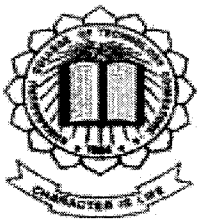

A STUDY ON THE COST OF CAPITAL

AT ROOTS INDUSTRIES LIMITED, COIMBATORE.

BY

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Reg.No. 71206631043

of

DEPARTMENT OF MANAGEMENT STUDIES

KUMARAGURU COLLEGE OF TECHNOLOGY

COIMBATORE

A PROJECT REPORT

Submitted to the

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for the award of the degree

of

MASTER OF BUSINESS ADMINISTRATION

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KCT Business School

Department of Management Studies

Kumaraguru College of Technology

Coimbatore

BONAFIDE CERTIFICATE

Certified that this project report titled **"A Study On the cost of capital At Roots Industries Limited,Coimbatore"** is the Bonafide work of Mr.P.Purushothaman (71206631043) 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 .....

Examiner I **Examiner II**

Declaration

I, **P.Purushothaman(Reg. No.71206631043),** final year MBA student of Department of Management Studies, Kumaraguru College of Technology, hereby declare that the project entitled **"A Study On the cost of capital 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: 30/10/07

Signature of the Candidate

P. Purushothaman

(P.Purushothaman)

ROOTS

SL. No. : 2275 Date : 13.09.07

PROJECT / INPLANT TRAINING / INTERNSHIP CERTIFICATE

This is to certify that Mr. / ~~Ms.~~ P. PURUSHOTHAMAN

MBA I[st] year student of KCT BUSINESS SCHOOL

has ~~done / undergone / a Project / Inplant training~~ / Internship on

"THE COST OF CAPITAL"

in our ROOTS INDUSTRIES LTD during

the period from JUNE'07 to AUGUST'07

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

(KAVIDASAN)
GENERAL MANAGER - CORPORATE HRD.

EXECUTIVE SUMMARY

This project entitled "A Study on the cost on capital at Roots Industries limited" was conducted during the period July 2007 at the Roots Industries Limited Coimbatore. The period of study is from financial year 2002 to 2006.

Recent advances in our understanding of capital structure decisions have not yet made their mark upon our capital budgeting techniques and practices. This paper attempts to bridge this gap. In doing this, it offers a surprisingly simple approach for managers to follow in marking financial decisions.

The theory of corporate finance notes two alternative specifications of the weighted average cost of capital for discounting. In one, the cost of debt is specified in pre-tax terms while the tax shield on debt is accounted for in the cast flows. In another, the cost of debt is specified in after tax terms while the tax shield on interest is ignored in the cash flows. Theoretically the two alternative specifications of WACC and cash flows are considered equivalent.

In practical terms, however, what concerns a manager is which of the two specifications he should employ in financial analysis. In this paper, we take the view that the first specification above is superior to the second one on several counts: for one, it is conceptually closer to our intuitive understanding of cost. Further, it facilitates taking explicit account of a number of important considerations such as certain costs which alone can explain capital structures not tending towards 100% debt. It also allows us to explicitly consider tax shields on interest only in time periods in which they can actually be absorbed; it permits us to handle bonds, common in India, where the coupon rate of interest is different from the yield to maturity; and to incorporate the loss in value from equity issues made below market price.

Dupont analysis is used to find out the 'Return on assets'. Net income has been prepared to know the changes in the financial performance of the company.

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.

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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.

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CHAPTER 1

1. INTRODUCTION

Meaning –cost of capital

The firm's cost of capital will be the overall, or average, required rate of return on the aggregate of investment projects. A firm can achieve the objective of wealth maximization, by means of minimizing the firm's overall cost of capital and should earn a higher rate of return more than its cost of capital.

Elements of cost of capital:

The overall cost of capital is determined by the following equation.

$k_o = r_f + b + f$

Where,

k_o=overall cost of capital

r_f=return at zero risk level

b=premium for business risk

f=premium for financial risk

K_f consist of k_d –cost of debt

K_e—cost of equity.

Return at zero risk level: Zero risk refers to the expected rate of return when a project has no risk. There are two types of risk namely business risk and financial risk.

Premium for business risk: Business risk refers to the fluctuation of the operating profit (EBIT) due to change in sales. If a project is operated with high risk of fluctuation in the

Premium for financial risk: Financial risk refers to the risk on account of pattern of capital structure (Debt-Equity mix). Higher the debt content more will be the risk, because the firm requirement of higher operating profit to cover periodic interest payment and repayment of the principal at the time of maturity

1.1.BACKGROUND

COST OF CAPITAL:

Cost of each specific source of finance, viz.., Debt, Preference capital and Equity capital, can be determined as follows

COST OF DEBT

Debt may be issued at par, at premium or discount. It may be perpetual or redeemable. It is the explicit interest rate adjusted further for the tax liability of the company. It may be computed according to the following formula:

$$k_d=I(1-T)$$

Where,

k_d =cost of capital

I=interest rate

T= income tax rate

The tax is deducted out of the interest payable, because interest is treated as an expense while computing the firm's income for tax purposes.

COST OF PREFERENCE CAPITAL

The computation of the cost of preference capital possesses some conceptual

fixed rates while in case of preference shares; there is no such legal obligation the failure to pay dividend may be a matter of serious concern from the point of view of Equity shareholders .They may even lose the control of the company because of the preference shareholders getting legal right to participate in the general meetings of the company with Equity shareholders under certain conditions in the event of failure of the company to pay them the dividends. Moreover the accumulation of arrears of preference dividends may adversely affect the right of Equity shareholders to receive dividends.

This is because no dividend can be paid to them unless the arrears preference dividends are cleared.

$$K_P=D_P/N_P$$

Where,

K_P=cost of preference shares

D_P=fixed preference dividend

N_P=net proceeds of preference shares.

It should be noted that the cost of preference capital is not adjusted for taxes, since dividend on preference capital is taken as an appropriation of profits and not a charge against profits. Thus the cost of preference capital is substantially greater that of the cost of debts.

COST OF EQUITY CAPITAL

The equity shareholders invest money in shares with the expectation of getting dividend from the company. The company also doesn't issue equity shares without having any intention to pay them dividends. The market price of equity shares, therefore, depends upon the return expected by the shareholders. The following are some of the

DIVIDEND PRICE APPROACH

The investor arrives at the market price of equity by capitalizing the set of expected dividend payments. This approach rightly emphasizes the importance of dividends, but it ignores the fact that the retained earnings have also an impact on the market price of the equity shares.

$$K_e=D/N_P$$

Where,

K_e=cost of equity;

D=dividend per equity share;

N_p=net proceeds of an equity share

DIVIDEND PRICE PLUS GROWTH APPROACH

The cost of equity capital is determined on the basis of the expected dividend rate plus the growth rate in sales or dividends

$$K_e=(D/N_p)+g$$

Where,

K_e=cost of equity capital;

D=expected dividend per share;

N_p= net proceeds per share;

g= growth rate

EARNING PRICE APPROACH

It is the earning per share which determines the market price of the shares. This is based on the assumption that the shareholders capitalize a stream of future earnings in order to evaluate their shareholders.

$$K_e=E/N_p$$

Where,

K_e= cost of equity;

E = earnings per share;

N_p=net proceeds of an equity share.

COST OF RETAINED EARNINGS

The retained earnings are the profits that are set aside by the company without declaring as dividend to the shareholders. So this retained earnings finally reaches the hands of the equity shareholders. Thus this accumulated with the equity shares for the calculation of the cost of equity.

WEIGHTED AVERAGE COST OF CAPITAL

The weighted average/ overall cost of capital is an average on the weight given to the specific costs of capital like debts, preference capital and equity capital. It indicates the company's performance by evaluating the projects. It is estimated as follows;

$$K_0=W_dK_d+W_PK_P+W_eK_e$$

Where,

K_0=overall cost of capital;

W_d=weight of debt;

W_P=weight of preference shares;

K_p=cost of preference shares;

W_e=weight of equity shares;

K_e=cost of equity shares.

DUPONT MODEL

The dupont model is a technique that can be used to analyze the profitability of a company using traditional performance management tools. To enable this, the dupont model integrates elements of the income statement with those of the balance sheet.

USES OF THE DUPONT FRAMEWORK

- The model can be used by the purchasing department to examine or demonstrate what was earned for a given asset.
- Analyze changes over time
- Teach people a basic understanding how they can have an impact on the company results.
- Show the impact of professionalizing the purchasing function.

STEPS IN THE DUPONT MODEL

1. Collect the business numbers (from the finance department)
2. Calculate (use a spread sheet)
3. Draw conclusions
4. If the conclusions seem unrealistic, check the numbers and recalculate.

1.2. REVIEW OF LITERATURE:

1."A STUDY ON THE COST OF CAPITAL AT PRICOL,COIMBATORE,2001" by S.Suresh kumar

- The cost of equity is fluctuating due to the fluctuations in dividend rate.
- The net profit of the firm shows an increasing trend from the year 1996 to 2000.The net profit of the year 1996 was 7.92% and thereafter the profit increased gradually to 11.34% in the year 2000.
- The intrinsic value of the shares has been going upwards, because the company retains the free reserves by maintaining the dividend rate.

2."A STUDY ON THE COST OF CAPITAL AT LMW, COIMBATORE,2005" by B.Sampath kumar

- The net profit of the firm shows an increasing trend for the past two years 2004 and 2005. The net profit shows an increase of 23.15% compared to the year 2003 and 43.59% compared to the year 2004.
- The return on assets of the firm was increasing year by year after 2002 due to the increase in the net profit margin of the firm .The increase of return on assets for the past five years is 39%.
- The total cost of the firm shows the dual phenomena. For the past three years there is a increasing total cost due to the cost of materials.

3."GLOBALIZATION OF CAPITAL MARKETS AND THE COST OF CAPITAL: THE CASE OF NESTLE", ReneM. Stulz, JACF, VOL. 8, NO. 3 (FALL 1995): 30-38

This paper examines the impact of globalization on the cost of equity capital. We argue that the cost of equity capital decreases because of globalization for two important reasons. First, the expected return that investors require to invest in equity to compensate them for the risk they bear generally falls. Second, the agency costs which make it harder and more expensive for firms to raise funds become less important. The existing empirical

evidence is consistent with the theoretical prediction that globalization decreases the cost of capital, but the documented effects are lower than theory leads us to expect

4.CAPITAL FLOWS AND COST OFCAPITAL:THE IMPORTANCE OF LIBERALIZED INVESTMENT RULES FOR A COMPETITIVE TELECOMMUNICATIONS SECTOR by Dean Proctor and Simon-Pierre Olivier,VOL.5,NO.4(FALL 1997):40-48

The current restrictions in both Canada and India on foreign ownership in telecommunications need to be removed, and this should be done sooner, not later. The original rationale behind the imposition of the rules is no longer there, and their continuance has a negative impact on access to capital and on the quality and sustainability of a competitive telecommunications sector.To secure ongoing financing at reasonable terms, and to develop meaningful alliances that will assist their long-term success, new entrants to both Canada's and India's telecom sectors, can be expected to seek out foreign investors and strategic partners. However, the more severe the limits upon such investors, the more limited their interest.And the longer new entrants are restricted to seeking the lion's share of their financing insmaller domestic equity markets, the longer competition will remain relatively fragile, to the detriment of consumers and industry alike.

5. "Comparative Study On The Influence Of The Cost Of Capital On The Development Of National Biotechnology Industries Within Developing Countries" D. Walwyn International journal of biotechnology 2004 - vol. 6, no.1 pp. 55 - 64

For a number of reasons, developing countries lag significantly behind OECD nations in their ability to benefit from the recent advances in biotechnology. One of the reasons for this difference is the virtual absence and hence high cost of loan or equity capital. In this paper, the extent to which the "cost of capital" presents an impediment to the commercialisation of biotechnology innovation within emerging economies is quantified. A number of recommendations for both senior policy makers within government, and

emerging companies within developing countries are made in order to inform a revised strategy for overcoming this hurdle

6. "SWISS RE'S SIGMA STUDY FINDS COST OF CAPITAL IS KEY TO ASSESSING AN INSURER'S PROFITABILITY AND ITS ABILITY TO CREATE ECONOMIC VALUE"

The cost of capital plays a key role in defining the profitability of insurers, according to Swiss Re's latest "sigma" report. The study found that underwriting profitability is an important driver of investor confidence, together with profitable top line growth and scale of operations.When investors provide capital to companies, they expect a return on that investment. This is the cost of capital to a company of using investor capital. It is calculated by comparing the expected return on other investments with a similar risk profile.Cost of capital is crucial in measuring the extent to which an insurer is creating economic value.

The new *sigma* study, "Insurers' cost of capital and economic value creation", assesses an insurer's cost of capital by separately examining its insurance and financial market risk exposure

7. "A STUDY ON COST OF CAPITAL FOR AGRICULTURAL COOPERATIVES" by Stevens, G. and Lipsey R. E. (1999),

Cooperative capital structure and cost of capital are co-determined. Once a capital structure has been selected, the cost is also determined. The interdependence is due to the fact that each component of the capital structure has a cost. Therefore, the cost of capital to the cooperative must reflect the combined costs of the various sources of funds, including the capital investment of the cooperative's members. It is this close relationship between capital structure and the cost of capital which creates a "cost of capital problem" for a cooperative. A cooperative's equity capital comes from its members and is not a security that is publicly traded in the financial market. Moreover, the major source of

long-term capital in a cooperative may be retained earnings and allocated patronage dividends. This makes the value of cooperative equity capital more difficult to determine

8. "A STUDY INTO CERTAIN ASPECTS OF THE COST OF CAPITAL FOR REGULATED UTILITIES IN THE U.K." by Stephen Wright, Robin Mason, David Miles

If uncertainty occurs on the cost side of a firm, then price cap regulation increases the firm's beta; if there is demand uncertainty, the regulation decreases the beta. Two things mitigate these effects. First, when the firm cannot choose its projects, an element of cost pass-through makes the effect of regulation less marked in the case of cost uncertainty. Secondly, when the firm is able to choose its project, and hence effectively the amount of uncertainty that it faces, its choice tends to reverse the effect of price cap regulation on its beta. These facts are all due to the change in shape of the firm's profit function that results from price cap regulation

1.3. OBJECTIVES OF THE STUDY

- To estimate the cost of Debt (k_d)
- To estimate the cost of equity (K_e)
- To calculate the weighted average cost of capital (k_o)
- To analyze 'return on assets 'value using Du-Pont model

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 cost of capital and return on assets, to determine the ideal Debt- Equity mix to enhance the financial performance of the company.

1.5. SCOPE OF THE STUDY

The study is mainly focused on the cost of capital and return on assets of Roots Industries Ltd. The study gives a clear cut picture regarding the minimum required rate of return for the capital employed by the company. By this study the company will be able to know the cost of capital and return on assets of the company and it can also plan for expansion to meet the future demands.

1.6 METHODOLOGY:

1.6.1. TYPE OF STUDY:

ANALYTICAL RESEARCH:

In analytical research the researcher has to use the facts and information already available and analyses these to make the critical evaluation of the material.

1.6.2 METHOD OF DATA COLLECTION:

Secondary data were collected from annual reports and the balance sheet for the financial years 2002 to 2006. Some more details were collected from the company's website: www.rootsworldwide.com

1.6.3 TOOL OF ANALYSIS:

The datas so collected were analysed using

- Dupont model

The detailed calculations are discussed in the following pages

1.7 LIMITATIONS OF THE STUDY:

- Unlisting of the company's Equity shares acts as a curtail to calculate the accurate market value of the shares and value of the firm.
- This study is based on the data procured from the annual reports that have their own limitations.
- The study is restricted only for the period of five years from 2002 to 2006

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 about the requirement of sophisticated cleaning equipment in the country 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.

2.2MANAGEMENT

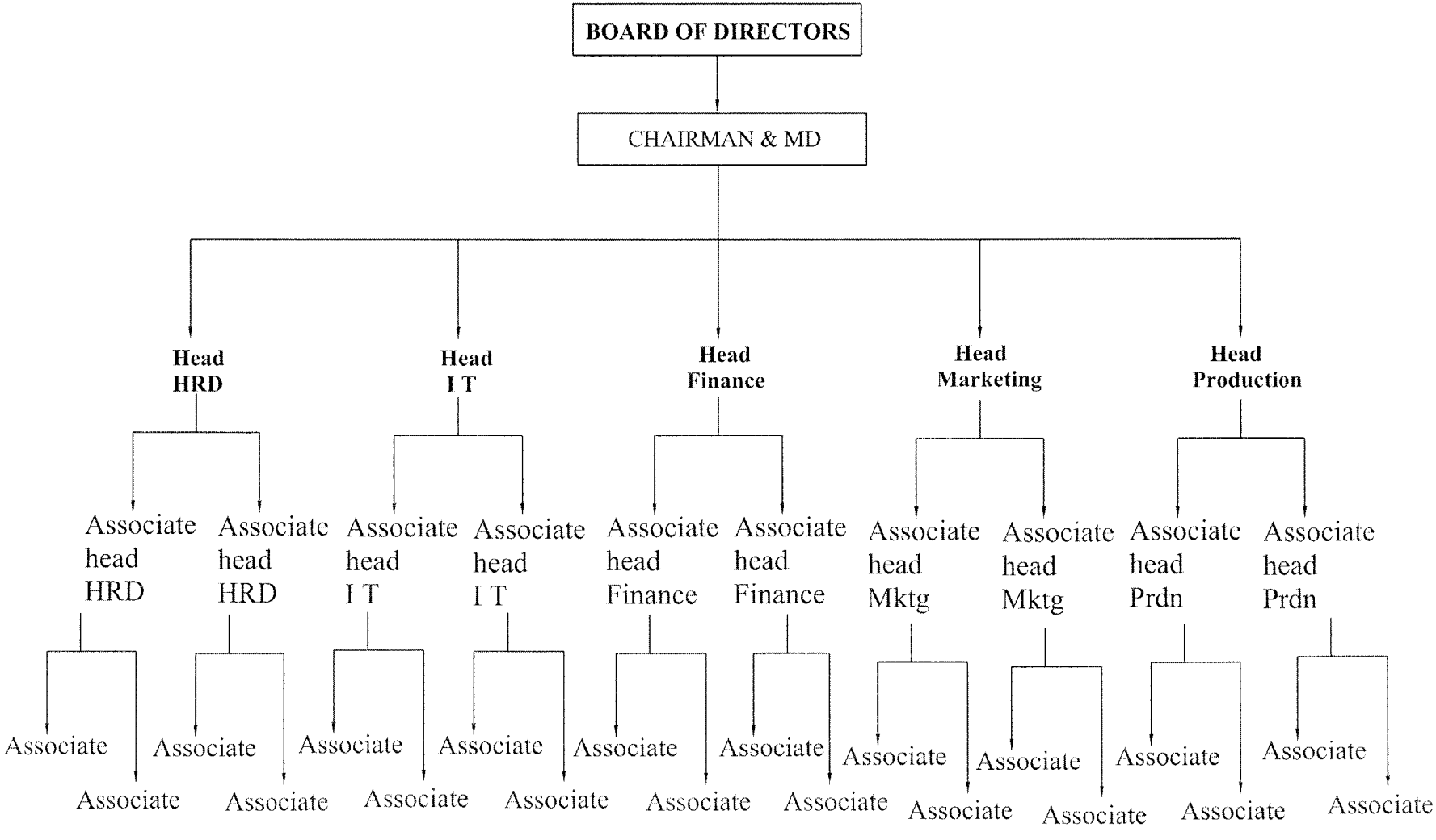
ROOTS Industries Ltd., is managed by an excellent team of path-breakers, chief among them being the Chairman, Mr. K. RAMASWAMY, a Master's Degree Holder in Automobile Engineering from Lincoln Technical Institute, USA.

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

service to its customers, RMCL has established Regional offices in all Metros and a huge dealer network in bigger Cities and States.

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 small and medium size components for Automotive, Pump, Textile, and Medical 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 of the workers.

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

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.

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

- ❖ 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-

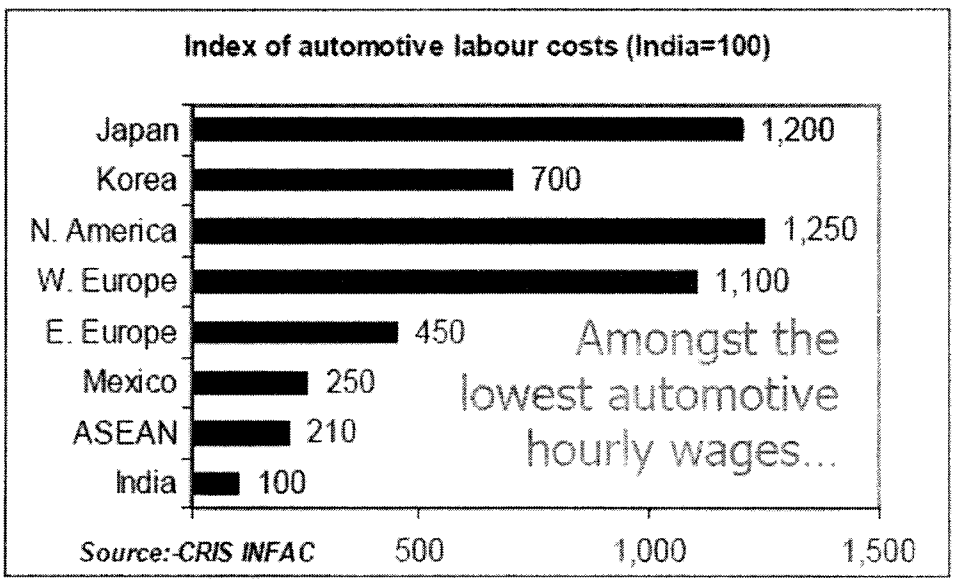
the combined demand from domestic and international customers the industry will have to make significant incremental investment.

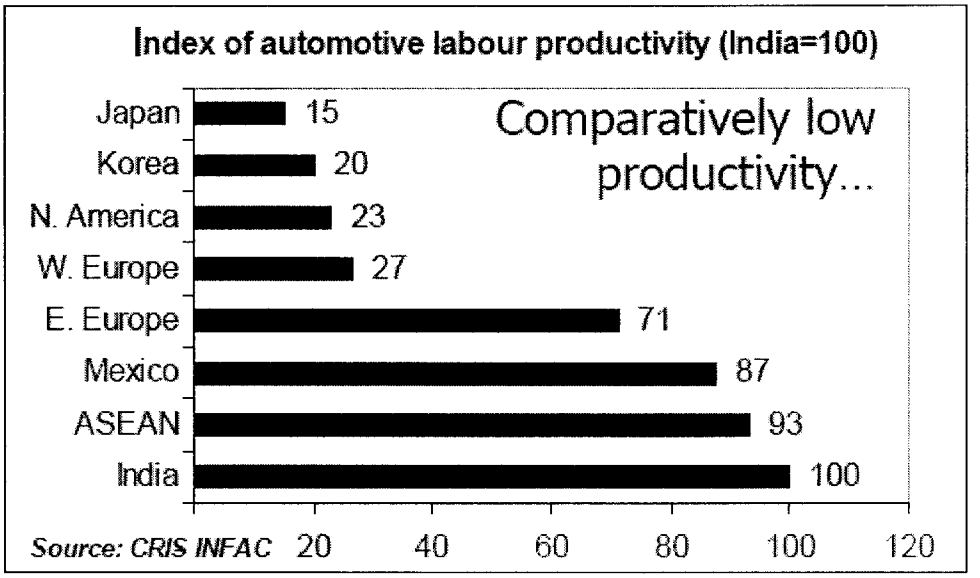
Hence, the Indian auto component industry is poised to achieve a prominent position in the global market and will in all probability be a major driver of growth and employment in the domestic economy.

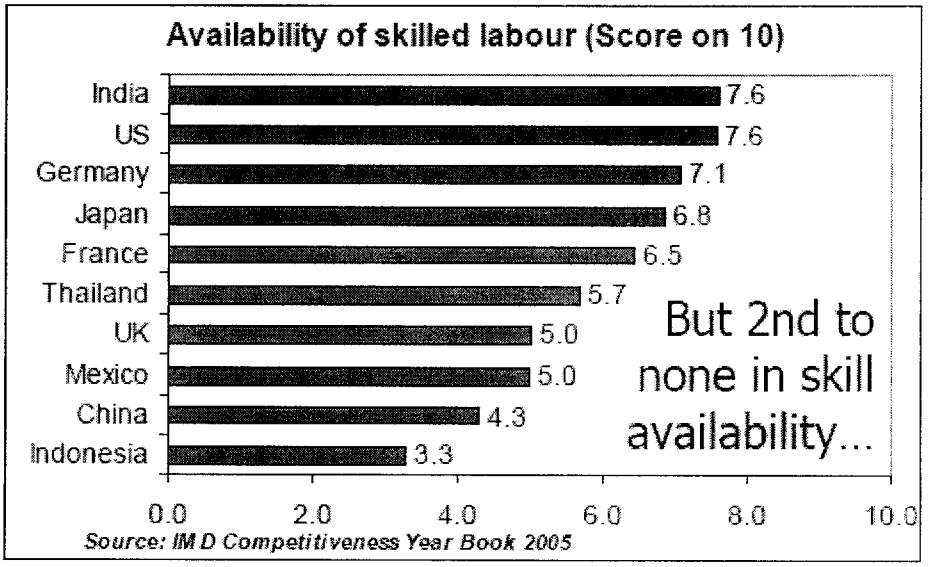
Considering the recent figures, whereby domestic demand is increasing by about 15 per cent over the previous year and exports by over 25 per cent, the above estimates, while undoubtedly challenging, appear achievable.

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. ANALYSIS AND INTERPRETATION

SOURCES OF BORROWINGS

The company has acquired loans from various banks (in order to meet its capital other than issuing equity shares). The interest rates differ between banks. Sources of debt are as follows;

1. STATE BANK OF INDIA
2. PUNJAB NATIONAL BANK
3. CITI BANK
4. HDFC
5. CENTRAL BANK OF INDIA

The interest rate differs between banks. The average interest rate is taken as 9%.

EFFECTIVE INCOME TAX RATE (T)

The effective income tax rate is a combination of income tax rate with that of , surcharge rate on the income tax rate of the respective years.

The formula to calculate effective tax rate is

$$ET=IT+ (IT*S*E)$$

Where,

ET=effective income –tax rate;

IT=Income-tax rate;

S=surcharge rate;

E=education cess.

EFFECTIVE INCOME TAX RATE

YEAR	INCOME TAX RATE (IT)	SURCHARGE RATE (S)	EDUCATION CESS (E)	EFFECTIVE INCOME TAX RATE (ET)
2002	30%	7.5%	Nil	32.25%
2003	30%	7.5%	2%	30.05%
2004	30%	10%	2%	30.06%
2005	30%	10%	2%	30.06%
2006	30%	10%	2%	30.06%

TABLE 4.1

COST OF DEBT (K_d)

The cost of debt is relatively simple to calculate, as it is composed of the interest paid (interest rate), including the cost of risk (the risk of default on the debt).Since, the effective cost of debt is the tax-adjusted rate of interest, the before – tax cost of debt should be adjusted for the tax effect. And it is calculated as;

$$K_d=I\ (1-T)$$

COST OF BORROWINGS

Year	Effective income –tax Rate(T)	Cost of debt (k_d)
2002	32.25%	6.10%
2003	30.05%	6.29%
2004	30.06%	6.29%
2005	30.06%	6.29%
2006	30.06%	6.29%

TABLE 4.2

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.

$$K_e = D_1/P_0 + g$$

Where ,

Ke=cost of equity;

D1=expected dividend/share;

P0=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:

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

INTRINSIC VALUE PER SHARE

YEAR	EQUITY SHARE CAPITAL & FREE RESERVES (Rs.in crores)	NUMBER OF SHARES	INTRINSIC VALUE PER SHARE(P0) (Rs)
2002	9.44	1600000	59.00
2003	9.07	1600000	56.69
2004	11.16	1600000	69.75
2005	11.79	1600000	73.69
2006	14.08	1600000	88.00

TABLE 4.3

DIVIDEND PER SHARE(D1)

Theoretically , D1 denotes the forthcoming / expected dividend. As this study for the years 2002-2006, the dividends paid for those years were

DIVIDEND PER SHARE

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

TABLE 4.4

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.

GROWTH RATE

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

TABLE 4.5

Growth rate is calculated using the formula:

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

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;

$$K_e=D_1/P_0+g$$

COST OF EQUITY

YEAR	INTRINSIC VALUE PER SHARE(P_0) (Rs)	DIVIDEND PER SHARE (D_1) (Rs)	COST OF EQUITY (Ke)
2002	59.00	2	28.58%
2003	56.69	2	28.72%
2004	69.75	2	28.06%
2005	73.69	2	27.90%
2006	88.00	2.5	28.03%

TABLE 4.6

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:

$$K_0=K_eW_e+K_dW_d+K_pW_p$$

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.

As the company deals with the debt and the equity shares, the overall cost of capital is tabulated as follows:

WEIGHTED AVERAGE COST OF CAPITAL (WACC)

YEAR	SOURCES	AMOUNT (Rs. In lakhs)	WEIGHT (%)	COST (%)	WACC (%)
2002	EQUITY	944	58.34	28.58	16.67
	DEBT	674	41.66	6.10	2.54
	TOTAL	1618	100.00		19.21
2003	EQUITY	907	58.86	28.72	16.90
	DEBT	634	41.14	6.29	2.59
	TOTAL	1541	100.00		19.49
2004	EQUITY	1116	53.02	28.06	14.88
	DEBT	989	46.98	6.29	2.95
	TOTAL	2105	100.00		17.83
2005	EQUITY	1179	40.60	27.90	11.32
	DEBT	1725	59.40	6.29	3.73
	TOTAL	2904	100.00		15.05
2006	EQUITY	1408	49.70	28.03	13.93
	DEBT	1425	50.30	6.29	3.16
	TOTAL	2833	100.00		17.09

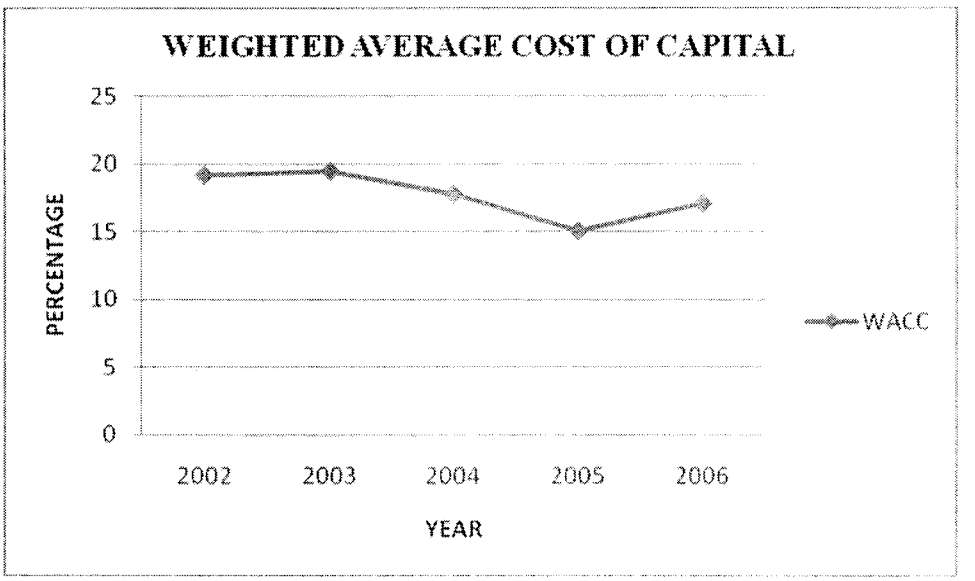

WEIGHTED AVERAGE COST OF CAPITAL
PERCENTAGE
25
20
15
10
5
0
2002
2003
2004
2005
2006
YEAR
WACC

FIGURE 4.1

APPLICATION OF DUPONT MODEL FOR MEASURING THE FINANCIAL PERFORMANCE FOR THE YEAR ENDING 31ST MARCH 2002

TOTAL COST

Total cost =cost of materials + selling expenses & administrative expenses + interest expenses + income tax

		Rs.
Cost of materials	=	101050606
Employee remuneration	=	35823820
Manufacturing expenses	=	74925865
Selling &administrative expenses	=	30778195
Interest	=	8323341
Income tax	=	3500000
Total cost	=	Rs. 254401827

NET INCOME

Net income = sales – total cost

		Rs.
Sales	=	268469387
Total cost	=	254401827

NET PROFIT MARGIN

Net profit margin = net income / sales

	Rs.
Net income	= 14067560
Sales	= 268469387
Net profit margin	= 0.05

CURRENT ASSETS

Current assets = cash + inventories + others

	Rs.
Cash	= 4334886
Inventories	= 27546112
Others (sundry debtors)	= 63530849
Loans and advances	=22399369
Current assets	= Rs.117811216

NON – CURRENT ASSETS

Fixed assets = land + buildings + machinery & equipments + furniture & fittings + intangibles

	Rs.
Land	= 1779567
Buildings	= 12171142

Furniture & fittings =2496516

Non current assets = Rs.39880602

TOTAL ASSETS

Total assets = current assets + non current assets

	Rs.
Current assets	= 117811216
Non current assets	= 39880602
Total assets	=Rs.157691818

TOTAL ASSET TURNOVER

Total asset turnover = sales / total assets

	Rs.
Sales	=268469387
Total assets	=157691818
Total asset turnover	=1.70

RETURN ON ASSETS

Return on assets = net profit margin * total asset turnover

Net profit margin	=0.05
Total asset turnover	=1.70
Return on assets	=0.085
Return on assets in percentage	=0.085*100
	=8.5%

APPLICATION OF DUPONT MODEL FOR MEASURING THE FINANCIAL PERFORMANCE FOR THE YEAR ENDING 31ST MARCH 2003

TOTAL COST

Total cost =cost of materials + selling expenses & administrative expenses + interest expenses + income tax

		Rs.
Cost of materials	=	147775655
Employee remuneration	=	46014435
Manufacturing expenses	=	91470784
Selling &administrative expenses	=	38179128
Interest	=	3880377
Income tax	=	4000000

Total cost = Rs.331320379

NET INCOME

Net income = sales – total cost

		Rs.
Sales	=	346758601
Total cost	=	331320379

Net income = Rs.15438222

NET PROFIT MARGIN

Net profit margin = net income / sales

	Rs.
Net income	= 15438222
Sales	= 346758601
Net profit margin	= 0.04

CURRENT ASSETS

Current assets = cash + inventories + others

	Rs.
Cash	= 7046272
Inventories	= 31463506
Others (sundry debtors)	= 78610850
Loans and advances	=20577394
Current assets	= Rs.137698022

NON – CURRENT ASSETS

Fixed assets = land + buildings + machinery & equipments + furniture & fittings + intangibles

	Rs.
Land	= 1779567
Buildings	= 14814127

Furniture & fittings =2588814

Non current assets =Rs.50498522

TOTAL ASSETS

Total assets = current assets + non current assets

	Rs.
Current assets	= 137698022
Non current assets	= 50498522
Total assets	=Rs.188196544

TOTAL ASSET TURNOVER

Total asset turnover = sales / total assets

	Rs.
Sales	=346758601
Total assets	=188196544
Total asset turnover	=1.84

RETURN ON ASSETS

Return on assets = net profit margin * total asset turnover

Net profit margin	=0.04
Total asset turnover	=1.84
Return on assets	=0.0736
Return on assets in percentage	=7.36%

APPLICATION OF DUPONT MODEL FOR MEASURING THE FINANCIAL PERFORMANCE FOR THE YEAR ENDING 31ST MARCH 2004

TOTAL COST

Total cost =cost of materials + selling expenses & administrative expenses + interest expenses + income tax

	Rs.
Cost of materials	= 195150032
Employee remuneration	= 55821193
Manufacturing expenses	= 121963584
Selling &administrative expenses	= 41884368
Interest	= 3777279
Income tax	= 7700000
Total cost	= Rs.426296456

NET INCOME

Net income = sales – total cost

	Rs.
Sales	= 441293508
Total cost	= 426296456
Net income	= Rs.14997052

NET PROFIT MARGIN

	Rs.
Net income	=14997052
Sales	= 441293508
Net profit margin	= 0.03

CURRENT ASSETS

Current assets = cash + inventories + others

	Rs.
Cash	= 4442704
Inventories	= 49780471
Others (sundry debtors)	= 76488272
Loans and advances	=27539667
Current assets	= Rs.158251114

NON – CURRENT ASSETS

Fixed assets = land + buildings + machinery & equipments + furniture & fittings + intangibles

	Rs.
Land	= 1857542
Buildings	= 14226530
Machinery	= 30787393
Furniture & fittings	=5401074

TOTAL ASSETS

Total assets = current assets + non current assets

	Rs.
Current assets	= 158251114
Non current assets	= 52272539
Total assets	=Rs.210523653

TOTAL ASSET TURNOVER

Total asset turnover = sales / total assets

	Rs.
Sales	=441293508
Total assets	=210523653
Total asset turnover	=2.09

RETURN ON ASSETS

Return on assets = net profit margin * total asset turnover

Net profit margin	=0.03
Total asset turnover	=2.09
Return on assets	=0.0627
Return on assets in percentage	=0.0627*100
	=6.27%

APPLICATION OF DUPONT MODEL FOR MEASURING THE FINANCIAL PERFORMANCE FOR THE YEAR ENDING 31ST MARCH 2005

TOTAL COST

Total cost =cost of materials + selling expenses & administrative expenses + interest expenses + income tax

		Rs.
Cost of materials	=	296319949
Employee remuneration	=	69613557
Manufacturing expenses	=	127987890
Selling &administrative expenses	=	60492724
Interest	=	10622255
Income tax	=	1250000
Total cost	= Rs.566286375	

NET INCOME

Net income = sales – total cost

	Rs.
Sales	= 633652464
Total cost	= 566286375
Net income	= Rs.67366089

NET PROFIT MARGIN

	Rs.
Net income	= 67366089
Sales	= 633652464
Net profit margin	= 0.106

CURRENT ASSETS

Current assets = cash + inventories + others

	Rs.
Cash	= 8508617
Inventories	= 80827464
Others (sundry debtors)	= 109865075
Loans and advances	= 29478987
Current assets	=Rs.228680143

NON – CURRENT ASSETS

Fixed assets = land + buildings + machinery & equipments + furniture & fittings + intangibles

	Rs.
Land	= 1857542
Buildings	= 29400421
Machinery	= 40636224
Furniture & fittings	=6117412

TOTAL ASSETS

Total assets = current assets + non current assets

	Rs.
Current assets	= 228680143
Non current assets	= 78011599
Total assets	=Rs.306691742

TOTAL ASSET TURNOVER

Total asset turnover = sales / total assets

	Rs.
Sales	=633652464
Total assets	=306691742
Total asset turnover	=2.07

RETURN ON ASSETS

Return on assets = net profit margin * total asset turnover

Net profit margin	=0.106
Total asset turnover	=2.07
Return on assets	=0.219
Return on assets in percentage	=0.219*100
	=21.9%

APPLICATION OF DUPONT MODEL FOR MEASURING THE FINANCIAL PERFORMANCE FOR THE YEAR ENDING 31ST MARCH 2006

TOTAL COST

Total cost =cost of materials + selling expenses & administrative expenses + interest expenses + income tax

		Rs.
Cost of materials	=	328415823
Employee remuneration	=	75924066
Manufacturing expenses	=	126969655
Selling &administrative expenses	=	71454369
Interest	=	12593977
Income tax	=	10675827
Total cost		=Rs.626033717

NET INCOME

Net income = sales – total cost

		Rs.
Sales	=	706495284
Total cost	=	626033717
Net income		=Rs.80461567

NET PROFIT MARGIN

	Rs.
Net income	= 80461567
Sales	= 706495284
Net profit margin	= 0.11

CURRENT ASSETS

Current assets = cash + inventories + others

	Rs.
Cash	= 7441486
Inventories	= 72112565
Others (sundry debtors)	= 126631205
Loans and advances	=52600232
Current assets	=Rs.258785488

NON – CURRENT ASSETS

Fixed assets = land + buildings + machinery & equipments + furniture & fittings + intangibles

	Rs.
Land	= 1857542
Buildings	= 34588212
Machinery	= 49167512
Furniture & fittings	=6018422

TOTAL ASSETS

Total assets = current assets + non current assets

	Rs.
Current assets	= 258785488
Non current assets	= 91631688
Total assets	=Rs.350417176

TOTAL ASSET TURNOVER

Total asset turnover = sales / total assets

	Rs.
Sales	=706495284
Total assets	=350417176
Total asset turnover	=2.01

RETURN ON ASSETS

Return on assets = net profit margin * total asset turnover

Net profit margin	=0.11
Total asset turnover	=2.01
Return on assets	=0.2211
Return on assets in percentage	=22.11%

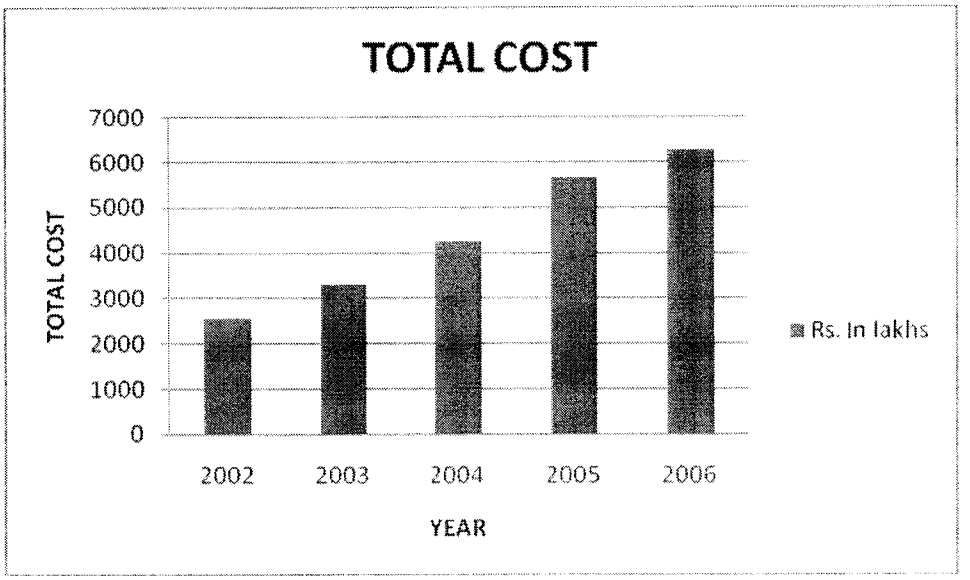


FIGURE 4.2

INTERPRETATION:

The chart depicts that the total cost of the firm shows a graudual increase. The total cost increase is due to the increase in the interest expenses and increase of cost of materials. The employee remuneration and benefits also increases gradually year by year.

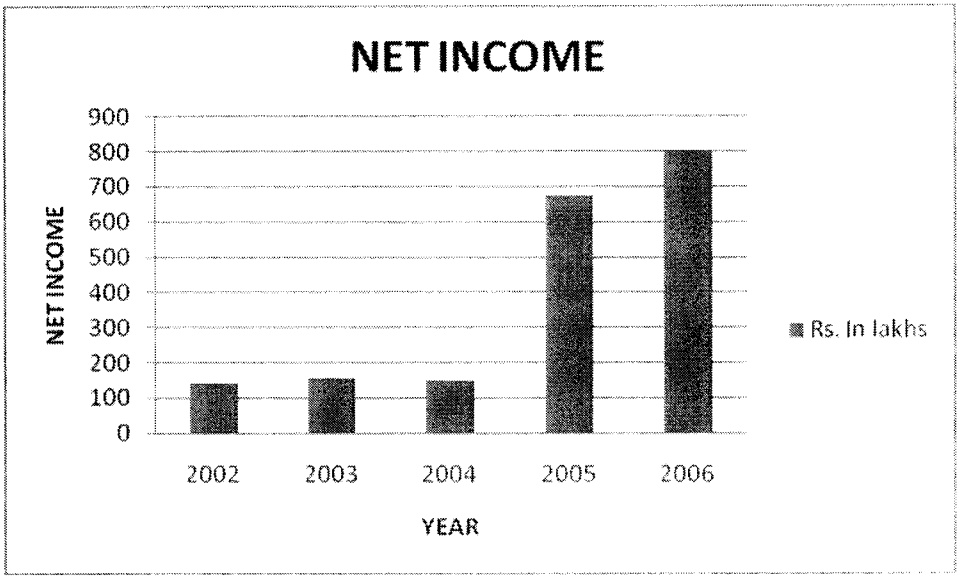


FIGURE 4.3

INTERPRETATION:

The net income for the years 2002 – 2004 has a fluctuating trend. The net income has increased in 2005- 2006 because the sales has increased more than the increase of total cost

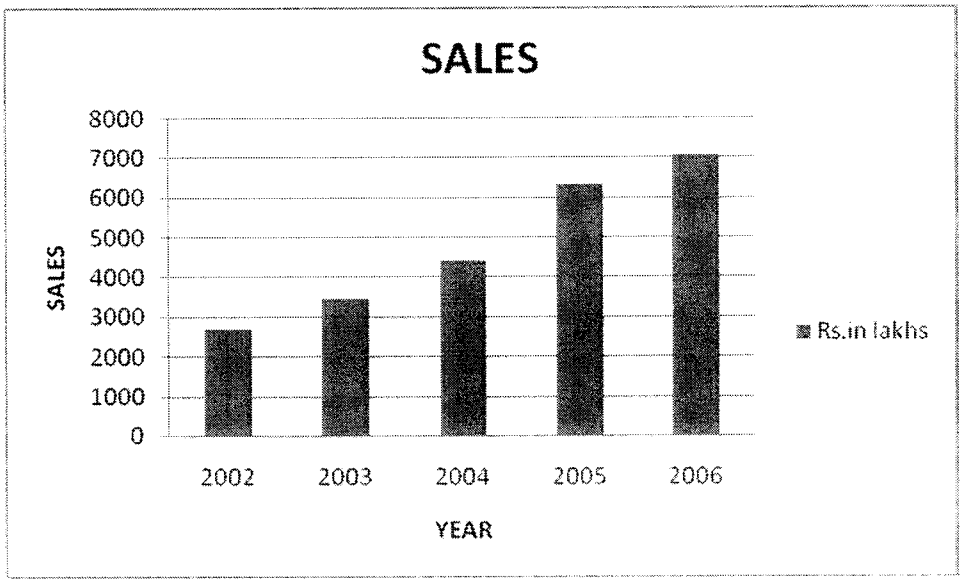


FIGURE 4.4

INTERPRETATION:

The chart visualized that the sales of the concern shows an increasing trend between 2002 to 2006 due to the sales promotion activities of the concern and also the stringent quality norms followed by the company.

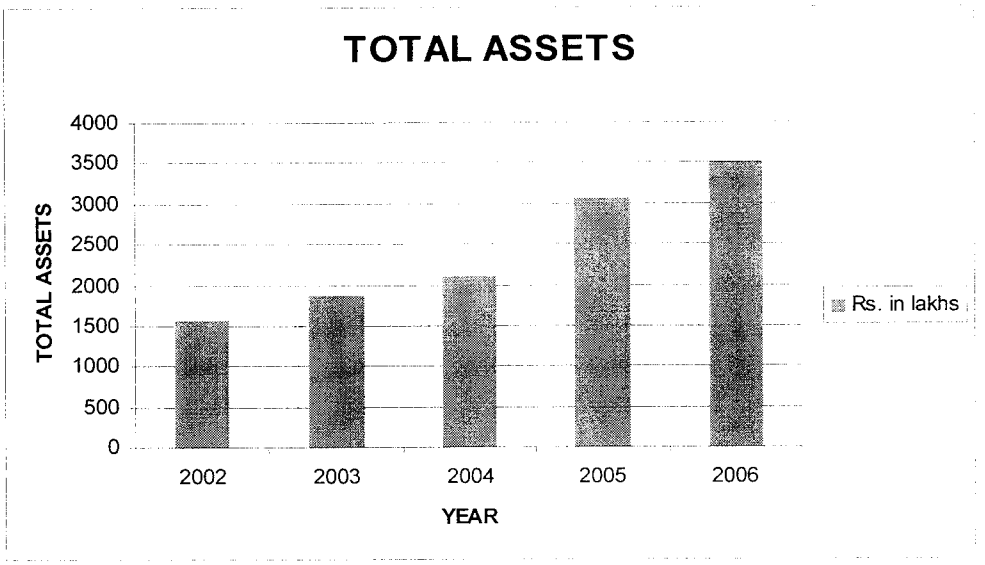


FIGURE 4.5

INTERPRETATION:

The chart exhibits that the total assets of the concern increased gradually from the year 2002 to 2006. The total assets of the concern in the year 2002 was Rs.1576 lakhs and after that it was gradually increased in the following years. Because the company has reinvested its earnings efficiently in machinery and equipments.

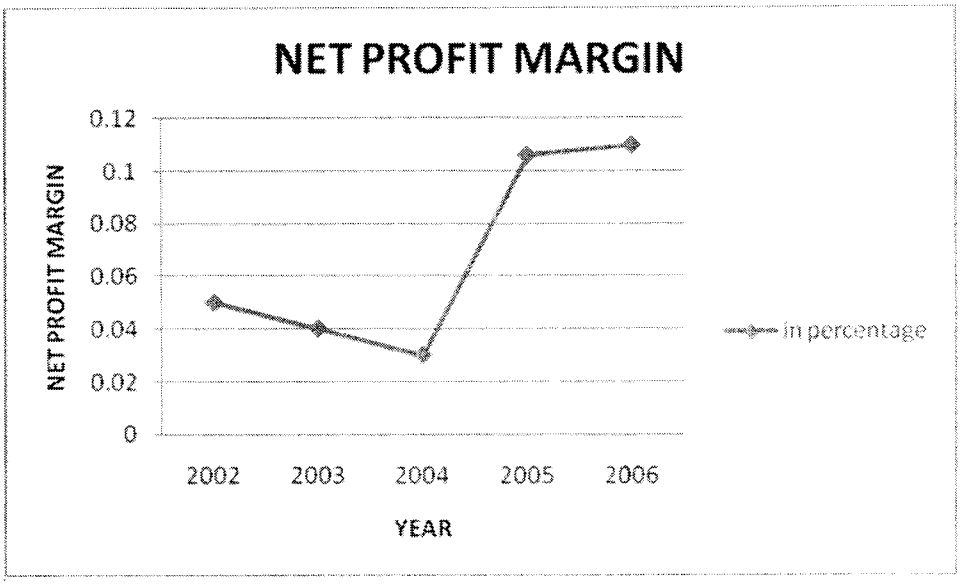


FIGURE 4.6

INTERPRETATION:

The net profit margin of the firm indicates that, there is decreasing trend from the year 2002 to 2004. This is because of the huge increase in the cost of interest on debt. There is an increase in the year 2005 and 2006. This is due to the increase of sales than the total cost.

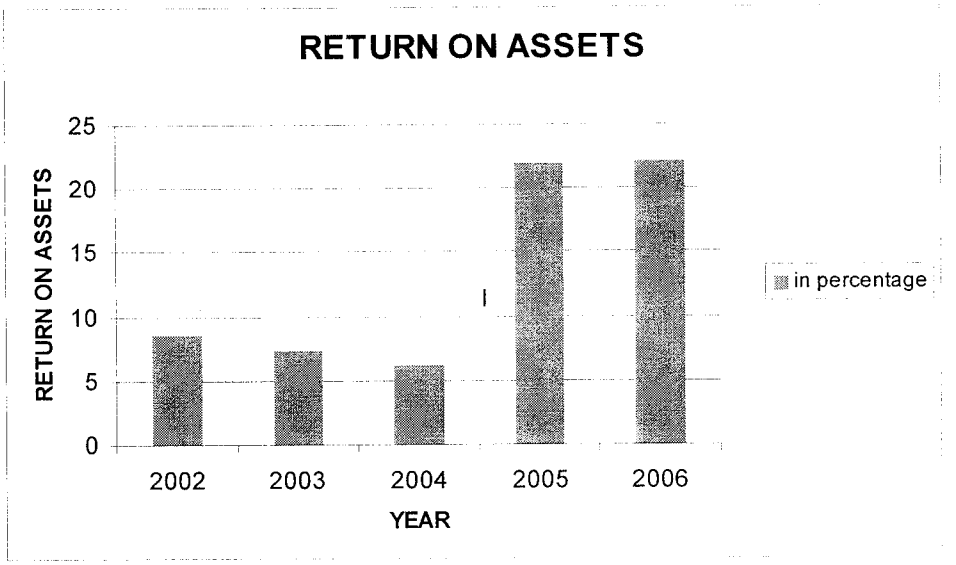


FIGURE 4.7

INTERPRETATION:

The above chart reveals the return on assets of the concern has a decreasing trend from the year 2002 to 2004. This is due to the decrease in the net profit margin for those years. There is a increasing trend during the year 2005 and 2006 because the net profit margin is high and increasing.

CHAPTER 5

5. CONCLUSION:

The cost of capital is a vital tool for a company to analyze its investment decisions, opt for the ideal debt equity mix and to ensure the performance appraisal.

This study obviously pictures the cost of specific sources of fund and the weighted average cost of capital.

Thus the findings of this study concludes that the company has achieved a critical Debt – Equity mix in the year 2005,which is considered as the favourable among the yearly performances.

So it is necessary to maintain an ideal Debt- Equity mix, in order to accomplish the future projects economically.

The major focus in the Dupont model has been on the total assets turnover, the background of the company is revealed. Roots Industries Limited reflects healthy trend on the application of the Dupont analysis. This indicated the company is strong enough to withstand the variations of the economy and continue to perform well.

5.1 RESULTS AND DISCUSSIONS

- The effective cost of debt has increased from 6.10% in the year 2002 to 6.29% in the year 2003. From the year 2003 to 2006 there is a constant cost of debt (6.29%). The cost of debt is low in the year 2002 (6.10%).In that year the company could avail compared to other year.

- The intrinsic value of the shares has been going upwards except the year 2003, because the company retains the free reserves by maintaining the constant dividend rate.
- Presently the growth rate of EPS is 25.19%
- The cost of equity is more or less constant which is due to the policy of the company to declare dividends at constant.
- The weighted average cost of capital was at 19.21% during the year 2002 and picked up its growth to 19.49% in the year 2003. Then it gradually slipped to 15.05% during the year 2005 and in the year 2006 the weighted cost of capital is 17.09%
- The net profit margin of the firm shows a decreasing trend from 5% in the year 2002 to 3% in the year 2004. This is due to the increase in the total cost. The net profit of the year 2005 increased to 10% and in the year 2006 the net profit went upto 11%. This increase is due to increase in the sales than the total cost.
- The return on the assets of the firm was gradually decreasing from 8.5% in the year 2002 to 6.27% in the year 2004.In the year 2005 the return on assets increased to 21.9% and in the year 2006 it went to 22.11%. This is due to the increase of net profit margin.

5.2 CONSIDERED RECOMMENDATIONS:

- The effective cost of Debt for the periods under study is 6.10% for 2002 and 6.29% from 2003 to 2006 whereas the cost of Equity is around 28%. It is evident that the Debt is cheaper than Equity. From the WACC calculations, cost of capital has increased from 2005 to 2006. So the company is suggested to keep the Debt – Equity mix ideal for minimizing the cost of capital.

- Dupont analysis of the company clearly exhibits the company's returns on assets went up for the last two years that is 2005 and 2006. This shows there is increase in sales than the total cost. The interest expenses are very high for the years 2005 and 2006 compared to other years. This is because the company borrowed more money from outsiders. The overall financial position of the company is stable and securable. The company may adopt new strategies in the days to come to increase the profit base.

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