increments in average budgeted and actual sales. The relationship between achievement and target of sales shows by the regression equation or only 22.3% sales of electronics is based on targeted sales.

#### 4.1.2 Budgeted Sales and Actual Sales in Noodles of Chaudhary Group

From the following table it is found that the budgeted and actual sales in Noodles of the Chaudhary Group on fiscal year 2061/62 to 2065/66 and also the achievement percentages in different research year.

Fiscal Year	Budgeted	Actual	% of	
	Sales	Sales	Achievement	
2061/62	134798	111029	82.36	
2062/63	145000	102570	70.73	
2063/64	146980	91870	62.50	
2064/65	138000	105450	76.41	
2065/66	158535	114800	72.41	
Average	1,44,662.25	1,05,143.8	72.88	

#### Table 4.2

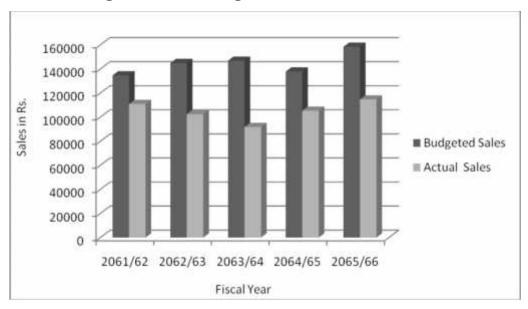
#### **Budgeted and Actual Sales in Noodles**

(Rs. in Thousands)

The above table no 4.2 shows that the budgeted and actual data total sales of Noodles during the study period produced by Chaudhary Group. In the fiscal year 2061/62 the budgeted sales were Rs.1,34,798 thousand and actual sales were 1,11,029 thousand. Chaudhary group achieved only 82.36% of the target sales it had set during that year. Similarly Chaudhary group achieved 70.73 % of target which was Rs. 1,02,570 thousand in the fiscal year 2062/63 where as budgeted sales were Rs.1,45,000 thousand. In the fiscal year 2063/64 only Rs.91,870 thousand of sales it achieved where Chaudhary Group had set target for Rs.146980 thousand. In that year the company sales minimum amount of products based on budgeted sales on whole research years where only 62.50% achievement result was found. Then it set low targets on sales in next fiscal year and they improved on sales then previous fiscal year, whereas Rs. 1,05,450 thousand (76.41%) sales achieved on target. Last of the research year they achieved more sales then previous year but it could not meet the budgeted sales which they have set as targeted. Chaudhary group could not meet the sales target in any of the research year. It achieved 82.36% in fiscal year 2061/62 which was the highest achievement on sales of the research year and 62.50% on fiscal year 2063/64 was the minimum sales of the Noodles. In short it can be said that the data show fluctuation result on the whole study period might cause the sales and marketing strategy which had set by the Chaudhary Group.

The budgeted sales and actual sales in noodles of Chaudhary Group are presented with bar diagram below.

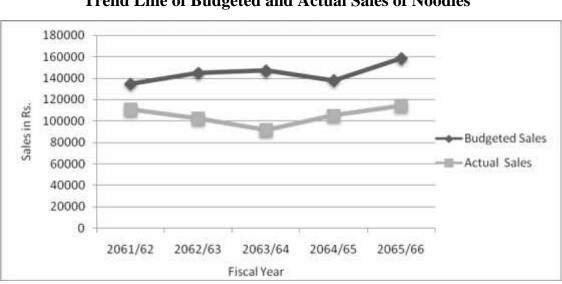




Bar Diagram for the Budgeted and Actual Sales of Noodles

In the beginning of the research year 2061/62 there was the lowest target on sales there after Chaudhary Group increased the targeted budgeted sales but fluctuation on actual sales. In comparison the budgeted sales the firm sold minimum products in the fiscal year 2063/64 and maximum in the fiscal year 2065/66. In the fiscal year 2061/62 Chaudhary Group made more success on sales of noodles based on targeted sales than in other fiscal years because the minimum difference of budgeted and actual sales.

The figure 4.4 shows the trend line on sales of electronics in different fiscal years based on budgeted and actual sales.



Trend Line of Budgeted and Actual Sales of Noodles

Figure 4.4

In the figure 4.4, it is presented that the budgeted sales and actual sales in noodles on the base of different research year. From the trend line it is found that initially budgeted sales was nearly Rs.1,40,000 thousand but it increased thereafter up to Rs.1,58,500 thousand. The achievement of sales on the beginning of research year was nearly Rs.1,10,000 thousand and nearly Rs.1,200,00 thousand at the end.

Summary of statistical calculation of budgeted sales and achievement (Annex-2)

Coefficient of correlation (r) = 0.13Coefficient of determinations  $(r^2) = 0.0169$ Regression of achievement on target = 0.124 Probable error (P.E.) = 0.296  $6 \times P.E. = 1.77$ Test of significant Budgeted Sales Actual sales = 9214.50 = 8814.615

a = 144662.6 a = 105143.8

The correlation between budgeted and actual sales was 0.13 which was very low degree positive correlation between the variable. This shows that these two variables moved in same direction of budgeted and achievement of sales of noodles of Chaudhary Group, since P.E > r < 6 P.E. (0.296>0.13<1.77), coefficient of correlation between budgeted and actual data is found to be insignificant. Coefficient of determinants ( $r^2$ ) was 0.017 which means that only 17% of variation in the actual data is explained by the budgeted data and the rest 83% variation is due to other factors. The growth rate (b) of the budgeted and actual sales of noodles was positive, it shows there was the average increment of sales in every year both target and achievement. The relationship between achievement and target of sales shows by the regression equation or only 12.4% sales of noodles was based on targeted sales.

#### 4.1.3 Budgeted Sales and Actual Sales in Beverage of Chaudhary Group

From the following table it is found that the budgeted and actual sales in Beverage of the Chaudhary Group in fiscal year 2061/62 to 2065/66 and also the achievement percentages in different research years.

#### Table 4.3

#### **Budgeted and Actual Sales in Beverage**

(Rs. in Thousands)

Fiscal	Budgeted	Actual	% of
Year	Sales	Sales	Achievement
2061/62	105300	85520	81.21
062/63	123050	92830	75.44
063/64	128630	96025	74.65
064/65	156200	102780	65.80
065/66	131820	103150	78.25
Average	1,29,000	96,061	75.07

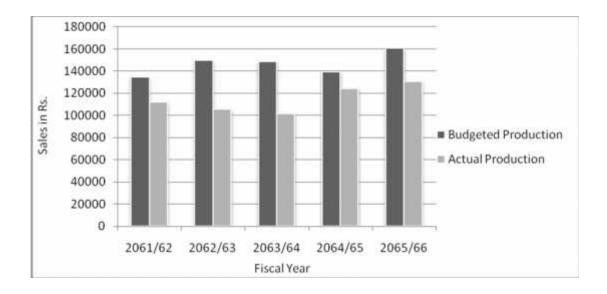
The above table (Table 4.3) shows the budgeted and actual data of total sales of beverage during the study period. In the fiscal year 2061/62 the budgeted sales

were Rs.1,05,300 thousand and actual sales were 85,520 thousand. Chaudhary group achieved only 81.21% of sales on beverage then the target it had set during that fiscal year. Similarly Chaudhary group achieved 75.44% of target which was Rs. 92,830 thousand in the fiscal year 2062/63. In fiscal year 2063/64 only Rs.96,025 thousand they achieved where it made the target of Rs.128630. In the fiscal year 2064/65 company set Rs.1,56,200 thousand as a target whereas only Rs. 1,02,780 thousand (65.80%) sales achieved on target. Chaudhary group sales was Rs.1,03,150 thousand in the fiscal year 2065/66 whereas budgeted sales was Rs. 1,31,820 thousand. The data shows the same performance from the beginning or it could not meet the sales target in any of the research year. The firm achieved 81.21% of sales on target in the fiscal year 2061/62 which was the highest sales on beverage of the research year and 65.80% of sales target in the fiscal year 2064/65 was the minimum sales on beverage. In short it can be said that the company could not make effective sales planning in compare with the budgeted and actual sales on beverage also the data shows in every year achievement on target of sales is observed as unfavorable.

The budgeted sales and actual sales in noodles of Chaudhary Group is presented with bar diagram.

#### Figure 4.5

#### **Budgeted Sales and Actual Sales of Beverage**

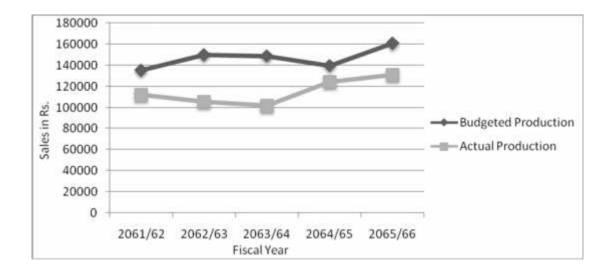


In the beginning of the research year 2061/62 the lowest target on sales there after Chaudhary Group increased the budgeted sales and actual sales of beverage also increase in the same way of targeted sales as increasing from the beginning. In comparison the budgeted sales the firm sold minimum products on year 2061/62 and maximum on year 2065/66. In the fiscal year 2061/62 Chaudhary Group more made success on sales of beverage based on targeted sales then other years because the minimum difference of budgeted and actual sales of beverage

The trend line of the budgeted and actual sales of beverage set by the Chaudhary Group is presented below.

#### Figure 4.6

# **Trend Line of Budgeted and Actual Sales in Beverage**



In the figure 4.6 it is presented that present the budgeted sales and actual sales in beverage on the base of different research year. From the trend line it is found that initially budgeted sales was nearly Rs.1,10,000 thousand but increased thereafter up to Rs.1,56,200 thousand. The achievement of sales on the beginning of research year were Rs.90,000 thousand and nearly Rs.1,10,000 thousand at the end.

Summary of statistical calculation of budgeted sales and achievement (Annex-3)

Coefficient of correlation (r) = 0.874Coefficient of determinations (r<sup>2</sup>) = 0.764Regression of achievement on target = 0.351Probable error (P.E.) = 0.0712 $6 \times P.E. = 0.426$ Test of significant Sales Target Sales achievement = 18337.26 = 7364.64a = 129000 a = 96061b = 6630 b = 4407.5 The correlation coefficient between budgeted and actual sales was 0.874 which a high degree positive correlation between the variable. This shows that these two variables moved in same direction of achievement and budgeted sales of Chaudhary Group. Since P.E< r > 6 P.E. (0.0712<0.874>0.426), coefficient of correlation between budgeted and actual data is found to be significant. It shows the result of budgeted and actual sales on beverage products was satisfactory. Coefficient of determinants ( $r^2$ ) is 0.76 which means that only 76% of variation in the actual data is explained by the budgeted data and the rest 24% variation is due to other factors. The growth rate of the budgeted and actual sales of beverage was positive, it shows the average increment of sales in every year both target and achievement. The relationship between achievement and target of sales shows by the regression equation or only 35.1% sales of beverage is based on targeted sales.

From the following table, it is found that the product wise sales percentage in the total sales of selected products in the fiscal year 2061/62 to 2065/66.

# Table 4.4

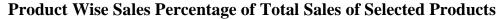
					(IX	s. III Thousa	nus)
Fiscal	Total	Electronics		Noodles		Beverage	
Year	Sales	Amount	%	Amount	%	Amount	%
2061/62	301584	105035	34.83	111029	36.82	85520	28.35
2062/63	275950	80550	29.19	102570	37.17	92830	33.64
2063/64	283755	95860	33.78	91870	32.37	96025	33.84
2064/65	290330	82100	28.28	105450	36.32	102780	35.40
2065/66	321450	103500	32.19	114800	35.71	103150	32.08
Average			31.65		35.68		32.66

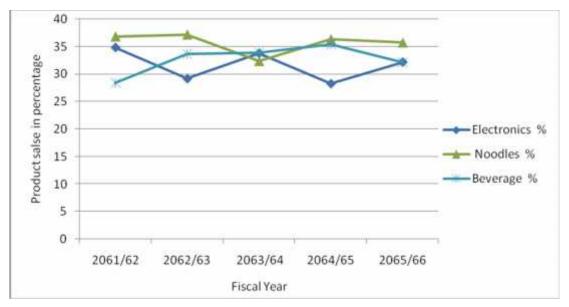
**Product Wise Sales Percentage of Total Sales of Selected Products** 

(Rs. in Thousands)

From the Trend line it is found that Chaudhary Group sold highest percentage of Noodles among the selected products.

#### Figure 4.7





From the trend line, it is found that Chaudhary group sold highest percentage of Noodles among the three selected products.

(i.e. Electronics, Noodles and Beverage)

#### 4.2 Production Budget of Chaudhary Group

The production budget specifies the planned quantity of goods to be manufactured during the budget period. Production plan does not aim to set the precise amounts and timing of actual production during budget period. Rather, the production plan represents the implications of planned sales volume for production volume as a basis for planning the various aspects of the manufacturing function plant capacity requirements direct material and component requirements, timing of purchase, direct labor requirement and cost and factory overhead. The production budget should be developed in terms of quantities of physical units as well as by amounts, production budgeting is simplified.

# 4.2.1 Budgeted and Actual Production in Electronics of Chaudhary Group

From the following table it is found that the budgeted and actual production of electronics products of the Chaudhary Group on fiscal year 2061/62 to 2065/66 and also the achievement percentages in different research years.

# Table 4.5Budgeted and Actual Production in Electronics

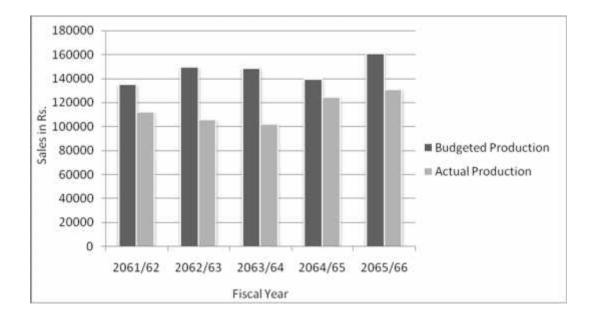
Fiscal Year	Budgeted Production	8	
		n	t
2061/6	208650	156500	75.00
2			
2062/6	126450	102630	81.16
3			
2063/6	128500	118732	92.39
4			
2064/6	145060	106830	73.64
5			
2065/6	158850	123658	77.84
6			
Averag	1,53,502	1,21,670	80.00
e			

The above table (Table 4.5) shows the budgeted and actual data of total production of electronics during the study period. In the fiscal year 2061/62 the budgeted production was Rs.2,08,650 thousand and actual production was 1,56,500 thousand. Chaudhary group achieved only 75% production on production then the target it had set during that fiscal year. Similarly Chaudhary group achieved 81.16% of target which was Rs. 1,02,630 thousand in the fiscal year 2062/63. In the fiscal year 2063/64 the company produced only Rs.1,18,732 thousand where as they made the target Rs.1,28,500 thousand. The same result of achievement was continued up to the fiscal year 2065/66 whereas only Rs. 1,23,658 thousand (77.84%) production achieved on target. Chaudhary group gave the same performance from the beginning; they couldn't meet the production target in any of the research year. For this result Chaudhary Group set the budgeted production without planning of resources and raw material. The firm achieved 92% of production target in the fiscal year 2063/64 which was the highest achievement on production of the research year and 73.64% on fiscal year 2064/65 was the minimum production achievement year.

The bar diagram presents the budgeted and actual production of electronics products manufactured by Chaudhary Group.

#### Figure 4.8

#### **Budgeted and Actual Productions of Electronics Products**

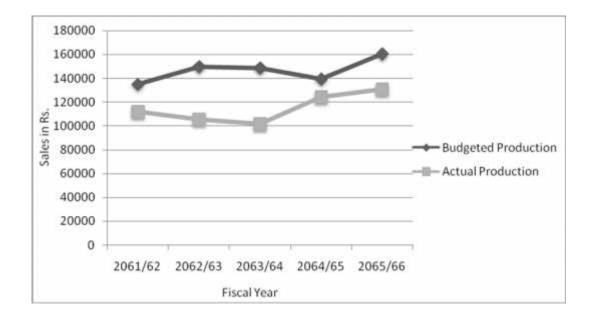


In the beginning of the research year 2061/62 there was the highest target of production then decreased the budgeted production and actual production of electronics products up to the fiscal 2063/64 and thereafter increased in the following two years. In comparison the budgeted production the firm manufactured highest electronics products in the fiscal year 2061/62 and minimum production in the fiscal year 2063/64. In the fiscal year 2063/64, Chaudhary Group made more success on production of electronics products based on targeted production than other fiscal years because the minimum difference of budgeted and actual production of electronics products.

The trend line of the targeted and actual production of electronic products manufactured by Chaudhary group is presented here.

#### Figure 4.9

#### **Trend Line of Budgeted and Actual Production of Electronics Products**



In the figure 4.9, It is found that the budgeted and actual production of electronics products on the base of different research year. From the trend line it is found that initially budgeted production was nearly Rs.2,10,000 thousand but it decreased thereafter for the following two years. The actual production on the beginning of research year was Rs.1,56,500 thousand and Rs.1,23,658 thousand products produced at the end by the company.

Summary of statistical calculation of budgeted production and achievement (Annex - 4)

Coefficient of correlation (r) = 0.927Coefficient of determinations ( $r^2$ ) = 0.859Regression of achievement on target = 0.588Probable error (P.E.) = 0.0425 $6 \times P.E. = 0.254$ Test of significant Production Target = 33533.86a = 153502b = -12450Production Target Production Target The correlation coefficient between budgeted and actual production was 0.927 which a high degree positive correlation between the variables. This shows that these two variables move in same direction of the budgeted and actual production of electronics products produced by Chaudhary Group. Since r > 6 P.E., coefficient of correlation between budgeted and actual data is found to be significant. It shows the budgeted and actual production of electronics products was satisfactory. Coefficient of determinants ( $r^2$ ) is 0.859 which means that only 85% of variation in the actual data was explained by the budgeted data and the rest 15% variation is due to other factors. The growth rate of budgeted production is negative due to its low target production then previous year and also the achievement of production gave the same result of growth rate. The relationship between achievement and target of production shows by the regression equation or only 58.8% production of electronics was based on targeted production.

#### 4.2.2 Budgeted and Actual Production in Noodles of Chaudhary Group

The following table shows that the budgeted and actual production of noodle produced by the Chaudhary Group in fiscal year 2061/062 to 065/066 and also the percentages of achievement in different fiscal years.

#### Table 4.6

Fiscal Year	Budgeted	Actual	% of	
	Production	Production	Achievement	
2061/62	135000	112048	82.99	
2062/63	149750	105680	70.57	
2063/64	148690	101870	68.51	
2064/65	139500	124500	89.24	
2065/66	160580	130900	81.51	
Average	1,46,704	1,14,999.6	78.56	

#### **Budgeted and Actual Production in Noodles**

(Rs. in Thousands)

Table 4.6 shows the budgeted and actual data of total production of noodles manufactured by Chaudhary group during the study period. In the fiscal year 2061/62 the budgeted production was Rs.1,35,000 thousand and actual production was Rs.1,12,048 thousand. Chaudhary group achieved only 82.99% of production then the target it had set during this year. Similarly Chaudhary group achieved 70.57% of target which was Rs. 1,05,680 thousand then the target in the fiscal year 2062/63. The same result of achievement was continued up to the fiscal year 2063/64 whereas only Rs. 1, 01,870 thousand (68.51%) production achieved on target. On the fiscal year 2064/65 company produced Rs.1,24,500 thousand products; the company increased its production but could not meet its target where as Rs. 1,39,500 thousand. Chaudhary group gave the same performance in last two fiscal years; they could not meet the production target in any of the research year. In the fiscal year 2065/66 also increased its capacity but achieved 81.51% production of target Rs.1,60,580 thousand. In short the company increased its capacity but couldn't meet the targeted production in every fiscal year because the company might not have proper planning of production target and resources which were needed.

The bar diagram presents the budgeted and actual production of noodles manufactured by Chaudhary Groups as shown in figure below.

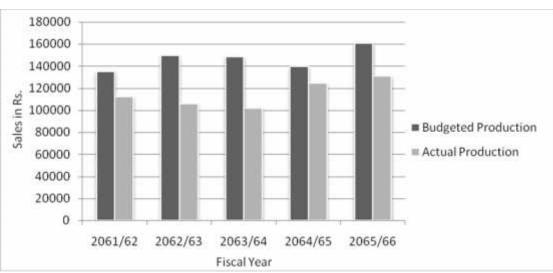


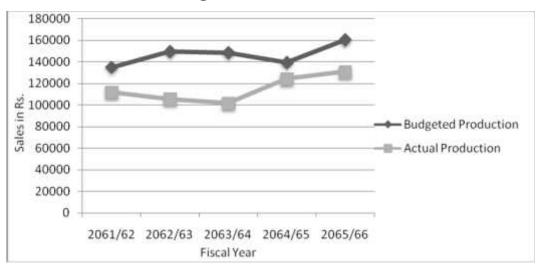
Figure 4.10

**Budgeted and Actual Productions of Noodles** 

In the beginning of the research year 2061/62 the lowest target of production then increased the budgeted and actual production of noodles. In comparison the budgeted production the firm manufactured highest production of noodles in the fiscal year 2064/65 and minimum production in the fiscal year 2063/64. In the fiscal year 2064/65 Chaudhary Group was made more success on production of noodles based on targeted production then other years because the minimum difference of budgeted and actual production of noodles.

The trend line of the targeted and actual production of noodles manufacture by Chaudhary group is presented below.





Trend line of Budgeted and Actual Production in Noodles

Figure 4.11 presents the budgeted and actual production of noodles on the base of different research year. From the trend line it is found that initially budgeted production was nearly Rs.1,40,000 thousand but it is increased thereafter for the following two years then again increase in last fiscal year 2065/66. The actual production on the beginning of research year was Rs.1, 10,000 thousand and Rs.1, 30,900 thousand products produced at the end by the company.

Summary of statistical calculation of budgeted production and achievement (Annex- 5)

Coefficient of correlation (r) = 0.269Coefficient of determinations (r<sup>2</sup>) = 0.0724Regression of achievement on target = 0.335Probable error (P.E.) = 0.279

6×P.E. = 1.674

Test of significant

Production Target	Production Achievement
= 9932.86	= 12359.5
a = 146704	a = 114999.6

$$b = 6395$$
  $b = 4713$ 

The correlation coefficient between budgeted and actual production was 0.269 which was a positive correlation between the variable. This shows that these two variables moved in same direction having more or less differences between the budgeted and actual production of noodles. Since r < 6 P.E., coefficient of correlation between budgeted and actual data was found to be insignificant or the two variable of production of noodles couldn't meet any of the research years. In the fiscal year 2064/065 differences between the budgeted and actual production is less than other research years. Coefficient of determinants ( $r^2$ ) was 0.0724 which means that only 7.2% of variation in the actual data was explained by the budgeted data and the rest 92.8% variation is due to other factors. The growth rate of budgeted and actual production was positive due to its increment on budgeted and actual production then previous year. The relationship between achievement and target of production shows by the regression equation or only 33.5% production of noodles is based on targeted production.

#### 4.2.3 Budgeted and Actual Production in Beverage of Chaudhary Group

From the following table it is found that the budgeted and actual production of beverage produced by the Chaudhary Group in fiscal year 2061/062 to 065/066 and also the percentages of achievement in different research years.

#### Table 4.7

#### **Target and Achievement on Production**

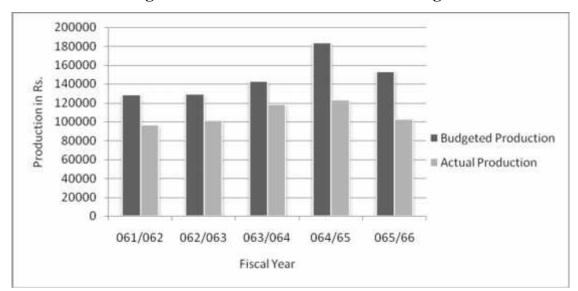
Fiscal	Budgeted	Actual	% of
Year	Production	Production	Achievement
061/062	128290	96820	75.46
062/063	129500	101320	78.23
063/064	142650	118265	82.90
064/65	183600	123060	67.02
065/66	152820	102890	67.32
Average	1,47,372	1,08,471	74.19

(Rs. in Thousands)

The above table 4.7 shows the budgeted and actual data of total production of Beverage of Chaudhary Group during the study period. In the fiscal year 2061/62 the budgeted production was Rs.1,28,290 thousand and actual production was Rs.96,820 thousand. Chaudhary group achieved only 75.46% of production then the target it had set during that fiscal year. Chaudhary group achieved 78.23% of target which was Rs. 101320 thousand then the target in the fiscal year 2062/63. In the fiscal year 2063/64 company produced only Rs. 1,18,265 thousand (82.90%) products where as targeted production was Rs.1,42,650 thousand. In the research year 2064/65 company increased its production but couldn't meet its target where was Rs.1,83,600 and achieved only Rs.1,23,060 thousand (67.02%). Again in fiscal year 2065/66 target was Rs. 1,52,820 thousand and achieved only Rs.1,02,890 thousand. They couldn't meet the production target in any of the research year. In the fiscal year 2063/64 the company increased its capacity and achieved 82.90% production of target then again production ratio on target decreased by following two years. In short it can be said that the company increased the capacity of production but could not meet the targeted production in every year.

The bar diagram presents the budgeted and actual production of noodles manufactured by Chaudhary Groups is presented below.

Figure 4.12

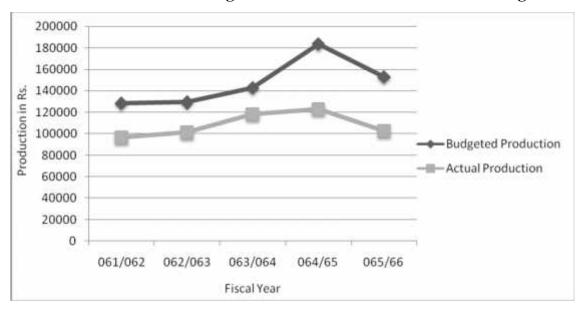


**Budgeted and Actual Production of Beverage** 

In the beginning of the research year 2061/62 the lowest target of production then increased the budgeted and actual production of beverage. In comparison the budgeted production the firm manufactured highest production of beverage in the fiscal year 2064/65 and minimum production in the fiscal year 2061/62. In the fiscal year 2063/64 Chaudhary Group made more success on production of beverage based on targeted production then other years because the minimum difference of budgeted and actual production of beverage.

The trend line of the targeted and actual production of beverage manufactured by Chaudhary group is presented below.

Figure 4.13



Trend Line of Budgeted and Actual Production of Beverage

Figure 4.13 shows the budgeted and actual production of beverage on the base of different research year. From the trend line we find initially budgeted production was nearly Rs.1,30,000 thousand but it increased thereafter for the following three years then decreased in last fiscal year 2065/66. The actual production on the beginning of research year was Rs.96,820 thousand and also Rs.1,02,890 thousand products produced at the end by the company.

Summary of statistical calculation of budgeted production and achievement. (Annex - 6)

Coefficient of correlation (r) = 0.772 Coefficient of determinations ( $r^2$ ) = 0.596 Regression of achievement on target = 0.392 Probable error (P.E.) = 0.122  $6 \times P.E. = 0.729$ Test of significant

Production Target	Production Achievement
= 22,627.29	= 11,475.97
a = 1, 47,372	a = 1, 08,471
b = 6,132.50	b = 1,517.5

The correlation coefficient between budgeted and actual production was 0.772 which a high degree positive correlation between the variables. This shows that the result of these two variables either increased or decreased in every fiscal year in same way. Since r > 6 P.E., coefficient of correlation between budgeted and actual data is found to be significant or performance of budgeted and actual data was satisfactory. Coefficient of determinants ( $r^2$ ) was 0.596 which means that only 59.6% of variation in the actual data is explained by the budgeted data and the rest 40.4% variation is due to other factors. The growth rate of budgeted and actual production was positive due to its average increment on budgeted and target production then previous year. From the regression equation it can be found that the achievement of production is based only 39.2% on targeted production. It shows the relationships of target and achievement production of Beverage.

From the following table, it is found that the product wise production percentage on the total production of selected products in the fiscal year 2061/62 to 2065/66.

### Table 4.8

### **Product Wise Production Percentage on the**

Fis	FisTotalElectronicsNo		oodles	Be	verage		
cal	Producti	Am	%	Am	%	Am	%
Ye	on	ou		ou		ou	
ar		nt		nt		nt	
206	36	156	42	112	3	988	2
1/	5	50	.8	04	6	20	6
62	3	0	3	8			•
	6				6		5
	8				7		0
206	30	102	33	105	3	101	3
2/	9	63	.1	68	4	32	2
63	6	0	4	0		0	•
	3				1		7
	0				3		2
206	33	118	35	101	3	118	3
3/	8	73	.0	87	0	26	4
64	8	2	3	0		5	•
	6				0		9
	7				6		0
206	35	106	30	124	3	123	3
4/	4	83	.1	50	5	06	4
65	3	0	4	0		0	•
	9		4		1		7
	0				4		2
206	35	123	34	130	3	102	2
5/	7	65	.5	90	6	89	8
66	4	8	9	0	•	0	•
	4				6		7
	8				2		7
Av			35		3		3
era			.1		3		1
ge			5		•		•
					3		5
					3		2

# **Total Production of Selected Products**

Product wise production percentage on the total production of selected products are presented in the bar diagram below.

# Figure 4.14

**Total Production of Selected Products** 45 40 Production in percentage 35 30 25 Electronics % 20 Noodles% 15 Beverage % 10 5 0 2061/62 2062/63 2063/64 2064/65 2065/66 **Fiscal Year** 

**Product Wise Production Percentage on the** 

From the Trend line it is found that Chaudhary Group's production were Fluctuating. Among the three products, Chaudhary Group produced least percentage of Beverages on the total production for every fiscal year, where the percentages of other products were fluctuating.

### 4.3 Major findings

The study shows that trend of budgeted and actual sales and the budgeted and actual production of Chaudhary Group during the study period. Some of the stated as follows:

- 1. The average achievement in the sales of electronics during two study period was 70.39%.
- 2. Growth rate of two budgeted and actual sales obtained negative due to the negative average increment in the budgeted and actual sales of electronics.
- The average achievement in the sales of noodles during the study period was 72.88%
- 4. There was the positive average increment in the budgeted and actual sales of noodles, so the growth rate was also positive.

- The average achievement in the sales of beverage during the study period was 75.07%
- 6. There was the positive average increment in the budgeted and actual sales of beverage, so the growth rate was positive.
- Chaudhary Group sold highest percentage of noodles of the total sales among the three products (i.e. average percentage of the total sales covered by the noodles, beverage and electronics were 35.68, 32.66 and 31.65 respectively).
- 8. The average achievement in the production of electronics during the study period was 80%.
- 9. Actual production of electronics of each fiscal period was less than the budgeted production, even there was the positive average increment.
- 10. The average achievement in the production of noodles during the study to the high target of production.
- 11. The growth rate of budgeted and actual production was positive due budgeted and actual production of noodles.
- 12. The average achievement in the production of beverage during the study period was 74.19%.
- 13. The average percentage of the total production covered by the electronics were 35.15, 33.33 and 31.52 respectively.
- 14. The company was unable to achieve its predetermined target in case of sales and production both.

### **CHAPTER - V**

### SUMMARY, CONCLUSION AND RECOMMENDATIONS

#### **5.1 Summary**

Profit planning is one of the most important tools used to plan and control business operation. Profit plan plays major role in the performance of all organizations, manufacturing and non- manufacturing whether they are large or small in size. The effective operation of a business concern resulting into the excess of income over expenditure fully depends upon to what extent the management follows proper planning, effective coordination and dynamic control and how the budget are prepared with the effective consideration of the planned profit of business. The Chaudhary Group's progress over the last sixty-seven years has been a trial-blazer on the Nepalese horizon. Today, a conglomerate of over 40 businesses, the group has an investment outlay of over Rs.1500 million. In a land-locked, developing third world nation, this spells nothing short of very hard-earned success.

Apart from being a responsible citizen, Chaudhary Group forms an intrinsic part of every realm of life from Food & Beverage, Electronics & Home Appliances, Beverage and others. The Strategic Planning Department is a Think - tank of the company, which primarily scans the environments around the business and exploits the opportunities through short and long range planning with respect to Human Resource, manufacturing facilities includes Research & Development, marketing and financial Strategies and systems. Vision, Mission and Corporate Cores will also be monitored periodically by the department. The whole purpose is to create value for the products and services and to serve the customers in everything with satisfied customers, the Chaudhary Group will naturally, continuously and consistently innovate and develop to achieve goal of providing the utmost value for customers. Distinguished as the first Nepalese company to have a distribution network spanning the sub continent, the group is poised to become the first Nepalese corporate entity with a growing presence in the South Asian/South East Asian region's fiercely competitive food and beverage sector. Since its inception, Chaudhary Group has contributed to the upliftment of the nation's economy, equalizing the infrastructure and entrepreneurial capability of Nepal with other developing nations.

Without profit planning and their implantation, no organization can achieve its goals and objectives efficiently. So these days profit planning has become one of the most important management tools used to plan and control business organization. The main objective of planning in business organization is to increase the chances of making profit. The management must continuously involve in planning, organizing and controlling the operation of business organization.

The study mainly focus the sales budget and production budget under profit planning and control of Chaudhary Group, which is highly significant for the company. The study has tried to examine the trend of production and sales based on budgeted and actual figures and whether Chaudhary Group applying profit planning appropriately or not. Analyze and descriptive research design is followed mainly based on primary and secondary source of data. Statistical tools like percentage, mean, standard deviation, correlation coefficient etc. have been used to analysis the data. This study has tried to analyze and examine the practice, procedure and techniques of preparing various functional budgets. From the analysis of the study, it is found that there is lack of specific objectives, strategic planning, specific target and expertise in the company. The company cannot produce products and sales them which they have been set as target in any of the research year. Being a multinational company only Rs. 1500 million investment outlay does not show so satisfactory position. So, in order to improve such weakness, application of comprehensive profit planning will effectively helpful.

This study report has been divided in five section including Introduction, Review of Literature, Research Methodology, Data Presentation and Analysis and Summary, Conclusion and Recommendation.

### **5.2** Conclusion

The following are the major conclusion of the study:

- After analyzing the budgeting process of the company we found that the budgets were prepared on traditional basis. Sales plans not made by considering the entire component that affects sales. There is no hard and fast rule, no statistical analysis and no market study to make the budget. The making of the budget seems like just a guess work that is done only through the past experience without considering future potentials. The company prepares the budget only on annual basis without dividing total amount into interim periods. All these things are happening due to lack of skilled and expert planners.
- 2. Different statistical tools used to analyze the sales and production shown the positive relationship between budgeted sales and production with actual production and sales. Sales and production achievement were below than the targeted. This is due to poor budgeting and poor implementation of the budget.
- 3. There is high degree of positive coefficient correlation between the variable of budgeted and actual figure in beverage on both sales and production. There is low degree of coefficient correlation between the variable of budgeted and actual figure in noodles both sales and production and moderate coefficient correlation between the variable in sales of electronics but high degree of positive correlation between the

variable in production of electronics products. The company cannot perform the consistency between the production and sales of products.

- 4. The company has not properly planned the production and sales budgets. While making budgets they didn't study about the resources and the market. Every year weather sales or production the company cannot meet the budgeted volume.
- 5. Different types of products are produced by Chaudhary Group. However, it has not been able to balance all types of manufacturing goods. It produces noodles, electronics products and beverage. Most of the sales amount collected from noodles and only negligible amount earn from beverage products.
- 6. There is no research and development work for improving factory productivity, capacity utilization and cost control. No any policies of planning for purchasing of material and sales of goods.
- 7. It has no marketing specialists. So the company is unable to develop an alternative marketing policy for sales expansion. The main reason for low capacity utilization is due to unavailability of right material of right quantity at right places and at right time.
- 8. Total sales achievement and production of Chaudhary Group are fluctuating year after year. So, the rate of trend and growth is not stable.
- 9. Chaudhary Group is labor-intensive factory but it has not adopted systematic approach of labour planning to produce the planned quantities of goods on the basis of the direct laour hour and direct labor cost.
- 10. The company has not formulated competitive sales strategies. Adequate authority to decide and create new idea to formulate various plan are not available.

#### 5.4 Recommendations

Although, this study is concerned with budgeting practices of Chaudhary group, it may be appropriate to provide a package of suggestion in the light of

major findings and conclusions. These recommendations may also have some repercussions, but there is no doubt of these measures to improve the existing condition of Chaudhary Group.

- 1. The company should aware of opportunities in the environment is important to reveal the strength and weakness of the organization and understand the problem. Planning begins with a goal or targeted outcome that the organization wishes to achieve. The company should define strategic planning and operational planning clearly and communicate them among various levels of management, which will assist the personnel to cope the mistakes, help in making decisions about the right thing at the right time, and focus on actions required to take in order to shape the future as desired. Participative management, profit planning manuals and effective budget education should be introduced and communicated in the time of formulating plans and policies to lower level management.
- 2. The company should practice intensive plan to improve motivation and morale of employees for better efficiently.
- 3. The company should improve the collection of receivable from the debtors with granting effective offers.
- 4. The company should have the consistency on the product quality. Change on quality of product may affect the customers who are brand conscious.
- 5. The company should extent its business area that may enhance customer's convenience and will expand business opportunities.
- 6. The business portfolio should be diversified. The high dependency on limited consumable goods business cannot make the company able to meet the highly growing competition in manufacturing business; it should seek other products and services with improvement of existing products.
- 7. In order to be financially stronger, the company should expand its fixed assets. Only the financially strong company holds capability of attracting the potential customers and expanding the business.

- 8. Company should pay attention to fundamental principle of profit plan and control adopting comprehensive profit planning approach while formulating and implementing the profit plan.
- 9. Chaudhary Group should have major programs to achieve set up objectives by taking full advantages of the latest techniques.
- 10. Only sales target has set but no planning has made for promotional plan. Just some advertisement campaign has launch so as to give the sense of presence in the market.
- 11. The management of the company needs to increase production and sales volume for the utilization of available capacity. Alternative supply sources of raw material should be developed to increase capacity utilization.
- 12. The company should launch various training and orientation programs within and outside the country for all levels of employees, which will help in bringing gaps between motivation and morale.
- 13. Chaudhary Group adopts more effective advertising system to communicate the significance of products because advertising plays most important role in the marketing.
- 14. Trained and qualified manpower for budgeting and planning should be hired and present manpower should be trained to developed and implement the profit plans effectively. Marketing specialist should be appointed to develop effective marketing policy for sales expansion.
- 15. Effort should be made to avoid the idle working time. Strict supervision is necessary to watch and control the wastage of working hour of the employees.

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# ANNEXURE

# Annex 1

## **Calculation of Budgeted and Actual Sales of Electronics Products**

(Rs. In Lakhs)

	Budgeted	Actual			
Year	Sales (x)	Sales(y)	ху	<b>X</b> <sup>2</sup>	$\mathbf{y}^2$
061/62	1,956.80	1050.35	2,055,324.88	3,829,066.24	1,103,235.12
062/63	1,086.40	805.5	875,095.20	1,180,264.96	648,830.25
063/64	1,150.00	958.6	1,102,390.00	1,322,500.00	918,913.96
064/65	1,280.00	821	1,050,880.00	1,638,400.00	674,041.00
065/66	1,350.00	1035	1,397,250.00	1,822,500.00	1,071,225.00
			xy=	x²=	y2=
N=5	x=6823.2	y=4670.45	6480940.08	9792731.2	4416245.3

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

 $X \frac{5 \times 6480940.08 - 6823.2 \times 4670.45}{\sqrt{5 \mid 9792731.2 - 6823.20^2} \sqrt{5 \mid 4416245.30 \text{ Z} 4670.45^2}} = 0.669$ 

byx = 
$$\frac{\pi \sum xy - \sum x \sum y}{\pi \sum x^2 - (\sum x)^2}$$
  $X \frac{5 \times 6480940.08 - 6823.2 \times 4670.45}{5 \mid 9792731.20 - 6823.20^2} = 0.223$ 

Year(t)	Budgeted Sales (y)	x= t-2063.5	xy	<b>X</b> <sup>2</sup>	<b>y</b> <sup>2</sup>
061/62	1,956.80	-2	-3913.6	4	3,829,066.24
062/63	1,086.40	-0.5	-543.2	0.25	1,180,264.96
063/64	1,150.00	0	0	0	1,322,500.00
064/65	1,280.00	0.5	640	0.25	1,638,400.00
065/66	1,350.00	2	2700	4	1,822,500.00
	у		φxy	X <sup>2</sup>	y <sup>2</sup>
N=5	=6823.2	$\phi x = 0$	= -1116.8	= 15.25	= 9792731.2

$$\delta = \sqrt{\frac{\sum y^2}{n} - \left(\frac{\sum y}{n}\right)^2} \qquad X_{\sqrt{\frac{9792731.20}{5}}Z} \frac{6823.20}{5} = 34695.80$$

P.E.= 0.6745 
$$\left| \frac{1 - r^2}{\sqrt{n}} X 0.6745 \right| \frac{1 Z 0.669^2}{\sqrt{5}} X 0.1656$$
  
Annex - 2  
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# **Calculation of Budgeted and Actual Sales of Noodles**

(Rs. In Lakhs)

	Budgeted	Actual			
Year	Sales (x)	Sales(y)	ху	<b>X</b> <sup>2</sup>	$\mathbf{y}^{2}$
061/62	1,347.98	1110.29	1,496,648.71	1,817,050.08	1,232,743.88
062/63	1,450.00	1025.7	1,487,265.00	2,102,500.00	1,052,060.49
063/64	1,469.80	918.7	1,350,305.26	2,160,312.04	844,009.69
064/65	1,380.00	1054.5	1,455,210.00	1,904,400.00	1,111,970.25
065/66	1,585.35	1148	1,819,981.80	2,513,334.62	1,317,904.00
	Х	у	ху	X <sup>2</sup>	y <sup>2</sup>
N=5	=7233.13	=5257.19	= 7609410.77	= 10497596.74	= 5558688.31

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

$$X \frac{5 \times 7609410.77 - 7233.13 \times 5257.19}{\sqrt{5 \mid 10497596.74 - 7233.3 \times 213^2} \sqrt{5 \mid 5558688.31 \times 5257.19^2}} = 0.13$$
  
by  $x = \frac{\pi \sum xy - \sum x \sum y}{\pi \sum x^2 - (\sum x)^2} = X \frac{5 \times 7609410.77 - 7233.13 \times 5257.19}{5 \mid 10497596.74 - 7233.13^2} = 0.124$ 

Year(t)	Budgeted Sales (y)	x= t-2063.5	ху	<b>X</b> <sup>2</sup>	y <sup>2</sup>
061/62	1,347.98	-2	-2695.96	4	1,817,050.08
062/63	1,450.00	-0.5	-725	0.25	2,102,500.00
063/64	1,469.80	0	0	0	2,160,312.04
064/65	1,380.00	0.5	690	0.25	1,904,400.00
065/66	1,585.35	2	3170.7	4	2,513,334.62
	у		ху	X <sup>2</sup>	y²
N=5	=7233.13	$\mathbf{x} = 0$	= 439.74	= 15.25	= 10497596.74

$$\delta = \sqrt{\frac{\sum y^2}{n} - \left(\frac{\sum y}{n}\right)^2} \qquad X \sqrt{\frac{10497596.74}{5} Z \frac{7233.13}{5}^2} = 8814.62$$

P.E.= 0.6745 
$$\left| \frac{1 - r^2}{\sqrt{n}} X 0.6745 \right| \frac{1 Z 0.13^2}{\sqrt{5}} X 0.296$$

## Annex - 3

# Calculation of Budgeted and Actual Sales of Beverage

(Rs. In Lakhs)

•	Budgeted	Actual		2	2
Year	Sales (x)	Sales(y)	ху	<b>X</b> <sup>2</sup>	$\mathbf{y}^2$
061/62	1053	855.2	900,525.60	1,108,809.00	731,367.04
062/63	1230.5	928.3	1,142,273.15	1,514,130.25	861,740.89
063/64	1286.3	960.25	1,235,169.58	1,654,567.69	922,080.06
064/65	1562	1027.8	1,605,423.60	2,439,844.00	1,056,372.84
065/66	1318.2	1031.5	1,359,723.30	1,737,651.24	1,063,992.25
	Х	У	ху	X <sup>2</sup>	y <sup>2</sup>
N=5	=6450	=4803.05	= 6243115.23	= 8455002.18	= 4635553.08

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

 $X \frac{5 \times 6243115.23 - 6450 \times 4803}{\sqrt{5 \mid 8455002.08 \ Z 6450^2} \sqrt{5 \mid 4635553.08 \ Z 4803.05^2}} = 0.874$ by  $x = \frac{\pi \sum xy - \sum x \sum y}{\pi \sum x^2 - (\sum x)^2} = X \frac{5 \times 6243115.23 - 6450 \times 4803}{5 \mid 8455002.18 \ Z 6450^2} = 0.351$ 

Year (t)	Budgeted Sales (y)	x= t- 2063.5	ху	<b>X</b> <sup>2</sup>	y <sup>2</sup>
061/62	1053	-2	-2106	4	1,108,809.00
062/63	1230.5	-0.5	-615.25	0.25	1,514,130.25
063/64	1286.3	0	0	0	1,654,567.69
064/65	1562	0.5	781	0.25	2,439,844.00
065/66	1318.2	2	2636.4	4	1,737,651.24
	У		xy	X <sup>2</sup>	y²
N=5	=6450	$\mathbf{x} = 0$	= 696.15	= 15.25	= 8455002.18

$$\delta = \sqrt{\frac{\sum y^2}{n} - \left(\frac{\sum y}{n}\right)^2} \quad X_{\sqrt{\frac{8455002.18}{5}} Z} \frac{6450}{5}^2 = 18337.26$$

P.E.= 0.6745 
$$\left| \frac{1 - r^2}{\sqrt{n}} X 0.6745 \right| \frac{1 Z 0.874^2}{\sqrt{5}} X 0.072$$

#### Annex - 4

### **Calculation of Budgeted and Actual Production of Electronic Products**

(Rs. In Lakhs)

	Budgeted	Actual			
Year	<b>Production</b> (x)	<b>Production</b> (y)	xy	<b>X</b> <sup>2</sup>	<b>y</b> <sup>2</sup>
061/62	2086.5	1565	3,265,372.50	4,353,482.25	2,449,225.00
062/63	1264.5	1026.3	1,297,756.35	1,598,960.25	1,053,291.69
063/64	1285	1187.32	1,525,706.20	1,651,225.00	1,409,728.78
064/65	1450.6	1068.3	1,549,675.98	2,104,240.36	1,141,264.89
065/66	1588.5	1236.58	1,964,307.33	2,523,332.25	1,529,130.10
	Х	у	ху	X <sup>2</sup>	y <sup>2</sup>
N=5	=7675.10	=6083.5	= 6480940.08	= 12231240.11	= 7582640.46

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

 $X \frac{5 \times 6480940.08 - 7375.1 \times 6083.5}{\sqrt{5} | 12231240.11 Z 7675.10^2} \sqrt{5} | 7582640.46 Z 6083.5^2} = 0.926$ by  $x = \frac{\pi \sum xy - \sum x \sum y}{\pi \sum x^2 - (\sum x)^2} = X \frac{5 \times 6480940.08 - 7675.1 \times 6083.5}{5 | 12231240.11 Z 7675.10^2} = 0.588$ 

Year	Budgeted	x= t-			
( <b>t</b> )	<b>Production</b> (y)	2063.5	ху	<b>X</b> <sup>2</sup>	y <sup>2</sup>
061/62	2086.5	-2	-4173	4	4,353,482.25
062/63	1264.5	-0.5	-632.25	0.25	1,598,960.25
063/64	1285	0	0	0	1,651,225.00
064/65	1450.6	0.5	725.3	0.25	2,104,240.36
065/66	1588.5	2	3177	4	2,523,332.25
	у		xy	X <sup>2</sup>	y²
N=5	=7675.10	x=0	=-902.95	= 15.25	= 12231240.11

$$\delta = \sqrt{\frac{\sum y^2}{n} - \left(\frac{\sum y}{n}\right)^2} \qquad X_{\sqrt{\frac{12311240.11}{5}}Z} \frac{7675.10}{5}^2 = 21262.99$$

P.E.= 0.6745 
$$\left| \frac{1 - r^2}{\sqrt{n}} X 0.6745 \right| \frac{1 Z 0.926^2}{\sqrt{5}} X 0.258$$

### Annex-5

### Calculation of Budgeted and Actual Production of Noodles

(Rs. In Lakhs)

Year	Budgeted Production (x)	Actual Production (y)	VV	x <sup>2</sup>	v <sup>2</sup>
			xy		<b>y</b>
061/62	1350	1120.48	1,512,648.00	1,822,500.00	1,255,475.43
062/63	1497.5	1056.8	1,582,558.00	2,242,506.25	1,116,826.24
063/64	1486.9	1018.7	1,514,705.03	2,210,871.61	1,037,749.69
064/65	1395	1245	1,736,775.00	1,946,025.00	1,550,025.00
065/66	1605.8	1309	2,101,992.20	2,578,593.64	1,713,481.00
	Х	у	ху	X <sup>2</sup>	y²
N=5	=7335.2	=5749.98	= 8448678.23	= 10800496.5	= 6673557.36

$$T = \frac{n\Sigma xy - \Sigma x\Sigma y}{\sqrt{n\Sigma x^2 - (\Sigma x)^2} \sqrt{n\Sigma y^2 - (\Sigma y)^2}}$$

 $X \frac{5 \times 8448678.23 - 7335.20 \times 5749.98}{\sqrt{5 \mid 10800496.5 \ Z7335.20^2} \sqrt{5 \mid 6673557.36 \ Z5749.98^2}} = 0.269$ by  $x = \frac{n \sum xy - \sum x \sum y}{n \sum x^2 \ (\sum x)^2} X \frac{5 \times 8448678.23 - 7335.20 \times 5749.98}{5 \mid 10800496.5 \ Z7335.20^2} = 0.335$ 

Year(t)	Budgeted Production (y)	x= t-2063.5	xy	<b>x</b> <sup>2</sup>	y <sup>2</sup>
2061/62	1350	-2	-2700	4	1,822,500.00
2062/63	1497.5	-0.5	-748.75	0.25	2,242,506.25
2063/64	1486.9	0	0	0	2,210,871.61
2064/65	1395	0.5	697.5	0.25	1,946,025.00
2065/66	1605.8	2	3211.6	4	2,578,593.64
	у		ху	X <sup>2</sup>	y <sup>2</sup>
N=5	=7335.2	x= 0	=460.35	= 15.25	= 10800496.5

$$\delta = \sqrt{\frac{\sum y^2}{n} - \left(\frac{\sum y}{n}\right)^2} \qquad X_{\sqrt{\frac{10800496.50}{5}}} Z \frac{7335.20}{5}^2 = 9932.86$$

P.E.= 0.6745  $\left| \frac{1 - r^2}{\sqrt{n}} \times 0.6745 \right| \frac{1 \times 20.269^2}{\sqrt{5}} \times 0.27$ 

#### Annex-6

## **Calculation of Budgeted and Actual Production of Beverage**

Year	Budgeted Production (x)	Actual Production (y)	XV	x <sup>2</sup>	V <sup>2</sup>
061/62	1282.9	968.2	1,242,103.78	1,645,832.41	937,411.24
062/63	1295	1013.2	1,312,094.00	1,677,025.00	1,026,574.24
063/64	1426.5	1182.65	1,687,050.23	2,034,902.25	1,398,661.02
064/65	1836	1230.6	2,259,381.60	3,370,896.00	1,514,376.36
065/66	1528.2	1028.9	1,572,364.98	2,335,395.24	1,058,635.21
	Х	У	ху	X <sup>2</sup>	y <sup>2</sup>
N=5	=7368.6	=5423.55	= 8072994.59	= 11064050.9	= 5935658.07

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

 $X \frac{5 \times 8072994.59 - 7368.60 \times 5423.55}{\sqrt{5 | 11064050.9 Z7368.60^2} \sqrt{5 | 5935658.07 Z5423.55^2}} = 0.772$ by  $x = \frac{\pi \sum xy - \sum x \sum y}{\pi \sum x^2 (\sum x)^2} = X \frac{5 \times 8072994.59 - 7368.60 \times 5423.55}{5 | 11064050.90 Z7368.60^2} = 0.392$ 

Year(t)	Budgeted Production (y)	x= t-2063.5	xy	<b>X</b> <sup>2</sup>	$\mathbf{y}^2$
061/62	1282.9	-2	-2565.8	4	1,645,832.41
062/63	1295	-0.5	-647.5	0.25	1,677,025.00
063/64	1426.5	0	0	0	2,034,902.25
064/65	1836	0.5	918	0.25	3,370,896.00
065/66	1528.2	2	3056.4	4	2,335,395.24
	у		ху	X <sup>2</sup>	y <sup>2</sup>
N=5	=7368.6	x= 0	=761.1	= 15.25	= 11064050.9

$$\delta = \sqrt{\frac{\sum y^2}{n} - \left(\frac{\sum y}{n}\right)^2} \qquad X_{\sqrt{\frac{11064050.9}{5}}} Z \frac{7368.60}{5}^2 = 22627.29$$

P.E.= 0.6745 
$$\left| \frac{1 - r^2}{\sqrt{n}} X 0.6745 \right| \frac{1 Z 0.772^2}{\sqrt{5}} X 0.122$$