A STUDY ON ECONOMIC VALUE ADDED AND FINANCIAL ANALYSIS AT ROOTS INDUSTRIES LIMITED, COIMBATORE.

by

R. NAVANEETHA KRISHNAN

Reg.No. 71206631033

of

DEPARTMENT OF MANAGEMENT STUDIES

KUMARAGURU COLLEGE OF TECHNOLOGY

COIMBATORE

A Project Report

Submitted to the

FACULTY OF MANAGEMENT STUDIES

in partial fulfillment of the requirements

for the award of the degree of

MASTER OF BUSINESS ADMINISTRATION

JULY 2007

KCT Business School

Department of Management Studies

Kumaraguru College of Technology

Coimbatore

BONAFIDE CERTIFICATE

Certified that this project report titled **"A Study On Economic Value Added And Financial Analysis At Roots Industries Limited, Coimbatore"** is the Bonafide work of Mr.R. Navaneetha Krishnan (71206631033) who carried out the 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 dissertation on the basis of which a degree or award was conferred on an earlier occasion on this or any other candidate.

Faculty Guide **Director**

Evaluated and vice-voce conducted on ..... 29/10/07 .....

Examiner I **Examiner II**

Declaration

I, **R. Navaneetha Krishnan (Reg. No.71206631033),** final year MBA student of Department of Management Studies, Kumaraguru College of Technology, hereby declare that the project entitled **"A Study On Economic Value Added And Financial Analysis At Roots Industries Limited, Coimbatore"** has done by me under the guidance of Lecturer Ms. R. Hema Nalini, submitted in partial fulfillment for the award of the degree of Master of Business Administration of Anna University, during the academic year 2006-2008.

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

Place: Coimbatore

Date: 29.10.2007

Signature of the Candidate

(R. Navaneetha Krishnan)

ROOTS

SL. No. : 2273 Date : 13.09.07

PROJECT / INPLANT TRAINING / INTERNSHIP CERTIFICATE

This is to certify that Mr. / ~~Ms.~~ R. NAVANEETHA KRISHNAN

MBA I[st] year student of KCT BUSINESS SCHOOL

has ~~done / undergone project~~ / ~~Inplant~~ training / ~~Internship~~ on

"ECONOMIC VALUE ADDED FINANCIAL ANALYSI

in our ROOTS INDUSTRIES LIMITED during

the period from JUNE'07 to AUG'07

During this period his / ~~her~~ conduct was GOOD

(KAVIDASAN)
GENERAL MANAGER - CORPORATE HRD.

EXECUTIVE SUMMARY

In all business the performance is primarily concerned with the financial position because financial result is the parameter to evaluate the performance and growth of any business. The main objective of the financial management is maximizing shareholders value through maximum earnings and performance among business. Various tools are Economic Value added, Ratio analysis and Trend analysis.

Economic Value Added is a performance metric used to calculate the economic profit earned by the company. EVA takes into account the cost of equity while calculating the profit. It shows the value added by the company to its investors.

The ratio analysis is used in the project to analyse the financial statements and see how the company has performed against the standard ratios. The ratio analysis helps in various decision making processes.

The aim of the project work is to forecast the demand for the products for the next five years using the past sales figures. This will be useful for the company to plan for the future needs and make any expansion plans if necessary.

ACKNOWLEDGEMENT

It is inevitable that thoughts and ideas of other people tend to drift into subconscious when one feels to acknowledge helping derived from others. I acknowledge to all those who helped me in the preparation of this project work.

I wish to express my deep gratitude to **Prof.Joseph V. Thanikal** principal, Kumaraguru College of technology for his guidance and encouragement to complete my project work.

I wish to express my sincere thanks to **Prof.S.V.Devanathan** – Director, KCT business school, for his continuous encouragement throughout my project.

I owe my heartfelt gratitude to **Lect. Ms.R.Hema Nalini**, KCT business school, for his help and valuable guidance given to me throughout my project.

I express my sincere thanks to **Mr. Kavidasan**, Director Corporate – HR, Roots Industries Limited, Coimbatore for granting permission to do my project work.

I like to extend my heartfelt thanks to **Mr.N.Sampath Kumar**, Associate head T&D, Roots Industries Limited, who guided me the In-plant training to visit the various department successfully.

I extend my sincere gratitude to **Mr.G.Balasubramaniam**, Company secretary, Roots Multiclean Limited, for his guidance to complete my project successfully. And also to the staffs of Roots Industries Limited who furnished all the information related the research work.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF GRAPHS

1. INTRODUCTION

1.1.1. BACKGROUND OF THE STUDY

ECONOMIC VALUE ADDED (EVA):

Economic Value Added (EVA™) is the most successful performance metric used by companies and their consultants. Although much of its popularity is a result of able marketing and deployment by Stern Stewart, owner of the trademark, the metric is justified by financial theory and consistent with valuation principles, which are important to any investor's analysis of a company.

EVA is net operating profit minus an appropriate charge for the opportunity cost of all capital invested in an enterprise. As such, EVA is an estimate of true "economic" profit, or the amount by which earnings exceed or fall short of the required minimum rate of return that shareholders and lenders could get by investing in other securities of comparable risk.

To many, the EVA metric (also known as "economic profit") basks in a mystique of complexity. In fact, the entire metric is a development of three simple ideas: cash is king; some expenses are really investments in "disguise"; and equity capital is expensive.

There are three steps in calculation of EVA

- Calculation of Net Operating Profit After Tax (NOPAT).
- Calculation of Total Invested Capital.
- Determining the Cost of Capital (WACC).

The formula for calculating EVA is,

EVA = Net Operating Profit After Tax (NOPAT) – (Capital × Cost of Capital(WACC)).

PURPOSE OF EVA

EVA can be used for the following purposes:

- Setting organizational goals
- Performance measurement
- Determining bonuses
- Communication with shareholders and investors
- Motivation of managers
- Capital budgeting
- Corporate valuation
- Analyzing equity securities

THE CORE ADJUSTMENTS

- Remember the importance of being consistent throughout the course of your calculations: always match an income statement adjustment in getting NOPAT to a corresponding balance sheet adjustment - in getting invested capital. This is more important than the number of your adjustments!

- The "perfect" economic profit calculation is fully loaded; that is, it captures every dollar of invested capital and makes every adjustment to determine the precise level of cash flow. But the need for a perfect economic profit number is questionable. Many academic studies have demonstrated that the incremental information gained beyond a handful of key adjustments is minimal. You are therefore okay to use a few adjustments to arrive at an approximation.

- The table below shows a list of selected core adjustments. Each income statement adjustment in the left-hand column helps to convert EBIT to NOPAT; each corresponding balance sheet adjustment in the right-hand column helps convert book capital to invested capital.

POINTS TO BE KEPT IN MIND WHILE CALCULATING EVA

• Economic profit boils down to a set of adjustments that translate accrual-based earnings before interest and taxes (EBIT) into a cash-based net operating profit after taxes (NOPAT).

• Although the list of potential adjustments is long, it is important not to be seduced into an almost-impossible quest for absolute precision. From an investor's perspective, consistency is more important. That is, an income statement adjustment should always be matched by a balance sheet adjustment. For example, if we add back minority interest to earnings, then we need to add the minority interest balance sheet account to invested capital. We can add neither or both, but there is no truly right answer. In this example, it comes down to whether we prefer our economic profit to have an operational perspective (add both) or a financial perspective (add neither).

• Avoid seeking precision in the calculation of weighted average cost of capital (WACC), a dubious academic exercise. It is far better to charge the company with an approximate but consistent estimate of WACC than to try to chase down the elusive cost of equity. (Several companies, after trying to explain a precise WACC to employees, have come to abandon a precise WACC in favour of a round number like 10%; e.g. "cost of capital is 10%".)

STRENGTHS AND WEAKNESSES OF ECONOMIC PROFIT

STRENGTHS

Economic profit's strengths include the following:

• Because it is a residual performance metric, it conveniently summarizes *into a single statistic* the value created *above and beyond* all financial obligations

• By applying a capital charge, it corrects the key deficiency of earnings and earnings per share (EPS): they do not incorporate the balance sheet. Economic profit explicitly recognizes - by way of the capital charge - that capital is not free

- As an operational metric, it helps managers clarify how they create value. Generally, they do it either by investing additional capital that produces returns above WACC, by reducing capital employed in a business, by improving returns by growing revenues or reducing expenses or by reducing the cost of capital.

WEAKNESS

- Unless fully loaded and all cash adjustments are made, economic profit can be subject to accrual distortions. For example, because NOPAT is after depreciation and amortization, a company that does not reinvest capital to maintain its plant and equipment can improve its accrual bottom line simply by virtue of the declining D&A line. This sort of attempt at boosting economic profit is known as harvesting the assets.
- It has the limitations of any single-period, historical metric: last year's economic profit will not necessarily give you an insight into future performance. This can be especially true if a company is in a turnaround situation or makes a large lump-sum investment, in which case, economic profit will immediately suffer (due to the higher invested capital base) but the expected future period payoff will not show up as a benefit in the calculation.

Because it relies on invested capital, it is more suitable for analyzing asset-intensive firms (those whose value comes largely from tangible assets on the balance sheet) that exhibit somewhat predictable growth trends. The best use of economic profit tends to be in traditional and mature industries. It therefore has less relevance for firms that are valuable largely because of intangible, off-balance-sheet assets; economic profit has shown limited success in high-tech and service-oriented companies.

1.1.2. RATIO ANALYSIS:

Ratio analysis is a technique of analysis and interpretation of financial statements. It is the process of establishing and interpreting various ratios for helping in making certain decisions. However ratio is not an end weakness of firm. A calculation of mere ratios does not serve the purpose, unless several appropriate ratios are analysed and interpreted.

The following are the four steps involved in the ratio analysis:

1. Selection of relevant data from the financial statements depending upon the objective of the analysis.
2. Calculation of appropriate ratios from the appropriate ratios from the above data.
3. Comparison of the calculated ratios with the ratios of the same firm in the past, the ratios developed from projected financial statements or the ratios of some other firms or the comparison with ratios of the industry to which the firm the firm or the comparison with ratios to which the firm the firm belongs.
4. Interpretation of the ratios.

INTERPRETATION OF THE RATIOS:

The interpretation of ratios is an factor, through calculation of ratios are also important but is only a clerical task where as interpretation needs skill, intelligence and foresightedness. The inherent limitations of ratio analysis should be kept in mind while interpreting them. The impact of factors such as price level changes, change in accounting policies, window dressing etc., should also be kept in mind when attempting to interpret ratios.

A single ratio in itself does not convey much of the sense. To make ratios useful, they have to be further interpreted. For example, say the current ratio of 3:1 does not convey any sense unless it is interpreted and conclusions drawn from it regarding the financial condition of the firm as to whether it is strong, good, questionable or poor. The interpretation of the ratios can make in the following ways

1. Single absolute ratio.
2. Group ratios.
3. Historical comparison
4. Project ratios.
5. Inter firm comparison.

USE AND SIGNIFICANCE OF RATIO ANALYSIS:

The ratio analysis is one of the most powerful tools of analysis. It is used to device to analyze and interpret the financial health of enterprise.

A. Managerial use of ratio analysis.

    1. Helps in decision making.
    2. Helps in financial forecasting and planning.
    3. Help in communicating.
    4. Helps in co-ordination.
    5. Helps in control.
    6. Other uses.

B. Utility to shareholders/ Investors.
C. Utility to creditors.
D. Utility to employees.
E. Utility to government.

LIMITATIONS OF RATIO ANALYSIS:

The ratio analysis is one of the most powerful tools of financial management. Though ratios are simple to calculate and easy to understand, they suffer from some serious limitation.

Limited use of single ratio.

- Lack of adequate standards.
- Inherent limitations of accounting.
- Change of accounting procedure.
- Windows dressing.
- Personal Bias.
- Un comparable.
- Absolute figures are distortive.
- Price level changes.
- Ratios have no substitutes.

1.2. REVIEW OF LITERATURE

1. David Harper

"EVA^{TM} Calculation for the Walt Disney Co (DIS)" – 2005.

The economic profit number tells us that, despite generating $3.597 billion in after-tax net operating profits, Disney did not quite cover its cost of capital. Of course, it fully serviced its debt, but the point of economic profit is to charge the company for the use of equity capital – when we incorporate this cost, we find that Disney lost (some would say "destroyed value") $765 million in economic profit over the year.

2. R. Prabu

"A study on Economic Value Added & Financial Analysis of Roots Industries Ltd, Coimbatore" – 2002.

- The company has achieved Economic Profit during the year 1999- 2000.
- It is observed that the growth of PBT is more than the total expenses.
- There is appreciation in the fixed assets when compared with base financial year.

3. S. Jagadesh Kannan

"A study on Economic Value Added at ELGI Industries Ltd, Coimbatore", -2004.

- The company has achieved economic profit during the years 2002-03, 2003- 04.
- It was achieved because of the decrease in the operating costs.
- The operating efficiency of the company has improved.

4. K. Malathy

"A study on Financial performance of Premier Evolvics Pvt Ltd, Coimbatore", -2004.

- The EBIT of the concern shows a decreasing trend for the last year.
- The proprietary ratio is high, which shows the capital invested in the business is not in proportion to the holding of total assets.

5. Pandey. I. M

"Shareholder Value Creation: A Strategic Financial Goal", - Working Paper No. : 1998-04-02.

Recently some corporate managers in India have started emphasising the need of the shareholder value creation (SVC). A few of them have explicitly stated SVC as their most important goal. Companies such as the Hindustan Lever Limited, Infosys or Balrampur Chini have reported information on the economic value added (EVA) – considered to be equivalent to SVC – in their annual reports. HLL has implemented the system of subjecting their investments, business performance and planning EVA evaluation. In this paper we argue that EVA used by HLL is not same as SVC.

6. Geoff Colvin

"Don't Go Gaga Over Google", - Fortune; 8/6/2007, Vol. 156 Issue 3, p24-24, 1p

Google's tremendous past has sent investors into a delirium about its future. When you buy a stock, after all, what you're paying for is the future. Specifically, a stream of future profits, in particular what's called economic profit or economic value added (EVA), the dollar amount by which return on capital exceeds the cost of capital. With that in mind, I asked EVA Dimensions to calculate the EVA that Google would have to produce to justify today's stock price.

7. Ashok Banerjee

"Linkage between Economic Value and Market Value: An Analysis", - Vikalpa: The Journal for Decision Makers, Volume 25, Number 3, July-September 2000.

It is believed that market value of a firm (hence shareholder wealth) would increase with the increase in EVA. Various studies done in US also confirm this belief. EVA (a term coined and registered by Stern Stewart & Co. New York) is residual income that subtracts the cost of capital from the operating profits generated by a business. The present study makes an attempt to find the relevance of Stewart's claim that market value of the firm is largely driven by its EVA generating capacity in the Indian Context. The present study has also found that market value of most of the firms in the sample is more

1.3. OBJECTIVES OF THE STUDY:

PRIMARY OBJECTIVE:

1. To study the Economic Value Added (EVA) and Financial Analysis for Roots Industries Limited.

SECONDARY OBJECTIVES:

1. To evaluate the Economic Profit or Economic Loss of the concern.
2. To review the efficiency position of the company.
3. To forecast the sales of the company using the financial statements.

1.4. STATEMENT OF THE PROBLEM

A country's development purely depends upon the economic development of its industries. The industries help in the economic development of the country by providing employment. If an industry is to be developed the industries has to be managed efficiently. ROOTS INDUSTRIES LTD play's a vital role in the development of the economy of Coimbatore by providing direct employment to around thousand people and about thousand five hundred people are employed indirectly in around Coimbatore.

This project is to study about the Economic Value Added by the company to its shareholders, to review the financial performance and to forecast the demand for its products in the future.

1.5. SCOPE OF THE STUDY

The study is mainly focused on the EVA and financial performance of Roots Industries Ltd. The study could be used to review the financial performance of the company. The study gives a clear cut picture regarding the EVA of the company. By this study the company will be able to know Economic Value Added by the company and it can also plan for expansion to meet the future demands.

1.6. METHODOLOGY

1.6.1. TYPE OF STUDY

The type of study used for this project is analytical research, researcher has to use the facts and information already available and analyses these to make critical evaluation of the material.

1.6.2. DATA COLLECTION

The analysis of financial conditions and performance of the enterprise necessitates reliable data. Therefore the data for present study is collected through secondary data.

1.6.2.1. SECONDARY DATA

Secondary data is mainly used for the study. It is taken from published source of the company like annual reports and the websites.

1.6.3. TOOLS AND TECHNIQUES

1. Economic Value Added
2. Ratio Analysis

   For the analysis the following ratios have been used, they are

   a. Solvency Ratio

   b. Efficiency Ratio

   c. Profitability Ratio

3. Simple Regression or Trend Analysis.

1.7. LIMITATIONS

1. The Economic Value Added and financial analysis is based on the published annual reports of the company. There is chance for bias in the annual reports.
2. The study is restricted only for the period of five years from 2001-2002 to 2005-2006.
3. The ratio analysis varies from industry to industry as a result the findings cannot be generalised.
4. The ratio analysis itself is having its own limitations.

1.8. CHAPTER SCHEME

The study is reported in five chapters. The first chapter discusses the background to study, objectives, scope, limitations and methodology of the study.

The second chapter deals with organization profile that includes history, management, organization structure and various functional areas.

The third chapter discusses about the macro-micro analysis which deals with the prevailing economic scenario with the industry.

The fourth chapter deals with data analysis and interpretation.

The fifth chapter deals with the results and discussions and considered recommendations.

CHAPTER 2

2. ORGANISATION PROFILE

2.1 HISTORY OF THE ORGANISATION

Mr.K.Ramaswamy, a master degree holder in Automobile Engineering from Lincoln Technical Institute, promoted the Roots group. Its corporate office is at Coimbatore extending the philosophy of quality to all spheres of its activity, this group becomes the market leader in India for its flagship product viz. AUTOMOBILE HORNS.

The company diversified to manufacture the indigenously developed high frequency wind tone horns and later started the promotion of various pneumatic and electrical horns since 1973. Start from 3,600 horns sales in 1978-1979, the sales have touched 2 million horns recently.

The quality policies of the Roots Industries Limited are:

- International Quality Standards products,
- Safe to the society and workmen,
- Quality in: Doing and Thinking

2.1.1 SISTER CONCERNS

The entire sister concerns of roots pursue diverse interests and excel in specific infrastructure and skill sets, yet as a unified whole, they represent the true face of Roots. The group comprises of 5 important manufacturing units with the state of the art CAM / CAD / EDP / Quality Assurance centers with advanced equipment.

- **ROOTS AUTO PRODUCTS PRIVATE LIMITED (RAPPL):** RAPPL as it is fondly known had the unique distinction of being the first (P) Ltd., Company to be started by Mr.K.Ramaswamy, The founder and managing director of Roots. RAPPL specializes in Air Horns. Today it is the largest manufacturer of Air horns. Today it is the largest manufacturer of Air Horns catering mainly to the replacement market in India. Its diverse product range is used in heavy vehicles and earthmovers.

- **ROOTS MULTICLEAN LIMITED (RMCL):** The genesis of Roots Multi-Clean Ltd., Due to the vision of the promoter of Roots group of company

following the globalization of business and entry of Multinationals who had very high standard of house keeping. RMCL is the rote representative in India and SAARC countries for the Hako Werke gmbh & company's entire range of cleaning equipment.

- **ROOTS CAST PRIVATE LIMITED (RCL):** Roots Cast was started in the year 1985 to cater to the captive aluminium and Zinc pressure dye cast components requirements of Roots group of companies for manufacture of automobile accessory. It was formerly known as Aruna Auto Castinga (P) Ltd., (AAC).Roots Cast is supported in its activities with specialized services like CAD / CAM from the ERC cell of Roots and its metrology lab for test facilities and caiibaration.

- **ROOTS PRECISION PRODUCTS (RPP):** Roots Precision Products were established in 1987 to address the In-house tooling needs of the diverse industries in the Roots group RPP, acts as a one stop solution for tooling and precision machining. Its equipment line-up includes some of the best CNC machines from conventional tool room machines. All this coupled with design-excellence with Auto CAD and Pro-Engineer software.

- **POLYCRAFT:** Polycraft the company was established in 1988 to manufacture high precision plastic components. Though it usually catered to the Roots group alone, Polycraft has now expanded its operations; The company under takes job orders and has become a market-conscious player.

2.1 MANAGEMENT

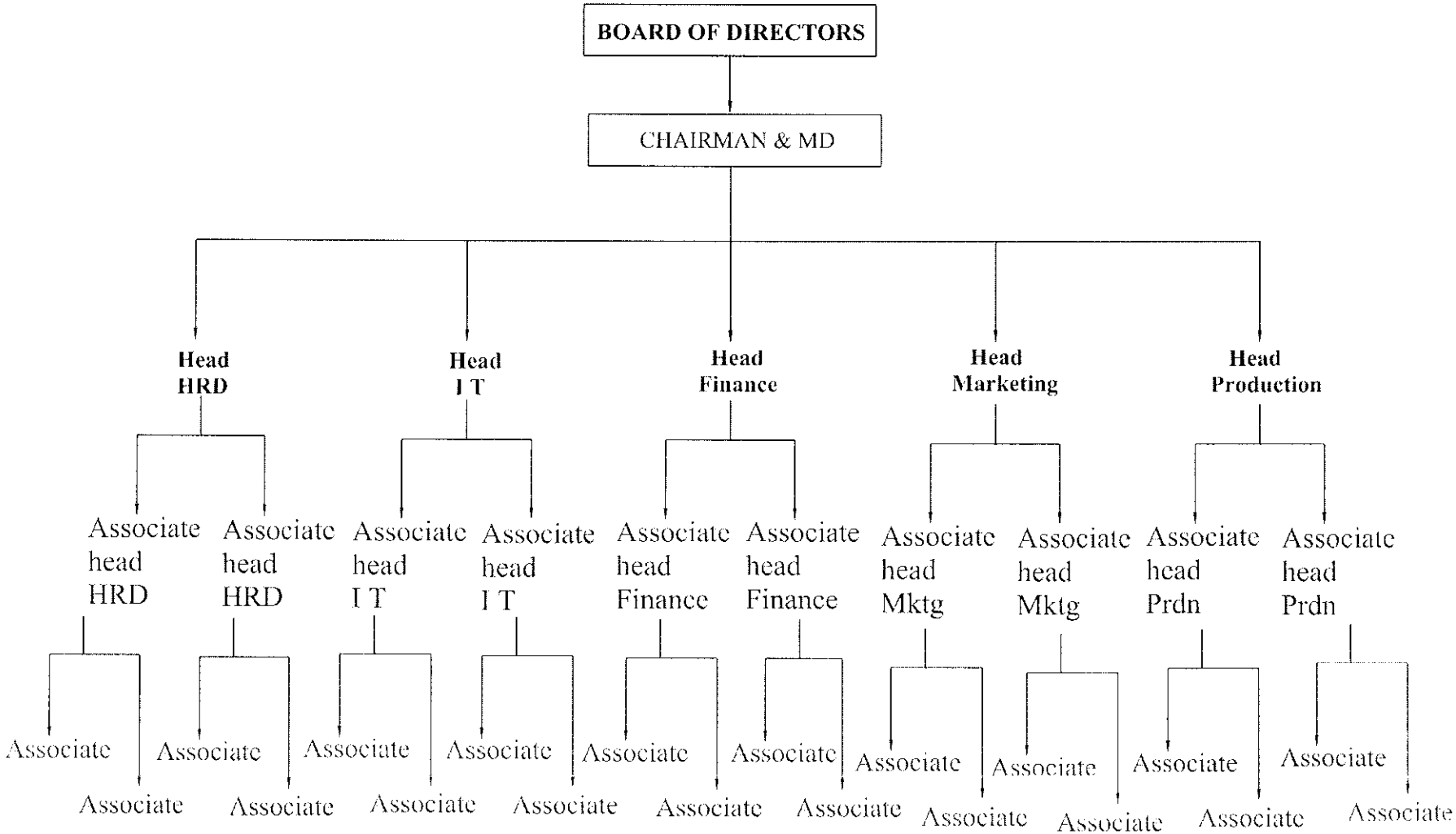
ROOTS Industries Ltd., is managed by an excellent team of path-breakers, chief among them being the Chairman, Mr. K. RAMASWAMY, a Master's Degree Holder in Automobile Engineering from Lincoln Technical Institute, USA.

The company credo is echoed in his own words,

"At ROOTS, we believe that if something is worth doing, it is worth doing well. And this attitude is reflected in every realm of our activities. As a customer, you naturally expect the best. We are fully geared, in spirit and method, to meet your requirements."

He is supported by technical and administrative people, experts in their own field, who together strive to maintain the highest quality quotient in all of ROOTS' products.

2.3. ORGANIZATIONAL STRUCTURE:



2.4 PRODUCTS PROFILE AND MARKET POTENTIAL

- ❖ Products Profile

2.4.1 ELECTRIC HORN

In the beginning, they did not realize that they would make such an impact. Slowly but surely, the reverberations were felt far and wide. Indian automobile market responded to our call. Soon the global market too followed suit. Roots horns, in a very short span of time, they got a place of pride in millions of vehicles across the globe.

2.4.2 AIR HORNS

Commercial transportation plays a crucial role in the economic development of nations. Roots Air Horns ensures safe and smooth passage of thousands of heavy vehicles on the move. Roots Auto Products Private Limited (RAPPL), the largest supplier of Air Horns in India caters to the needs of several OEMs: Ashok Leyland, Caterpillar India and JCB Escorts. Roots Air Horns also find a place of pride in Passenger vehicles, Trucks, Earth Moving equipment, Material Handling equipment, etc.

Roots Air Horns are exported to countries in North America, Europe, Middle East, Africa and SAARC region.

2.4.3. CLEANING MACHINES

The genesis of Roots Multiclean Ltd., (RMCL) is due to the vision of the promoter of Roots group of company about the requirement of sophisticated cleaning equipment in the country following globalization of business and entry of Multi Nationals who have very high standard of house keeping. RMCL, situated in the suburbs of Coimbatore, is a Joint Venture with Hako Werke Gmbh & Co., Germany. It commenced manufacture of cleaning equipment in early 90s at its modern factory located amidst natural greenery.

RMCL is the sole representative of Hako Werke Gmbh & Company's entire range of cleaning equipment for India and SAARC countries. To improvise and facilitate a better service to its customers, RMCL has established Regional offices in all Metros and a huge

The superior quality products and the added advantage of good after sales service has established the company as the country's largest manufacturer of floor cleaning equipment.

2.4.4. CASTING

Roots Cast Pvt. Ltd., (RCPL) (formerly known as Aruna Auto Castings Private Limited) was established in 1984 to meet the captive requirements of the Roots group. With its ever probing eye on the needs of the market, the company in the late 80s expanded its operations to manufacture High Pressure Die Cast Aluminium and Zinc components to the exacting needs of various customers in Automobile and Textile Industries with a high degree of Quality and Perfection. RCPL, now has established itself as a major player in the die cast component manufacturing thanks to the expertise built in the core activities like tool design, tool making and pressure die cast component manufacturing.

RCPL supplies **machined castings and sub-assemblies** as per customer requisitions.

2.4.5 PRECISION PRODUCTS

Roots Precision Products was established in 1987 to address the in-house tooling needs of the diverse industries in Roots group. Owing to continuous improvement and investment into better resources, the company has become self-sufficient. It is catering to the needs of various industries. RPP acts as a one-stop solution for tooling and precision machining.

2.4.7 POLY PRODUCTS

Roots Polycraft (PC) was established in1988 to manufacture precision plastic components It is equipped with latest microprocessor Injection moulding machines to maintain consistent process parameters.

Over the years, Polycraft has gained skills and unique techniques to manufacture

Industries besides meeting the captive requirements of Roots Group. Being fully equipped to provide the best service, Polycraft has satisfied customers who have helped augment its technological advances.

The Company's commitment towards the customer is demonstrated with quality products and service. This has resulted in continuous growth and product diversification. The process is closely monitored with proven techniques to obtain consistently good quality parts.

❖ **MARKET POTENTIAL**

The company is a leading supplier to the entire major vehicle manufacturer that include Mercedes Benz, Mitsubishi lancer, Mahindra & Mahindra, Toyota, Fait Uno and Siena, TELCO, TVS Suzuki, Kinetic Honda, etc.

Their major part of product is export to various countries and has shown a tremendous growth in this part, Within a span of four years the export turnover has increased from Rs. 4 millions to Rs. 35 millions. The company has also acquired European homologation approvals for their Horns from EC/ECE countries to enter in these markets. It is the only Indian company to satisfy the exact standards of the Japanese customers and enter into the Japanese market and capturing 25% of its Exports.

2.5 COMPETITIVE STRENGTH OF THE COMPANY

Roots is leading Original Equipment Supplier to major vehicle manufacturers like Daimler Chrysler, Mitsubishi, Mahindra & Mahindra, Toyota, Fiat, Telco, TVS, Kinetic etc. The technical collaboration with Robert Bosch S.A of Spain starting from 1995 has strengthened the R&D activities and increased Roots technical competence to International Standards.

Roots Multiclean Ltd., (RMCL) is a joint venture with Hako Werke GMBH & Co. Germany is one of the largest cleaning machine manufactures with global operations. RMCL is the sole representative in India and SAARC Countries for Hako Werke's entire range of cleaning equipment.

The quality of RMCL products is so well established that Hako buys back a major portion for their global market.

RMCL also represents several global manufacture of cleaning products and is gearing itself up to provide customized, total cleaning solution.

2.6.DESCRIPTION OF VARIOUS FUNCTIONAL AREAS

2.6.1 HUMAN RESOURCE DEPARTMENT

Human Resource Department is a management function that helps managers recruit, select, train and develop members for an organization. Obviously HR Department is concerned with the people's dimensions in organization. The functions and principles are applied to developing, maintaining and remunerating employees in organization. Mr.Kavidasan (Head=Corporate HRD) heads this department

- **Personal Culture**

The Management has been encouraging and promoting a very informal culture "Personal Touch" sense of belonging, enabling employees to become involved and contribute to the success of the company. The top management also conscientiously inculcates values in the people.

- **Work Environment**

Special and conscious efforts are directed towards house keeping of the highest older. Renovation and modernization of office premises and office support systems are carried out in an on going basis.

- **Training**

Roots believe in systematic training for employees at all levels. As a part of the organizational development efforts, training programs are being conducted. In-house for employees at all levels I addition staffs are also sponsored for need bared training programs at leading management at leading management development institutes.

❖ **Total Quality Management**

Customer focus is not merely a busy word but it has become an important factor of everyday work and has got internationalized into the work environment. There is an equal emphasis on internal focus leading to greater team efforts and better cross functional relationship.

❖ **Quality Circle Movement**

To ensure worker participate and teamwork on the shop-floor, RII, has a very effective quality circle movement in the organization. As on today RII, has there operating quality circles having 24 members and some of them have own awards at different conventions and competitions.

Through interaction with workman in their sections a process of two-way communication has been initiated and valuable feedback has been received on worker feelings, perception, problems and attitude. Simultaneously management has communicated the problems faced by them and the plants to overcome these problems.

❖ **Good Morning Assembly (GMA)**

The management aims in operator's mental & physical fitness and it is ensured through the GMA. The operators and shift supervisor, assemble before the 1st shift beginning and do occupation of fitness exercise, discuss about the Quality & safety.

PERSONNLEL ACTIVITIES

To see that discipline of coordinal industries relationship are maintained, incase of any disputed it is the duty of HR manager to see yeast the matter in settled amicably.

An HRD manager plays the role of liason officers between the management of the workers.

- Recruitment
- Induction training of placement
- Attendance and leave regulation
- Performance Appraisal

Methodology

- Aptitude
- Intelligence test
- Personal Interview
- Achievement Test
- Group Discussion
- Attitude Test

- **Finance Department**

Finance is the lifeblood of business. Finance is that business activities which is concerned with acquisition and conversation of capital funds in meeting the financial needs and overall objectives of business enterprises. The main function of this dept is to provide finance to various departments. The Finance General Manager Mr.K.Ravi controls the finance department.

The turnover of the company in 2005 is Rs.6337 (in lacs).Currently the organization has a working capital of its 8/9 crores. There are 25 employees in finance department.

- **Material Cost**

40% of material cost is need for TVS Company

60% of material cost is needed for Home Appliances

❖ **Advertisement Cost**

In 1993 the advertising cost is 15% , now the advertisement cost is only 1%.

2.6.2. Purchase Department

Purchasing procedure varies with different business firms but all of them follow a general pattern in the purchase and receipts of materials and payment obligations. The purchase department takes care of all cash and credit purchase. The materials are purchased placing orders based on indent raised from the stores. A ledger is maintained in the regard. The purchase orders is send to the supplier. The purchase orders shall contain a clear description of the products, drawing number, quality, Rate, Delivery, Schedule, Terms payment, mode of dispatch and other relevant data.

The following steps are followed for purchasing of material:

1. The concerned department that is in need of a particular material with give a purchase requisition slips to the stores department.
2. The storekeeper of the material is available in stores they will cancel the purchase requisition and provide the material to the concerned department.
3. If it is not available in stores in stores the storekeeper will forward the purchase requisition to the purchase manager in the purchase department.
4. In the purchase requisition slip the following things must be mentioned.

2.6.3. Quality Department

Quality Control – The vision statement of Roots is "Vision of Roots is to become a model company providing value to our customers. It is imperative that we give more than what we take from our customers and the society. Our products must serve our customers beyond their expectations".

Quality Policy

One of the quality policies of the ROOTS stands as,

- Quality is respect for people
- Quality is constancy of purpose
- Quality is global entry
- Prosperity through quality

The other quality policy speaks as follows.

"We are committed to provide world – class products and services with due concern for the environment and safety of the society". This will be achieved through:

- Continuous improvement
- Technology Up gradation
- Cost Reduction
- Total Employee Involvement

2.6.4. IT Department

Today is a whole new ball game, the game has changed and we must change with it.

- Global presence and competition
- Solutions dominate among the buyers
- Time to market
- Customer focus is on market driving capabilities
- Delivery capability across entire value chain

Software used at Roots

- Earlier FoxPro package was used
- Intranet facility accessible to all authorized officers with a very effective package called LOTUS NOTES the means of communication through fiber optic cables.

This package includes the mailing facility among the 170 employers. In the organization and also it have the options of reservation of rooms for their meeting, to know the status of the room etc., QMS documents are available and It's being view by all the employers but the information can't be altered them only the authorized officers can change them.

The organization uses the ERP (Enterprise Resource Planning) which all the different models are present and it's being customized. IT delicates in the concern. There are different models in the ERP. They include:

- PPC (Production Planning Control)
- Sales
- Purchase
- Manufacturing
- Inventory
- General Ledger
- Shop Floor Control
- Engineering Change Order
- Lot Tracking

2.6.5. Marketing Department

Marketing is a human activity directed at satisfying needs and wants through an exchange process. The main aim of marketing is to make sales in order to earn reasonable profit. In the roots marketing is basically done for the cleaning products.

General Manager Mr. Raja Gopal Heads this Department.

Clients for RMCL in the Public Sector

- BHCL
- NTPC
- BEL
- BARC
- Ministry of Defense
- Municipality Corporation
- IOCL
- Clients for RMCL in the Private Sector
- RELIANCE
- HYUNDAI
- LMW
- Ashok Leyland
- FORD
- MAHINDRA
- TOYOTA KIRLOSKAR
- TVS Motor Co

Sales Promotion Activities

- Participating in International Marketing Exhibitions
- Direct domes in Industries
- Advertising

CHAPTER 3

3. MACRO-MICRO ANALYSIS

The Macro & Micro analysis of Auto parts industries in economic growth, competitive strength, career growth, opportunities etc in domestic and foreign countries. The brief discussion given below;

Macro Analysis

The auto parts industry directly influences the economies of the United States and the world. In a typical year, The U.S. auto parts industry generates around 17 percent of manufacturers' shipments of durable goods (products designed to last at least three years). Auto parts production consumes large amounts of iron, steel, aluminum, and natural rubber. The automobile industry also consumes more copper, glass, zinc, leather, plastic, lead, and platinum than any other U.S. industry. In 1997, U.S. retail sales of auto parts exceeded $284 billion, 3.5 percent of the nation's gross domestic product.

The U.S. auto parts industry has experienced strong job growth. In 1996, the auto parts industry accounted for 9 percent of all U.S. jobs producing durable goods, the highest level since 1979. Auto parts production workers earned compensation totaling $13.4 billion—a nearly 50 percent increase since 1990—and equal to 14 percent of the total paid by all manufacturers of durable goods. Sales of U.S. auto parts to Americans are expected to remain near the same level in the future, with about 1 to 2 percent growth per year, while foreign markets are expanding at rates that are two, three, and even ten times faster. Because exports will be essential to expanding the auto and auto parts industries, U.S. trade officials have negotiated trade agreements such as the Memorandum of Understanding with Korea (1993), the North American Free Trade Agreement (N A F T A, 1994), and the U.S. -Japan Automotive Framework Agreement (1995). These and other agreements have increased auto parts and other exports to Japan, Mexico, and Korea many times over.

In 1994, the United States successfully promoted the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), which helped American auto export potential because it improved access to both major and developing markets. These initiatives have helped the U.S. Automotive industry achieves the highest level of exports on record. Between 993 and 1996, Shipments abroad of motor vehicle increased 36 percent, and U.S. automotive parts exports increased 28 percent. The value of motor vehicle and parts exports reached $47.4 billion in 1996, up 7 percent from the previous year.

Micro Analysis

India is the Largest Three Wheeler Market in the World, 2nd Largest Two Wheeler Market in the World, 4th Largest Passenger Vehicle Market in Asia, 4th Largest Tractor Market in the World, and 5th Largest Commercial Vehicle Market in the World. So, all vehicles need safety part of air horns, electric horns, etc.

Future Macro Economic Drivers

- High GDP growth rate
- India's huge geographic spread –Mass Transport System ??
- Increasing Road Development, Golden Quadrilateral
- Increasing disposable income with the service / rural agriculture sectors
- Cheap & easy financing schemes
- Replacement of aging passenger and commercial vehicles
- Graduating from motorcycles to passenger vehicles
- Growing Concept of Second Vehicle in Urban Area

Opportunity to source from India

India as an Auto Manufacturing Hub like (A large domestic market, Growing significance of exports, Developed components and materials base Among the best in labour economics).

Standing tall

The auto component sector is on a growth trajectory as is evident by the fact that auto components have been designated as a "Thrust Sector" by the Government of India under the EXIM Policy. The Indian Department of Commerce is now set to aggressively promote export of auto components through a specific sectoral strategy.

The size of the global auto component industry is $1.2 trillion with most of it located in high cost countries. Global purchases of components by international vehicle manufacturers are currently estimated to be $45 billion. However, the role of outsourcing is constantly increasing.

Furthermore, the problem of high rejection rates which plagued the domestic auto ancillary industry has been overcome. This is reflected in the number of overseas deals concluded by the domestic industry amidst stiff competition from other Asian countries.

The government has extended various fiscal incentives and policy measures which too has helped the industry.

Trends of Automobile Components

Critically, outsourcing of automobile components that have relatively high engineering and design content from suppliers in low cost countries like India, is rapidly gaining momentum. It is estimated that in the next 10 years the auto components industry will reach $33-40 billion.

Going by the current trends in the domestic automotive industry and as stated above, it is expected that the indigenous demand for auto components will also reach $13-

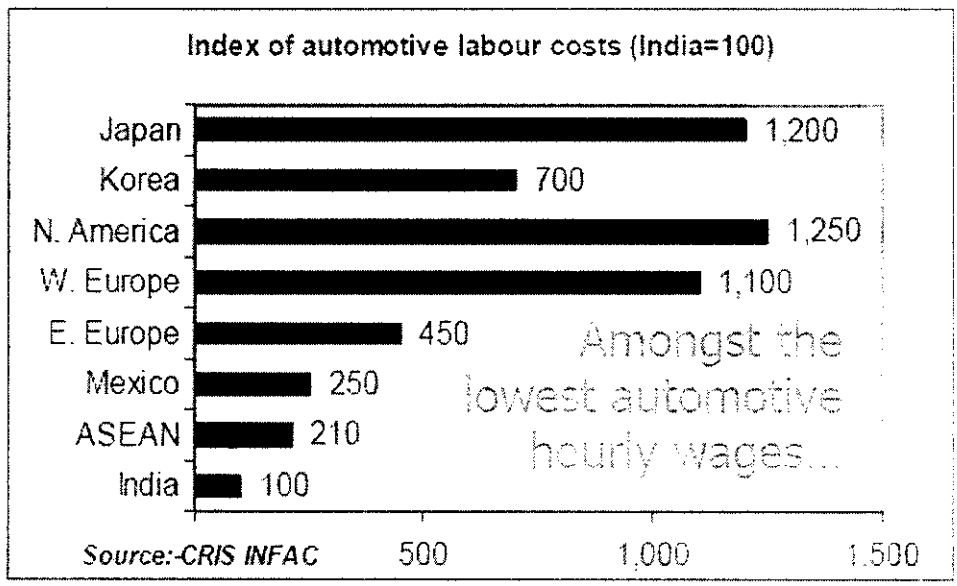
the combined demand from domestic and international customers the industry will have to make significant incremental investment.

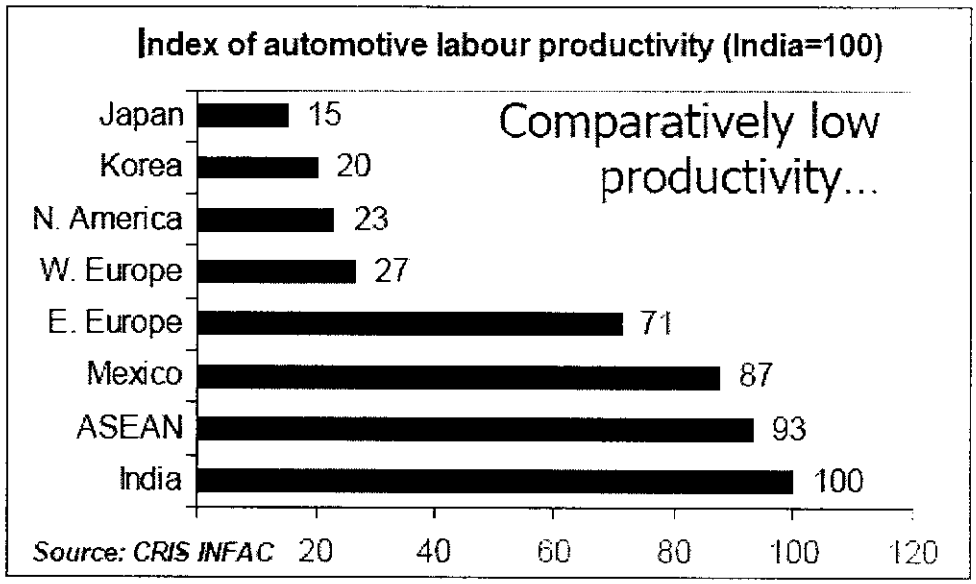
Hence, the Indian auto component industry is poised to achieve a prominent position in the global market and will in all probability be a major driver of growth and employment in the domestic economy.

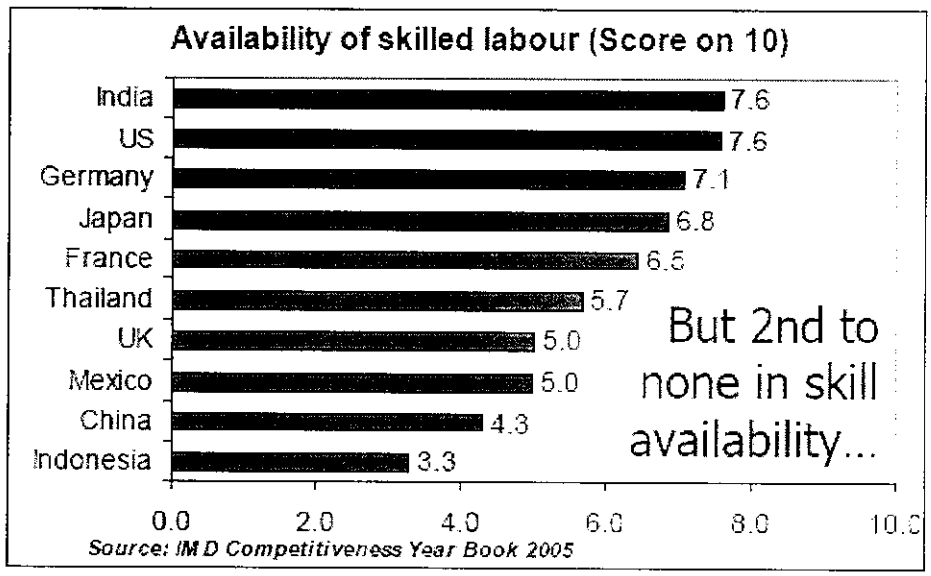
Considering the recent figures, whereby domestic demand is increasing by about 15 per cent over the previous year and exports by over 25 per cent, the above estimates, while undoubtedly challenging, appear achievable.

To, conclude, the auto-components sector in India appears well revved up to speed on from here on the success-track.

India: Among the best in labour economics India




Index of automotive labour productivity (India=100)
Japan
Korea
N. America
W. Europe
E. Europe
Mexico
ASEAN
India
15
20
23
27
71
87
93
100
Comparatively low productivity...
Source: CRIS INFAC
20
40
60
80
100
120


Availability of skilled labour (Score on 10)
India
US
Germany
Japan
France
Thailand
UK
Mexico
China
Indonesia
7.6
7.6
7.1
6.8
6.5
5.7
5.0
5.0
4.3
3.3
But 2nd to none in skill availability...
0.0
2.0
4.0
6.0
8.0
10.0
Source: IMD Competitiveness Year Book 2005

Opportunity to source from India

- There is a growing demand for auto components
- Total production '2004: Approx. $ 6.73 billion
- Exports '2004: Approx. $1.4 billion. (CAGR of 19% -last 6 yrs)
- In the next 10 years the auto components industry will reach $33-40 billion.(Estimate)
- Indigenous Demand : $13-15 billion
- Export Demand : $20-25 billion

So, the finally conclusion of automobile components industry have bright future in India.

CHAPTER 4

4.1. CALCULATION OF ECONOMIC VALUE ADDED

A measure of company's financial performance is based on the residual wealth calculated by deducting cost of capital from its operating profit. Economic value added attempts to capture the true economic profit or economic loss of the concern.

EVA = Net Operating Profit After Taxes (NOPAT) – (Capital × Cost of capital (WACC))

WEIGHTED AVERAGE COST OF CAPITAL

The term cost of capital means the overall weighted cost of capital with weights equal to proportion to the type of fund. It is calculated on the book value and not on the market values, as the company's share is not listed. The following formula obviously explains this concept:

$$\textbf{WACC, } K_0 = K_e W_e + K_d W_d + K_p W_p$$

Where,

K_0 = overall / weighted cost of capital;

K_e = cost of equity shares;

W_e = weight of equity shares;

K_d = cost of debt;

W_d = weight of debt;

K_p = cost of preference shares;

W_p = weight of preference shares.

COST OF EQUITY:

The equity shares are issued externally where there is no definite commitment to pay dividends but the equity shareholders are the owners of the company. But rewarding the equity holders (especially public) is imperative for raising future equity resources.

The free reserves (retained earnings) implies in terms of dividends foregone by/withheld from the equity shareholders. As it indirectly affects the cost of equity as such equity shares, it is combined with equity shares for calculating the cost.

$$\mathbf{K_e = D_1/P_0 + g}$$

Where,

Ke=cost of equity;

D_1=expected dividend/share;

P_0=intrinsic value/share;

g=growth rate.

INTRINSIC VALUE OF SHARE (P_0)

As the company understudy has not listed its equity shares, the market – price per share is estimated by the 'NET-WORTH RATIO' which is formulated as follows:

$$\mathbf{P_0 = \frac{Equity\ share\ capital + free\ reserves}{Number\ of\ paid\ -\ up\ equity\ shares}}$$

TABLE 4.1

INTRINSIC VALUE PER SHARE

YEAR	EQUITY SHARE CAPITAL & FREE RESERVES (Rs in crores)	NUMBER OF SHARES	INTRINSIC VALUE PER SHARE(P0) (Rs)
2001 - 2002	9.44	1600000	59
2002 - 2003	9.07	1600000	56.69
2003 - 2004	11.16	1600000	69.75
2004 -2005	11.79	1600000	73.69
2005 - 2006	14.08	1600000	88

DIVIDEND PER SHARE (D_1)

Theoretically, D_1 denotes the forthcoming / expected dividend. As this study for the years 2002-2006, the dividends paid for those years were

TABLE 4.2

DIVIDEND PER SHARE

YEAR	DIVIDEND DECLARED	DIVIDEND PER SHARE (D1)(Rs)
2001 - 2002	20%	2
2002 - 2003	20%	2
2003 - 2004	20%	2
2004 -2005	20%	2
2005 - 2006	25%	2.5

GROWTH RATE (g)

The growth rate of dividend of the company has been calculated for the periods 2002 to 2006.

Growth may be based on past EPS rather than DPS since company do not change their DPS frequently with changes in EPS.

TABLE 4.3

EARNINGS PER SHARE

YEAR	EARNINGS PER SHARE(EPS) (Rs)
2000 - 2001	5.58
2001 - 2002	3.32
2002 - 2003	9.17
2003 - 2004	14.79
2004 -2005	6.26
2005 - 2006	17.16

Growth rate is calculated using the formula:

$$G = \left(\frac{EPS_n}{EPS_0} \right)^{1/n} - 1$$

G = 25.19%

COST OF EQUITY AND FREE RESERVES (K_e)

To calculate the cost of equity capital and free reserves, the dividend model is considered as the data available satisfies this model. It is formulated as;

$$K_e = D_1 / P_0 + g$$

TABLE 4.4

COST OF EQUITY

YEAR	INTRINSIC VALUE PER SHARE(P_0)(Rs)	DIVIDEND PER SHARE (D_1)(Rs)	COST OF EQUITY (K_e)
2001 - 2002	59	2	28.58%
2002 - 2003	56.69	2	28.72%
2003 - 2004	69.75	2	28.06%
2004 -2005	73.69	2	27.90%
2005 - 2006	88	2.5	28.03%

TABLE 4.5

WEIGHTED AVERAGE COST OF CAPITAL (WACC)

YEAR	SOURCES	(Rs. In lakhs)	WEIGHT (%)	COST (%)	WACC (%)
2001 -2002	EQUITY	944	58.34	28.58	16.67
	DEBT	674	41.66	6.1	2.54
	TOTAL	1618	100		19.21
2002 - 2003	EQUITY	907	58.86	28.72	16.9
	DEBT	634	41.14	6.29	2.59
	TOTAL	1541	100		19.49
2003 - 2004	EQUITY	1116	53.02	28.06	14.88
	DEBT	989	46.98	6.29	2.95
	TOTAL	2105	100		17.83
2004 - 2005	EQUITY	1179	40.6	27.9	11.32
	DEBT	1725	59.4	6.29	3.73
	TOTAL	2904	100		15.05
2005 - 2006	EQUITY	1408	49.7	28.03	13.93
	DEBT	1425	50.3	6.29	3.16

TABLE 4.6

WEIGHTED AVERAGE COST OF CAPITAL (WACC)

YEAR	WACC (%)
2001 - 2002	19.21
2002 - 2003	19.49
2003 - 2004	17.83
2004 -2005	15.05
2005 - 2006	17.09

TABLE 4.7

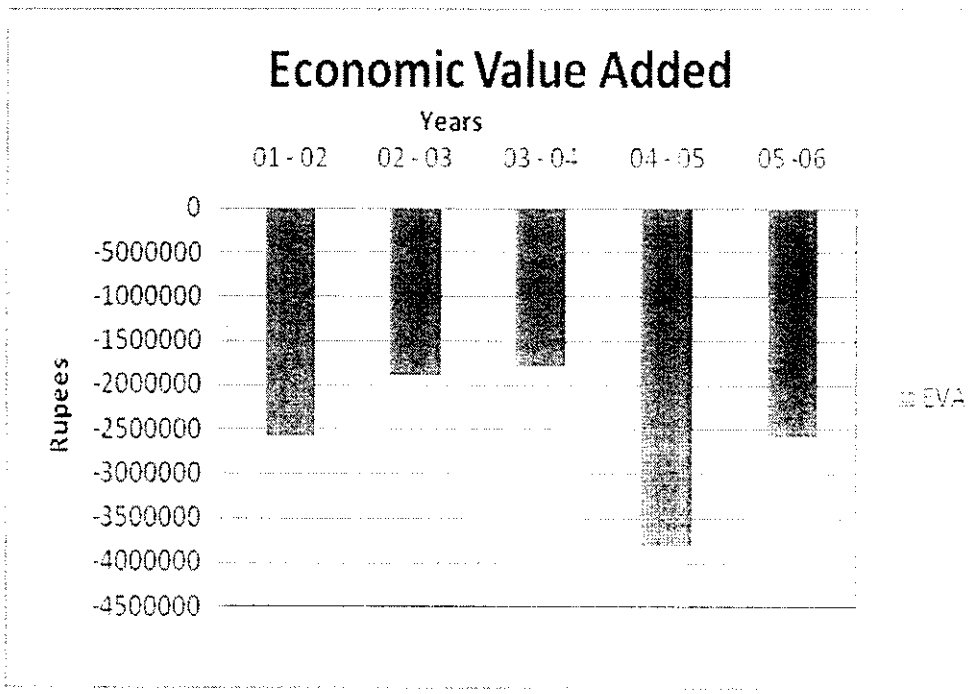
CALCULATION OF ECONOMIC VALUE ADDED

YEAR	NOPAT (Rs)	CAPITAL (Rs)	WACC (%)	EVA (Rs)
2001 - 2002	5319727	161753747	19.21	-25753167.8
2002 - 2003	14679487	172821433	19.49	-19003410.29
2003 - 2004	23669490	233201942	17.83	-17910416.26
2004 -2005	10020897	319933363	15.05	-38129074.13
2005 - 2006	27455617	311742420	17.09	-25821162.58

INTERPRETATION

Economic value added is a measure of a company's financial performance based on the residual wealth calculated by deducting cost of capital from its operating profit. Economic value added attempts to capture the true Economic profit or Economic loss of a company EVA is a way to determine the value created, above required return for the shareholders of a company. The company has not achieved Economic profit during the period of study. The reason for the Economic loss is due to high operating expenses.

FIGURE 4.1



4.2. RATIO ANALYSIS

4.2.1. SOLVENCY RATIOS

The ratios, calculated to ascertain the short term solvency of the company are known as liquidity ratios. Short term financial position is calculated to adjudge whether the current assets of the company are sufficient to meet its short term liabilities. It is an accepted fact that business should be able to meet it current and short term liabilities out of its short term financial resources. It will be suicidal for business to arrange funds out of long term funds to meet its short term liabilities and to repay long term liabilities out of short term or current assets.

4.2.1.1. CURRENT RATIO

Current ratio may be defined as the relationship between current asset and current liabilities. This ratio also known as working capital ratio is a measure of general liquidity and is mostly used to make the analysis of short-term financial position of liquidity and is mostly used to make the analysis of short-term financial position of a firm. The rule of thumb is 2:1, the current ratio is

$$\textbf{Current ratio} = \frac{\textbf{Current Asset}}{\textbf{Current Liabilities}}$$

TABLE 4.8

COMPONENTS OF CURRENT ASSET

Year	Inventories (Rs)	Sundry Debtors (Rs)	Cash & Bank Balances (Rs)	Loans & Advances (Rs)	Total Current Assets (Rs)
2001 - 2002	27546112	63530849	4334886	22399369	117811216
2002 - 2003	31463506	78610850	7046272	20577394	137698022
2003 - 2004	49780471	76488272	4442704	27539667	158251114
2004 - 2005	80827464	109865075	8508617	29478987	228680143
2005 - 2006	72112565	126631205	7441486	52600232	258785488

TABLE 4.9

COMPONENTS OF CURRENT LIABILITIES

Year	Current Liabilities & Provisions (Rs)
2001 - 2002	44881491
2002 - 2003	64498702
2003 - 2004	85711073
2004 -2005	105842499
2005 - 2006	149308072

TABLE 4.10

CURRENT RATIO

Year	Current Assets (Rs)	Current Liabilities & Provisions (Rs)	Ratio
2001 - 2002	117811216	44881491	2.62
2002 - 2003	137698022	64498702	2.13
2003 - 2004	158251114	85711073	1.85
2004 - 2005	228680143	105842499	2.16
2005 - 2006	258785488	149308072	1.73

INTERPRETATION

This ratio is an indicator of the firm's commitment to meet the short term liabilities. The current ratio of the company is more or less constant having an average ratio of 2.1. The standard current ratio is 2:1, this shows that the company is in a good position to pay its current liabilities from its current assets. The above table clearly depict the current ratios from 2001-2002 to 2005-2006. It was least to 1.73:1 in 2005-2006 and maximum during 2001-2002 because the current assets are higher than the current liabilities.

4.2.1.2. LIQUID RATIO

Liquid ratio may be defined as the relationship between quick or liquid asset or current asset of liquid liabilities. The assets which can be included in the liquid asset are receivable, sundry debtors, marketable security and short term temporary investments. The rule of thumb of quick ratio is 1:1. The ratio can be calculated by dividing the total of quick assets by total current liabilities.

$$\text{Liquid ratio} = \frac{\text{Liquid asset}}{\text{Current liabilities}}$$

TABLE 4.11

COMPONENTS OF LIQUID ASSETS

Year	Current Assets (Rs) (A)	Inventories (Rs) (B)	Liquid Asset (Rs) (C= A-B)
2001 - 2002	117811216	27546112	90265104
2002 - 2003	137698022	31463506	106234516
2003 - 2004	158251114	49780471	108470643
2004 -2005	228680143	80827464	147852679
2005 - 2006	258785488	72112565	186672923

TABLE 4.12

LIQUID RATIO

Year	Liquid Asset (Rs)	Current Liabilities (Rs)	Ratio
2001 - 2002	90265104	44881491	2.01
2002 - 2003	106234516	64498702	1.65
2003 - 2004	108470643	85711073	1.27
2004 -2005	147852679	105842499	1.40
2005 - 2006	186672923	149308072	1.25

INTERPRETATION

This ratio is an indicator of the firm's short term solvency of the company. The quick ratio of the company is more or less constant having an average ratio of 1.51. The standard liquid ratio is 1:1, this shows that the company is in a good position in the holding of inventory. By analyzing the ratio it is identified that the highest ratio was during the year 2001- 2002 and lowest during 2005-2006. This shows that the company has gradually improved over the years in the holding the inventory.

4.2.1.3. ABSOLUTE LIQUIDITY RATIO

Absolute liquid assets include cash in hand and at bank and marketable securities or temporary investment. The acceptable norm for this ratio is 50% or 0.5:1.

$$\text{Absolute liquid ratio} = \frac{\text{Absolute liquid asset}}{\text{Current liabilities}}$$

TABLE 4.13

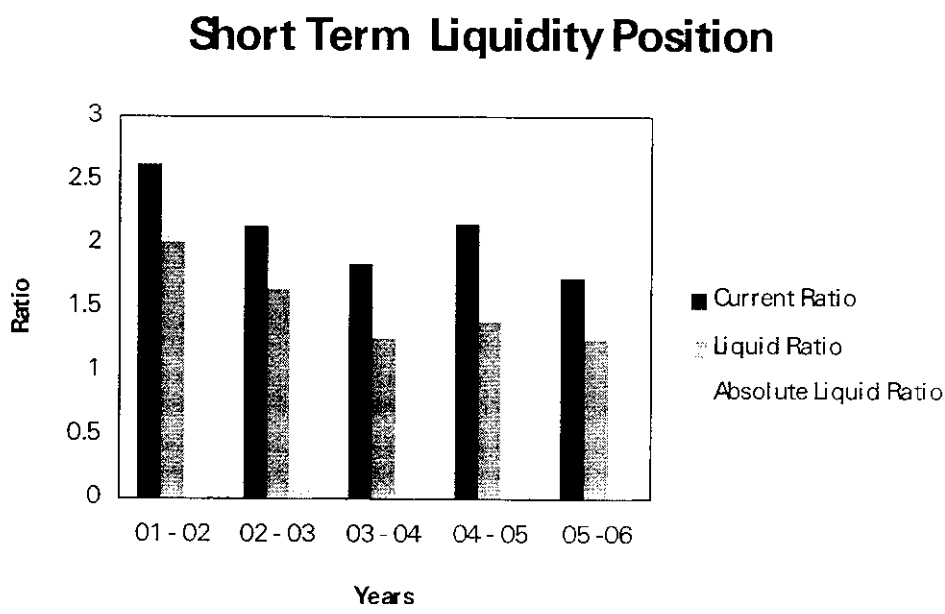
ABSOLUTE LIQUID RATIO

Year	Absolute Liquid Assets (Rs)	Current Liabilities (Rs)	Ratio
2001 - 2002	4334886	44881491	0.10
2002 - 2003	7046272	64498702	0.11
2003 - 2004	4442704	85711073	0.05
2004 -2005	8508617	105842499	0.08
2005 - 2006	7441486	149308072	0.05

INTERPRETATION

This ratio is the most vigorous measure of the company's liquidity position. The standard liquid ratio is 0.5:1, but the average ratio is 0.08. It is clearly understood that the ratio is far below the standard, this implies that there was more current liabilities than the cash in bank. The company cannot meet the urgent expenses because of high liabilities.

FIGURE 4.2



4.2.1.4. DEBT EQUITY RATIO

Debt equity ratio is also known as external – internal equity ratio is calculated to measure the relative claims of outsiders and the owners against the firm's assets. These ratios indicate the relationship between external equities or the outsider's funds and the internal equities or share holder's funds.

$$\text{Debt equity ratio} = \frac{\text{Outsider's fund}}{\text{Shareholder's funds}}$$

TABLE 4.14

COMPONENTS OF OUTSIDERS FUNDS

Year	Secured Loan (Rs)	Unsecured Loan (Rs)	Total Outsider's funds (Rs)
2001 - 2002	40556635	26837504	67394139
2002 - 2003	48240992	15206291	63447283
2003 - 2004	88669317	10243827	98913144
2004 -2005	157255822	15240671	172496493
2005 - 2006	126766613	15722796	142489409

TABLE 4.15

COMPONENTS OF SHAREHOLDER'S FUNDS

Year	Share Capital (Rs)	Reserves & Surplus (Rs)	Total Shareholder's Fund (Rs)
2001 - 2002	16000000	78359608	94359608
2002 - 2003	16000000	74679244	90679244
2003 - 2004	16000000	95560772	111560772
2004 -2005	16000000	101932869	117932869
2005 - 2006	16000000	124823060	140823060

TABLE 4.16

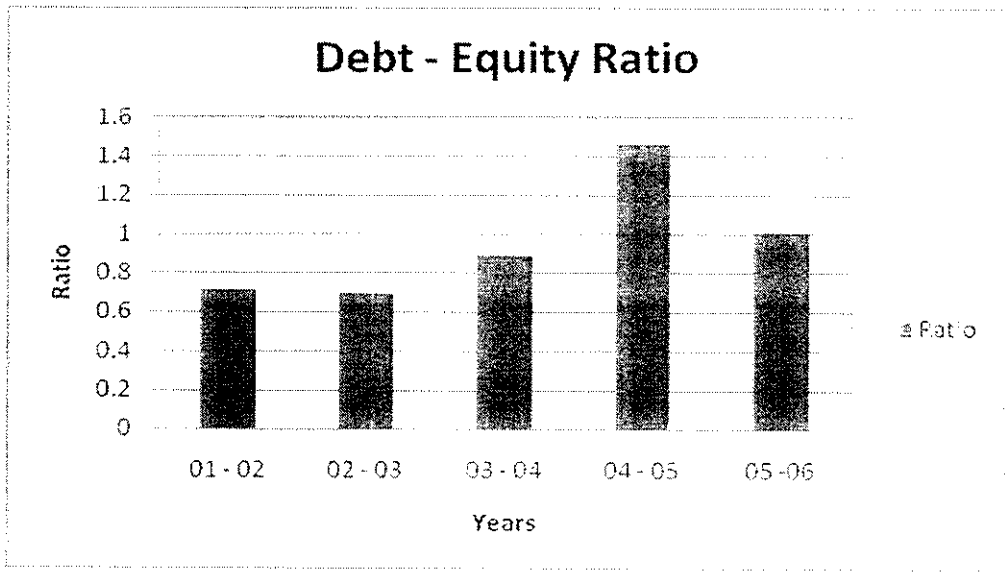
DEBT EQUITY RATIO

Year	Outsider's funds (Rs)	Shareholder's Fund (Rs)	Ratio
2001 - 2002	67394139	94359608	0.71
2002 - 2003	63447283	90679244	0.70
2003 - 2004	98913144	111560772	0.89
2004 -2005	172496493	117932869	1.46
2005 - 2006	142489409	140823060	1.01

INTERPRETATION

Ideally a company goes up to a ratio of 2:1. As far as the debt equity ratio is concerned the above table shows that it has been maintained at very low levels in the recent years. This shows that the company has not borrowed adequately. By analyzing the table we can see that the highest ratio was in the year 2004-2005 and the lowest during 2002-2003. The average ratio for the period of study is 0.96.

FIGURE 4.3



4.2.1.5. PROPRIETARY RATIO

Proprietary ratio is also known as equity ratio or share holder's ratio total equities ratio of net worth total asset ratio. This ratio establishes the relationship between share holder's funds to total asset of a firm. This ratio can be calculated as under

$$\text{Proprietary ratio} = \frac{\text{Share holder's funds}}{\text{Total asset}}$$

TABLE 4.17

COMPONENTS OF TOTAL ASSETS

Year	Fixed Asset (Rs)	Current Assets (Rs)	Total Assets (Rs)
2001 - 2002	79647063	117811216	197458279
2002 - 2003	87955566	137698022	225653588
2003 - 2004	127624160	158251114	285875274
2004 -2005	163169101	228680143	391849244
2005 - 2006	182698930	258785488	441484418

TABLE 4.18

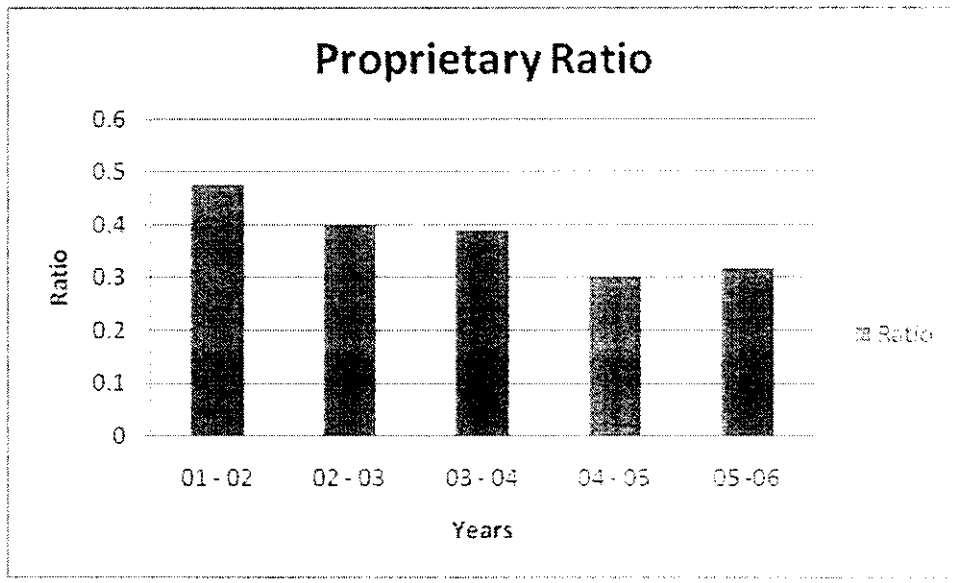
PROPRIETARY RATIO

Year	Shareholder's Fund (Rs)	Total Assets (Rs)	Ratio
2001 - 2002	94359608	197458279	0.48
2002 - 2003	90679244	225653588	0.40
2003 - 2004	111560772	285875274	0.39
2004 -2005	117932869	391849244	0.30
2005 - 2006	140823060	441484418	0.32

INTERPRETATION

The company maintained a stable position in the holding of the proprietor's fund. As against the standard formula of 50 percent the company is holding less which is helpful to the creditors. The company is maintaining the ratio at an average of 0.38 for the period of the study. This shows that the company's `assets have increased over the period.

FIGURE 4.4



4.2.1.6. FIXED ASSET TO NETWORTH RATIO

The ratio establishes the relationship between fixed asset and shareholders funds. The ratio can be calculated as follows.

$$\text{Fixed asset to net worth} = \frac{\text{Fixed asset (after depreciation)}}{\text{Shareholder's funds}}$$

TABLE 4.19

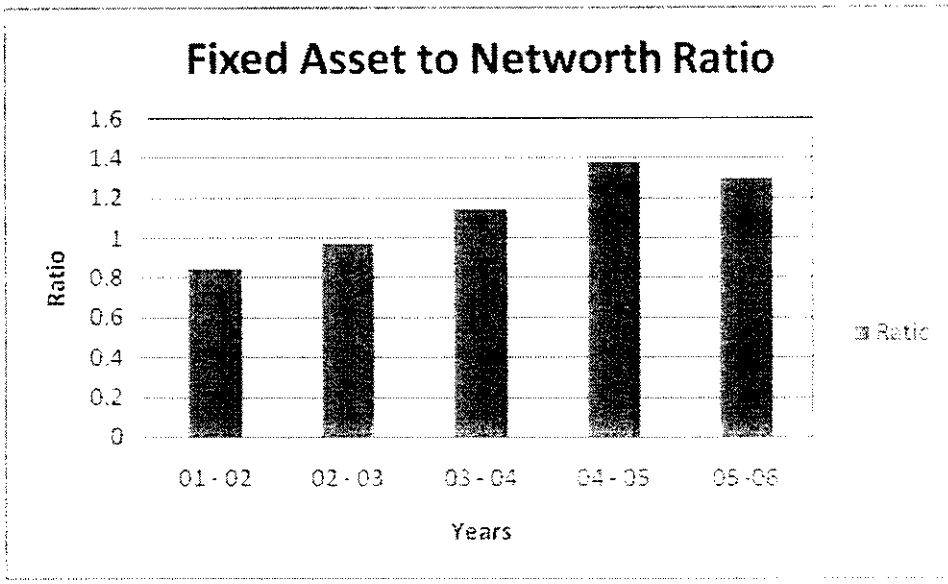
FIXED ASSET TO NETWORTH RATIO

Year	Fixed Asset (Rs)	Shareholder's Fund (Rs)	Ratio
2001 - 2002	79647063	94359608	0.84
2002 - 2003	87955566	90679244	0.97
2003 - 2004	127624160	111560772	1.14
2004 -2005	163169101	117932869	1.38
2005 - 2006	182698930	140823060	1.30

INTERPRETATION

The fixed assets to net worth ratio show that the contribution from the shareholder's has been very high. This ratio has been maintained above 40 percent. The ratio shows a growing trend for the past eight years. This ratio is highest in the year 2004-2005 and it is lowest in the year 2001-2002. It shows an average of 1.13 for the past five years.

FIGURE 4.5



4.2.1.7. CURRENT ASSET TO PROPRIETOR'S FUND RATIO

The ratio is calculated by dividing the total current assets by the amount of share holder's funds. The ratio indicates the extent to which proprietor's funds are invested in current assets. The ratio of current assets to proprietor's funds in terms of percentage is calculated by the following formula.

$$\textbf{Current asset to proprietor's fund ratio} = \frac{\textbf{Current assets}}{\textbf{Shareholder's funds}}$$

TABLE 4.20

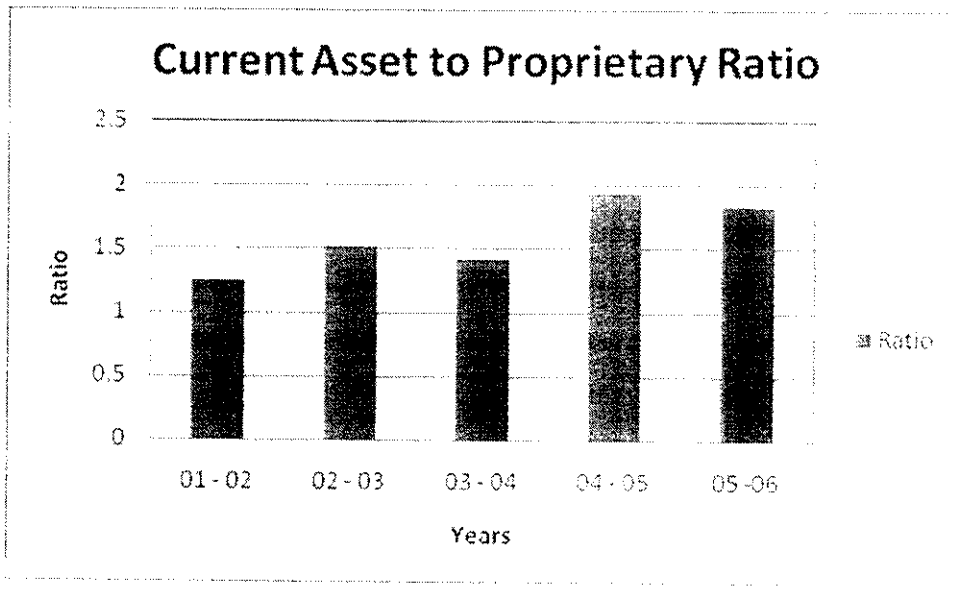
CURRENT ASSET TO PROPRIETOR'S FUND RATIO

Year	Current Assets (Rs)	Shareholder's Fund (Rs)	Ratio
2001 - 2002	117811216	94359608	1.25
2002 - 2003	137698022	90679244	1.52
2003 - 2004	158251114	111560772	1.42
2004 -2005	228680143	117932869	1.94
2005 - 2006	258785488	140823060	1.84

INTERPRETATION

The above table clearly indicates that the current asset to proprietary funds ratio from 2001-2002 to 2005-2006. The ratio was minimum during 2001-2002 and maximum during 2004-2005 the shareholder's fund is constant but the current assets has increased and decreased. The average ratio for the period of study is 1.59.

FIGURE 4.6



4.2.2. EFFICIENCY RATIO

It is an accepted concept that a sale has direct relationship with the performance of business. A higher sale means better performance, which really means better efficiency or productivity of the business. Higher sales also means more production, which is undoubtedly the result of the best possible utilization of physical resources i.e., material, machine, and active participation of human resource. In this way, words turnover, performance and activity are synonymous. These three words carry the same sense. In other words, more sales means business is more active and has better performance.

4.2.2.1. INVENTORY TURNOVER RATIO

Inventory turnover ratio also known as stock velocity is normally calculated as sales/average inventory turn over ratio indicates the number of items the stock has been turned over during the period and evaluates the efficiency with which a firm is able to manage its inventory, this ratio is calculated as

$$\textbf{Inventory turnover ratio} = \frac{\textbf{Cost of goods sold}}{\textbf{Average inventory at cost}}$$

Cost of goods sold = Net sales – Gross profit

$$\textbf{Average inventory} = \frac{\textbf{Opening stock + Closing stock}}{2}$$

TABLE 4.21

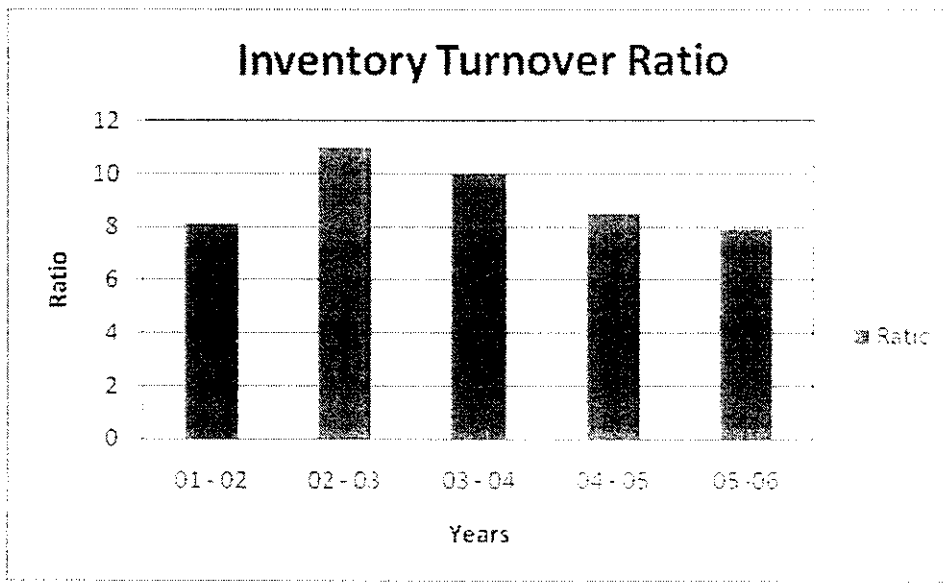
INVENTORY TURNOVER RATIO

Year	Cost of goods sold (Rs)	Average Inventory (Rs)	Ratio
2001 - 2002	258240051	31786994	8.12
2002 - 2003	324214527	29504809	10.99
2003 - 2004	405890898	40621989	9.99
2004 -2005	556122108	65303968	8.52
2005 - 2006	607474745	76470015	7.94

INTERPRETATION

This ratio measures how many times the average stock is sold during the year. Lower inventory turnover ratio shows the stock is blocked and it is not immediately sold. The standard ratio may differ from company to company. In the above analysis the ratio is highest in the year 2002-2003 and lowest in the year 2005-06. The average for the period of the study was 9.11; this shows that the average stock approximately every 40 days which is near to 10 times every year.

FIGURE 4.7



4.2.2.2. DEBTORS TURNOVER RATIO

Debtors turnover ratio indicates the velocity of debt collection of the firm. It indicates the numbers of average debtors are turned over during a year. Hence the liquidity position of a concern to pay its short-term obligation in time depends upon the quality of its debtors.

$$\textbf{Debtors turnover ratio} = \frac{\textbf{Net credit annual sales}}{\textbf{Average trade debtors}}$$

TABLE 4.22

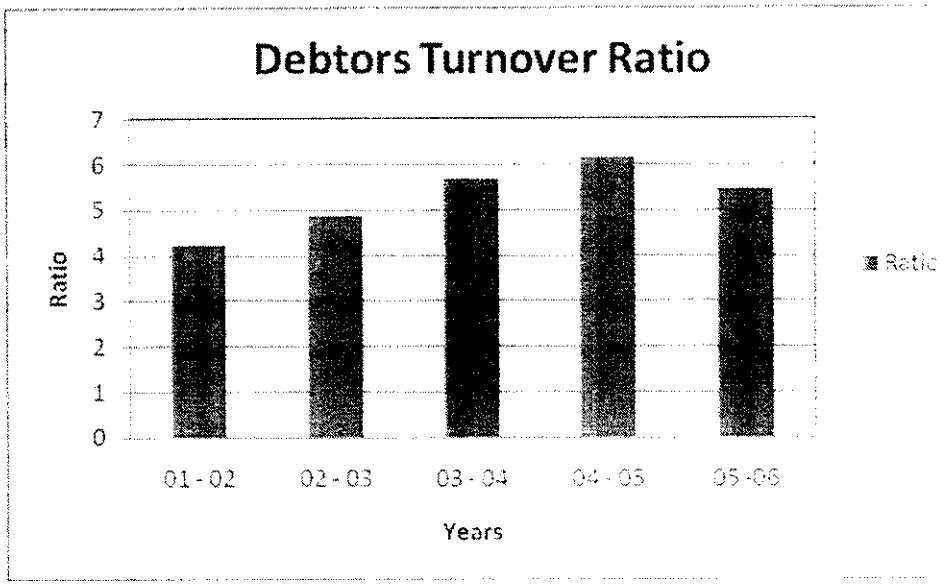
DEBTORS TURNOVER RATIO

Year	Net Annual Credit Sales (Rs)	Average Trade Debtors (Rs)	Ratio
2001 - 2002	268469387	63663693	4.22
2002 - 2003	346758601	71070850	4.88
2003 - 2004	441293508	77549561	5.69
2004 -2005	574168980	93176674	6.16
2005 - 2006	644527713	118248140	5.45

INTERPRETATION

Debtors turn over ratio indicates the efficiency with which debts are collected. It will be in the interest of business, if ratio is higher which will indicate that debts are collected quickly. The above table clearly indicates the debtors turnover ratio from 2001-02 to 2005-06. The ratio is minimum during 2001-02 and maximum during 2004-05. The debtors turnover ratio is increasing with every year from 2001-02 to 2004-05, this shows that the company had become efficient in collecting the debts over the years, but it reduced in 2005 -06.

FIGURE 4.8



4.2.2.3. AVERAGE COLLECTION PERIOD

The average collection period ratio represents the average number of days for which a firm has to wait before its receivables are cnverted into cash. Generally shorter the average collection period the better is the quality of debtors. The ratio can be calculated as follows.

$$\textbf{Average collection period} = \frac{\textbf{365}}{\textbf{Debtors turn over ratio}}$$

TABLE 4.23

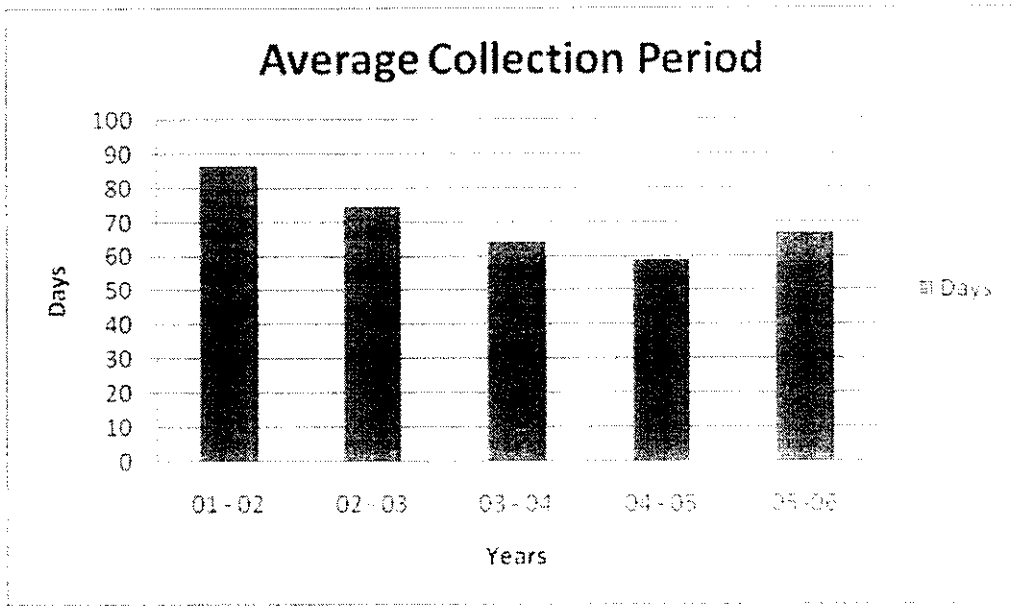
AVERAGE COLLECTION PERIOD

Year	No of Days	Debtors Turnover Ratio	Days
2001 - 2002	365	4.22	87
2002 - 2003	365	4.88	75
2003 - 2004	365	5.69	64
2004 -2005	365	6.16	59
2005 - 2006	365	5.45	67

INTERPRETATION

The ratio indicates, days within which debts are collected or in other words, sales remain uncollected. Prompt debt collection is always in the interst of business, beause cash will be readily available. From the above table it is known that the collection period was lesser in the year 2004-05 and was higher during 2001-02. The average for five year period was 70 days. The collection period during the last three years is less than the past, this implies that better is the quality of debtors as a collection period implies quick payment by debtors.

FIGURE 4.9



4.2.2.4. CREDITORS TURNOVER RATIO

Creditors turnover ratio indicates the velocity with which the creditors turnover in relation to purchases. It indicates the average number of days taken by a firm to pay its creditors, accounts payable include creditors and bills payable.

$$\textbf{Creditors turnover ratio} = \frac{\textbf{Net credit annual purchases}}{\textbf{Average trade creditors}}$$

TABLE 4.24

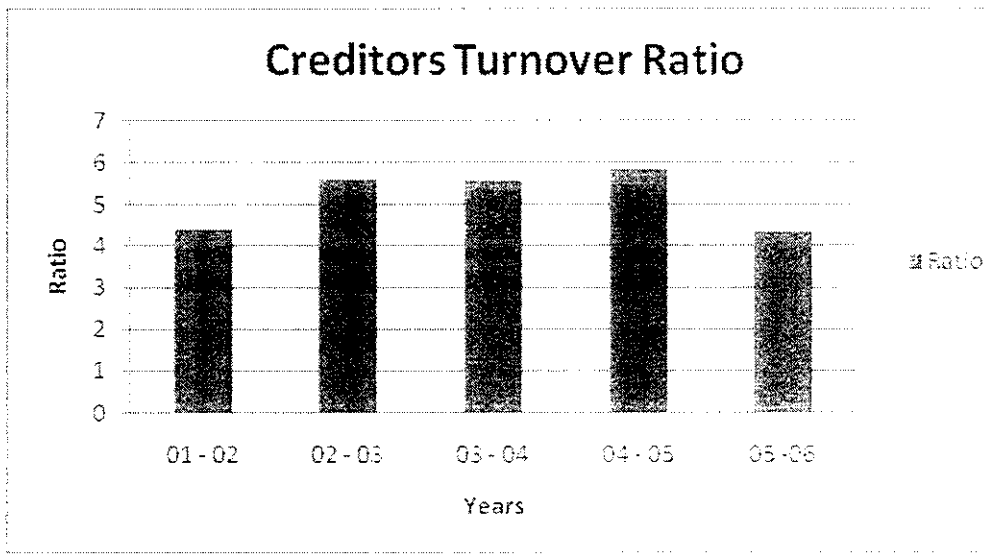
CREDITORS TURNOVER RATIO

Year	Net Annual Credit Purchase (Rs)	Average Trade Creditors (Rs)	Ratio
2001 - 2002	101050606	23000885	4.39
2002 - 2003	147775655	26320498	5.61
2003 - 2004	195150032	35020491	5.57
2004 -2005	296319949	50588597	5.86
2005 - 2006	328415823	75930499	4.33

INTERPRETATION

In the above table the creditors turnover ratio increase from 4.39 in 2001-02 to 5.86 during 2004-05 and has decreased to 4.33 in 2005-06. Generally lower the ratio better is the liquidity position of the firms and higher is the ratio lower the liquidity position of the firm. The company has achieved a good ratio in 2005-06 which is the best in the five years of study.

FIGURE 4.10



4.2.2.5. AVERAGE PAYMENT PERIOD

Average payment period represents the average number of days taken by the firm to pay its creditors. This ratio indicates the velocity with which the creditors turnover in relation to purchases.

$$\textbf{Average payment period} = \frac{365}{\textbf{Creditors turnover ratio}}$$

TABLE 4.25

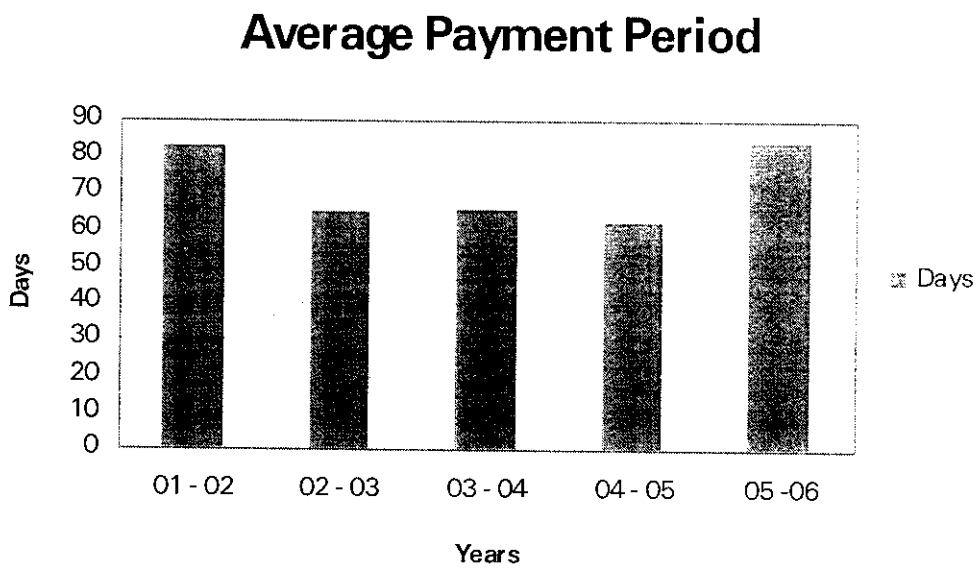
AVERAGE PAYMENT PERIOD

Year	No of Days	Creditors Turnover Ratio	Days
2001 - 2002	365	4.39	83
2002 - 2003	365	5.61	65
2003 - 2004	365	5.57	66
2004 -2005	365	5.86	62
2005 - 2006	365	4.33	84

INTERPRETATION

This ratio also indicates the speed with which the payment against credit purchases is made. In the above table the average payment period was minimum during 2004-05 and was maximum during 2005-06. The average for the five year period was 72 days.

FIGURE 4.11



4.2.3. PROFITABILTY RATIO

Profitability refers to the ability of the business to earn profit. It shows the efficiency of the business. These ratios measure the profit earning capacity of the company. Profitability has direct has direct link with sales. This is why we calculate these ratios on the basis of sales. Return on investments and capital on the basis of capital employed. The profitability of the business can be measured with the following ratios.

4.2.3.1. GROSS PROFIT RATIO

Gross profit ratio measures the relationship of gross profit to net sales and is usually represented as a percentage. This ratio is calculated by dividing the gross profit by sales.

$$\text{Gross profit ratio} = \frac{\text{Gross profit}}{\text{Net sales}} \times 100$$

TABLE 4.26

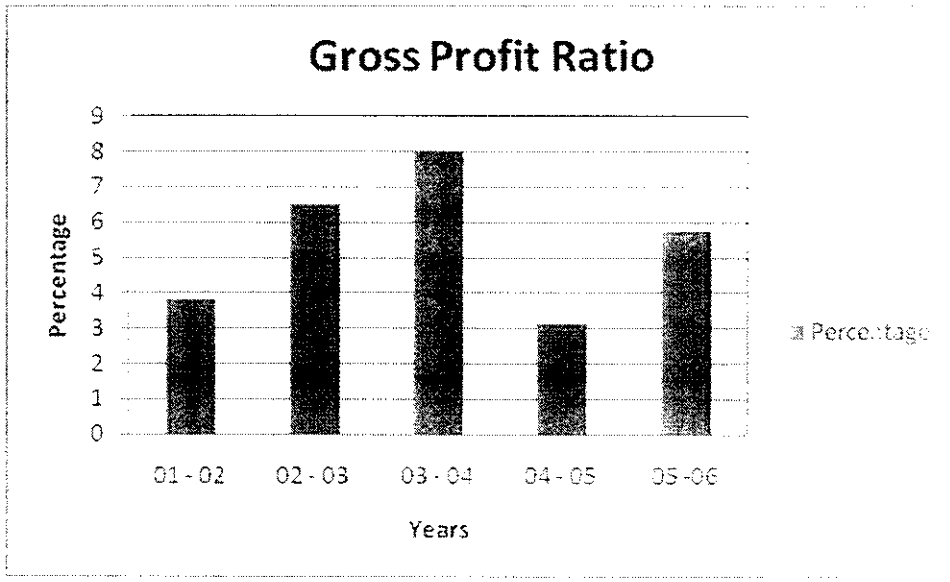
GROSS PROFIT RATIO

Year	Gross Profit (Rs)	Net Sales (Rs)	Percentage
2001 - 2002	10229336	268469387	3.81
2002 - 2003	22544074	346758601	6.50
2003 - 2004	35402610	441293508	8.02
2004 -2005	18046872	574168980	3.14
2005 - 2006	37052968	644527713	5.75

INETRPRETATION

The above table clearly depicts the gross profit ratio from 2001 -2002 to 2005-2006. The ratio was minimum during 2003 -04 and minimum during 2004 -05. Gross profit ratio reveals profit earning capacity of the business with reference to its sale. Increase in gross profit ratio will mean reduction in cost of production or direct expenses or sale at reasonably good price and decrease in the ratio will increase cost of production or sale at lesser price.

FIGURE 4.12



4.2.3.2. NET PROFIT RATIO

Net profit ratio measure the relationship of net profit to net sales (after taxes) and sales and indicates the efficiency of the management in manifacturing, selling, administrative and other activities of activities of the firm. This ratio is the overall measures of the first profitability and is calculated as

$$\text{Net profit ratio} = \frac{\text{Net profit}}{\text{Net sales}} \times 100$$

TABLE 4.27

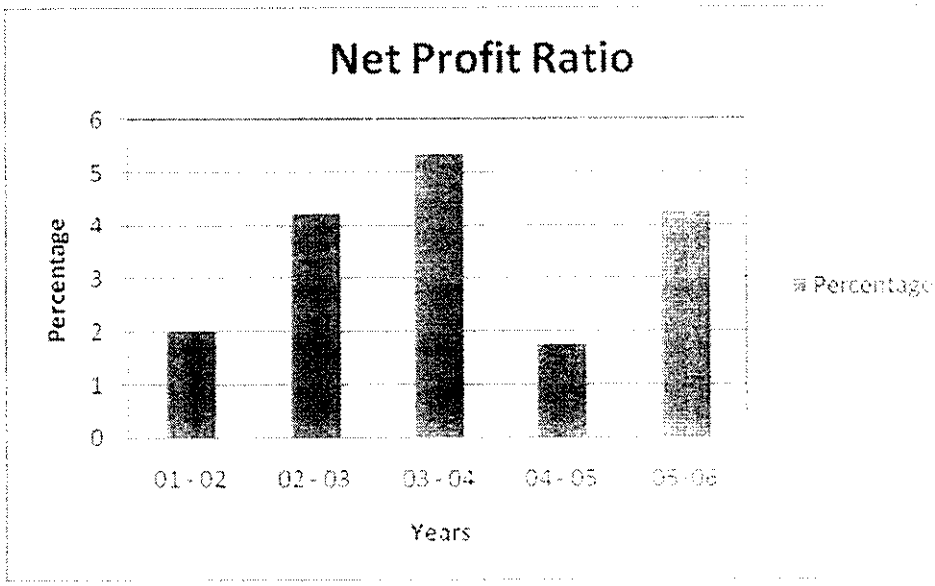
NET PROFIT RATIO

Year	Net Profit (Rs)	Net Sales (Rs)	Percentage
2001 - 2002	5319727	268469387	1.98
2002 - 2003	14679487	346758601	4.23
2003 - 2004	23669490	441293508	5.36
2004 -2005	10029897	574168980	1.75
2005 - 2006	27455617	644527713	4.26

INTERPRETATION

Net profit for calculating this ratio picked up from the profit and loss account. It should be noted that the net profit is ascertained after adding operating and non- operating income to gross profit and deducting both operating and non operating expenses therefrom. The above table clearly depicts the net profit ratio from 2001-02 to 2005-06. The ratio was maximum during during the year 2003-04 at 5.36% and it was minimum during 2004-05 at 1.75%. The company has improved the net profit ratio over last year, this shows that it has reducd its expenses.

FIGURE 4.13



4.2.3.3. RETURN ON GROSS CAPITAL EMPLOYED

The term "gross capital employed" usually comprise the asstes fixed as well as current assets used in business.

$$\textbf{Return on gross capital employed} = \frac{\textbf{Operating profit}}{\textbf{Net sales}} \times \textbf{100}$$

TABLE 4.28

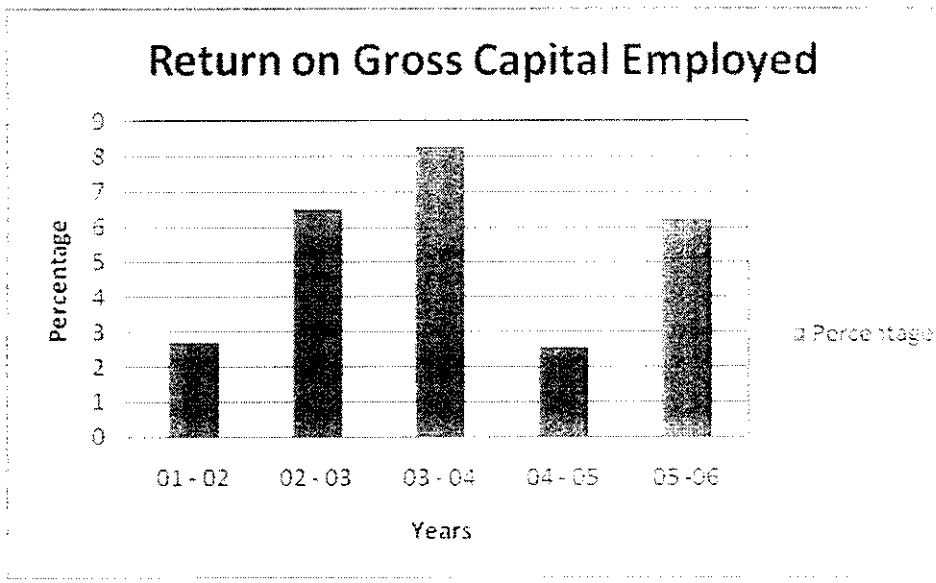
RETURN ON GROSS CAPITAL EMPLOYED

Year	Net Profit (Rs)	Gross Capital Employed (Rs)	Percentage
2001 - 2002	5319727	197458279	2.69
2002 - 2003	14679487	225653588	6.51
2003 - 2004	23669490	285875274	8.28
2004 -2005	10029897	391849244	2.56
2005 - 2006	27455617	441484418	6.22

INTERPRETATION

This is one of the most important profitability ratios. It indicates the relation of net profit with capital employed in the business. From the above table it shows that the return on gross capital employed has ranged from 2.69 to 6.22. It was minimum during the year 2.56 during 2004-05 and maximum during the year 2003-04 at 8.28.

FIGURE 4.14



4.2.3.4. RETURN ON NET CAPITAL EMPLOYED

The term " net capital employed" usually comprise the asstes to a business less its current liabilities.

$$\text{Return on net capital employed} = \frac{\text{Adjusted net profit}}{\text{Net capital employed}} \times 100$$

TABLE 4.29

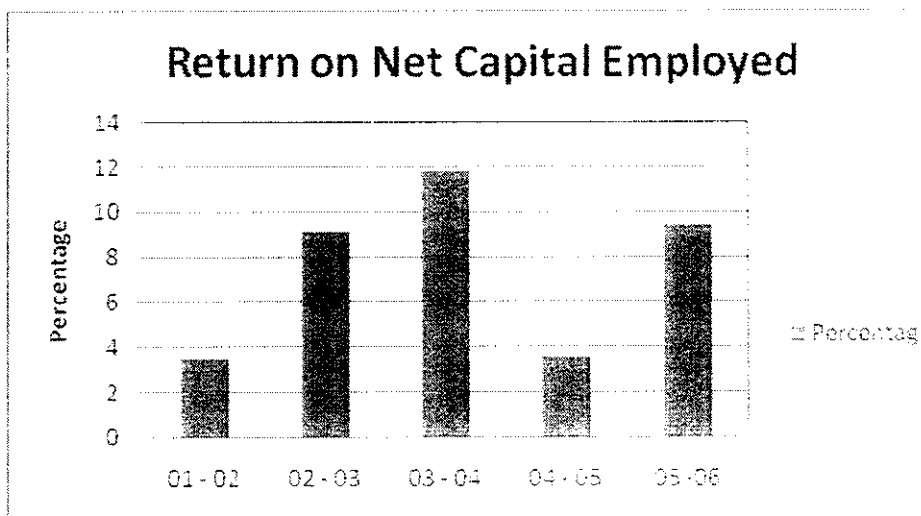
RETURN ON NET CAPITAL EMPLOYED

Year	Net Profit (Rs)	Net Capital Employed (Rs)	Percentage
2001 - 2002	5319727	152576788	3.49
2002 - 2003	14679487	161154886	9.11
2003 - 2004	23669490	200164201	11.83
2004 -2005	10029897	286006745	3.51
2005 - 2006	27455617	292176346	9.40

INTERPRETATION

The above table shows the return on net capital employed. The ratio was minimum in 2001-02 at 3.49% because of less profit and maximum during 2003-04 at 11.83% due to higher profit. It follows an irregular trend during the period of study.

FIGURE 4.15



4.2.3.5. SELLING AND ADMINISRATIVE EXPENSES RATIO

Selling and administrative expenses ratio is calculated by dividing total selling and administrative expenses by net sales.

$$\text{Selling and administrative expenses ratio} = \frac{\text{Selling and administrative expenses}}{\text{Net sales}} \times 100$$

TABLE 4.30

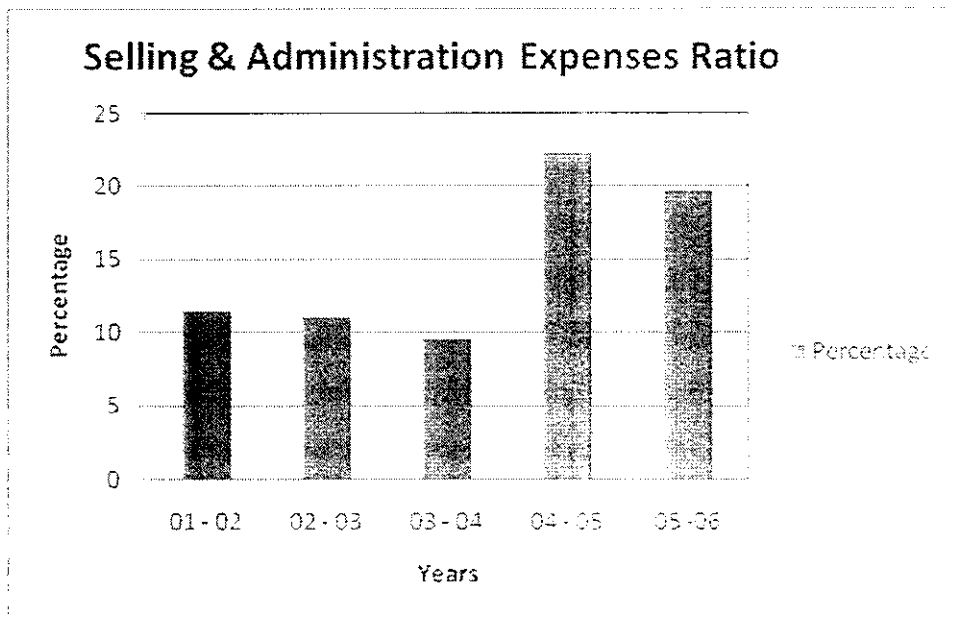
SELLING AND ADMINISRATIVE EXPENSES RATIO

Year	Selling & Admn Expenses (Rs)	Net Sales (Rs)	Percentage
2001 - 2002	30778195	268469387	11.46
2002 - 2003	38179128	346758601	11.01
2003 - 2004	41884368	441293508	9.49
2004 -2005	127987890	574168980	22.29
2005 - 2006	126969655	644527713	19.70

INTERPRETATION

In order to determine the operational efficiency of the business, every expenditure has to be matched with sales. The business should calculate every expense ratio individually, so that actual increase or decrease in the ratio of all expenses may be known. The above table indicates that the selling and administrative expenses ratio was maximum at 22.29% of the net sales during 2004-05 which is very high and minimum during 2003-04 this shows that the company has managed its expenses efficiently during this period.

FIGURE 4.16



4. 3. DEMAND FORECASTING

The tools used to forecast the demand for products is 'Simple Regression'. It is a statistical tool that can be used to forecast the future demand of the products with the past sales. This helps the company to plan for the future. The demand is forecasted with the following formulae,

$$Y = a + bX$$

Where,

a& b from the following equations.

$$a = \sum Y / n;$$

$$b = \sum XY / \sum X^2.$$

TABLE 4.31

TABLE TO CALCULATE TREND

Year	X	Sales (Y)	X^2	XY
2001 - 2002	-2	268469387	4	-536938774
2002 - 2003	-1	346758601	1	-346758601
2003 - 2004	0	441293508	0	0
2004 -2005	1	574168980	1	574168980
2005 - 2006	2	644527713	4	1289055426
		$\sum Y = 2275218189$	**$\sum X^2 = 10$**	**$\sum XY = 979527031$**

a = 2275218189 / 5;

a = 455043637.8

b = 979527031 / 10;

b = 97952703.1

Therefore, the demand can be forecasted from the following equation.

Y = 455043637.8 + 97952703.1X

TABLE 4.32

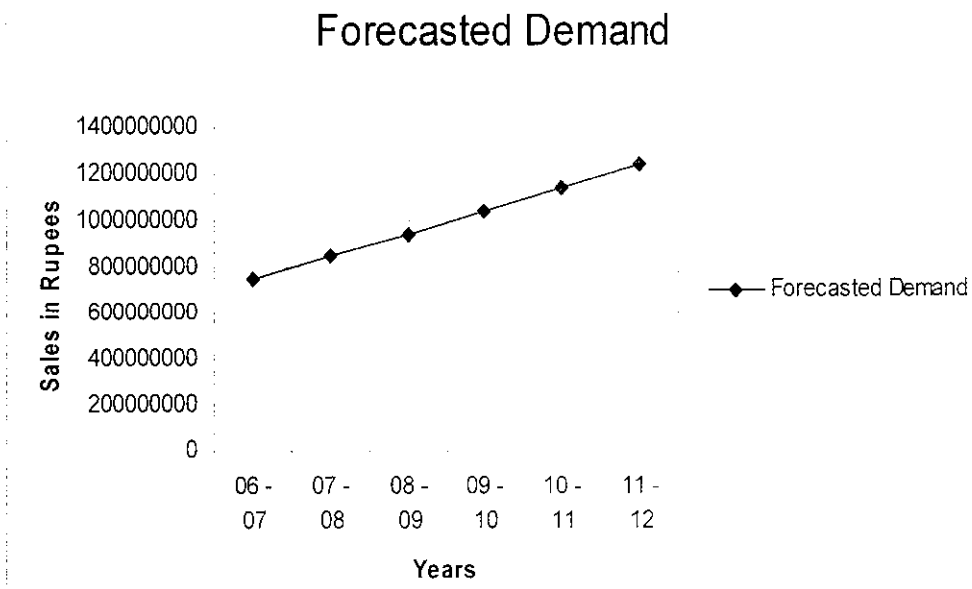
FORECASTED SALES

Year	Forecasted Demand (Rs)
2006 - 2007	748901747.1
2007 - 2008	846854450.2
2008 - 2009	944807153.3
2009 - 2010	1042759856
2010 - 2011	1140712560
2011 - 2012	1238665263

INTERPRETATION

The above table represents the forecasted sales of the company until the year 2011-2012. The forecasted value shows that the sales of the company will almost double the present level in the next 6 years as per the present scenario.

FIGURE 4.17



CHAPTER 5

5. CONCLUSION

In the field of corporate finance, Economic Value Added is one of the most sought after financial models of recent times to measure the financial performance of a company or its different activities. The study is based on analysing the financial position of a comapany using various tools and techniques.

ROOTS INDUSTRIES LTD is taken as a sample case and its operations are analysed with aid of financial techniques. The study which was primarily based on the annual reports of the company i.e., income statement and balancesheets, the study was done of five years 2001-2002 to 2005-2006.

Based on analysis and subsequent findings it is concluded that average financial performance of company is good. The company is said to maintain good liquidity position. In the last year of the study when compared to the previous year. It is found that the profit was higher. The efficiency ratio of the company shows good performance.

5.1. RESULTS AND DISCUSSIONS

1. The economic profit number tells us that, despite generating good after-tax net operating profits, the company did not quite cover its cost of capital. Of course, it fully serviced its debt, but the point of economic profit is to charge the company for the use of equity capital – when we incorporate this cost, we find that the company lost (some would say "destroyed value") Rs.126617231 in economic profit over the five year period.

2. The current ratio of the company is around two, is satisfactory because the company maintains sufficient current assets to meet the current liabilities.

3. The analysis of the quick ratio shows that the company is in a good position in the holding of the inventory and having sufficient liquid assets to meet its current liabilities.

4. The absolute liquid ratio is low which shows that the company's holding of cash in the current assets is comparatively low.

5. The debt equity ratio of the company is low which shows the scope for more borrowings.

6. The proprietary ratio is low, which shows that the capital invested in the business is not in proportion to the holding of total assets.

7. The sales shows a good increasing trend and it will reach almost twice as the current figure within six years.

5.2. CONSIDERED RECOMMENDATIONS

1. The company can reduce its dividend rate so that the cost of capital can be reduce which can be used for futher investments which will add the economic value of the investors.

2. The expenses are cosidered to have increased during 2003- 2004 which has affected the profitability of the company.

3. The collection made from the company's debtors and payment made to its creditors has to be strictly followed.

4. Economic value added is essential for the firm to know the economic efficiency of the firm.

5. The debt equity ratio shows the company has not utilized borrowed funds. The company may explore the possibility of borrowing cheaper funds to improve profitability by expanding its business volume.

6. The cash in hand maintained by the company is very less and if possible it is better to maintain a minimum balance of it so that the liquidity could be maintained to a certain extent.

7. The net profit ratio indicates leads to the suggestion that the company should reduce its costs.

8. The net profit ratio indicates leads to the suggestion that the company should reduce its operating costs.

9. The company has to improve the operating efficiency and has to invest to expand its production capacity for a two fold increase from the present level of production.

BIBLIOGRAPHY

BOOKS

1. "Financial Management", I.M.Pandey , Vikas Publishing House Pvt. Ltd., 2004 , 9th Edition.
2. "Financial Management" ,M.Y.Khan – P.K.Jain , Tata McGraw – Hill Publishing Company , New Delhi,1997, 2nd Edition.
3. "Financial Management" , Prasanna Chandra, Tata McGraw- Hill Publishing Company ,New Delhi , 4th Edition
4. "Management Accounting", R.K.Sharma – Shashi.K.Gupta, Kalyani Publishers, New Delhi,1997,7th Edition.
5. "Research Methodology",C.R.Kothari , Wishwa Prakasam Daryagani, New Delhi, 1995,2nd Edition.

JOURNALS

1. The Journal for Decision Makers
2. Fortune

WEBSITES

1. www.rootsindia.com
2. www. web.ebscohost.com
3. www.investopedia.com
4. www.sternstewart.com
5. www.iimahd.ernet.in
6. www.iimb.ernet.in