"DEVELOPMENT OF A BUDGETARY CONTROL MODEL FOR VIBGYOR AUTOMOTIVE PRIVATE LIMITED"

A PROJECT REPORT

Submitted by

MANI MURUGAN.G

REG NO: 0820400024

In partial fulfilment of the requirements

For the award of the degree

Of

MASTER OF BUSINESS ADMINISTRATION

JUNE 2010

KCT Business School

Department of Management Studies

Kumaraguru College of Technology

(An autonomous institution affiliated to Anna University, Coimbatore)

Coimbatore – 641 006

KCT Business School

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Kumaraguru College of technology

(An ISO 9001:2000 Certified Institution)

Coimbatore -641006

BONAFIDE CERTIFICATE

Certified that this project titled **"DEVELOPMENT OF A BUDGETARY CONTROL MODEL FOR VIBGYOR AUTOMOTIVE PRIVATE LIMITED, CHENNAI"** Is the bonafide work of Mr.G.MANI MURUGAN (0820400024), who carried out this research under my supervision. Certified further ,that to the best of my knowledge the work reported herein does not form part of any other project report or desertion on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

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Project Guide

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Director

Evaluated and viva-voce held on..14.06.2010..

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Examiner-I

.....

Examiner-II

Vibgyor Automotive Private Limited

Manufacturers of Precision Automobile,
Machine Components & Sub-Assemblies

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Via. Kundrathur, Sirukalathur Village,
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DATE: 10.06.2010

TO WHOM SO EVER IT MAY CONCERN

This is to certify that MR. MANIMURUGAN.G (Reg.No. 0820400024) MBA student of KUMARAGURU COLLEGE OF TECHNOLOGY is undergone a project training in our organization on the topic. "DEVELOPMENT OF A BUDGETARY CONTROL MODEL FOR VAPL" from March-2010 to May -2010.

For Vibgyor Automotive Private Limited

(Authorized Signatory)

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ISO 9001

EXCUTIVE SUMMARY

First we have to select particular product for developing a budgetary model and forecast the demand for particular product. Forecast the demand and annual production schedule accordingly (variance) material, labour and overhead cost for all components of the product, breakdown on quarterly wise of budget.

In material we need to identify the EOQ, that falls in each quarterly, arrive at the budget annual quantity * price. Then we prepare a labour cost to calculate wages budget on the basis of labour budget amount.

. Over head expenses can be projected on the basis of trend analysis for material cost, escalation should be provided based on WPI, for labour on the basis of CPI for DA and trend growth rate for over heads, break the annual budget into quartly estimation.

Actual expenses are collected for each quarterly and variance analysis in made for corrective actions.

ACKNOWLEDGEMENT

ACKNOWLEDGEMENT

I thank our respected Chairman Arutchelavr Dr. N. Mahalingam, who helped us to undergo this master's degree and acquire a lot of knowledge.

I express my sincere gratitude to our beloved Co-Chairman B.K. Krishnaraj Vanavarayar, Kumaraguru college Of Technology, for his kind blessings and moral support for carrying out this project.

I express my sincere thanks to our believed Correspondent Mr. M. Balasubramaniam, Kumaraguru College of Technology, for his kind blessings and moral support for carrying out this project.

I express my sincere thanks to our Principal Dr. A.Ramachandran, Kumaraguru College of Technology, for allowing us to carry out this project.

I am thankful to Mr.Dhivakar, HR and Mr.Dhana Sekaran, Finance Executive of VIBGYOR Automotive Private Limited, Chennai to give this opportunity to pursue the project.

I express my sincere thanks to our Director Dr. S.V.Devanathan Kumaraguru College of Technology, KCT Business School, for allowing us to carry out this project work.

I take privilege and immense pleasure in expressing my sincere gratitude to my guiding spirit, Prof K.R.Ayyaswamy, KCT Business School, for his in-depth guidance, motivation and encouragement in executing this project right from beginning and making it a success.

My special Acknowledgements and thanks to KCT Business School, faculty members KCT BS, my friends and family members who helped me in completion of this project.

DECLARATION

DECLARATION

I, hereby declare that this project report entitled as **"DEVELOPMENT OF A BUDGETARY CONTROL MODEL FOR VIBGYOR AUTOMOTIVE PRIVATE LIMITED"**, has undertaken for academic purpose submitted to Anna university in partial fulfilment of requirement for the award of the degree of Master of Business Administration. The project report is the record of the original work done by me under the guidance of, KCT Business School, during the academic year 2008-2010.

I, also declare hereby, that the information given in this report is correct to the best of my knowledge and belief.

Place: Coimbatore

Date: 14-06-2010

G. Mani Murugan

(G. MANI MURUGAN)

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INTRODUCTION

CHAPTER - I

1.1. BACK GROUND OF THE STUDY

In our present study economy, finance is defined as the provision of money at the time when it is required for every enterprise, whether big, medium or small, needs finance to carry on its operations and to achieve its targets. In fact finance is so indispensable, today it is rightly said to be the lifeblood of an enterprise.

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

1.2. STATEMENT OF THE PROBLEM

Nowadays, competition is faced in all the fields such as production, marketing and service etc due to liberalization and globalization. A healthy competition is boon to the consumer, because the consumer shall get good quilted products and services at the least cost.

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

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

- Bad labour relations
- Inaccurate record-keeping.

Departmental conflict arises due to:

- Disputes over resource allocation
- Departments blaming each other if targets are not attained.

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

1.3. REVIEW OF LITERATURE

Economic Incentives in Budgetary Control Systems

Abstract

This article explores conventional questions of why and how budgets should be employed for motivation purposes in an economic setting. The authors focus on the types of employment contracts that are associated with equilibrium allocations in the labour market. Market incompleteness is a necessary condition for use of budgets in the employment contract. Beyond this, issues of controllability, management by exception, and tightness of standards are observed to depend on the contracting environment faced by the individual agents.

Source: Joel S. Demski and Gerald A. Feltham, *The Accounting Review*, Vol. 53, No. 2 (Apr., 1978), pp. 336-359 (article consists of 24 pages)

BEYOND THE BUDGETARY CONTROL SYSTEM: TOWARDS A TWO-TIERED PROCESS OF MANAGEMENT CONTROL

Abstract

This paper reports on a research study which sought to explore some of the processes of control operating within a major British organization, Telco Ltd. This organization provides a range of communications and information services to both business and private customers. The initial theoretical perspectives which `guided' the data collection phase of the study are outlined at the outset of the paper. The findings of the case are then presented and discussed in relation to these initial perspectives, as one of the aims of the study was to develop more complete perspectives that were better able to explain the phenomena that were observed However, the study was also largely exploratory and inductive in nature, the researcher at all times remaining open to alternative explanations of the observations that were made, i.e. every effort was made to ensure that the data from the study informed theoretical explanations which are developed. On the basis of the study's evidence, a `two-tiered' model of management control is presented.

Source: David E.W. Marginson, Management Accounting Research, Volume 10, Issue 3, September 1999, Pages 203-230.

RELIANCE ON BUDGETARY CONTROL, MANUFACTURING PROCESS AUTOMATION AND PRODUCTION SUBUNIT PERFORMANCE

Abstract

The degree to which reliance can be placed on budgetary control in the assessment of production subunit performance, particularly with the advent of manufacturing process automation involving, for example, robots and CAD/CAM, is problematic. While budget-based control systems are extensively employed in organizations, such usage does not provide clear evidence of their utility as performance enhancement vehicles as advances are made in the automation of manufacturing processes. The purpose of this paper is to report the results of a study which examines the effect of automation on the link between reliance on budgetary control and production subunit performance. The findings suggest that manufacturing process automation moderates the relation between reliance on budgetary control and departmental performance. As such, firms may benefit from a reliance on budgetary control in the evaluation of production subunit performance as manufacturing processes become more automated.

Source: Accounting, Organizations and Society, Volume 17, Issues 3-4, April-May 1992, Pages 195-203.

RESPONSIBILITY ACCOUNTING REVIVED? MARKET REFORMS AND BUDGETARY CONTROL IN HEALTH CARE

Abstract

There have been numerous attempts to implement responsibility accounting systems within the National Health Service in the U.K. This paper traces these various attempts and shows that, for most of these initiatives, responsibility accounting systems did not function, as intended. The paper is informed by the institutional theorist's perspective which demonstrates how responsibility accounting systems operated as myth—as a buffer or shield

to legitimate the activities of the operational service to the major element of its external controlling environment, central government. However, market reforms in the U.K. have radically altered the mechanism for the coordination of health care delivery and appear to have established the antecedent conditions which will make responsibility accounting actionable and which may result in the accountant's language and techniques dominating the organization of health care in a way has never proved possible, in the past.

Source: Management Accounting Research, Volume 5, Issues 3-4, September 1994, Pages 337-352.

The development of budgetary control in France and Britain from the 1920s to the 1960s: a comparison

Abstract

During the first sixty years or so of the twentieth century, a number of accounting techniques were developed for use in the management of business. One of those new techniques was budgetary control. This paper examines the dissemination and diffusion of budgetary control in France and Britain between the 1920s and the 1960s, outlining the similarities and differences in the experiences of the two countries, and examining some of those factors that influenced them. The paper concludes with some proposals for a programme for future research in (international) accounting change.

Source: Authors: Nicolas Berland; Trevor Boyns, journal European Accounting Review, Volume 11, Issue 2 July 2002, pages 329 – 356.

1.4. OBJECTIVES OF THE STUDY

Primary Objective:

To develop a budgetary control model for Vibgyor Automotive Private LTD, Chennai.

Secondary Objectives:

1. To analysis the material components of Vibgyor Automotive Private Limited.
2. To study the labour cost to prepare the wages budget for Vibgyor Automotive Private Limited.
3. The study on over head expenses for 3 years and estimation of Over Heads for the product.

1.5. SCOPE OF STUDY

The analysis is confined to the existing facts and figures in respect to the demand forecasting, price of raw material, labour costs and over head expenses of the company.

1.6. NEEDS

- Efficiency: It enables the management to conduct its business activities in an efficient manner. Effective utilization of scarce resources, i.e. men, material, machinery, methods and money – is made possible.
- Cost Control: It is powerful instrument used by business houses for the control of their expenditure. It inculcates the feeling of cost consciousness among workers.
- Performance evaluation: It provides a yardstick for measuring and evaluating the performance of individuals and their departments.
- Variance analysis: It reveals the deviations to management from the budgeted figures after making a comparison with actual figures.
- Policy formulation: It helps in the review of current trends and framing of future policies.

1.7. RESEARCH METHODOLOGY

1.7.1. RESEARCH DESIGN

The research design used in this study has been exploratory in nature.

- Period of study: 3 years (2007-2010)
- Time horizon : cross sectional study

1.7.2. METHOD OF DATA COLLECTION

Type of data: Secondary data

Data requirements:

- Demand Forecasting-Breakup quarter-wise and production schedule.
- Price of raw material used for selected product, Out of 1000 component the management requested to select the 5 product.
    - Spacing collar
    - Nut
    - Spacer pulley sa15
    - Shaft
    - LRA
- Labour production standardization to arrive labour cost.
- Over head expenses for 3 years and estimation of O/H for the product under study.

1.7.3. TOOLS FOR ANALYSIS

The following tools have been used to study on budgetary control of the company

1) Trend analysis

2) Variance analysis

Trend analysis

The term "trend analysis" refers to the concept of collecting information and attempting to spot a pattern, or *trend*, in the information. In some fields of study, the term "trend analysis" has more formally-defined meanings.

In project management **trend analysis** is a mathematical technique that uses historical results to predict future outcome. This is achieved by tracking variances in cost and schedule performance. In this context, it is a project management quality control tool.

Although trend analysis is often used to predict future events, it could be used to estimate uncertain events in the past, such as how many ancient kings probably ruled between two dates, based on data such as the average years which other known kings reigned.

Variance analysis

Variance analysis is usually associated with explaining the difference (or variance) between actual costs and the standard costs allowed for the good output. For example, the difference in materials costs can be divided into a materials price variance and a materials usage variance. The difference between the actual direct labour costs and the standard direct labour costs can be divided into a rate variance and an efficiency variance. The difference in manufacturing overhead can be divided into spending, efficiency, and volume variances. Mix and yield variances can also be calculated.

Variance analysis helps management to understand the present costs and then to control future costs.

Variance analysis is also used to explain the difference between the actual sales dollars and the budgeted sales dollars. Examples include sales price variance, sales quantity (or volume) variance, and sales mix variance. A difference in the relative proportion of sales can account for some of the difference in a company's profits

Analysis of variance.

Analysis of variance is a technique used to test equality of means, when more than two populations are considered. In z-test and t-test we considered only the equality of two population means. If there are more than two populations, for testing the equality of their means the analysis of variance method is applied this technique is used in agriculture experiment in which different types of fertilizers were applied to plots of land, different types of feeding methods to animals and so on. This technique is widely used in different fields for example, to study the pattern of average sales by using different sales techniques, the types of drugs manufactured by different companies to cure a particular disease.

A central point here is that although the analysis of variance is literally a technique that analysis, by doing so, it provides us with a test for the significance of the difference among means.

Here we use two- way classification of analysis of variance, which are classified according to two factors, one column wise and the other row wise.

Procedure for testing means:

HO: There is no significant difference between column means as well as between row means.

H1: There is significant difference between column means or between row means.

Procedure:

Step 1: find N, the total no of observations

Step 2: find T, the total of all observations.

Step 3: find T*2/N, the correction factor.

Step 4: calculate the total sum of squares

Step 5: calculate column sum of squares.

Step 6: prepare the ANOVAs table to calculate F-ratio.

ANOVA TABLE

Source of variation	**Degrees of freedom**	**sum of square**	**Mean sum of square**	**Variance ratio**	**F(cal)**	**F(tab)**
Between columns	c-1	SSC	MSC=SSC/C-1	Fc= MSC/MSE		
Between rows	r-1	SSR	MSR= SSR/r-1			
Residual Error	N-c-r+1	SSE	MSE= SSE/N-c-r+1	Fr= MSR/MSE		
Total	N-1	SST				

1.8. LIMITATION OF STUDY

The project has been done using tools which have their own inherent limitations and these form the limitations to the study undertaken.

Budgetary control is a sound technique for cost control. But it is not a perfect tool. Despite the appreciation, it has its own limitations which are as follows:

- Budgets deal with future. Forecasting is necessary for budgeting. Forecasts and estimates are rarely cent per cent accurate. The success largely depends upon the degree of accuracy of the estimates.
- Budgeting is time-consuming process. During the preparation period, the business conditions may change and estimates may go wrong by that time.
- The Successful operation and execution of budgets depends upon the efficiency of the executive personnel.
- Budgetary control is essentially a tool of decision-making and it helps the management in taking sound decisions. But it cannot replace the management.
- Budgeting necessitates the employment of specialized staff and this involves expenditure which small concerns may not afford.
- A budget programme should be dynamic, capable of being adapted to changing conditions. But when budgets are prepared with pre-determined targets, there is a feeling rigid.
- The success of the budgetary control largely depends upon willing co-operation or team work of all concerned. If there is no co-operation, the whole system collapses.

CHAPTER-2

ORGANIZATION PROFILE

CHAPTER - II

ORGANIZATION PROFILE

2.1. HISTORY OF THE ORGANIZATION

Vibgyor has been established in 1995 and so far successfully conceptualized and manufactured more than 1000 items of precision turned components. State of the art manufacturing facilities combined with robust manufacturing systems and motivated workforce offer high productivity and high standards of quality. This enables Vibgyor Automotive to effect on time delivery as per customer schedule and program.

With highly qualified people and years of industry experience, Vibgyor Automotive has a proven track record of converting customer needs into superior components in time. It has been able to develop new components on scheduled time and support the customers in launching their new products as per their program. This has resulted in customer delight and we are able to get repeat business for similar components.

Over a period of time, we have gradually upgraded our manufacturing facilities from a simple machining shop to a precision machining industry apart from adding Cold Forging facilities and Electroplating shop.

With the Supplier Support provided by our leading customers, we have implemented the principles of lean manufacturing thereby achieving zero defect and higher productivity.

2.1.2. VISION & VALUES

Aim: Become a world class company of Precision Components.

Growth: Grow at the rate of 25% per annum. Become a 1000 Million company by the year 2015.

Contribution: For the well being of

"It's Peoples"

"It's Suppliers"

"It's Promoters"

"It's Customers"

2.2. INFRASTRUCTURE

Over a period, we have gradually upgraded our manufacturing facilities from a simple machining shop to a Precision Machining industry apart from adding Cold Forging facilities and Electroplating shop

Cold Forging

In 2007, just to support our customers on their vertical integration plans, we had equipped our self with the knowledge and investment on Cold Forging facility. There are already two Cold Forging presses in operation and we planned to add four more Cold Forging presses in the next two years to meet ever increasing demands.

Apart from the Cold Forging presses we have installed ancillary facilities like Metal Treatment (Phosphating), Cold Sawing Machines and Testing Instruments

Precision Machining

We have established a strong base for the manufacture and supply of precision machined components. The facilities includes among others a band of High Precision CNC Lathes, Vertical Machining Canters, Cylindrical Grinding Machines, Precision Milling Machines, Auto Lathes and Drilling & Tapping Machines. Periodic preventive maintenance and care ensure proper upkeep and high level of performance. Usage of the right type of toolings, fixtures and instruments on these machines ensures right quality components at higher productivity levels.

Lean manufacturing concepts, housekeeping and trained workforce enable smooth flow of component parts right through the production line.

Product Assembly

Customers over a period of time demand up gradation from just supplying components to manufacture of aggregate items and supply in totally finished assembled condition so that they can straight away further assemble on their products. For this concept we have received encouraging support from our esteemed customers.

Accordingly we have dedicated assembly lines installed in the factory, adopting the principles of Nagare Cell Concept. There are clear visible SOP and flow charts for ensuring defect free assembly. POKA-YOKE concepts are adapted for ensuring quality. Proper testing equipments as per customers design are manufactured and used in the assembly line.

Electroplating

For avoiding back and forth movement of materials from one factory to another, the order of the day is to supply fully finished component parts ready for use by the customers. Most of the components supplied by us, as per specification require finishing by electroplating process. Understanding these requirements of the customers, well ahead, we had planned to setup a modern Automatic Electroplating shop. Since the requirements of Air and Water pollution clearance has to be obtained for such a facility we have to perforce, locate the plating plant in a shop outside our current factory. The electroplating plant operates at SIDCO Industrial Estate, Thirumazhisai under the name and style "Rainbow Electroplaters"

We have facility for Zinc and Zinc Nickel Plating with Trivalent Passivation - both VAT and Barrel type. We have obtained clearance from statutory authorities for pollution clearance. Leading Auto Ancillaries particularly Hyundai Ancillary units have approved our plating facility.

2.3. PRODUCT DETAILS

Products - Lucas TVS

- Alternator Shafts
- Plunger Assemblies
- Others
- Denso Application

Products - Rane Madras

- Screw Plugs & Sleeves
- Tube Components

Products - Pricol

- SPINDLES,
- BUSH INSERTS &
- ADAPTORS

Products - Sona

- YOKE PLUGS,
- LOCK NUTS &
- LOCK RINGS

Products - Cumi

- SPINDLES

Products - Brakes India

- HOSE ENDS,
- TUBE COMPONENTS,
- CONNECTORS

Products - Infac

- ADJUSTER ASSEMBLY,
- CAP CASINGS &
- DAMPERS

Products - Gates Unitta

- Pulleys
- Sleeves
- Pivot Shafts
- Spacers

Products - Exports

- Heads
- Pistons
- Pineye
- Base Plates
- Hub Shells
- Yoke Shafts

2.4. QUALITY POLICY

VIBGYOR AUTOMOTIVE PRIVATE LIMITED (VAPL) is committed to customer satisfaction through manufacture and supply of Cold Forged, Machined, Pressed Components and Sub – Assemblies with consistent Quality and On–time Delivery as per customer requirements.

VAPL will achieve the above policy by setting and monitoring functionwise Quality Objectives, appropriately training all employees and continually improving the effectiveness of the system in line with ISO 9001:2008 Quality Management System requirements.

ISO/TS: 16949:

- VAPL is in the process of achieving ISO/TS: 16949 QMS accreditation by Q2, 2010.
- Up gradation of In-house calibration and testing facilities to meet IS: 17025 requirements by Q3-Q4, 2010.

Quality Assurance Facilities:

- Profile Projector
- 3D measuring CMM machines
- 2D measuring microscope
- Height Vernier Instruments
- Host of other inspection equipments.

Certificates

- ISO Certificate
- 100 PPM Certificate

Awards

- INFAC Award - 2009
- Lucas-TVS Award - 2004

2.5. CLIENTS

- Lucas TVS
- Rane Madras
- Pricol
- Sona
- Cumi
- Brakes India
- Infac
- Gates Unitta
- Auto parts Asia
- IWIN
- Rane TRW
- TAFE

CHAPTER-3

MACRO-MICRO ANALYSIS

CHAPTER - III

MICRO-MACRO ANALYSIS

INDIAN SCENARIO

The Automobile industry in India is the seventh largest in the world with an annual production of over 2.6 million units in 2009. In 2009, India emerged as Asia's fourth largest exporter of automobiles, behind Japan, South Korea and Thailand. By 2050, the country is expected to top the world in car volumes with approximately 611 million vehicles on the nation's roads.

Following economic liberalization in India in 1991, the Indian automotive industry has demonstrated sustained growth as a result of increased competitiveness and relaxed restrictions. Several Indian automobile manufacturers such as Tata Motors, Maruti Suzuki and Mahindra and Mahindra, expanded their domestic and international operations. India's robust economic growth led to the further expansion of its domestic automobile market which attracted significant India-specific investment by multinational automobile manufacturers. In February 2009, monthly sales of passenger cars in India exceeded 100,000 units.

Embryonic automotive industry emerged in India in the 1940s. Following the independence, in 1947, the Government of India and the private sector launched efforts to create an automotive component manufacturing industry to supply to the automobile industry. However, the growth was relatively slow in the 1950s and 1960s due to nationalization and the license raj which hampered the Indian private sector. After 1970, the automotive industry started to grow, but the growth was mainly driven by tractors, commercial vehicles and scooters. Cars were still a major luxury. Japanese manufacturers entered the Indian market ultimately leading to the establishment of Maruti Udyog. A number of foreign firms initiated joint ventures with Indian companies.

In the 1980s, a number of Japanese manufacturers launched joint-ventures for building motorcycles and light commercial-vehicles. It was at this time that the Indian government chose Suzuki for its joint-venture to manufacture small cars. Following the economic liberalization in 1991 and the gradual weakening of the license raj, a number of Indian and multi-national car companies launched operations. Since then, automotive component and automobile manufacturing growth has accelerated to meet domestic and export demands.

World auto industry:

World auto industry is turned to developing markets

With developed markets almost saturated, world auto industry is now focused on developing markets of South America and Asia, and Eastern Europe with special emphasis on BRIC (Brazil, Russia, India, and China).

As per reports of International Organization of Motor Vehicle Manufacturers or OICA(the association of the companies involved in World auto Industry), for fiscal end in 2006, auto manufacturers in U.S. have been overtaken by those in Japan, in terms of total volume of auto units manufactured worldwide.

However, struggling General Motors of U.S. still remain worldwide leaders of world auto industry, ahead of rapidly growing Toyota Motor Corporation of Japan, by a substantial margin.

Measures to be adopted by global leaders of world auto industry

Several significant economic measures are being considered by major players of world auto industry in order to make a smooth entry into markets of developing countries, and to make a name for them. Effective measures include:

- Reducing selling prices of cars manufactured in their factories
- Improving levels of after-sales services to keep customers satisfied
- Opening manufacturing factories in developing nations, to reduce effective costs of production as well as saving shipping charges, and enhancing prompt delivery of auto units.

CHAPTER-4

ANALYSIS

CHAPTER – IV

INFLATION

In economics, inflation is a rise in the general level of prices of goods and services in an economy over a period of time. When the price level rises, each unit of currency buys fewer goods and services; consequently, annual inflation is also erosion in the purchasing power of money – a loss of real value in the internal medium of exchange and unit of account in the economy. A chief measure of price inflation is the inflation rate, the annualized percentage change in a general price index (normally the Consumer Price Index) over time.

Inflation's effects on an economy are manifold and can be simultaneously positive and negative. Negative effects of inflation include a decrease in the real value of money and other monetary items over time; uncertainty about future inflation may discourage investment and saving, or may lead to reductions in investment of productive capital and increase savings in non-producing assets. E.g. selling stocks and buying gold. This can reduce overall economic productivity rates, as the capital required to retool companies becomes more elusive or expensive. High inflation may lead to shortages of goods if consumers begin hoarding out of concern that prices will increase in the future. Positive effects include a mitigation of economic recessions, and debt relief by reducing the real level of debt.

High rates of inflation and hyperinflation can be caused by an excessive growth of the money supply. Views on which factors determine low to moderate rates of inflation are more varied. Low or moderate inflation may be attributed to fluctuations in real demand for goods and services, or changes in available supplies such as during scarcities, as well as to growth in the money supply. However, the consensus view is that a long sustained period of inflation is caused by money supply growing faster than the rate of economic growth.

Today, most mainstream economists favour a low steady rate of inflation. Low (as opposed to zero or negative) inflation may reduce the severity of economic recessions by enabling the labour market to adjust more quickly in a downturn, and reduce the risk that a liquidity trap prevents monetary policy from stabilizing the economy. The task of keeping the rate of inflation low and stable is usually given to monetary authorities. Generally, these monetary authorities are the central banks that control the size of the money supply through the setting of interest rates, through open market operations, and through the setting of banking reserve requirements.

Year	Inflation rate (consumer prices)	Rank	Percent Change	Date of Information	AVG
2006	4.20%	125	0.00%	2005 est.	6.98
2007	5.30%	139	26.19%	2006 est.	
2008	6.40%	148	20.75%	2007 est.	
2009	8.30%	130	29.69%	2008 est.	
2010	10.70%	193	28.92%	2009 est.	

INTERPRETATION:

Inflation rate taken at last 5 years of data to identify the average rate of inflation that will be used to identify the future forecasting the value. Total/n n= no of year.

Wholesale price index:

A Wholesale Price Index (WPI) is the price of a representative basket of wholesale goods. Some countries (like India and The Philippines) use WPI changes as a central measure of inflation. However, India and the United States now report a producer price index instead.

The Wholesale Price Index or WPI is the price of a representative basket of wholesale goods. Some countries use the changes in this index to measure inflation in their economies, in particular India – The Indian WPI figure is released weekly on every Thursday and influences stock and fixed price markets. The Wholesale Price Index focuses on the price of goods traded between corporations, rather than goods bought by consumers, which is measured by the Consumer Price Index. The purpose of the WPI is to monitor price movements that reflect supply and demand in industry, manufacturing and construction. This helps in analyzing both macroeconomic and microeconomic conditions.

Calculation of Wholesale Price Index

The wholesale price index consists of over 2,400 commodities. The indicator tracks the price movement of each commodity individually. Based on this individual movement, the WPI is determined through the averaging principle. The following methods are used to compute the WPI:

Laspeyres Formula (relative method): It is the weighted arithmetic mean based on the fixed value-based weights for the base period.

Ten-Day Price Index: Under this method, "sample prices" with high intra-month fluctuations are selected and surveyed every ten days through phone. Utilizing the data retrieved by this procedure and with the assumption that other non-surveyed "sample prices" remain unchanged, a "ten-day price index" is compiled and released.

Calculation Method: Monthly price indexes are compiled by calculating the simple arithmetic mean of three ten-day "sample prices" in the month.

Financial Year	**2008-2009**	**2007-2008**	**2006-2007**	**2005-2006**	**AVG**
Index	233.9	215.7	206.2	195.6	6.15

INTERPRETATION:

WPI rate taken at last 4 years of data to identify the average rate of WPI that will be used to identify the future forecasting the value.

TABLE 4.1.1

TABLE SHOWING OF BUDGETED PRODUCTION SCHEDULE FOR APRIL 2010

PRODUCTION SCHEDULE FOR CEN.GRI&ROLLING			
PLANNED QUNTITY	GAP	ANALYSYS	BUDGETED QUNTITY
2400	8	0.33	2392
1200	1	0.08	1199
1200	0	0.00	1200
1800	48	2.67	1752
3000	4	0.13	2996
1500		0.00	1500
2400	8	0.33	2392
1200	1	0.08	1199
1200	0	0.00	1200
1800	48	2.67	1752
3000	4	0.13	2996
1500	0	0.00	1500
1200	133	11.08	1067
1800	63	3.50	1737
900	1	0.09	899
1800	1	0.07	1799
1200	133	11.08	1067
1800	63	3.50	1737
900	1	0.09	899
1800	1	0.07	1799
3000	2	0.07	2998
3000	0	0.00	3000
3000	0	0.00	3000
1200	82	6.83	1118
600	150	25.00	450
1800	2	0.09	1798
1800	113	6.28	1687
900	1	0.09	899

600	0	0.00	600
1200	82	6.83	1118
600	150	25.00	450
1800	2	0.09	1798
1800	113	6.28	1687
900	1	0.09	899
600	0	0.00	600
3000	0	0.00	3000
3000	0	0.00	3000
4500	3	0.08	4497
300	100	33.33	200
2700	2	0.07	2698
2700	2	0.07	2698
2100	27	1.29	2073
900	5	0.56	895
1200	200	16.67	1000
2100	27	1.29	2073
900	5	0.56	895
1200	200	16.67	1000
2700	2	0.07	2698
1800	0	0.00	1800
2700	2	0.07	2698
1800	0	0.00	1800
5000	0	0.00	5000
1500	29	1.93	1471
1200	2	0.15	1198
1800	2	0.13	1798
900	16	1.78	884
600	1	0.17	599
1500	29	1.93	1471
1200	2	0.15	1198
1800	2	0.13	1798
900	16	1.78	884

600	1	0.17	599
3000	0	0.00	3000
900	60	6.67	840
3000	0	0.00	3000
3000	0	0.00	3000
900	60	6.67	840
3000	0	0.00	3000
2100	100	4.76	2000
2100	77	3.67	2023
900	1	0.16	899
1200	186	15.50	1014
2100	100	4.76	2000
2100	77	3.67	2023
900	0	-0.04	900
1200	186	15.50	1014
3000	0	0.00	3000
1800	100	5.56	1700
3000	0	0.00	3000
900	233	25.89	667
1800	246	13.67	1554
900	233	25.89	667
1800	246	13.67	1554
3000	3	0.10	2997
600	100	16.67	500
2700	200	7.41	2500
3000	3	0.10	2997
300	85	28.33	215
1200	110	9.17	1090
3000	1	0.03	2999
2100	1	0.04	2099
2700	5	0.19	2695
300	85	28.33	215
1200	110	9.17	1090

300	1	0.33	299
2100	1	0.04	2099
2700	5	0.19	2695
3000	0	-0.01	3000
3000	0	-0.01	3000
3000	1	0.03	2999
3000	2	0.05	2998
1200	4	0.35	1196
600	0	-0.07	600
300	227	75.67	73
2100	100	4.76	2000
1200	2	0.15	1198
600	2	0.33	598
300	227	75.67	73
2100	100	4.76	2000
1200	196	16.33	1004
1500	2	0.13	1498
2400	150	6.25	2250
900	1	0.09	899
1200	196	16.33	1004
1500	2	0.13	1498
2400	150	6.25	2250
900	1	0.09	899
3000	0	0.00	3000
3000	0	0.00	3000
5000	0	0.00	5000
1200	51	4.25	1149
900	21	2.33	879
1500	77	5.13	1423
1800	58	3.22	1742
1200	51	4.25	1149
900	21	2.33	879
1500	77	5.13	1423

1800	58	3.22	1742
2400	200	8.33	2200
1200	51	4.25	1149
900	21	2.33	879
1500	-3	-0.20	1503
1800	58	3.22	1742
1200	51	4.25	1149
900	21	2.33	879
1500	77	5.13	1423
1800	58	3.22	1742
2100	0	0.00	2100
1800	17	0.94	1783
1500	69	4.60	1431
900	98	10.89	802
2100	196	9.33	1904
600	0	0.03	600
1800	67	3.72	1733
1500	69	4.60	1431
900	98	10.89	802
2100	196	9.33	1904
600	0	0.03	600
300	0	0.00	300
900	0	-0.05	900
1200	5	0.43	1195
2100	0	0.00	2100
2100	149	7.10	1951
1800	0	0.00	1800
2100	149	7.10	1951
1800	0	0.00	1800
3000	4	0.13	2996
3000	4	0.13	2996
240	30	12.50	210
300	0	0.00	300

900	128	14.22	772
3000	0	-0.01	3000
3000	0	-0.01	3000
900	0	0.04	900
3000	0	0.00	3000
900	0	0.02	900
1500	200	13.33	1300
900	0	0.04	900
3000	0	0.00	3000
900	0	0.02	900
1500	200	13.33	1300
2400	0	0.00	2400
2400	0	0.00	2400
3000	0	0.00	3000
1800	0	0.02	1800
2100	63	3.00	2037
900	1	0.07	899
1800	100	5.56	1700
1800	0	0.02	1800
2100	63	3.00	2037
900	1	0.07	899
1800	100	5.56	1700
300	1	0.33	299
900	32	3.56	868
2400	2	0.07	2398
300	0	-0.07	300
1200	4	0.33	1196
900	32	3.56	868
2400	2	0.07	2398
300	0	-0.07	300
1200	4	0.33	1196
3000	0	0.00	3000
3000	0	0.00	3000

1500	2	0.15	1498
3000	0	-0.01	3000
300	0	0.00	300
3000	0	0.00	3000
900	40	4.44	860
1200	38	3.17	1162
900	25	2.78	875
2400	3	0.12	2397
600	100	16.67	500
3000	0	0.00	3000
900	40	4.44	860
1200	38	3.17	1162
900	25	2.78	875
2400	0	0.00	2400
600	100	16.67	500
270	0	-0.15	270
3000	1	0.03	2999
3000	0	0.00	3000
3000	1	0.03	2999
3000	1	0.03	2999
600	3	0.51	597
1500	34	2.27	1466
1500	1	0.07	1499
2100	100	4.76	2000
600	3	0.51	597
1500	34	2.27	1466
1500	1	0.07	1499
2100	100	4.76	2000
300	0	-0.07	300
1200	0	0.00	1200
1200	0	0.00	1200
1200	1	0.07	1199
2700	150	5.56	2550

900	58	6.44	842
1200	1	0.07	1199
2700	150	5.56	2550
900	58	6.44	842
270	0	-0.18	270
5000	0	0.00	5000
1500	271	18.07	1229
900	0	0.04	900
900	0	0.03	900
1800	1	0.04	1799
1500	271	18.07	1229
900	0	0.04	900
900	0	0.03	900
1800	1	0.04	1799
240	0	0.10	240
3000	0	0.00	3000
2100	21	1.00	2079
900	3	0.33	897
900	3	0.33	897
1200	2	0.18	1198
2400	22	0.92	2378
2100	21	1.00	2079
900	3	0.33	897
900	3	0.33	897
1200	2	0.18	1198
2400	22	0.92	2378
270	0	-0.07	270
3000	0	0.01	3000
4000	0	0.00	4000
2700	2	0.08	2698
600	21	3.50	579
1800	39	2.17	1761
900	1	0.09	899

2700	2	0.08	2698
600	21	3.50	579
1800	39	2.17	1761
900	1	0.09	899
150	0	0.00	150
150	26	17.33	124
3000	0	0.00	3000
1800	50	2.78	1750
3000	0	0.00	3000
1800	50	2.78	1750
3000	0	0.00	3000
600	3	0.53	597
2700	0	-0.02	2700
1200	1	0.05	1199
900	0	0.01	900
600	3	0.53	597
2700	0	-0.02	2700
1200	1	0.05	1199
900	0	0.01	900
270	0	-0.15	270
3000	0	0.00	3000
3000	0	0.00	3000
		TOTAL	**461150**

Calculation method:

Budgeted quantity = GAP/PLANNED QUANTITY,

Planned quantity-(planned quantity*budgeted quantity/100)

It will be help to project the budgeted year of production schedule for forthcoming months. They above table show the budgeted quantity of the machine allocated. It will reduce the rejection item.

TABLE 4.1.2

TABLE SHOWING OF BUDGETED PRODUCTION SCHEDULE FOR MAR 2010

PRODUCTION SCHEDULE FOR CEN.GRI&ROLLING			
PLANNED QUNTITY	GAP	ANALYSYS	BUDGETED QUNTITY
900	150	16.67	750
900	0	-0.05	900
900	150	16.67	750
900	1	0.09	899
300	0	0.00	300
300	0	0.00	300
600	153	25.50	447
600	153	25.50	447
3000	0	-0.01	3000
3000	0	-0.01	3000
300	0	-0.07	300
300	0	-0.07	300
5000	0	0.00	5000
5000	0	0.00	5000
900	51	5.67	849
1800	58	3.22	1742
300	154	51.33	146
600	50	8.33	550
300	2	0.67	298
900	1	0.11	899
900	0	0.00	900
1500	1	0.07	1499
3000	1	0.03	2999
900	51	5.67	849
1800	58	3.22	1742
300	154	51.33	146
600	50	8.33	550

300	2	0.67	298
900	1	0.11	899
900	0	0.00	900
1500	1	0.07	1499
3000	1	0.03	2999
1500	200	13.33	1300
1200	158	13.17	1042
1500	200	13.33	1300
1200	158	13.17	1042
1500	0	0.00	1500
1500	0	0.00	1500
900	1	0.09	899
300	1	0.27	299
900	1	0.09	899
900	1	0.09	899
300	1	0.27	299
900	1	0.09	899
3000	0	0.00	3000
900	0	-0.01	900
1500	0	0.00	1500
3000	0	0.00	3000
900	0	-0.01	900
1500	0	0.00	1500
5000	0	0.00	5000
900	14	1.56	886
900	14	1.56	886
3000	1	0.03	2999
600	19	3.17	581
1500	128	8.53	1372
1500	0	0.00	1500
1200	110	9.17	1090
600	31	5.17	569
900	0	0.04	900

600	19	3.17	581
1500	128	8.53	1372
1500	0	0.00	1500
1200	110	9.17	1090
600	31	5.17	569
900	0	0.04	900
900	200	22.22	700
1500	76	5.07	1424
900	0	0.04	900
1500	76	5.07	1424
900	0	0.04	900
1800	0	0.00	1800
1800	1	0.04	1799
900	150	16.67	750
1800	0	0.00	1800
1800	1	0.04	1799
900	150	16.67	750
5000	0	0.00	5000
5000	0	0.01	5000
5000	1	0.02	4999
3000	0	0.00	3000
900	1	0.13	899
1800	0	0.03	1800
1800	2	0.12	1798
900	1	0.09	899
1200	1	0.10	1199
3000	0	0.00	3000
900	1	0.13	899
1800	0	0.03	1800
1800	2	0.12	1798
900	1	0.09	899
1200	2	0.17	1198
600	41	6.83	559

600	32	5.33	568
1800	6	0.33	1794
600	41	6.83	559
600	32	5.33	568
1800	6	0.33	1794
900	1	0.09	899
1800	0	0.01	1800
1800	37	2.06	1763
900	1	0.09	899
1800	0	0.01	1800
1800	37	2.06	1763
5000	0	0.00	5000
1800	0	0.02	1800
300	209	69.67	91
900	86	9.56	814
300	107	35.67	193
900	2	0.22	898
900	86	9.56	814
300	107	35.67	193
900	0	0.02	900
1200	100	8.33	1100
1200	100	8.33	1100
3000	2	0.07	2998
3000	2	0.07	2998
600	139	23.17	461
1200	0	0.02	1200
600	0	0.00	600
2700	38	1.41	2662
300	43	14.33	257
1500	284	18.93	1216
600	139	23.17	461
1200	0	0.02	1200
600	0	0.00	600

2700	38	1.41	2662
300	43	14.33	257
1500	284	18.93	1216
600	200	33.33	400
3000	72	2.40	2928
600	200	33.33	400
3000	72	2.40	2928
5000	0	0.00	5000
600	0	0.00	600
2100	0	-0.02	2100
300	0	0.00	300
1800	1	0.04	1799
900	0	0.00	900
3000	4	0.13	2996
600	0	0.00	600
2100	0	-0.02	2100
300	0	0.00	300
1800	1	0.04	1799
900	0	0.00	900
3000	4	0.13	2996
2100	100	4.76	2000
2100	100	4.76	2000
2100	1	0.04	2099
600	55	9.17	545
600	0	0.00	600
600	94	15.67	506
1800	0	0.00	1800
1200	200	16.67	1000
2100	1	0.04	2099
600	55	9.17	545
600	0	0.00	600
600	94	15.67	506
1800	0	0.00	1800

1200	200	16.67	1000
1500	0	0.00	1500
1200	200	16.67	1000
1500	0	0.00	1500
2100	216	10.29	1884
2100	216	10.29	1884
2100	83	3.95	2017
1800	1	0.07	1799
900	1	0.09	899
600	100	16.67	500
900	1	0.09	899
2100	83	3.95	2017
1800	1	0.07	1799
900	1	0.09	899
600	100	16.67	500
900	1	0.09	899
2700	200	7.41	2500
2700	200	7.41	2500
1800	82	4.56	1718
1800	82	4.56	1718
2100	61	2.90	2039
2100	61	2.90	2039
2400	159	6.63	2241
600	179	29.83	421
900	3	0.33	897
1800	0	0.00	1800
900	0	0.00	900
300	9	3.00	291
1500	7	0.47	1493
3000	4	0.13	2996
600	179	29.83	421
900	3	0.33	897
1800	0	0.00	1800

900	0	0.00	900
300	9	3.00	291
1500	7	0.47	1493
3000	4	0.13	2996
1800	0	0.03	1800
1800	0	0.03	1800
5000	0	0.00	5000
1200	200	16.67	1000
1500	0	0.00	1500
1800	0	0.02	1800
1200	200	16.67	1000
1500	0	0.00	1500
1800	0	0.02	1800
900	1	0.07	899
2100	0	0.02	2100
900	1	0.07	899
2100	0	0.02	2100
1500	2	0.13	1498
2700	30	1.11	2670
1200	12	1.00	1188
1200	68	5.67	1132
900	1	0.09	899
1500	2	0.13	1498
2700	30	1.11	2670
1200	12	1.00	1188
1200	68	5.67	1132
900	1	0.09	899
1500	0	0.00	1500
1500	0	0.00	1500
600	0	0.00	600
1500	250	16.67	1250
1800	1	0.08	1799
1200	11	0.92	1189

1500	2	0.13	1498
600	0	0.00	600
1500	250	16.67	1250
1800	1	0.08	1799
1200	11	0.92	1189
1500	2	0.13	1498
2400	167	6.96	2233
2400	167	6.96	2233
1500	0	0.00	1500
3000	0	0.00	3000
3000	0	0.00	3000
5000	5	0.10	4995
900	1	0.16	899
900	1	0.09	899
900	1	0.16	899
900	1	0.09	899
900	1	0.09	899
1500	0	0.00	1500
900	1	0.09	899
1500	0	0.00	1500
2700	200	7.41	2500
3000	0	0.00	3000
2100	0	0.01	2100
900	0	-0.01	900
600	2	0.37	598
900	0	0.00	900
3000	0	0.00	3000
2100	0	0.01	2100
900	0	-0.01	900
600	2	0.37	598
900	0	0.00	900
2700	200	7.41	2500
2700	200	7.41	2500

2100	95	4.52	2005
1200	11	0.92	1189
900	1	0.09	899
2100	34	1.62	2066
2100	95	4.52	2005
1200	11	0.92	1189
900	1	0.11	899
2100	34	1.62	2066
3000	0	0.00	3000
1800	1	0.03	1799
3000	3	0.10	2997
1200	90	7.50	1110
900	96	10.67	804
1800	1	0.03	1799
3000	3	0.10	2997
1200	90	7.50	1110
900	96	10.67	804
2700	165	6.11	2535
2700	165	6.11	2535
600	100	16.67	500
600	100	16.67	500
900	70	7.78	830
2700	140	5.19	2560
1200	1	0.09	1199
900	70	7.78	830
2700	138	5.11	2562
1200	1	0.09	1199
3000	0	0.00	3000
3000	0	0.00	3000
3000	140	4.67	2860
2400	200	8.33	2200
3000	140	4.67	2860
2400	200	8.33	2200

5000	2	0.04	4998
600	1	0.20	599
1200	82	6.83	1118
1500	160	10.67	1340
900	120	13.33	780
1200	82	6.83	1118
1500	160	10.67	1340
900	120	13.33	780
5000	0	0.00	5000
2700	200	7.41	2500
2700	200	7.41	2500
900	580	64.44	320
600	76	12.67	524
1200	0	0.03	1200
1200	50	4.17	1150
900	0	-0.02	900
600	76	12.67	524
1200	0	0.03	1200
1200	50	4.17	1150
2700	125	4.63	2575
1500	2	0.13	1498
2700	125	4.63	2575
1500	2	0.13	1498
1200	50	4.17	1150
1200	50	4.17	1150
900	166	18.44	734
1800	95	5.28	1705
1200	130	10.83	1070
900	166	18.44	734
1800	95	5.28	1705
1200	130	10.83	1070
900	150	16.67	750
3000	0	-0.01	3000

900	150	16.67	750
3000	0	-0.01	3000
2100	37	1.76	2063
2400	207	8.63	2193
1800	78	4.33	1722
2100	37	1.76	2063
2400	207	8.63	2193
1800	78	4.33	1722
3000	2	0.07	2998
3000	2	0.07	2998
3000	2	0.07	2998
3000	2	0.07	2998
		TOTAL	**518369**

INTERPRETATION:

The above production schedule table is calculated using economic trend analysis. Out of available 14 machine, one machine viz CEN.GRI&ROLLING has been selected for preparing the budget estimation. These estimation consists of

- Material budget
- Labour cost budget and
- Overhead estimation budget

A variance is suggested to control the variance in budget estimation.

TABLE 4.1.3

TABLE SHOWING OF BUDGETED PRODUCTION SCHEDULE FOR FEB 2010

PRODUCTION SCHEDULE FOR CEN.GRI&ROLLING			
PLANNED QUNTITY	GAP	ANALYSYS	BUDGETED QUNTITY
1200	125	10.42	1075
1500	0	0.00	1500
1200	125	10.42	1075
1500	0	0.00	1500
600	0	0.03	600
1500	98	6.53	1402
1800	3	0.15	1797
900	0	-0.02	900
600	0	0.03	600
1500	98	6.53	1402
1800	3	0.15	1797
900	0	-0.02	900
300	47	15.67	253
300	3	1.00	297
300	47	15.67	253
300	3	1.00	297
1800	0	0.00	1800
1200	195	16.25	1005
1800	0	0.00	1800
1200	195	16.25	1005
2100	0	0.00	2100
900	3	0.31	897
900	3	0.38	897
2100	0	0.00	2100
900	3	0.31	897
900	3	0.38	897
3000	0	0.00	3000
3000	0	0.00	3000

3000	0	-0.01	3000
600	26	4.33	574
1800	0	0.03	1800
900	1	0.09	899
3000	0	-0.01	3000
600	26	4.33	574
1800	0	0.03	1800
900	1	0.09	899
3000	0	0.00	3000
3000	0	0.00	3000
3000	0	0.00	3000
3000	0	0.00	3000
1500	2	0.13	1498
3000	0	-0.01	3000
600	0	0.00	600
900	150	16.67	750
2100	4	0.20	2096
3000	0	0.00	3000
1500	2	0.13	1498
3000	0	-0.01	3000
600	0	0.00	600
900	150	16.67	750
2100	4	0.20	2096
3000	0	0.00	3000
3000	0	0.00	3000
2700	68	2.52	2632
3000	0	0.00	3000
2700	68	2.52	2632
900	0	0.02	900
300	65	21.67	235
300	56	18.67	244
900	0	0.02	900
300	65	21.67	235

300	56	18.67	244
1500	0	-0.01	1500
2100	100	4.76	2000
2400	2	0.09	2398
3000	100	3.33	2900
1500	0	-0.01	1500
2100	100	4.76	2000
2400	2	0.09	2398
3000	100	3.33	2900
1800	57	3.17	1743
1500	1	0.09	1499
600	0	0.07	600
900	109	12.11	791
600	0	0.00	600
1800	57	3.17	1743
1500	1	0.09	1499
600	0	0.07	600
900	109	12.11	791
600	0	0.00	600
1800	0	0.00	1800
1800	0	0.00	1800
5000	0	0.00	5000
1200	0	-0.02	1200
1200	0	-0.02	1200
1200	0	0.00	1200
1200	0	0.00	1200
1800	0	-0.01	1800
1500	42	2.80	1458
300	0	-0.13	300
600	87	14.50	513
1800	0	0.02	1800
1500	42	2.80	1458
300	0	-0.13	300

600	87	14.50	513
1200	15	1.25	1185
300	9	3.00	291
2100	135	6.43	1965
2100	100	4.76	2000
900	148	16.44	752
2100	0	0.01	2100
1200	15	1.25	1185
300	9	3.00	291
2100	135	6.43	1965
2100	100	4.76	2000
900	148	16.44	752
2100	0	0.01	2100
3000	1	0.03	2999
600	50	8.33	550
3000	0	0.00	3000
3000	1	0.03	2999
600	50	8.33	550
3000	0	0.00	3000
300	108	36.00	192
1800	68	3.78	1732
1800	50	2.78	1750
900	150	16.67	750
300	108	36.00	192
1800	68	3.78	1732
1800	50	2.78	1750
900	150	16.67	750
3000	0	0.00	3000
900	0	-0.01	900
3000	0	0.00	3000
900	0	-0.01	900
1500	0	0.00	1500
300	0	0.00	300

300	0	0.00	300
2100	100	4.76	2000
2400	1	0.05	2399
2100	100	4.76	2000
2400	1	0.03	2399
3000	0	0.00	3000
1500	41	2.73	1459
1200	97	8.08	1103
1200	103	8.58	1097
1200	200	16.67	1000
1500	41	2.73	1459
1200	97	8.08	1103
1200	103	8.58	1097
1200	200	16.67	1000
1200	200	16.67	1000
900	150	16.67	750
3000	1	0.03	2999
2700	33	1.22	2667
600	0	0.00	600
900	80	8.89	820
900	1	0.13	899
1200	200	16.67	1000
900	150	16.67	750
3000	2	0.07	2998
2700	33	1.22	2667
600	0	0.00	600
900	80	8.89	820
1200	195	16.25	1005
2700	166	6.15	2534
2700	166	6.15	2534
1800	165	9.17	1635
1800	165	9.17	1635
3000	0	0.00	3000

900	1	0.09	899
900	1	0.09	899
300	0	0.00	300
900	1	0.07	899
600	3	0.50	597
1500	4	0.27	1496
1500	0	0.00	1500
2100	100	4.76	2000
300	0	0.00	300
900	1	0.07	899
600	1	0.10	599
1500	4	0.27	1496
1500	0	0.00	1500
2100	100	4.76	2000
1800	231	12.83	1569
900	232	25.78	668
1800	231	12.83	1569
900	232	25.78	668
1200	29	2.42	1171
1200	29	2.42	1171
2100	25	1.19	2075
2400	2	0.09	2398
2100	25	1.19	2075
2400	2	0.09	2398
600	97	16.17	503
1800	200	11.11	1600
300	0	-0.07	300
1200	150	12.50	1050
1500	0	0.00	1500
600	97	16.17	503
1800	200	11.11	1600
300	0	-0.07	300
1200	150	12.50	1050

1500	0	0.00	1500
3000	4	0.13	2996
900	1	0.09	899
3000	4	0.13	2996
900	1	0.09	899
1800	50	2.78	1750
600	82	13.67	518
600	0	-0.04	600
600	0	-0.07	600
900	244	27.11	656
900	3	0.33	897
900	0	-0.01	900
900	0	0.04	900
1800	50	2.78	1750
600	82	13.67	518
600	0	-0.04	600
600	0	-0.07	600
900	244	27.11	656
900	3	0.33	897
900	0	-0.01	900
900	0	0.04	900
600	82	13.67	518
1800	6	0.35	1794
1200	50	4.17	1150
600	82	13.67	518
1800	6	0.35	1794
1200	50	4.17	1150
900	16	1.78	884
900	16	1.78	884
1200	200	16.67	1000
1200	200	16.67	1000
1800	0	-0.01	1800
1200	50	4.17	1150

1800	0	-0.01	1800
1200	50	4.17	1150
1800	0	0.02	1800
900	13	1.44	887
600	0	0.00	600
900	0	-0.03	900
600	0	-0.07	600
1800	0	0.02	1800
900	13	1.44	887
600	0	0.00	600
900	1	0.07	899
600	0	-0.07	600
900	1	0.09	899
900	1	0.09	899
900	1	0.09	899
900	1	0.09	899
900	0	0.00	900
300	243	81.00	57
3000	40	1.33	2960
600	0	-0.07	600
900	0	-0.01	900
1200	0	0.00	1200
900	0	0.00	900
300	243	81.00	57
3000	40	1.33	2960
600	0	-0.07	600
900	0	-0.01	900
1200	0	0.00	1200
1200	0	0.00	1200
1200	0	0.00	1200
900	14	1.56	886
2400	102	4.25	2298
1500	1	0.03	1500

1200	1	0.10	1199
1800	65	3.61	1735
900	16	1.78	884
600	2	0.33	598
1200	29	2.42	1171
300	3	1.00	297
900	14	1.56	886
2400	102	4.25	2298
1500	1	0.03	1500
1200	0	-0.04	1200
1800	65	3.61	1735
900	16	1.78	884
600	3	0.53	597
1200	29	2.42	1171
300	1	0.40	299
5000	4	0.08	4996
3000	3	0.09	2997
1500	90	6.00	1410
3000	3	0.09	2997
500	90	18.00	410
1500	85	5.67	1415
300	0	0.00	300
600	112	18.67	488
900	100	11.11	800
1500	85	5.67	1415
300	0	0.00	300
600	112	18.67	488
900	100	11.11	800
1800	138	7.67	1662
3000	1	0.03	2999
2700	4	0.16	2696
900	165	18.33	735
1800	138	7.67	1662

3000	1	0.03	2999
2700	4	0.16	2696
900	165	18.33	735
600	0	0.07	600
1200	30	2.50	1170
300	0	0.07	300
600	61	10.17	539
1200	2	0.13	1198
900	45	5.00	855
1200	100	8.33	1100
3000	2	0.07	2998
600	0	0.07	600
1200	30	2.50	1170
300	0	0.07	300
600	61	10.17	539
1200	2	0.13	1198
900	45	5.00	855
1200	100	8.33	1100
3000	2	0.07	2998
1800	20	1.11	1780
1800	20	1.11	1780
1500	2	0.13	1498
300	0	0.00	300
600	0	0.03	600
900	118	13.11	782
1500	0	-0.01	1500
300	0	0.00	300
600	5	0.83	595
900	118	13.11	782
600	100	16.67	500
2100	100	4.76	2000
3000	22	0.73	2978
600	100	16.67	500

2100	100	4.76	2000
3000	22	0.73	2978
2100	2	0.09	2098
1200	0	-0.02	1200
1500	150	10.00	1350
2100	2	0.09	2098
1200	0	-0.02	1200
1500	150	10.00	1350
900	1	0.09	899
900	1	0.15	899
900	1	0.09	899
900	2	0.19	898
300	0	0.00	300
2400	200	8.33	2200
1500	195	13.00	1305
900	200	22.22	700
600	100	16.67	500
300	0	0.00	300
2400	200	8.33	2200
1500	195	13.00	1305
900	200	22.22	700
600	100	16.67	500
1200	85	7.08	1115
3000	0	-0.01	3000
1200	85	7.08	1115
3000	0	0.00	3000
3000	0	0.00	3000
3000	0	0.00	3000

INTERPRETATION:

The above production schedule of the table is calculated using economic trend analysis. I have taken 3 moths of production planned quantity to identify the budgeted value of the manufactured product.

It will reduce the product manufacturing quantity, if there is no GAP between the planned quantity and actual quantity, we should produced same level quantity, if there is any deviation must be reduce the product quantity.

If the product demand will be low, try to reduced the machine hour and labour working time, it will help reallocate the resource in quick time.

TABLE 4.2.1.1

TABLE SHOWING BUDGETED SALES REGISTER OF LRA SHAFT

01-04-2007 TO 31-03-2008				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
04-May-07	300	32.76	9828	10513.99
08-Jun-07	300	32.76	9828	10513.99
15-Jun-07	300	32.76	9828	10513.99
16-Jun-07	300	32.76	9828	10513.99
23-Jun-07	250	32.76	8190	8761.66
25-Jun-07	300	32.76	9828	10513.99
TOTAL	**1,750**		**57330**	**61331.63**
04-Jul-07	300	32.76	9828	10513.99
11-Jul-07	300	32.76	9828	10513.99
13-Jul-07	300	32.76	9828	10513.99
27-Jul-07	500	32.76	16380	17523.32
03-Aug-07	300	32.76	9828	10513.99
10-Aug-07	300	32.76	9828	10513.99
17-Aug-07	300	32.76	9828	10513.99
21-Aug-07	300	32.76	9828	10513.99

24-Aug-07	300	32.76	9828	10513.99
01-Sep-07	200	32.76	6552	7009.33
06-Sep-07	300	32.76	9828	10513.99
12-Sep-07	300	32.76	9828	10513.99
19-Sep-07	300	32.76	9828	10513.99
25-Sep-07	300	32.76	9828	10513.99
29-Sep-07	300	32.76	9828	10513.99
TOTAL	**4,600**		**150696**	**161214.58**
03-Oct-07	300	32.76	9828	10513.99
09-Oct-07	250	32.76	8190	8761.66
18-Oct-07	300	32.76	9828	10513.99
18-Oct-07	300	32.76	9828	10513.99
19-Oct-07	300	32.76	9828	10513.99
26-Oct-07	300	32.76	9828	10513.99
31-Oct-07	200	32.76	6552	7009.33
02-Nov-07	300	32.76	9828	10513.99
04-Nov-07	100	32.76	3276	3504.66
19-Nov-07	300	32.76	9828	10513.99
20-Nov-07	300	32.76	9828	10513.99
22-Nov-07	300	32.76	9828	10513.99
08-Dec-07	300	32.76	9828	10513.99
12-Dec-07	300	32.76	9828	10513.99
15-Dec-07	300	32.76	9828	10513.99
19-Dec-07	350	32.76	11466	12266.33
28-Dec-07	300	32.76	9828	10513.99
TOTAL	**4,800**		**157248**	**168224**
02-Jan-08	150	32.76	4914	5257.00
12-Jan-08	300	32.76	9828	10513.99
13-Jan-08	300	32.76	9828	10513.99
18-Jan-08	300	32.76	9828	10513.99
24-Jan-08	300	32.76	9828	10513.99
25-Jan-08	150	32.76	4914	5257.00
05-Feb-08	300	32.76	9828	10513.99

08-Feb-08	300	32.76	9828	10513.99
13-Feb-08	300	32.76	9828	10513.99
16-Feb-08	300	32.76	9828	10513.99
19-Feb-08	300	32.76	9828	10513.99
20-Feb-08	300	32.76	9828	10513.99
22-Feb-08	300	32.76	9828	10513.99
24-Feb-08	600	32.76	19656	21027.99
27-Feb-08	300	32.76	9828	10513.99
01-Mar-08	300	32.76	9828	10513.99
02-Mar-08	300	32.76	9828	10513.99
05-Mar-08	150	32.76	4914	5257.00
16-Mar-08	300	32.76	9828	10513.99
27-Mar-08	300	32.76	9828	10513.99
TOTAL	**5,850**	32.76	**191646**	**205022.89**

TABLE 4.2.1.2

TABLE SHOWING BUDGETED SALES REGISTER OF LRA SHAFT

01-04-2008 TO 31-03-2009				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
01-Apr-08	300	32.76	9828	10513.99
10-Apr-08	100	32.76	3276	3504.66
11-Jun-08	50	32.76	1638	1752.33
23-Jun-08	500	32.76	16380	17523.32
25-Jun-08	300	32.76	9828	10513.99
TOTAL	**1,250**		**40950**	**43808.31**
04-Jul-08	400	32.76	13104	14018.66
05-Jul-08	300	32.76	9828	10513.99
07-Jul-08	300	32.76	9828	10513.99
23-Jul-08	50	32.76	1638	1752.33
27-Jul-08	300	32.76	9828	10513.99
05-Aug-08	300	32.76	9828	10513.99

09-Aug-08	300	32.76	9828	10513.99
17-Aug-08	300	32.76	9828	10513.99
19-Aug-08	250	32.76	8190	8761.66
21-Aug-08	250	32.76	8190	8761.66
24-Aug-08	300	32.76	9828	10513.99
17-Sep-08	300	32.76	9828	10513.99
20-Sep-08	300	32.76	9828	10513.99
27-Sep-08	300	32.76	9828	10513.99
TOTAL	**3,950**		**129402**	**138434.26**
10-Nov-08	300	32.76	9828	10513.99
TOTAL	**300**		**9828**	**10513.99**
16-Feb-09	300	32.76	9828	10513.99
21-Feb-09	300	32.76	9828	10513.99
06-Mar-09	600	32.76	19656	21027.99
TOTAL	**1,200**		**39312**	**42055.98**

TABLE 4.2.1.3

TABLE SHOWING BUDGETED SALES REGISTER OF LRA SHAFT

01-04-2009 TO 31-03-2010				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
17-Apr-09	600	32.76	19656	21027.99
18-Apr-09	300	32.76	9828	10513.99
26-Jun-09	400	32.76	13104	14018.66
TOTAL	**1,300**		**42588**	**45560.64**
03-Jul-09	200	32.76	6552	7009.33
27-Jul-09	300	32.76	9828	10513.99
01-Aug-09	150	32.76	4914	5257.00
06-Aug-09	300	32.76	9828	10513.99
13-Aug-09	75	32.76	2457	2628.50
16-Aug-09	250	32.76	8190	8761.66
19-Aug-09	300	32.76	9828	10513.99

24-Aug-09	150	32.76	4914	5257.00
26-Aug-09	500	32.76	16380	17523.32
27-Aug-09	350	32.76	11466	12266.33
07-Sep-09	400	32.76	13104	14018.66
18-Sep-09	100	32.76	3276	3504.66
22-Sep-09	600	32.76	19656	21027.99
24-Sep-09	100	32.76	3276	3504.66
26-Sep-09	100	32.76	3276	3504.66
TOTAL	**3,875**		**126945**	**135805.76**
03-Oct-09	600	32.76	19656	21027.99
09-Oct-09	100	32.76	3276	3504.66
10-Oct-09	100	32.76	3276	3504.66
14-Oct-09	100	32.76	3276	3504.66
20-Oct-09	250	32.76	8190	8761.66
26-Oct-09	40	32.76	1310.4	1401.87
27-Oct-09	250	32.76	8190	8761.66
27-Oct-09	200	32.76	6552	7009.33
28-Oct-09	225	32.76	7371	7885.50
28-Oct-09	400	32.76	13104	14018.66
29-Oct-09	350	32.76	11466	12266.33
11-Nov-09	500	32.76	16380	17523.32
13-Nov-09	300	32.76	9828	10513.99
17-Nov-09	200	32.76	6552	7009.33
18-Nov-09	200	32.76	6552	7009.33
18-Nov-09	50	32.76	1638	1752.33
21-Nov-09	100	32.76	3276	3504.66
25-Nov-09	40	32.76	1310.4	1401.87
27-Nov-09	300	32.76	9828	10513.99
28-Nov-09	175	32.76	5733	6133.16
03-Dec-09	200	32.76	6552	7009.33
04-Dec-09	300	32.76	9828	10513.99
10-Dec-09	300	32.76	9828	10513.99
11-Dec-09	300	32.76	9828	10513.99

TOTAL	**5,580**		**182800.8**	**195560.30**
10-Mar-10	100	32.76	3276	3504.66
12-Mar-10	50	32.76	1638	1752.33
13-Mar-10	50	32.76	1638	1752.33
17-Mar-10	550	32.76	18018	19275.66
30-Mar-10	150	32.76	4914	5257.00
30-Mar-10	100	32.76	3276	3504.66
30-Mar-10	50	32.76	1638	1752.33
31-Mar-10	100	32.76	3276	3504.66
TOTAL	**1,150**		**37674**	**40303.65**

INTERPRETATION:

The projected sales for the year 2007 to 2010 were calculated using straight line trend estimation. This will help to identify the budget amount for the LRA SHAFT product. It is evident from the above values that the trend is maintained sales will continue to raise if the level of demand exists on the same trend.

TABLE 4.2.2.1

TABLE SHOWING BUDGETED SALES REGISTER OF SHAFT

01-04-2007 TO 31-03-2008				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
07-Feb-08	300	29.75	8925	9547.97
15-Feb-08	400	29.75	11900	12730.62
16-Feb-08	300	29.75	8925	9547.97
26-Feb-08	200	29.75	5950	6365.31
12-Mar-08	150	29.75	4462.5	4773.98
16-Mar-08	100	29.75	2975	3182.66
18-Mar-08	100	29.75	2975	3182.66
19-Mar-08	200	29.75	5950	6365.31
20-Mar-08	250	29.75	7437.5	7956.64

21-Mar-08	300	29.75	8925	9547.97
22-Mar-08	300	29.75	8925	9547.97
23-Mar-08	100	29.75	2975	3182.66
23-Mar-08	50	29.75	1487.5	1591.33
25-Mar-08	150	29.75	4462.5	4773.98
27-Mar-08	350	29.75	10412.5	11139.29
28-Mar-08	100	29.75	2975	3182.66
	3,350		**99662.5**	**106618.94**

TABLE 4.2.2.2

TABLE SHOWING BUDGETED SALES REGISTER OF SHAFT

01-04-2008 TO 31-03-2009				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
02-Apr-08	150	29.75	4462.5	4773.98
11-Apr-08	150	29.75	4462.5	4773.98
12-Apr-08	150	29.75	4462.5	4773.98
06-May-08	300	29.75	8925	9547.97
10-May-08	100	29.75	2975	3182.66
TOTAL	**850**		**25287.5**	**27052.57**
05-Jul-08	100	29.75	2975	3182.66
08-Jul-08	200	29.75	5950	6365.31
10-Jul-08	150	29.75	4462.5	4773.98
27-Jul-08	150	29.75	4462.5	4773.98
29-Jul-08	50	29.75	1487.5	1591.33
30-Jul-08	200	29.75	5950	6365.31
31-Jul-08	100	29.75	2975	3182.66
02-Aug-08	150	29.75	4462.5	4773.98
03-Aug-08	100	29.75	2975	3182.66
05-Aug-08	100	29.75	2975	3182.66
06-Aug-08	50	29.75	1487.5	1591.33
TOTAL	**1,350**		37187.5	39783.19

17-Oct-08	100	29.75	2975	3182.66
TOTAL	**100**		2975	3182.66

TABLE 4.2.2.3

TABLE SHOWING BUDGETED SALES REGISTER OF SHAFT

01-04-2007 TO 31-03-2008				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
01-Jul-09	200	29.75	5950	5950.0698
11-Jul-09	25	29.75	743.75	743.8198
11-Jul-09	400	29.75	11900	11900.0698
10-Sep-09	100	29.75	2975	2975.0698
TOTAL	**725**		**21568.75**	**21568.8198**
19-Oct-09	150	29.75	4462.5	4462.5698
26-Nov-09	140	29.75	4165	4165.0698
TOTAL	**290**		**8627.5**	**8627.5698**
23-Jan-10	50	29.75	1487.5	1487.5698
05-Feb-10	200	29.75	5950	5950.0698
05-Feb-10	50	29.75	1487.5	1487.5698
12-Mar-10	150	29.75	4462.5	4462.5698
25-Mar-10	200	29.75	5950	5950.0698
26-Mar-10	150	29.75	4462.5	4462.5698
26-Mar-10	150	29.75	4462.5	4462.5698
29-Mar-10	50	29.75	1487.5	1487.5698
30-Mar-10	50	29.75	1487.5	1487.5698
TOTAL	**1,050**		**48492.5**	**48492.5698**

INTERPRETATION:

The projected sales for the year 2007 to 2010 were calculated using straight line trend estimation. This will help to identify the budget amount for the SHAFT product. It is evident from the above values that the trend for sales will continue to raise if the same level of increase in demand exists on the same trend.

TABLE 4.2.3.1

TABLE SHOWING BUDGETED SALES SPACING COLLAR

01-04-2007 TO 31-03-2008				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
02-Apr-07	3,000	2.36	7080	7574.18
06-Apr-07	3,000	2.36	7080	7574.18
12-Apr-07	3,000	2.36	7080	7574.18
13-Apr-07	3,000	2.36	7080	7574.18
18-Apr-07	3,000	2.36	7080	7574.18
21-Apr-07	3,000	2.36	7080	7574.18
25-Apr-07	3,000	2.36	7080	7574.18
26-Apr-07	3,000	2.36	7080	7574.18
28-Apr-07	3,000	2.36	7080	7574.18
04-May-07	3,000	2.36	7080	7574.18
09-May-07	3,000	2.36	7080	7574.18
09-May-07	3,000	2.36	7080	7574.18
15-May-07	3,000	2.36	7080	7574.18
22-May-07	3,000	2.36	7080	7574.18
26-May-07	3,000	2.36	7080	7574.18
28-May-07	3,000	2.36	7080	7574.18
13-Jun-07	3,000	2.36	7080	7574.18
19-Jun-07	3,000	2.36	7080	7574.18
TOTAL	**54,000**		**1,27,440**	**1,36,335**
10-Jul-07	3,000	2.36	7080	7574.184

11-Jul-07	3,000	2.36	7080	7574.184
21-Jul-07	1	2.36	2.36	2.524728
25-Jul-07	3,000	2.36	7080	7574.184
30-Jul-07	3,000	2.36	7080	7574.184
02-Aug-07	3,000	2.36	7080	7574.184
07-Aug-07	3,000	2.36	7080	7574.184
18-Aug-07	3,000	2.36	7080	7574.184
26-Aug-07	3,000	2.36	7080	7574.184
05-Sep-07	3,000	2.36	7080	7574.184
10-Sep-07	3,000	2.36	7080	7574.184
20-Sep-07	3,000	2.36	7080	7574.184
28-Sep-07	3,000	2.36	7080	7574.184
29-Sep-07	3,000	2.36	7080	7574.184
TOTAL	**39,001**		**92,042**	**98,467**
04-Oct-07	3,000	2.36	7080	7574.184
09-Oct-07	3,000	2.36	7080	7574.184
16-Oct-07	3,000	2.36	7080	7574.184
19-Oct-07	2,000	2.36	4720	5049.456
24-Oct-07	3,000	2.36	7080	7574.184
30-Oct-07	3,000	2.36	7080	7574.184
12-Nov-07	1,000	2.36	2360	2524.728
15-Nov-07	950	2.36	2242	2398.4916
15-Nov-07	1,000	2.36	2360	2524.728
19-Nov-07	3,000	2.36	7080	7574.184
22-Nov-07	3,000	2.36	7080	7574.184
03-Dec-07	3,000	2.36	7080	7574.184
14-Dec-07	3,000	2.36	7080	7574.184
17-Dec-07	3,000	2.36	7080	7574.184
20-Dec-07	3,000	2.36	7080	7574.184
21-Dec-07	3,000	2.36	7080	7574.184
TOTAL	**40,950**		**96,642**	**1,03,388**
01-Jan-08	3,000	2.36	7080	7574.184
01-Jan-08	3,000	2.36	7080	7574.184

04-Jan-08	3,000	2.36	7080	7574.184
17-Jan-08	3,000	2.36	7080	7574.184
22-Jan-08	3,000	2.36	7080	7574.184
29-Jan-08	3,000	2.36	7080	7574.184
07-Feb-08	3,000	2.36	7080	7574.184
16-Feb-08	1,500	2.36	3540	3787.092
20-Feb-08	3,000	2.36	7080	7574.184
22-Feb-08	2,000	2.36	4720	5049.456
29-Feb-08	3,000	2.36	7080	7574.184
02-Mar-08	3,000	2.36	7080	7574.184
06-Mar-08	2,500	2.36	5900	6311.82
13-Mar-08	3,000	2.36	7080	7574.184
23-Mar-08	2,780	2.36	6560.8	7018.74384
TOTAL	**41,780**		**98,601**	**1,05,483**

TABLE 4.2.3.2

TABLE SHOWING BUDGETED SALES SPACING COLLAR

01-04-2008 TO 31-03-2009				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
03-Apr-08	3,000.00	72.36	217080	232232.184
24-Apr-08	3,000.00	73.36	220080	235441.584
23-May-08	3,000.00	74.36	223080	238650.984
25-May-08	3,000.00	75.36	226080	241860.384
30-May-08	2,000.00	76.36	152720	163379.856
31-May-08	1,000.00	77.36	77360	82759.728
03-Jun-08	1,000.00	78.36	78360	83829.528
TOTAL	**16,000.00**	**527.52**	**11,94,760.00**	**12,78,154.25**
01-Jul-08	1,700.00	80.36	136612	146147.5176
15-Jul-08	1,500.00	81.36	122040	130558.392
22-Jul-08	1,300.00	82.36	107068	114541.3464
12-Aug-08	1,410.00	83.36	117537.6	125741.7245

28-Aug-08	1,400.00	84.36	118104	126347.6592
05-Sep-08	1,365.00	85.36	116516.4	124649.2447
10-Sep-08	3,000.00	86.36	259080	277163.784
12-Sep-08	3,000.00	87.36	262080	280373.184
TOTAL	**14,675.00**		**12,39,038.00**	**13,25,522.85**
03-Feb-09	2,000.00	89.36	178720	191194.656
TOTAL	**2,000.00**		**2,000.00**	**2,000.00**

TABLE 4.2.3.3

TABLE SHOWING BUDGETED SALES SPACING COLLAR

01-04-2009 TO 31-03-2010				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
22-Jul-09	3,000.00	94.36	283080	302838.984
29-Aug-09	3,000.00	95.36	286080	306048.384
TOTAL	**6,000.00**		**5,69,160.00**	**6,08,887.37**
28-Dec-09	1,000.00	97.36	97360	104155.728
TOTAL	1,000.00	98.36	98360	105225.528
	2,000.00		**1,95,720.00**	**2,09,381.26**

INTERPRETATION:

The projected sales for the year 2007 to 2010 were calculated using straight line trend estimation. It will help to identify the budget amount for the LRA SHAFT product. It is evident from the above values that the trend for sales will continue to raise if the same level of increase in demand exists on the same trend. So the amount will also balance while demand increases, so we do not to take any adjustment to produce the extra quantity.

TABLE 4.2.4.1

TABLE SHOWING BUDGETED SALES NUT

01-04-2007 TO 31-03-2008				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
02-Apr-07	2,000	0.6	1200	1283.76
16-Apr-07	2,000	0.6	1200	1283.76
19-May-07	2,000	0.6	1200	1283.76
30-May-07	2,000	0.6	1200	1283.76
05-Jun-07	2,000	0.6	1200	1283.76
TOTAL	**10,000**		**6,000**	**6,419**
12-Jul-07	2,000	0.6	1200	1283.76
24-Jul-07	1	0.6	0.6	0.64188
07-Aug-07	2,000	0.6	1200	1283.76
11-Aug-07	2,000	0.6	1200	1283.76
01-Sep-07	2,000	0.6	1200	1283.76
12-Sep-07	2,000	0.6	1200	1283.76
TOTAL	**10,001**		**6,001**	**6,419**
03-Oct-07	2,000	0.6	1200	1283.76
17-Oct-07	2,000	0.6	1200	1283.76
22-Oct-07	2,000	0.6	1200	1283.76
01-Nov-07	2,000	0.6	1200	1283.76
24-Nov-07	2,000	0.6	1200	1283.76
12-Dec-07	2,000	0.6	1200	1283.76
TOTAL	**12,000**		**7,200**	**7,703**
10-Jan-08	2,000	0.6	1200	1283.76
18-Jan-08	2,000	0.6	1200	1283.76
16-Feb-08	2,000	0.6	1200	1283.76
04-Mar-08	2,000	0.6	1200	1283.76
20-Mar-08	2,000	0.6	1200	1283.76
TOTAL	**10,000**		**6,000**	**6,419**

TABLE 4.2.4.2

TABLE SHOWING BUDGETED SALES NUT

01-04-2008 TO 31-03-2009				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
09-Apr-08	2,000	0.6	1200	1283.76
18-Apr-08	2,000	0.6	1200	1283.76
02-May-08	2,000	0.6	1200	1283.76
17-May-08	2,000	0.6	1200	1283.76
29-May-08	2,000	0.6	1200	1283.76
02-Jun-08	2,000	0.6	1200	1283.76
19-Jun-08	2,000	0.6	1200	1283.76
25-Jun-08	2,000	0.6	1200	1283.76
TOTAL	**16,000**		**9,600**	**10,270**
20-Jul-08	2,000	0.6	1200	1283.76
30-Jul-08	2,000	0.6	1200	1283.76
05-Aug-08	2,000	0.6	1200	1283.76
10-Aug-08	2,000	0.6	1200	1283.76
28-Aug-08	2,000	0.6	1200	1283.76
29-Aug-08	2,000	0.6	1200	1283.76
08-Sep-08	2,000	0.6	1200	1283.76
TOTAL	**14,000**		**8,400**	**8,986**
03-Oct-08	2,000	0.6	1200	1283.76
04-Oct-08	2,000	0.6	1200	1283.76
09-Oct-08	1,700	0.6	1020	1091.196
21-Oct-08	2,000	0.6	1200	1283.76
16-Dec-08	1,000	0.6	600	641.88
TOTAL	**8,700**		**5,220**	**5,584**
06-Jan-09	2,000	0.6	1200	1283.76
09-Jan-09	1,000	0.6	600	641.88
30-Jan-09	2,000	0.6	1200	1283.76
07-Feb-09	2,000	0.6	1200	1283.76
27-Feb-09	300	0.6	180	192.564

27-Feb-09	150	0.6	90	96.282
02-Mar-09	300	0.6	180	192.564
05-Mar-09	4,000	0.6	2400	2567.52
07-Mar-09	2,000	0.6	1200	1283.76
TOTAL	**13,750**		**8,250**	**8,826**

TABLE 4.2.4.3

TABLE SHOWING BUDGETED SALES NUT

01-04-2009 TO 31-03-2010				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
01-Apr-09	3,000	0.6	1800	1883.76
10-Apr-09	2,000	0.6	1200	1283.76
22-Apr-09	2,000	0.6	1200	1241.88
24-Apr-09	1,000	0.6	600	667.008
21-May-09	1,600	0.6	960	1030.19088
29-May-09	1,676	0.6	1005.6	1047.48
08-Jun-09	1,000	0.6	600	641.88
10-Jun-09	1,000	0.6	600	671.196
12-Jun-09	1,700	0.6	1020	1647.19488
TOTAL	**14,976**		**8985.6**	**10114.34976**
03-Jul-09	250	0.6	150	223.29
03-Jul-09	1,750	0.6	1050	1089.3672
03-Jul-09	940	0.6	564	637.29
06-Jul-09	1,750	0.6	1050	1096.068
07-Jul-09	1,100	0.6	660	737.478
27-Jul-09	1,850	0.6	1110	1130.94
31-Jul-09	500	0.6	300	362.82
01-Aug-09	1,500	0.6	900	983.76
03-Aug-09	2,000	0.6	1200	1283.76
21-Aug-09	2,000	0.6	1200	1283.76
22-Aug-09	2,000	0.6	1200	1283.76

26-Aug-09	2,000	0.6	1200	1283.76
26-Sep-09	2,000	0.6	1200	2022.5232
TOTAL	**19,640**		**11784**	**13418.5764**
15-Oct-09	4,000	0.6	2400	2483.76
19-Oct-09	2,000	0.6	1200	1283.76
20-Oct-09	2,000	0.6	1200	1283.76
31-Oct-09	2,000	0.6	1200	1283.76
05-Nov-09	2,000	0.6	1200	1283.76
06-Nov-09	2,000	0.6	1200	1283.76
10-Nov-09	2,000	0.6	1200	1283.76
12-Nov-09	2,000	0.6	1200	1283.76
25-Nov-09	2,000	0.6	1200	1283.76
26-Nov-09	2,000	0.6	1200	1283.76
11-Dec-09	2,000	0.6	1200	1283.76
14-Dec-09	2,000	0.6	1200	1283.76
15-Dec-09	2,000	0.6	1200	1283.76
16-Dec-09	2,000	0.6	1200	2456.4
TOTAL	**30,000**		**18000**	**20345.28**
06-Jan-10	2,000	0.6	1200	1283.76
13-Jan-10	2,000	0.6	1200	1283.76
06-Feb-10	2,000	0.6	1200	1283.76
04-Mar-10	2,000	0.6	1200	1283.76
06-Mar-10	2,000	0.6	1200	1283.76
19-Mar-10	2,000	0.6	1200	1702.56
TOTAL	**12,000**		**7200**	**8121.36**

INTERPRETATION:

The projected sales for the year 2007 to 2010 were calculated using straight line trend estimation. It will help to identify the budget amount for the LRA SHAFT product. It is evident from the above values that the trend for sales will continue to raise if the same level of increase in demand exists on same trend.

TABLE 4.2.5.1

TABLE SHOWING BUDGETED SALES SPACER PULLEY

01-04-2007 TO 31-03-2008				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
16-Apr-07	2,000	3.91	7820	8365.84
25-Apr-07	500	3.91	1955	2091.46
30-Apr-07	1,000	3.91	3910	4182.92
03-May-07	2,000	3.91	7820	8365.84
09-May-07	3,000	3.91	11730	12548.75
TOTAL	**8,500**		**33,235**	**35554.80**
25-Sep-07	1,000	3.91	3910	4182.92
TOTAL	**1,000**		**1,000**	**4182.92**
19-Oct-07	1,000	3.91	3910	4182.92
17-Nov-07	1,000	3.91	3910	4182.92
10-Dec-07	1,000	3.91	3910	4182.92
20-Dec-07	1,000	3.91	3910	4182.92
22-Dec-07	1,000	3.91	3910	4182.92
26-Dec-07	1,000	3.91	3910	4182.92
27-Dec-07	1,000	3.91	3910	4182.92
TOTAL	**7,000**		**27,370**	**29280.43**
21-Feb-08	1,000	3.91	3910	4182.92
TOTAL	**1,000**		**3910**	**4182.92**

TABLE 4.2.5.2

TABLE SHOWING BUDGETED SALES SPACER PULLEY

01-04-2008 TO 31-03-2009				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
01-Apr-08	119	3.91	465.29	497.77
05-Apr-08	500	3.91	1955	2091.46
06-Apr-08	500	3.91	1955	2091.46
10-Apr-08	1,000	3.91	3910	4182.92
16-Apr-08	1,000	3.91	3910	4182.92
08-May-08	1,000	3.91	3910	4182.92
06-Jun-08	300	3.91	1173	1254.88
TOTAL	**4,419**		**17,278**	**18484.31**
18-Jul-08	500	3.91	1955	2091.46
23-Jul-08	1,000	3.91	3910	4182.92
21-Aug-08	1,000	3.91	3910	4182.92
12-Sep-08	1,000	3.91	3910	4182.92
TOTAL	**3,500**		**13,685**	**14640.21**
12-Oct-08	750	3.91	2932.5	3137.19
13-Oct-08	850	3.91	3323.5	3555.48
23-Dec-08	500	3.91	1955	2091.46
TOTAL	**2,100**		**8,211**	**8784.13**

TABLE 4.2.5.3

TABLE SHOWING BUDGETED SALES SPACER PULLEY

01-04-2009 TO 31-03-2010				
Invoice Date	**MIN Qty**	**PRICE**	**TOTAL AMOUNT**	**BUDGETED AMOUNT**
27-Jun-09	1,000	3.91	3910	4182.918
TOTAL	**1,000**		**3910**	**4182.918**
17-Jul-09	2,500	3.91	9775	10457.295
25-Sep-09	1,000	3.91	3910	4182.918
25-Sep-09	1,000	3.91	3910	4182.918
TOTAL	**4,500**		**17,595**	**18,823**
05-Oct-09	1,250	3.91	4887.5	5228.6475
05-Oct-09	1,250	3.91	4887.5	5228.6475
10-Oct-09	1,000	3.91	3910	4182.918
01-Dec-09	890	3.91	3479.9	3722.79702
TOTAL	**4,390**		**17,165**	**18,363**
04-Feb-10	1,250	3.91	4887.5	5228.6475
13-Feb-10	1,250	3.91	4887.5	5228.6475
04-Mar-10	1,250	3.91	4887.5	5228.6475
TOTAL	**3,750**		**14,663**	**15,686**

INTERPRETATION:

The projected sales for the year 2007 to 2010 were calculated using straight line trend estimation. It will help to identify the budget amount for the LRA SHAFT product. It is evident from the above values that the trend for sales will continue to raise if the same level of increase in demand exists on the same level.

INFERENCE:

They are totally 1000 components are manufacturing in VAPL, I have select the 5 product,

- Spacing collar
- Nut
- Spacer pulley sa15
- Shaft
- LRA

This product will be suggested by the management for the purpose of, three products are sales under loss, actual produce price lesser than customer price, 2 products are under profit.

First i have identified quarterly wise product sales. Then multiply by the customer price * total quantity.

Then we have to add inflation rate to total amount so we identify the budgeted amount of the particular product.

So it will be help to budgeted projected amount will be forecasting.

4.3. TREND ANALYSIS

The straight line trend or the first degree parabola is represented by the mathematical equation.

$Yc = a+bx$

Yc = required trend value

x = unit of time

Here a and b are constants or unknowns.

In the equation for the first degree parabola $Yc = a+bx$, the values of the constants or unknowns can be calculated by the following two normal equations.

$\sum Y = na+b\sum x$

$\sum xy = a\sum x+b\sum x$

n = number if years or months for which data are given.

When x = 0, the equation will take the form of

$\sum Y = na$ since $b\sum x = 0$

$\sum xy = b\sum X^2$ since $a\sum x = 0$

By these equations we can know the value of a and b i.e.,

$a = \sum Y/N$ and $b = \sum Y/\sum X^2$

TABLE 4.3.1

TABLE SHOWING TREND VALUE FOR LRA SHAFT SALES

DATE	MIN QNTY	X	X^2	XY	TREND VALUES
APR-07 TO JUN-07	1,750	-5	25	-8750	1747.73
JULY-07 TO SEP 07	4600	-4	16	-18400	1991.60
OCT 07 TO DEC 07	4800	-3	9	-14400	2235.47
JAN-08 TO MARCH-08	5,850	-2	4	-11700	2479.34
APR-08 TO JUN-08	1,250	-1	1	-1250	2723.21
JULY-08 TO SEP 08	3,950	0	0	0	2967.08
OCT 08 TO DEC 08	300	1	1	300	3210.95
JAN-09 TO MARCH-09	1,200	2	4	2400	3454.82
APR-09 TO JUN-09	1,300	3	9	3900	3698.69
JULY-09 TO SEP 09	3,875	4	16	15500	3942.56
OCT 09 TO DEC 09	5,580	5	25	27900	4186.43
JAN-10 TO MARCH-10	1,150	6	36	6900	4430.30
Total	**Σy=35605**	**Σx= 6**	**Σ X^2=146**	**Σxy=2400**	

The equation for the trend line is

$$Yc = a + bx$$

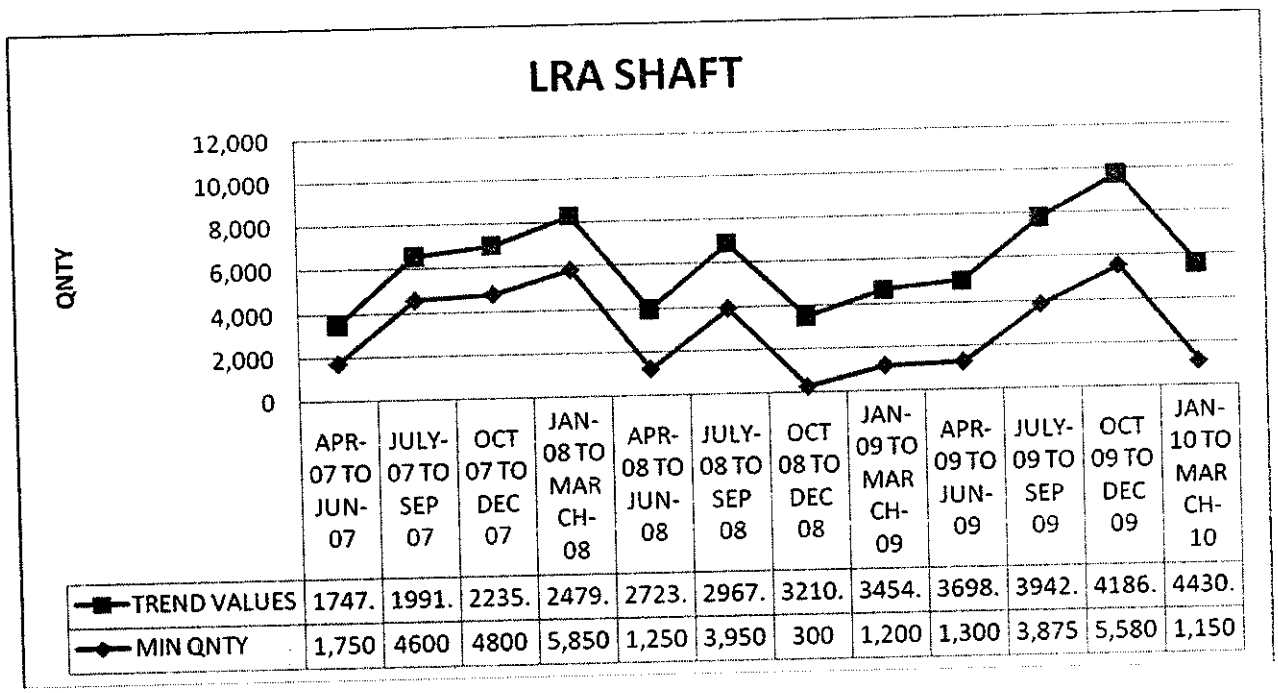
Where y = sales value

A= 4674.17

B= 4918.04

CHART 4.3.1

GRAPH SHOWING ACTUAL AND TREND VALUES FOR SALES



	APR-07 TO JUN-07	JULY-07 TO SEP 07	OCT 07 TO DEC 07	JAN-08 TO MARCH-08	APR-08 TO JUN-08	JULY-08 TO SEP 08	OCT 08 TO DEC 08	JAN-09 TO MARCH-09	APR-09 TO JUN-09	JULY-09 TO SEP 09	OCT 09 TO DEC 09	JAN-10 TO MARCH-10
TREND VALUES	1747.	1991.	2235.	2479.	2723.	2967.	3210.	3454.	3698.	3942.	4186.	4430.
MIN QNTY	1,750	4600	4800	5,850	1,250	3,950	300	1,200	1,300	3,875	5,580	1,150

INTERPRETATION:

The projected sales for the year 2011 and 2012 were calculated using straight line trend are 4674.17 and 4918.04 respectively. It is evident from the above values that the trend for sales will continue to raise if the same level of demand exists.

TABLE 4.3.2

TABLE SHOWING TREND VALUE FOR SHAFT SALES

DATE	MIN QNTY	X	X^2	XY	TREND VALUES
JAN-08 TO MARCH-08	**3,350**	-3	9	-10050	984.06
APR-08 TO JUN-08	**850**	-2	4	-1700	1023.42
JULY-08 TO SEP 08	**1,350**	-1	1	-1350	1062.78
OCT 08 TO DEC 08	**100**	0	0	0	1102.14
APR-09 TO JUN-09	**725**	1	1	725	1141.5
JULY-09 TO SEP 09	**290**	2	4	580	1180.86
JAN-10 TO MARCH-10	**1,050**	3	9	3150	1220.22
Total	**Σy=7715**	**Σx=0**	**Σ X^2=28**	**Σ xy=(-8645)**	

The equation for the trend line is

$$Yc = a + bx$$

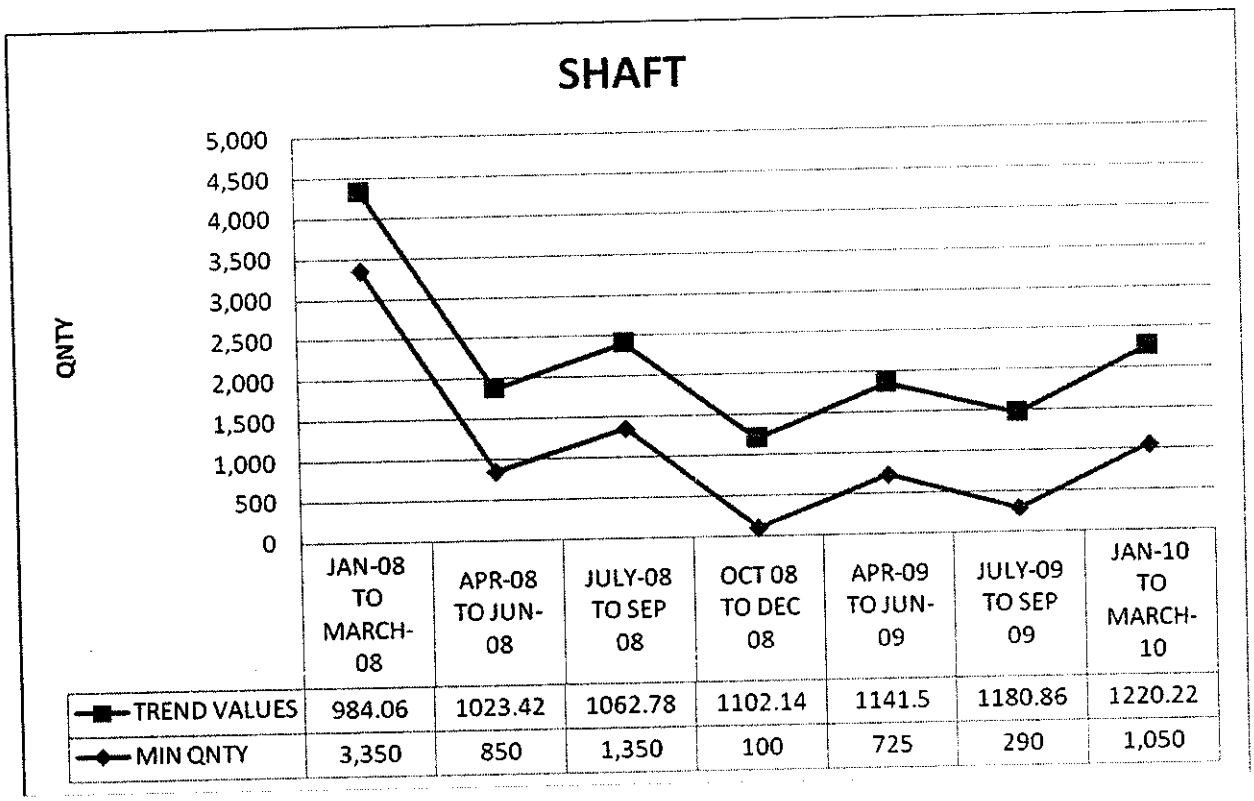
Where y = sales value

A= 1259.58

B= 1298.94

CHART 4.3.2

GRAPH SHOWING ACTUAL AND TREND VALUES FOR SHAFT



	JAN-08 TO MARCH-08	APR-08 TO JUN-08	JULY-08 TO SEP 08	OCT 08 TO DEC 08	APR-09 TO JUN-09	JULY-09 TO SEP 09	JAN-10 TO MARCH-10
TREND VALUES	984.06	1023.42	1062.78	1102.14	1141.5	1180.86	1220.22
MIN QNTY	3,350	850	1,350	100	725	290	1,050

INTERPRETATION:

The project net sales for the year 2011 and 2012 were 1259.58 and 1298.94 respectively. If the same level of performance is maintained the trend for net sales for the future period will continue raise.

TABLE 4.3.3

TABLE SHOWING TREND VALUE FOR NUT SALES

DATE	MIN QNTY	X	X^2	XY	TREND VALUES
APR-07 TO JUN-07	10,000	-5	25	-50000	8397.13
JULY-07 TO SEP 07	10,001	-4	16	-40004	9568.82
OCT 07 TO DEC 07	12,000	-3	9	-36000	10740.51
JAN-08 TO MARCH-08	10,000	-2	4	-20000	11912.2
APR-08 TO JUN-08	16,000	-1	1	-16000	13083.89
JULY-08 TO SEP 08	14,000	0	0	0	14255.58
OCT 08 TO DEC 08	8,700	1	1	8700	15427.27
JAN-09 TO MARCH-09	13,750	2	4	27500	16598.96
APR-09 TO JUN-09	14,976	3	9	44928	17770.65
JULY-09 TO SEP 09	19,640	4	16	78560	18942.34
OCT 09 TO DEC 09	30,000	5	25	150000	20114.03
JAN-10 TO MARCH-10	12,000	6	36	72000	21285.72
Total	**Σy=171067**	**Σx=6**	**Σ X^{2}=146**	**Σ xy=219684**	

The equation for the trend line is

$$Yc = a + bx$$

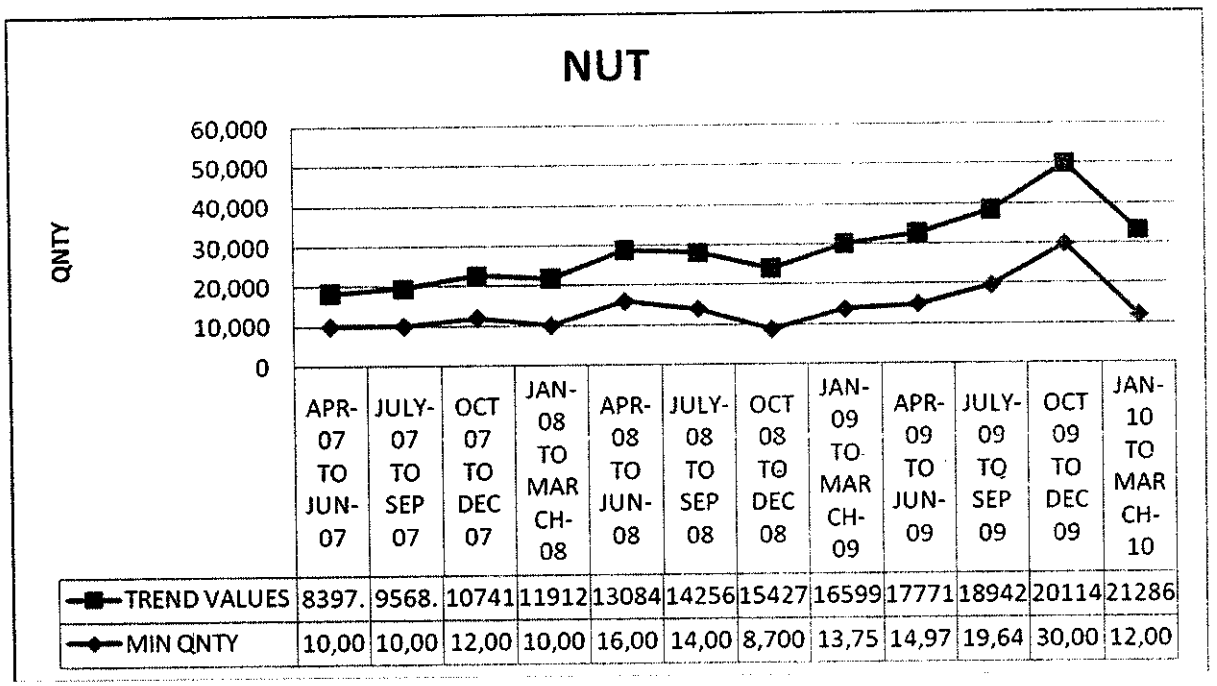
Where y = sales value

A= 22457.41

B= 23629.1

CHART 4.3.3

GRAPH SHOWING ACTUAL AND TREND VALUES FOR SHAFT



	APR-07 TO JUN-07	JULY-07 TO SEP 07	OCT 07 TO DEC 07	JAN-08 TO MARCH-08	APR-08 TO JUN-08	JULY-08 TO SEP 08	OCT 08 TO DEC 08	JAN-09 TO MARCH-09	APR-09 TO JUN-09	JULY-09 TO SEP 09	OCT 09 TO DEC 09	JAN-10 TO MARCH-10
TREND VALUES	8397.	9568.	10741	11912	13084	14256	15427	16599	17771	18942	20114	21286
MIN QNTY	10,00	10,00	12,00	10,00	16,00	14,00	8,700	13,75	14,97	19,64	30,00	12,00

INTERPRETATION:

The project net sales for the year 2011 and 2012 are 22457.41 and 23629.1 respectively. If the same level of performance is maintained the trend estimation for net sales for the future period will continue raise, but put some more effect to reduce the overhead cost of the product, it will help to increase the demand of the product.

TABLE 4.3.4

TABLE SHOWING TREND VALUE FOR SPACING CALLAR SALES

DATE	MIN QNTY	X	X^2	XY	TREND VALUES
APR-07 TO JUN-07	54,000	-4	16	-216000	9618.03
JULY-07 TO SEP 07	39,001	-3	9	-117003	13224.8
OCT 07 TO DEC 07	40,950	-2	4	-81900	16831.57
JAN-08 TO MARCH-08	41,780	-1	1	-41780	20438.34
APR-08 TO JUN-08	16,000.00	0	0	0	24045.11
JULY-08 TO SEP 08	14,675.00	1	1	14675	27651.88
JAN-09 TO MARCH-09	2,000.00	2	4	4000	31258.65
JULY-09 TO SEP 09	6,000.00	3	9	18000	34865.42
OCT 09 TO DEC 09	2,000.00	4	16	8000	38472.19
Total	**Σy=216406**	**Σx=0**	**Σ X^2=60**	**Σ X^2=(-412008)**	

The equation for the trend line is

$$Yc = a + bx$$

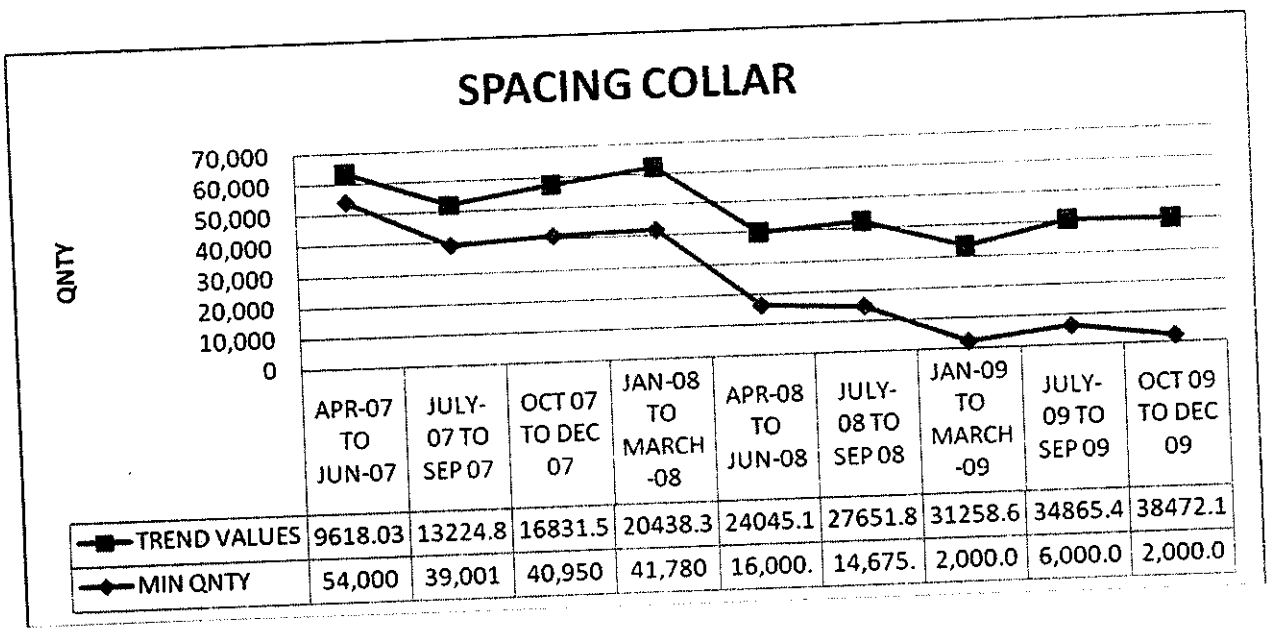
Where y = sales value

A= 42078.96

B= 45685.73

CHART 4.3.4

GRAPH SHOWING ACTUAL AND TREND VALUES FOR SPACING COLLAR



	APR-07 TO JUN-07	JULY-07 TO SEP 07	OCT 07 TO DEC 07	JAN-08 TO MARCH -08	APR-08 TO JUN-08	JULY-08 TO SEP 08	JAN-09 TO MARCH -09	JULY-09 TO SEP 09	OCT 09 TO DEC 09
TREND VALUES	9618.03	13224.8	16831.5	20438.3	24045.1	27651.8	31258.6	34865.4	38472.1
MIN QNTY	54,000	39,001	40,950	41,780	16,000.	14,675.	2,000.0	6,000.0	2,000.0

INTERPRETATION:

The project net sales for the year 2011 and 2012 were 42078.96 and 45685.73 respectively. If the same level of performance is maintained the trend for net sales for the future period will continue to decrease, so put some more effect to reduce the labour cost of the product, it will help to increase the trend value of the product.

TABLE 4.3.5

TABLE SHOWING TREND VALUE FOR SPACER PULLEY SALES

DATE	MIN QNTY	X	X^2	XY	TREND VALUES
APR-07 TO JUN-07	8,500	-5	25	-42500	1747.73
JULY-07 TO SEP 07	1,000	-4	16	-4000	1991.60
OCT 07 TO DEC 07	7,000	-3	9	-21000	2235.47
JAN-08 TO MARCH-08	1,000	-2	4	-2000	2479.34
APR-08 TO JUN-08	4,419	-1	1	-4419	2723.21
JULY-08 TO SEP 08	3,500	0	0	0	2967.08
OCT 08 TO DEC 08	2,100	1	1	2100	3210.95
APR-09 TO JUN-09	1,000	2	4	2000	3454.82
JULY-09 TO SEP 09	4,500	3	9	13500	3698.69
OCT 09 TO DEC 09	4,390	4	16	17560	3942.56
JAN-10 TO MARCH-10	3,750	5	25	18750	4186.43
Total	**Σy=41,159**	**Σx=0**	**Σ X^2=110**	**Σxy=(-20,009)**	

The equation for the trend line is

$$Yc = a + bx$$

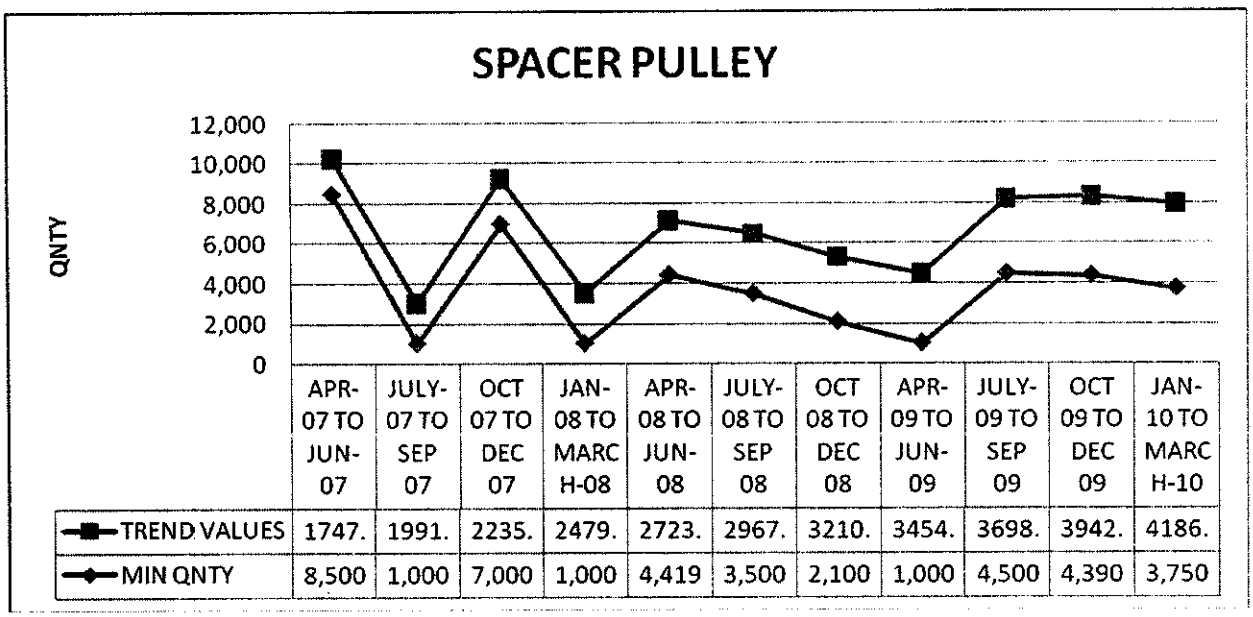
Where y = sales value

A= 4430.30

B= 4674.17

CHART 4.3.5

GRAPH SHOWING ACTUAL AND TREND VALUES FOR SPACER PULLEY



	APR-07 TO JUN-07	JULY-07 TO SEP 07	OCT 07 TO DEC 07	JAN-08 TO MARCH-08	APR-08 TO JUN-08	JULY-08 TO SEP 08	OCT 08 TO DEC 08	APR-09 TO JUN-09	JULY-09 TO SEP 09	OCT 09 TO DEC 09	JAN-10 TO MARCH-10
TREND VALUES	1747.	1991.	2235.	2479.	2723.	2967.	3210.	3454.	3698.	3942.	4186.
MIN QNTY	8,500	1,000	7,000	1,000	4,419	3,500	2,100	1,000	4,500	4,390	3,750

INTERPRETATION:

The project net sales for the year 2011 and 2012 were 4430.30 and 4674.17 respectively. If the same level of performance is maintained the trend for net sales for the future period will continue raise, also it help to increase the demand of the product.

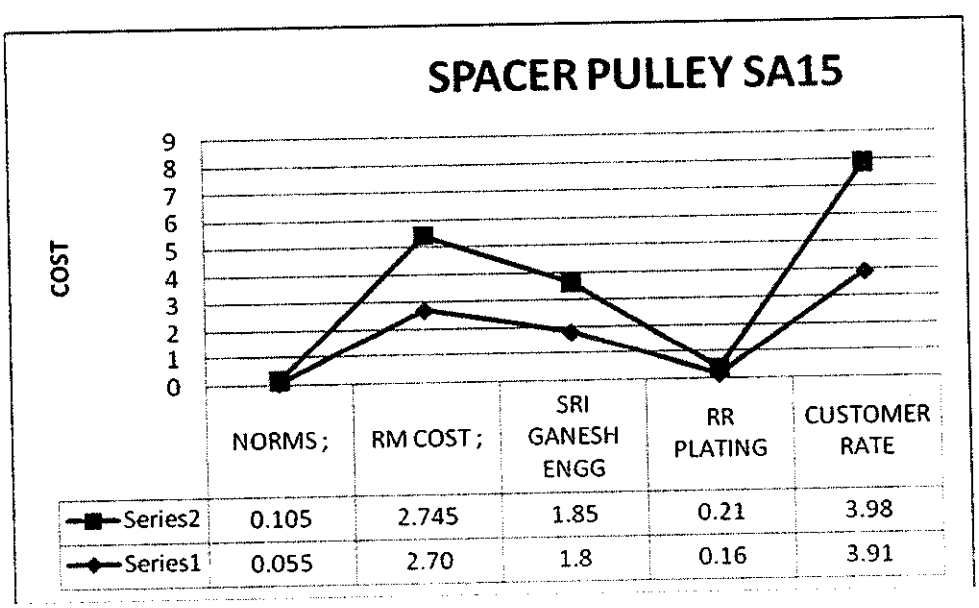
TABLE 4.4.1

TABLE SHOWING LABOUR COST OF SPACER PULLY

PARTICULAR	ACTUAL COST	BUDGETED COST
MATERIAL COST / KG	49	-
NORMS ;	0.055	0.105
RM COST ;	2.70	2.745
SRI GANESH ENGG	1.8	1.85
RR PLATING	0.16	0.21
TOTAL	4.66	
CUSTOMER RATE	3.91	3.98
PROFIT/LOSS	-0.75	-
% CHANGE IN P&L	-19.05	-

CHART 4.4.1

GRAPH SHOWING LABOUR COST OF SPACER PULLY



INTERPRETATION:

The projected labour costs for budgeted year were calculated using straight line trend method It is trend from the above that the labour cost is will continue and it to raise if the same level of labour cost increase in maintained.

The escalation labour cost to calculate by the economic inflation rate of the country, it will be projected for next year budget cost.

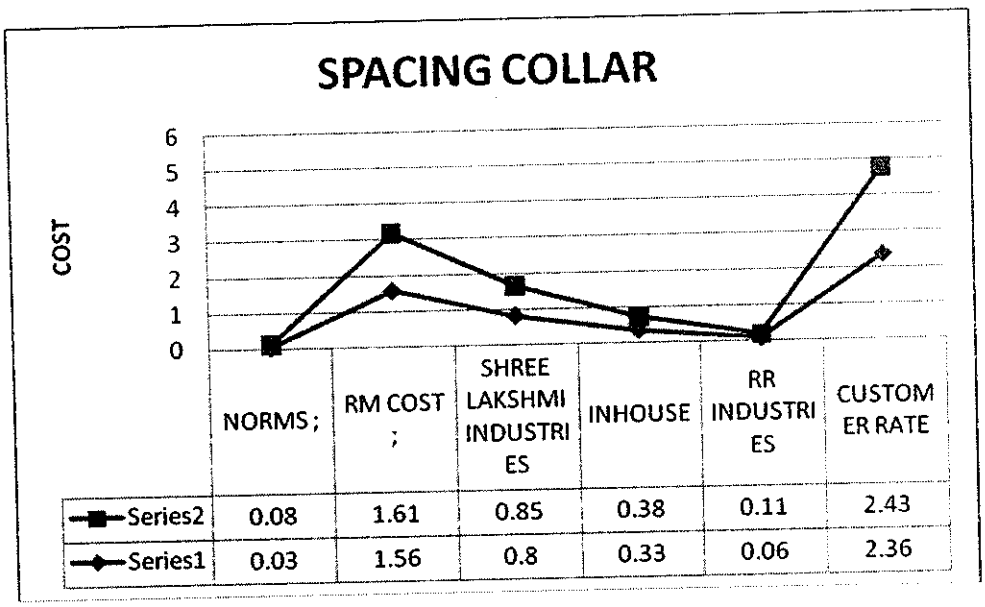
TABLE 4.4.2

TABLE SHOWING LABOUR COST OF SPACING COLLAR

PARTICULAR	DETAILS	ANALYSIS
MATERIAL COST / KG	52	
NORMS ;	0.03	0.08
RM COST ;	1.56	1.61
SHREE LAKSHMI INDUSTRIES	0.8	0.85
INHOUSE	0.33	0.38
RR INDUSTRIES	0.06	0.11
TOTAL	2.75	
CUSTOMER RATE	2.36	2.43
PROFIT/LOSS	-0.39	
% CHANGE IN P&L	-16.53	

CHART 4.4.2

GRAPH SHOWING LABOUR COST OF SPACING COLLAR



INTERPRETATION:

The projected labour costs for budgeted year were calculated using straight line trend method It is trend from the above that the labour cost is will continue and it to raise if the same level of labour cost increase in maintained.

The escalation labour cost to calculate by the economic inflation rate of the country, it will be projected for next year budget cost.

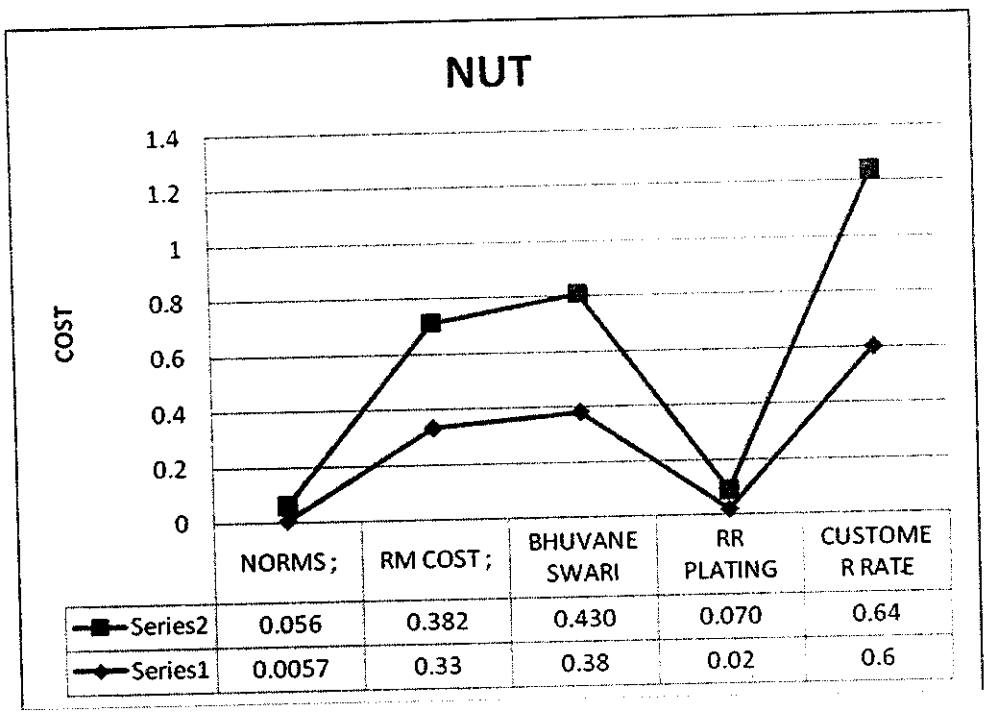
TABLE 4.4.3

TABLE SHOWING LABOUR COST OF NUT

PARTICULAR	DETAILS	ANALYSIS
MATERIAL COST / KG	58.204	
NORMS ;	0.0057	0.056
RM COST ;	0.33	0.382
BHUVANESWARI	0.38	0.430
RR PLATING	0.02	0.070
TOTAL	0.73	
CUSTOMER RATE	0.6	0.64
PROFIT/LOSS	-0.13	
% CHANGE IN P&L	-21.96	

CHART 4.4.3

GRAPH SHOWING LABOUR COST OF NUT



	NORMS;	RM COST;	BHUVANE SWARI	RR PLATING	CUSTOME R RATE
Series2	0.056	0.382	0.430	0.070	0.64
Series1	0.0057	0.33	0.38	0.02	0.6

INTERPRETATION:

The projected labour costs for budgeted year were calculated using straight line trend method It is trend from the above that the labour cost is will continue and it to raise if the same level of labour cost increase in maintained.

The escalation labour cost to calculate by the economic inflation rate of the country, it will be projected for next year budget cost.

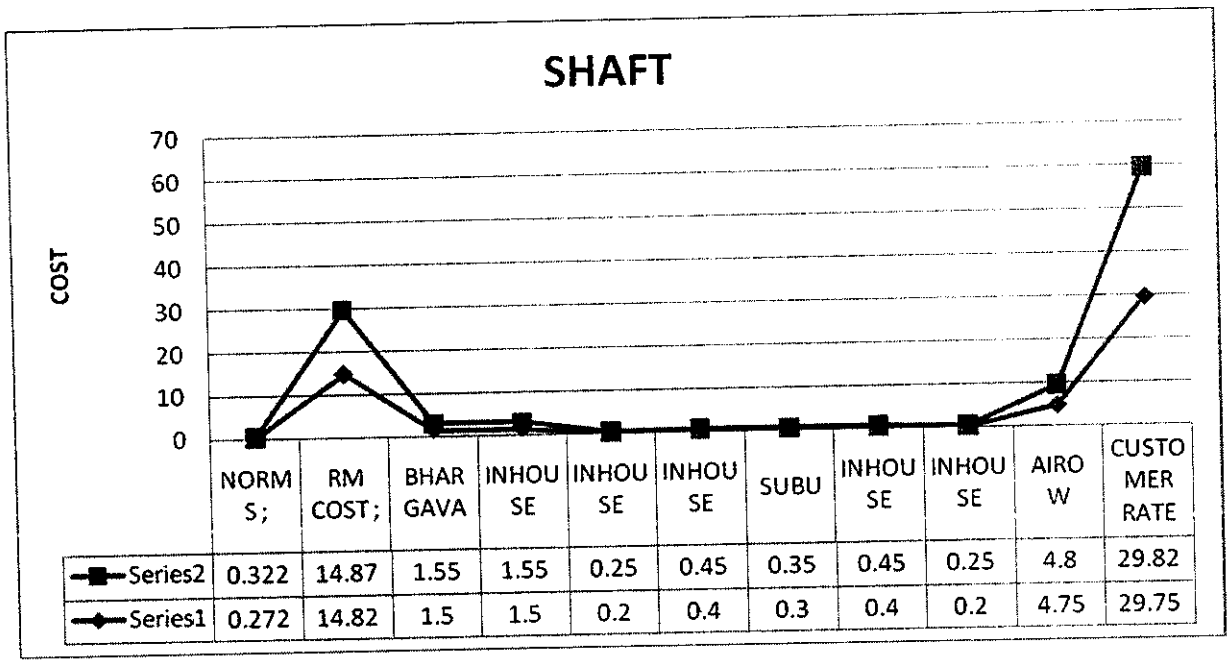
TABLE 4.4.4

TABLE SHOWING LABOUR COST OF SHAFT

PARTICULAR	DETAILS	ANALYSIS
MATERIAL COST / KG	54.5	
NORMS ;	0.272	0.322
RM COST ;	14.82	14.874
BHARGAVA	1.5	1.55
INHOUSE	1.5	1.55
INHOUSE	0.2	0.25
INHOUSE	0.4	0.45
SUBU	0.3	0.35
INHOUSE	0.4	0.45
INHOUSE	0.2	0.25
AIROW	4.75	4.8
TOTAL	24.07	
CUSTOMER RATE	29.75	29.82
PROFIT/LOSS	5.68	
% CHANGE IN P&L	19.08	

CHART 4.4.4

GRAPH SHOWING LABOUR COST OF SHAFT



INTERPRETATION:

The projected labour costs for budgeted year were calculated using straight line trend method It is trend from the above that the labour cost is will continue and it to raise if the same level of labour cost increase in maintained.

The escalation labour cost to calculate by the economic inflation rate of the country, it will be projected for next year budget cost.

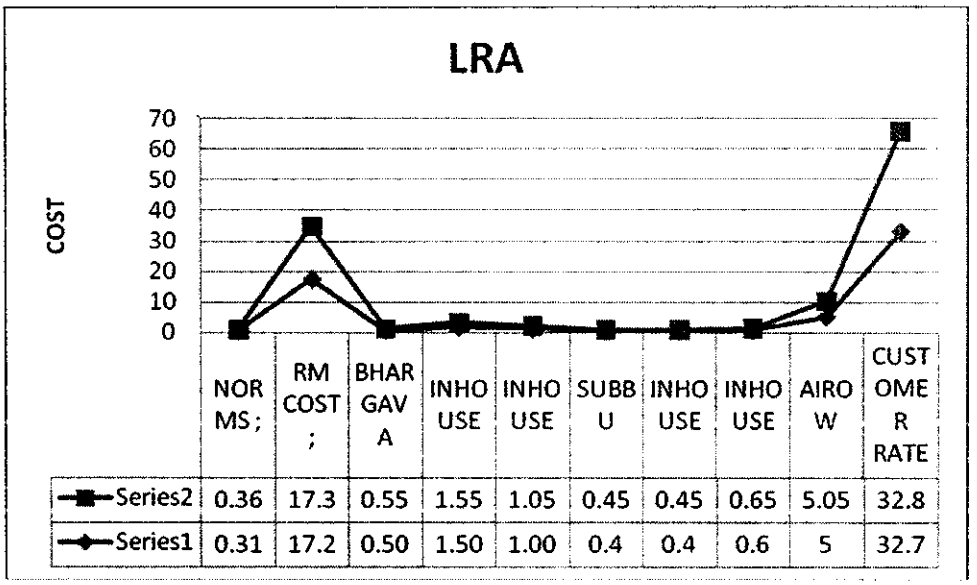
TABLE 4.4.5

TABLE SHOWING LABOUR COST OF LRA

PARTICULAR	DETAILS	ANALYSIS
MATERIAL COST / KG	54.5	
NORMS ;	0.317	0.367
RM COST ;	17.28	17.3265
BHARGAVA	0.50	0.55
INHOUSE	1.50	1.55
INHOUSE	1.00	1.05
SUBBU	0.4	0.45
INHOUSE	0.4	0.45
INHOUSE	0.6	0.65
AIROW	5	5.05
TOTAL	26.68	
CUSTOMER RATE	32.76	32.83
PROFIT/LOSS	6.08	
% CHANGE IN P&L	18.57	

CHART 4.4.5

GRAPH SHOWING LABOUR COST OF LRA



INTERPRETATION:

The projected labour costs for budgeted year were calculated using straight line trend method It is trend from the above that the labour cost is will continue and it to raise if the same level of labour cost increase in maintained.

The escalation labour cost to calculate by the economic inflation rate of the country, it will be projected for next year budget cost. The product will be under loss of sales. So we need to cut the labour cost with efficient resource. This product will be sold at profit so the same level of amount will projected is valuable.

TABLE 4.5.1

TABLE SHOWING THE BUDGETED EXPENCES AMOUNT

Expenses data as on 01-april-07 to 31-march-08			
Particulars	**Actual Expense**	**Budgeted Expense**	**Variance**
Development Charges	114953.00	120700.65	5747.65
R & M – Computers	121900.72	129397.6143	7496.89
R & M - Electrical	342741.50	363820.1023	21078.60
R & M - Factory	547454.00	581122.421	33668.42
R & M - Gauges	608382.80	645798.3422	37415.54
R & M - Machine	128869.40	136794.8681	7925.47
R & M - Oil	873609.96	927336.9725	53727.01
Carriage Inwards	922129.05	978839.9866	56710.94
Consumables	1041483.27	1105534.491	64051.22
Electricity Charges	1145127.00	1215552.311	70425.31
E.S.I. Contribution	90173.00	96467.0754	6294.08
Labour Charges Paid	40530336.84	43022952.56	2492615.72
Labour Paid – Others	56214.15	59671.32023	3457.17
P.F. Contribution	527778.00	564616.9044	36838.90
Rent - Factory	181630.00	190711.5	9081.50
Salaries & Wages	1973511.00	2094881.927	121370.93
Salary - Contractors	2639179.00	2801488.509	162309.51

Advertisement Charges	6818.00	7158.9	340.90
Audit Fees	84270.00	88483.5	4213.50
Business Promotion Expenses	16169.00	16977.45	808.45
Calibration Charges	244991.13	257240.6865	12249.56
Car Hire Charges	34000.00	35700	1700.00
Clearing & Forwarding	82802.00	86942.1	4140.10
Commission	138075.00	144978.75	6903.75
Consultancy Charges	60310.00	63325.5	3015.50
Delivery Charges	770371.24	808889.802	38518.56
Delivery Charges - Customer	440040.04	462042.042	22002.00
Executive Salaries	1518113.00	1594018.65	75905.65
Import Duty Paid	93291.00	97955.55	4664.55
Insurance	145842.92	153135.066	7292.15
Material Testing Charges	168845.22	177287.481	8442.26
Miscellaneous Expenses	78272.39	82186.0095	3913.62
Packing Expenses	22671.00	23804.55	1133.55
Penalty Charges - Customers	710501.44	746026.512	35525.07
Pooja Expenses	75216.00	78976.8	3760.80
Postage & Stamps	16105.83	16911.1215	805.29
Printing &	537544.10	564421.305	26877.21

Stationery			
Professional Charges	162896.00	171040.8	8144.80
Renewal & Taxes	37920.79	39816.8295	1896.04
Rent - Staff House	27100.00	28455	1355.00
R & M - Vehicle	370319.00	388834.95	18515.95
Staff Welfare	255867.00	273726.5166	17859.52
Telephone Charges	543569.29	570747.7545	27178.46
Tour & Travel	789424.50	828895.725	39471.23
Training Expenses	8813.00	9253.65	440.65
Travel Expenses	222136.00	233242.8	11106.80
Total	**59507767.6**	**63086163.4**	**3578395.8**

INTERPRETATION:

The projected expenses for the current year as calculated using straight line trend estimation. It is evident from the above values that the trend for expenses will continue to reduce to exists the over head expenses.

Calculation Method:

The actual expenses will be identified and add the consumer price index, wholesale price index and escalation to the particular product expense.

If there is a product expense we add the consumer price index, employee related expenses, we need to add inflation rate, and other expense will be add @ 5% of escalation.

TABLE 4.5.2

TABLE SHOWING THE BUDGETED EXPENCES AMOUNT

Expenses data as on 01-april-08 to 31-march-09			
Particulars	**Actual Expense**	**Budgeted Expense**	**Variance**
Development Charges	534176.00	560884.8	1095060.80
R & M – Computers	4265.00	4527.2975	8792.30
R & M – Electrical	203535.50	216052.9333	419588.43
R & M – Factory	852825.12	905273.8649	1758098.98
R & M – Gauges	413444.42	438871.2518	852315.67
R & M – Machine	373563.96	396538.1435	770102.10
R & M – Oil	749728.98	795837.3123	1545566.29
Carriage Inwards	2144571.00	2276462.117	4421033.12
Consumables	1170346.42	1228863.741	2399210.16
Electricity Charges	1221444.80	1282517.04	2503961.84
E.S.I. Contribution	132070.00	141288.486	273358.49
Labour Charges Paid	32494356.65	34119074.48	66613431.13
Labour Paid – Others	110061.00	115564.05	225625.05
P.F. Contribution	785940.00	840798.612	1626738.61
Salaries & Wages	3963336.00	4161502.8	8124838.80
Salary - Contractors	3577654.00	3756536.7	7334190.70
Advertisement Charges	2002.00	2102.1	4104.10
Audit Fees	90175.00	94683.75	184858.75

Business Promotion Expenses	74854.50	78597.225	153451.73
Calibration Charges	195307.50	205072.875	400380.38
Car Hire Charges	119000.00	124950	243950.00
Clearing & Forwarding	114567.00	120295.35	234862.35
Commission	358700.00	376635	735335.00
Consultancy Charges	96700.00	101535	198235.00
Delivery Charges	401322.97	421389.1185	822712.09
Delivery Charges – Customer	274571.72	288300.306	562872.03
Discount	24700.00	25935	50635.00
Executive Salaries	1007000.00	1057350	2064350.00
Export Documentation Charges	26654.00	27986.7	54640.70
Import Duty Paid	70536.30	74063.115	144599.42
Insurance	217187.00	228046.35	445233.35
Material Testing Charges	110953.50	116501.175	227454.68
Miscellaneous Expenses	2825.00	2966.25	5791.25
Packing Expenses	130420.10	136941.105	267361.21
Penalty Charges – Customers	889921.22	934417.281	1824338.50
Pooja Expenses	90617.00	95147.85	185764.85
Postage & Stamps	23407.44	24577.812	47985.25

Printing & Stationery	331472.55	348046.1775	679518.73
Professional Charges	346714.00	364049.7	710763.70
Renewal & Taxes	125193.00	131452.65	256645.65
Rent - Staff House	53700.00	56385	110085.00
R & M - Vehicle	213667.50	224350.875	438018.38
Staff Bonus	319350.00	335317.5	654667.50
Staff Welfare	319916.50	342246.6717	662163.17
Telephone Charges	547250.11	574612.6155	1121862.73
Tour & Travel	1519165.00	1595123.25	3114288.25
Training Expenses	29300.00	30765	60065.00
Travel Expenses	554566.77	582295.1085	1136861.88
Total	**57413036.53**	**60283688.36**	**117696724.89**

TABLE 4.5.3

TABLE SHOWING THE BUDGETED EXPENCES AMOUNT

Expenses data as on 01-april-09 to 31-march-10			
Particulars	**Actual Expense**	**Budgeted Expense**	**Variance**
Development Charges	**372586.85**	391216.1925	18629.34
R & M - Computers	92589.00	98283.2235	5694.223
R & M - Electrical	164762.00	174894.863	10132.86
R & M - Factory	877565.69	931535.9799	53970.29
R & M - Gauges	655775.71	696105.9162	40330.21

R & M - Machine	517783.00	549626.6545	31843.65
R & M – Oil	990903.99	1051844.585	60940.6
Carriage Inwards	2975150.00	3158121.725	182971.7
Carriage Outwards	62000.00	65813	3813
Consumables	2410450.00	2530972.5	120522.5
Electricity Charges	1278536.74	1342463.577	63926.84
E.S.I. Contribution	190641.00	203947.7418	13306.74
Labour Charges Paid	45999338.24	48299305.15	2299967
P.F. Contribution	1174203.00	1256162.369	81959.37
Salaries & Wages	7363370.00	7731538.5	368168.5
Salary - Contractors	3022163.63	3173271.812	151108.2
Advertisement Charges	5966.00	6264.3	298.3
Audit Fees	50000.00	52500	2500
Business Promotion Expenses	86225.00	90536.25	4311.25
Calibration Charges	292166.91	306775.2555	14608.35
Clearing & Forwarding	8645.98	9078.279	432.299
Commission	354542.00	372269.1	17727.1
Consultancy Charges	179948.00	188945.4	8997.4
Delivery Charges	122116.23	128222.0415	6105.812
Delivery Charges – Customer	124970.33	131218.8465	6248.517
Director Fees	790000.00	829500	39500

Insurance	308877.88	324321.774	15443.89
Material Testing Charges	189085.49	198539.7645	9454.275
Miscellaneous Expenses	1161.00	1219.05	58.05
Packing Expenses	83172.09	87330.6945	4158.605
Penalty Charges – Customers	363572.81	381751.4505	18178.64
Penalty Charges-Others	1085533.65	1139810.333	54276.68
Pooja Expenses	106890.00	112234.5	5344.5
Postage & Stamps	12036.45	12638.2725	601.8225
Printing & Stationery	275279.50	289043.475	13763.98
Professional Charges	735355.00	772122.75	36767.75
Renewal & Taxes	255499.00	268273.95	12774.95
Rent - Staff House	78400.00	82320	3920
R & M - Vehicle	500893.72	525938.406	25044.69
Staff Bonus	380400.00	406951.92	26551.92
Staff Welfare	404000.00	432199.2	28199.2
Telephone Charges	349965.76	367464.048	17498.29
Tour & Travel	493188.00	517847.4	24659.4
Training Expenses	1600.00	1680	80
Travel Expenses	642625.00	674756.25	32131.25
Total	**76429934.65**	**80251431.38**	**3821497**

INFERENCE:

The controlling of expenses is very much needed for every organization, it will help to increase the profit and reducing the product expenses.

The expense data as on 01-Apr-07 to 31-March-08, 01-Apr-08 to 31-March-09 and 01-Apr-09 to 31-March-10 were collected and analysis to prepare.

A variance analysis is suggested for corrective action.

It will show for to avoid the controllable expenses. The labour cost is controlled through comparing the actual in the budgeted figure.

CHAPTER-5

CONCLUSION

CHAPTER – V

CONCLUSION

- The budgeted above estimation could be suggested.
- A variance analysis is suggested for corrective action.

CHAPTER-6

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CHAPTER - VI

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