CHAPTER 5

CHANGES IN PROFITABILITY

The preceding chapter gives a clearcut idea about changes in capital structure of the company.Here it is proposed to examine the changes in profitability.This chapter deals with the changes in profitability during 1989 to 1996

5 . 1 . CHANGES IN PROFITABILITY :

As stated earlier the company could not earn profits during the first 12 years of its existence.The accumulated losses of the company as on 31.03.1988 amounted to 1,05,64,937.At the beginning of the year i.e. as on 01.04.1988 the accumulated losses were Rs.1,14,37,628.As compared to the paid up capital & reserves of the comoany amounting to Rs.60,20,026 the accumulated losses were in excess of the capital & reserves.As a result the net worth of the company was negative.The company wiped out the above loss as on 31.03.1992 by reducing this loss by posting increasing profits each year.This became possible on account of increasing turnover and profits of the company.The company could,in turn achieve growth in turnover on account of growth in demand which in large measure was the result of liberalisation of Indian economy.The financial management of the company also contributed to the growth of the company in the sense that the decisions of expansion were taken at the right time and utilisation of funds was done efficiently.

The turnover of the company during the above period of eight years was as under :

Rs. in Lacs

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
SALES	259.95	460.02	569.40	765.87	1099.92	1182.31	1615.29	1988.04

The above turnover was inclusive of other income which comprised of interest received by the company and other busi ness receipts.The turnover of the company grew 7.65 times during the above period.The turnover of the company showed continuous increase over the earlier year throughout the period.This growth in turnover contributed to the profits of the company.

As stated above another reason for continuous increase in turnover of the company was commissioning of new manufactur- ing capacities almost each year.The increase in manufactur- ing capacity was effected in the years 1994 to 1996 which helped post significant increases in turnover.However the manufacturing capacity did not expand in the years 1989 to 1992.This was largely the effect of red tapism,delays in sanctions and unreasonable controls which bogged the Indian economy down in the pre liberalisation era.Even though the power tools industry was freed from the requirements of licensing many bottlenecks to production still remained.The data of increase in fixed assets and the increase in production over the above period was as under :

TABLE 5 . 1 showing investment in fixed assets & quantitative details of production

	Addition to Fixed Assets (Rs. in Lacs)	Production Nos.	Increase in Production Nos..
1989	5.16	8879	
1990	11.37	16074	7195
1991	19.27	16704	630
1992	16.61	20679	3975
1993	114.23	26113	5434
1994	72.54	26915	802
1995	269.82	35621	8706
1996	154.53	44100	8479

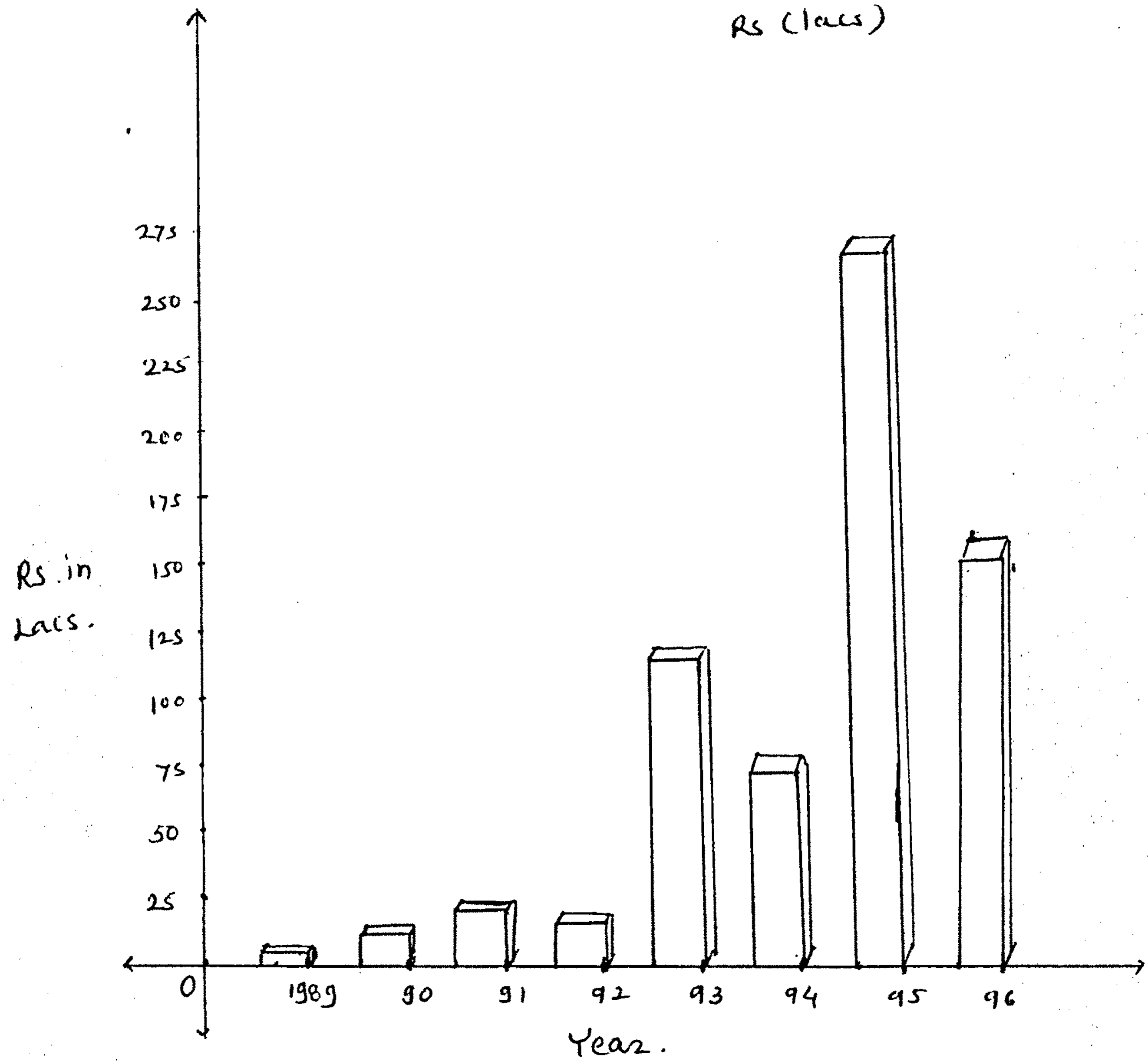
The increase in the year 1989 in the production of tools should be read keeping in view the fact the year ended on 31.03.1989 was only of 9 months whereas the year ended on 31.03.1990 was of 12 months.

Graph No 5.1

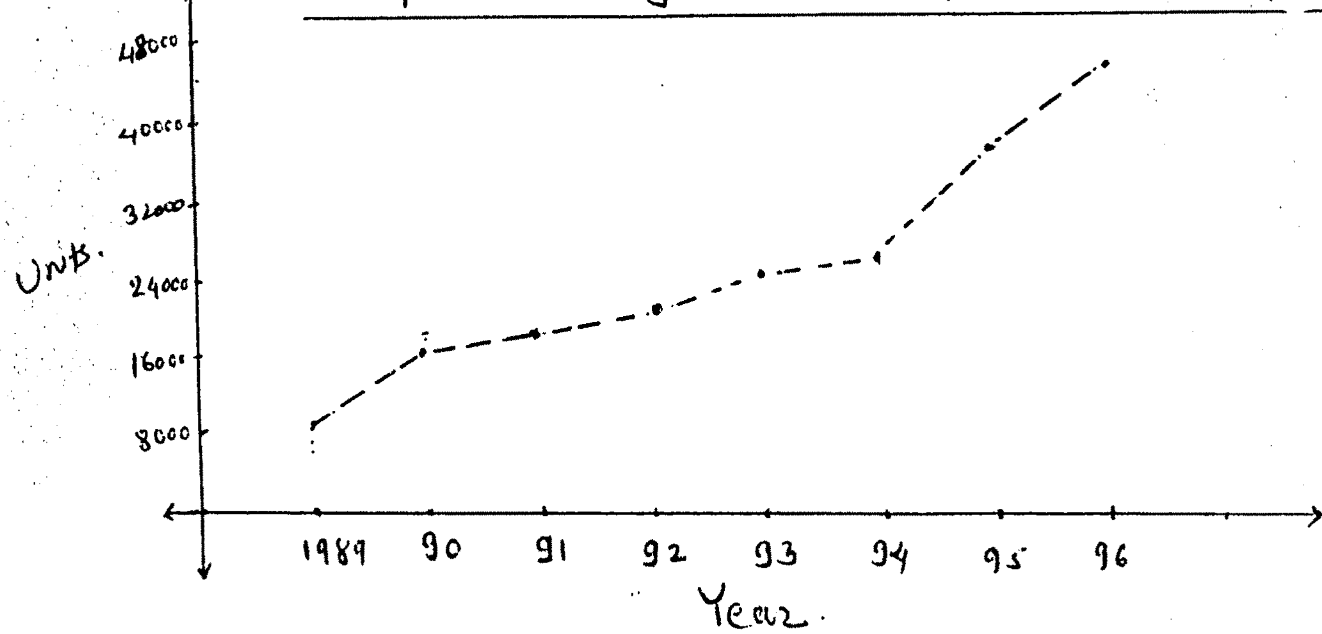
Graph showing Addition to Fixed Assets

Ref. Table No 5.1.

Rs (lacs)



Graph showing increase in Production



The above table shows that since the year 1992 the production of the company recorded regular increase. This was also reflected in the turnovers of the respective years.(See Table of Turnover stated above).Thus it can be said that the year ended on 31.03.1992 marked beginning of new period of growth of the company both in quantitative as well as qualitative aspects.The company also wiped out earlier accumulated losses in the year ended on 31.03.1992.The above increase in production was achieved on account of the investment made in fixed assets in the preceding year.This also implies that the demand for the products of the company started increasing since 1992 i.e after the package of liberalisation of Indian economy was put into place by the Govt.It can be inferred that the liberalisation of the economy helped the company a lot in increasing its market share in the power tools industry.

5 . 1. (i) QUANTITATIVE DETAILS OF TOOLS SOLD

As a result the profits of the company also increased showing significant increases each year. The turnover , the quantity of tools sold and the profits are tabulated below

TABLE 5 . 2 showing quantitative details of

sales & profits

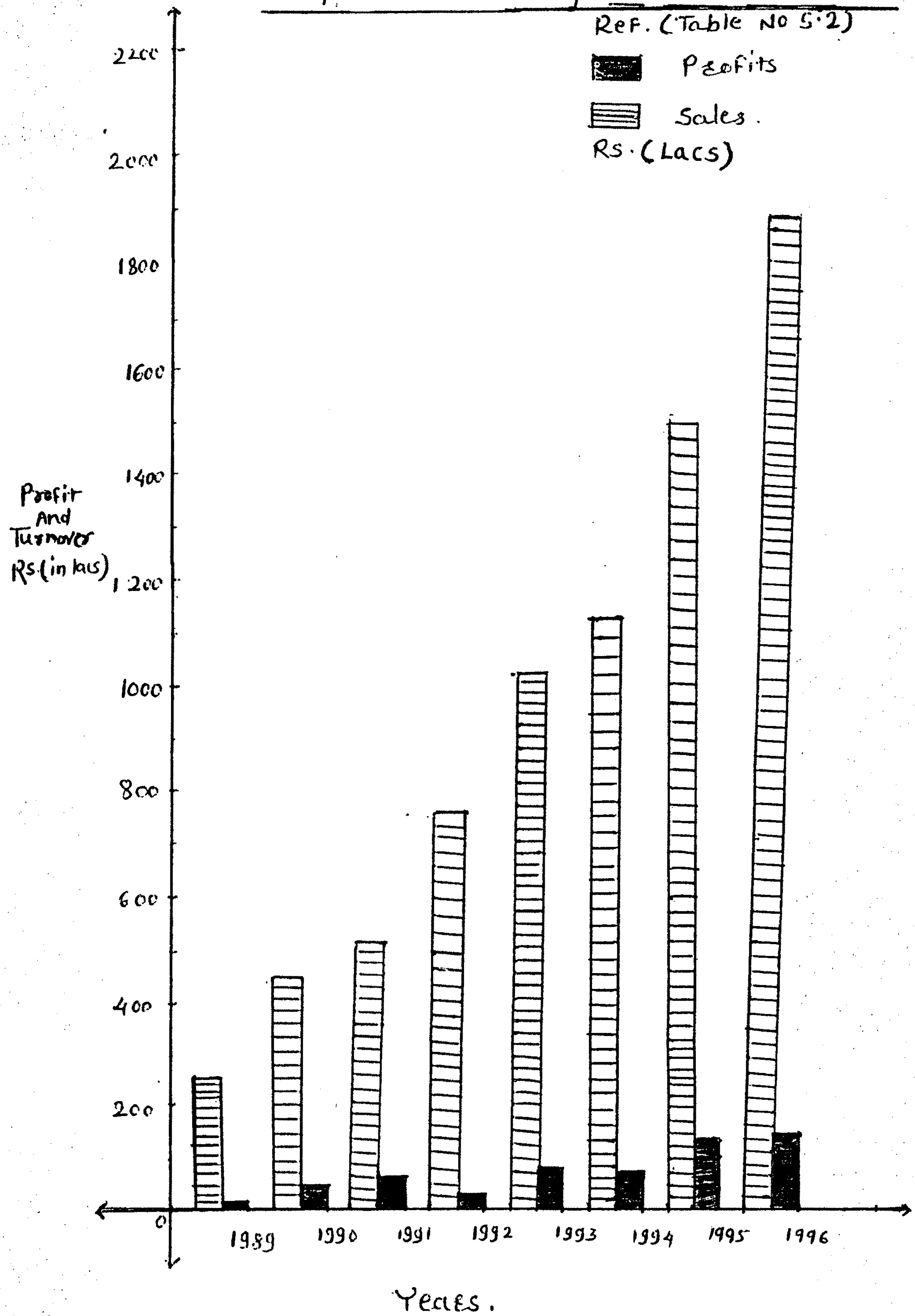
	Quantity of tools sold	Turnover	Profits
	Nos.	Rs.in lacs	Rs.in lacs
1989	8849	253.99	11.03
1990	15399	455.57	39.34
1991	16601	562.75	56.52
1992	21110	755.37	33.34
1993	25830	1090.22	79.45
1994	26871	1169.38	72.39
1995	34456	1590.60	130.17
1996	42234	1901.70	148.10

The above table shows consistent increases in all the parameters except profits for the year 1992 and 1994.The reason for decline in profits in 1992 was increase in tax liability by Rs.35.44 lacs and due to additional excise liability of Rs.14.65 lacs.In 1994 the decline in profits was due to increase in interest expenses due to commissioning of expansion programme and increase in other overheads.Still in both the years the EBIT i.e. Earning before interest and tax showed increase over the earlier year figure.

5 . 1 . (ii) ANALYSIS OF PROFIT & LOSS ACCOUNT

Graph No 5.2

Graph showing details of sales and Profits



The analysis of the Profit & Loss Account for the years covered by this study is made as under :

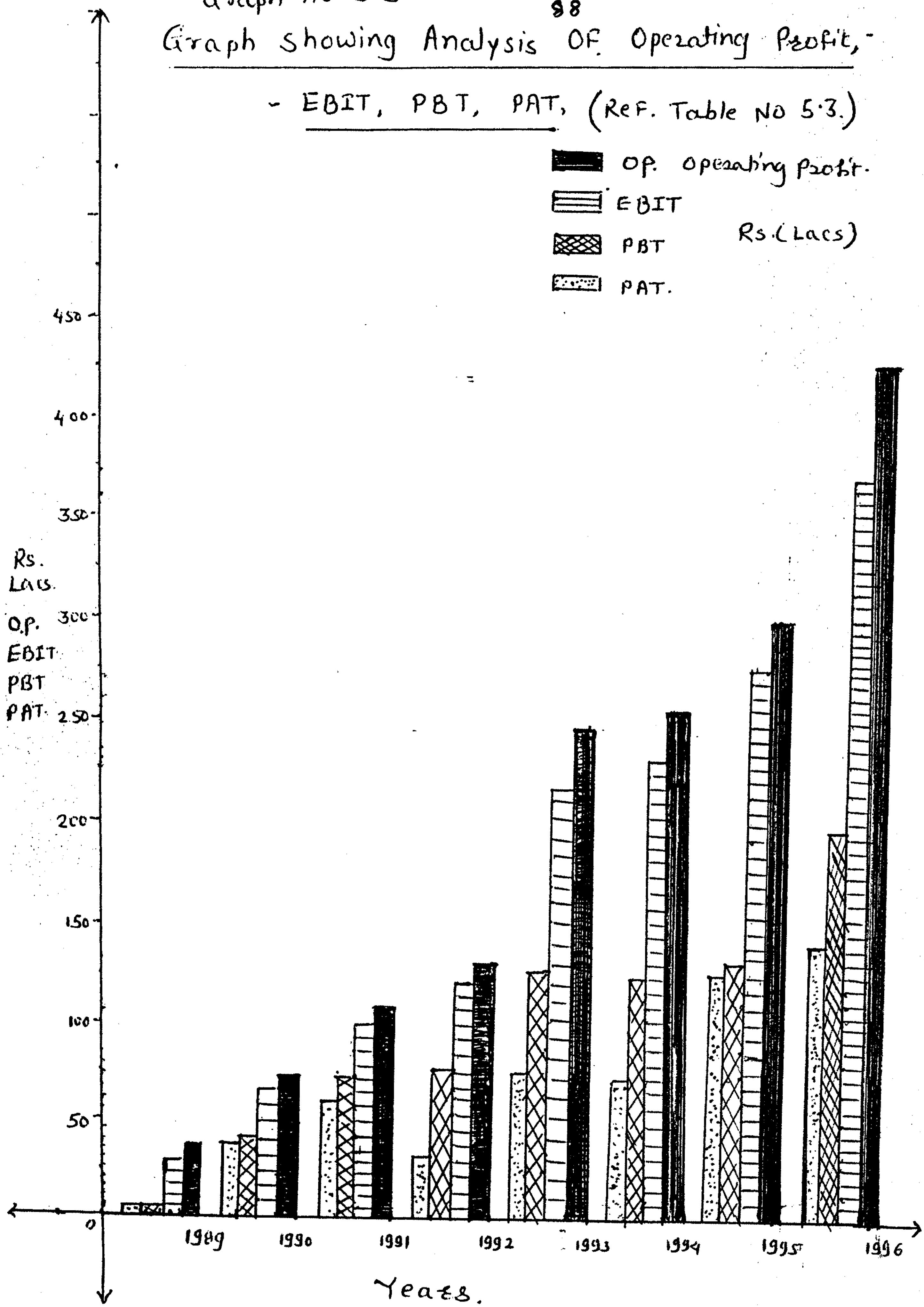
TABLE 5 . 3 : Table showing analysis of profit & loss Account (Rs. in lacs)

YEAR	Sales	Exp.	Operating profit	Dep.	EBIT
1989	259.95	222.01	37.84	4.44	33.50
1990	460.02	383.60	76.42	6.54	69.88
1991	569.40	455.13	114.27	7.52	106.75
1992	765.87	631.63	132.24	8.40	125.84
1993	1099.92	856.28	243.64	21.98	221.66
1994	1182.31	928.35	253.96	21.78	232.18
1995	1615.29	1319.77	295.52	29.39	266.13
1996	1988.04	1561.28	426.76	56.40	370.36

YEAR	EBIT	INTEREST	PBT	TAX	NP	DIVIDEND
1989	33.50	22.47	11.02	0	11.03	0
1990	69.88	25.44	44.44	5.10	39.34	0
1991	106.75	35.67	71.08	8.56	62.52	10 %
1992	125.84	49.32	76.52	43.18	33.34	20 %
1993	221.66	86.42	135.24	55.79	79.45	25 %
1994	232.18	103.39	128.79	56.40	72.39	27 %
1995	266.13	128.96	137.17	7.00	130.17	30 %
1996	370.36	186.76	183.60	35.50	148.10	30 %

Graph No 5·3

Graph showing Analysis Of Operating Profit, - EBIT, PBT, PAT, (Ref. Table No 5·3.)



As stated above the EBIT for 1992 and 1994 showed increase over the previous year figure even though the net profit fell.The percentage of EBIT to total sales for the above period is as under :

TABLE 5 . 4 showing Percentage of EBIT TO SALES

PERCENTAGE OF EBIT TO TOTAL SALES

YEAR	%
1989	12.89
1990	15.19
1991	18.75
1992	16.43
1993	20.15
1994	19.63
1995	16.47
1996	18.62

The average percentage works out to 19.73 %.

The major drop in the EBIT as compared to total sales in percentage terms occurred in 1992 and 1995.In 1992 & 1994 the company in order to increase its market share followed a policy of aggressive marketing by offering discounts and made heavy expenditure on sales and distribution expenses.This alongwith increases in employee remuneration and administrative expenses affected the profitability.

5 . i . (iii) ANALYSIS OF EXPENSES

The expenses of the company during the above period are tabulated below :

TABLE 5 .5 showing details of expenses

(Rs. in lacs)

YEAR	Manufacturing Expenses	Employee Remuneration	Sales Expenses	Administrative Expenses	TOTAL
1989	127.78	34.55	33.81	30.32	226.46
1990	247.37	53.97	58.08	30.71	390.13
1991	299.44	67.79	66.07	29.35	462.65
1992	397.57	88.32	97.25	56.89	640.03
1993	550.88	122.90	116.69	87.79	878.26
1994	533.94	143.59	170.93	101.67	950.13
1995	790.62	177.37	239.90	141.27	1349.16
1996	924.97	225.60	278.44	188.67	1617.68

The above expenses were inclusive of depreciation but exclusive of interest.The analysis of the expenses into fixed and variable expenses can be done in the following manner :

a) Fixed expenses denote those expenses which are fixed in nature & have to be incurred even though no sales take place i.e.They do not change with changes in the sales. e.g. rent of premises,depreciation,salaries of staff,interest on loan and other administrative expenses.However some of the expenses can be curtailed if the sales decline over a period of time.

b) Variable expenses are those expenses which change in accordance with changes in the sales e.g.sales commission,discount,advertisement,freight outward and other sales & distribution expenses.

c) In the above table it can be seen that the material consumption and sales expenses grew in accordance with the growth in sales.Material consumption even though not directly related with sales is affected by the sales in the sense that if no sales are expected no consumption of material will take place.In that sense the material consumption was treated as variable expenses.Further the sales & distribution expenses are directly related to the sales volume and therefore they are variable expenses.The nature of the sales expenses also brings out this feature e.g the total sales expenses for the year ending on 31.03.1996 are as follows :

	(Rs. in lacs)
1.Travelling & Conveyance	117.20
2.Sales Promotion & Exhibition Exp.	55.13
3.Product Distribution	23.50
4.Packing & Forwarding material	44.51
5.Cash Discount	38.10
	278.44

d) The classification of Employee remuneration and administration expenses poses a little difficulty.This is because even though a large portion of such expenses are fixed by nature such expenses can be curtailed or enhanced as per the sales variation.That portion of such costs is termed as semi variable expenses.In regard to the employee remuneration it can be seen that with increase in sales volume the costs also increased.

The sales increased by 7.65 times during the above period whereas the employee remuneration costs increased by 6.53 times.Thus there is high propensity of such costs to increase with the increase in sales.As compared with the 7.65 times increase in sales over the period the administrative expenses increased by 6.22 times.Therefore these costs have to be termed as semi variable but their nature is fixed expenses not related to the sales.

Therefore it was necessary to determine the quantum of fixed expenses in both the above expenses.Considering the nature & their propensity to change with sales the employee remuneration costs could be taken to be fixed only upto 40 % of the total costs.This assumption was made on the basis that the costs could be reduced only in respect of employees who were concerned with the marketing and production department.

The administrative costs by their nature are fixed.However considering the fact that some of them might vary with the sales 20 % of the total administrative expenses can be taken as variable and the remaining 80 % were taken as fixed.

5 . 1 . (iv) EXPENSES BREAK UP INTO FIXED AND VARIABLE

Thus the total break up of costs into fixed & variable was as under :

TABLE 5 . 6 : showing division of salary into fixed and variable costs

a.Employee Remuneration Expenses (Rs. in lacs)

YEAR	Fixed	Variable	Total
1989	13.82	20.73	34.55
1990	21.59	32.38	53.97
1991	27.12	40.67	67.79
1992	35.32	53.00	88.32

1993	49.16	73.74	122.90
1994	57.44	86.15	143.59
1995	70.95	106.42	177.37
1996	90.24	135.36	225.60

TABLE 5 .7 : showing division of administrative

expenses into fixed and variable costs

b.Administration Expenses (Rs. in lacs)

YEAR	Fixed	Variable	TOTAL
1989	24.26	6.06	30.32
1990	24.57	6.14	30.71
1991	23.48	5.87	29.35
1992	45.51	11.38	56.89
1993	70.23	17.56	87.79
1994	81.34	20.33	101.67
1995	113.02	28.25	141.27
1996	150.94	37.73	188.67

Thus the total break up of the fixed and variable expenses for the above period was as under :

TABLE 5 . 8 showing details of Fixed Expenses

A.FIXED EXPENSES (Rs. in lacs)

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
Salaries	13.82	21.59	27.12	35.32	49.16	57.44	70.95	90.24

Admn. Exp.	24.26	24.57	23.48	45.51	70.23	81.34	113.02	150.94
Interest	22.47	25.44	35.67	49.32	86.42	103.39	128.96	186.76
	60.55	71.60	86.27	130.15	205.81	242.17	312.93	427.94

TABLE 5 . 8 : showing details of variable expenses

B.Variable Expenses (Rs. in lacs)

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
Consumption	127.78	247.37	299.44	397.57	550.88	533.94	790.62	924.97
Sales Exp.	33.81	58.08	66.07	97.25	116.69	170.93	239.90	278.44
Salaries	20.73	32.38	40.67	53.00	73.74	86.15	106.42	135.36
Admn.Exp.	6.06	6.14	5.87	11.38	17.56	20.33	28.25	37.73
	188.38	343.97	412.05	559.20	758.87	811.35	1165.19	1376.50

Thus the break up of the total expenses during the above period was as under :

TABLE 5 . 10 of total fixed & variable expenses

(Rs. in lacs)

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
Fixed	60.55	71.60	86.27	130.15	205.81	242.17	312.93	427.94
Variable	188.38	343.97	412.05	559.20	758.87	811.35	1165.19	1376.50
	248.93	415.57	498.32	689.35	964.68	1053.52	1478.12	1804.44
% Of Fixed Costs to Total Costs	24.32	17.23	17.31	18.88	21.33	22.99	21.17	23.72

The above consolidated position of expenses shows that the company had a lower share of fixed expenses in its cost structure.In other words the contribution of the company was higher.

5 . 2 . FINANCIAL & OPERATING LEVERAGE :

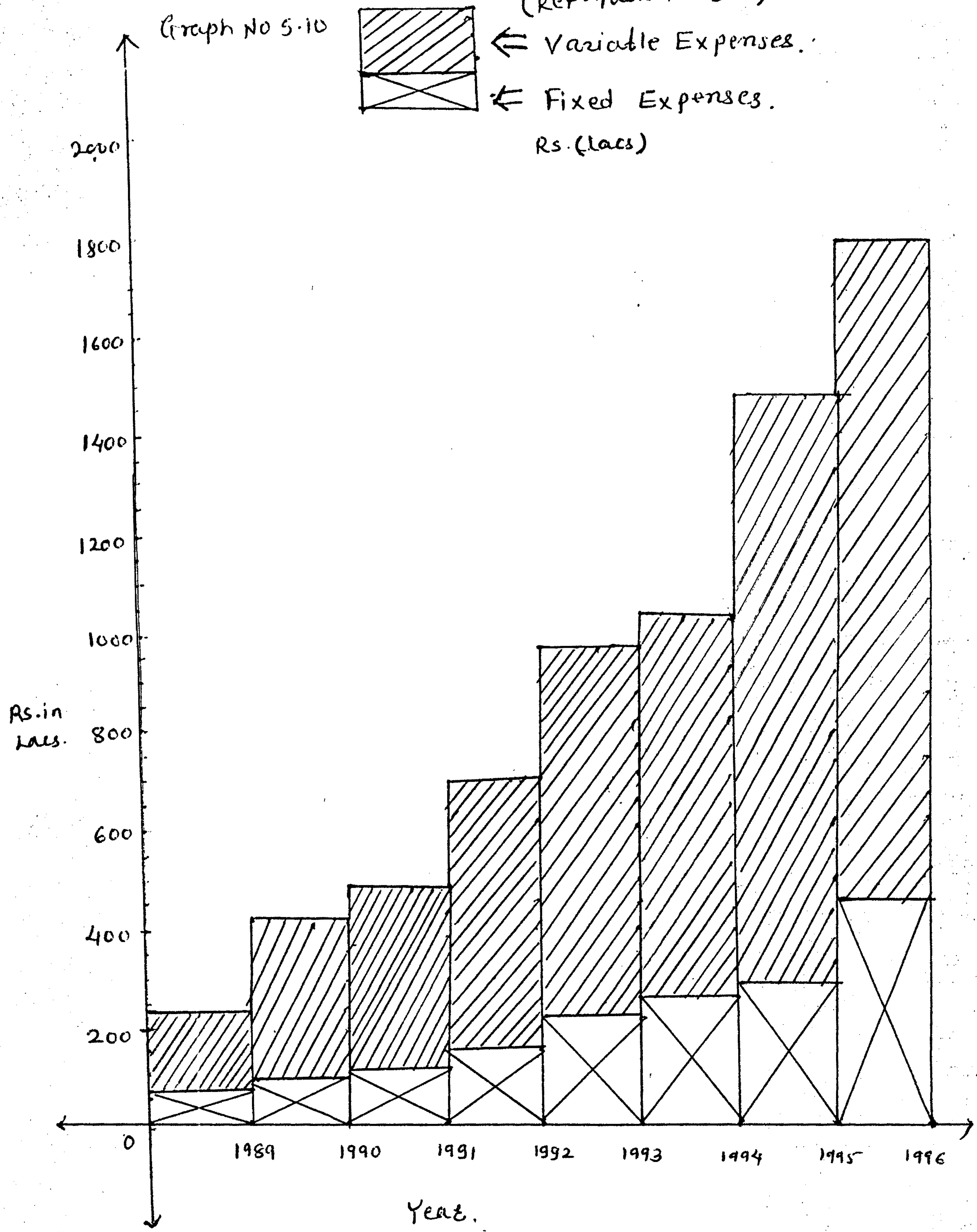
5 . 2 . (a) Financial Leverage :

As stated in Chapter 3 point no. 3 the financial leverage implies use by the company in its capital structure interest bearing funds.A highly geared company means a company which uses high proportion of debt in its capital structure and vice versa.A high financial leverage is a double edged

Graph showing fixed & Variable Expenses.

(Ref. Table No. 5.10)

Graph No 5.10



sword.It increases the financial risks of the company & at the same time it enables the company to trade on equity thereby maximising the returns to the shareholders.

In the light of the aspects of financial leverage stated in Chapter 3 principles of the concept were applied to the company under study.

Financial leverage is measured by the degree of debt in the capital structure of a company.The advantage to the shareholders arises principally due to the tax deductibility of interest on loans.This enhances the returns to the shareholders since they get more returns on a smaller investment.

5 . 2 . a . i) Computation of Financial Leverage :

The financial leverage is computed by following formula :

$$\text{Financial Leverage} = \frac{\text{EBIT}}{\text{EBIT - INTEREST i.e PBT}}$$

The ratio indicates that for every increase in EBIT the PBT will increase by the n times the ratio e.g. if the ratio is 4 it implies that for every Rs.100 percentage increase in EBIT the profit before tax will increase by 400 percentage.

The calculation of the ratio for the concerned years is as under :

TABLE 5 .11 showing computation of Financial Leverage

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
EBIT (Rs. in lacs)	33.50	69.88	106.75	125.84	221.66	232.18	266.13	370.36
PBT (Rs. in lacs)	11.02	44.44	71.08	76.52	135.24	128.79	137.17	183.60
% Leverage	3.03	1.57	1.50	1.64	1.64	1.80	1.94	2.01

The ratio would be called as favourable if the returns to the shareholders increase.For this purpose it is necessary that the funds raised by debt should be used in profitable projects.In other words the return on the funds invested should be higher than the after tax interest rate so as to result in higher earning per share for the shareholders.Thus this ratio by itself only shows the extent to which the PBT would be affected by the use of debt.

The above calculation of the ratio shows that the ratio fell upto the year 1991 and thereafter began increasing.The significance of this occurrence was that in those years even though the interest in rupee terms increased the earnings of the company did not keep pace with the interest expense.The ratio began improving from 1992 as the profitability of the company began increasing and the rate of return on the investment became higher than the interest rate.This clearly brings out that the financial leverage can be advantageous to the shareholders of a company only if the returns on the investment exceeds that of the interest cost.Thus this ratio should be interpreted alongwith the return on capital employed (ROI) ratio.This ratio can be calculated by dividing the EBIT by the capital employed i.e both owned as well as the borrowed funds.

5 . 2 . a. (ii) RETURN ON CAPITAL EMPLOYED :

$$\text{Return on Capital} = \frac{\text{EBIT}}{\text{Capital Employed}}$$

TABLE 5 . 12 showing computation of ROI (Rs. in lacs)

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
EBIT	33.50	69.88	106.75	125.84	221.66	232.18	266.13	370.36
CAPITAL	239.13	212.95	258.14	290.99	420.19	546.22	1213.02	1537.09
%	14	32.81	41.35	43.24	52.75	42.50	21.93	24.09

The return on capital employed was always higher than the interest cost.As a result the shareholders would gain in the form of higher Earning per share.

5 . 2 . b. Operating Leverage :

The operating leverage measures the degree of fluctuations in operating profits (EBIT) due to fluctuations in the sales revenue.The reason for causing fluctuations in the EBIT is the existence of fixed interest costs in the total costs of the company.The higher the incidence of fixed interest the more is the degree of fluctuations in the operating profits.

The ratio is calculated in the following manner :

$$\text{Operating Leverage} = \frac{\text{S} - \text{V or Contribution}}{\text{EBIT}}$$

The computation of this ratio for the concerned years was as under :

TABLE 5 . 13 showing computation of operating Leverage

(Rs. in lacs)

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
Sales	259.95	460.02	569.40	765.87	1099.92	1182.31	1615.29	1988.04
Variable	188.38	343.97	412.05	559.20	758.87	811.35	1165.19	1376.50
Contribution	71.57	116.05	157.35	206.67	341.05	370.96	450.10	611.54
Fixed	60.55	71.60	86.27	130.15	205.81	242.17	312.93	427.94
Interest	22.47	25.44	35.67	49.32	86.42	103.39	128.96	186.76
EBIT	33.49	69.89	106.75	125.84	221.66	232.18	266.13	370.36
Ratio	2.14	1.66	1.47	1.64	1.54	1.60	1.69	1.65

In the above table interest was added back for the calculation of EBIT since the fixed cost included the interest charges.

The above table shows that the ratio was low.This signifies that any increase or decrease in sales would not result in violent increases or decreases in the EBIT.This is because the fixed costs as a percentage of contribution are quite lower.The ratio shows a declining trend over the period.From 2.14 in 1989 the ratio came down to 1.65 in 1996.It signifies that fluctuations in the sales revenue in 1989 of about 10 % would bring about 21.40 % fluctuation in the EBIT whereas in 1996 the fluctuation in EBIT would be 16.50 %.The primary reason for the falling ration was the increasing ratio of contribution to the total sales.The ratio of contribution to total sales went up from 27.53 % in 1989 to 30.76 % in 1996.On the other hand the ratio of fixed expenses to total sales came down from 14.65 % in 1989 to 12.13 % in 1996.Even though the interest cost went up in rupee terms it was more than compensated by increase in contribution and sales revenue.This ratio shows that the company strenghtened its financial position by following judicious policies in regard to raising loans.

5 . 2 . c . COMPARISON OF BOTH LEVERAGE RATIOS :

A comparison of the ratios of both the leverages over the period is presented below & makes interesting reading :

TABLE 5 . 14 showing comparative figures of

EBIT & BOTH THE LEVERAGES

	1989	1990	1991	1992	1993	1994	1995	1996
F.Leverage	3.03	1.57	1.50	1.64	1.64	1.80	1.94	2.01
O.leverage	2.14	1.66	1.47	1.64	1.54	1.60	1.69	1.65
EBIT %	14.00	32.81	41.35	43.24	52.75	42.50	21.93	24.09

Upto the year 1992 the financial leverage and operating leverage both declined.The declining financial leverage with increasing EBIT percentage improved the EBIT of the company for the year beginning from 1991.This was helped by the declining operating leverage which ensured that the propensity of EBIT to vary with the variations in the sales was kept in check.This in all resulted in stability of earnings over the period.The growth in EBIT during the years 1990,1991,1993 & 1996 was comparatively more pronounced while in 1992,1994 and 1995 it remained at the earlier year level even though the sales increased.The low operating leverage ensured that the variations in sales did not produce high variations in the EBIT.

5 . 3 . COMPUTATION OF EARNINGS PER SHARE :

The primary aim of all managements is the maximisation of the owners' wealth.After meeting all expenses the shareholders can claim only the remainder i.e. Net Profit after tax.The directors may not recommend 100 % distribution of profits but the net profit after tax (assuming there are no arrears of dividend on preference shares) is the amount which is either ditributed as dividend or it is transferred to reserves which go to increase the shareholders' funds in the company.In this sense it is the net profit after tax that is taken into account for computation of Earning Per Share.

Thus the Earning per share is computed in the following manner :

$$\text{EPS} = \frac{\text{Net profit after tax}}{\text{Total number of Equity shares}}$$

Where there are preference shares issued by the company the above formula would be amended as follows :

$$\text{EPS} = \frac{\text{Net profit after tax} - \text{Preference Dividend}}{\text{Total number of Equity Shares}}$$

The reason for the amendment is that even though the preference share holders are called as shareholders the preference shares cannot be issued as Irredeemable as per section 80 of The Companies Act,1956.As per this section the Irredeemable preference shares cannot be issued bv a company & the preference shares issued have to be redeemed within 10 years of their issue.(Section 80 (5 A) of The Companies Act,1956 inserted with effect from 15.06.1988).

In this view of the legal position the preference shares should be considered as liability of the company in the limited sense.

The computation of the EPS for the above years is done below

TABLE 5 . 15 showing computation of EPS

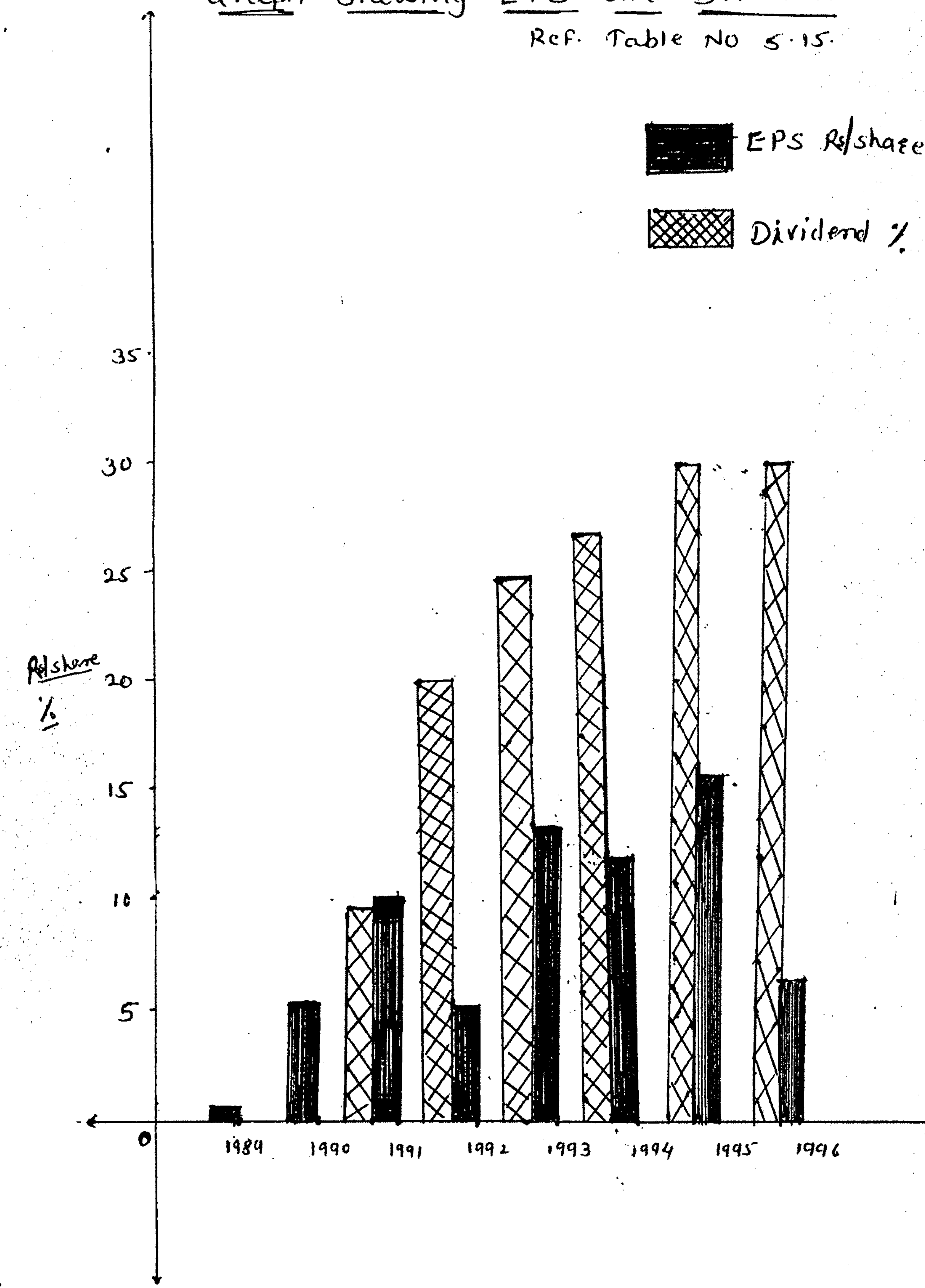
YEAR	1989	1990	1991	1992	1993	1994	1995	1996
Net Profit (Rs. in lacs)	11.03	39.34	62.52	33.34	79.45	72.39	130.17	148.10
No.of Shares	6.00	6.00	6.00	6.00	6.00	6.00	8.50	17.00
EPS	1.83	6.56	10.42	5.56	13.24	12.06	15.31	8.71

The EPS in the year 1996 came down drastically since the shares were doubled due to issue of bonus shares in the ratio of 1:1.This was done by capitalising the share premium account which formed part of reserves & surplus.In other

Graph No 5.15

Graph showing EPS and Dividend.

Ref. Table No 5.15.



words a part of the shareholders funds was transferred to shares account.Therefore no cash inflow on account of issue of bonus shares took place & therefore the EPS should have been 17.42 for all purposes.

The net profit showed healthy growth during the above period except 1992 and 1994 where the net profit declined.The analysis of the profit & Loss Account reveals that the net profit declined primarily because the tax provision for that year shot up to Rs.44 lacs from the previous year provision of 8.56 lacs.The profit before tax for the year 1992 was 76.51 lacs as compared with the earlier year level of Rs.71.08 lacs.This was basically due to the fact that the carried forward accumulated losses of the company were fully exhausted in 1992.The net profit also declined in the year 1994 due to increase in all expenses and no significant growth in sales.This was due to not so good tax management by the company in those two years.

The EPS grew quite steadily during the above period.From the level of 1.83 in 1989 it shot up to 15.31 in 1995 and to 8.71 in 1996 after the issue of bonus shares.This was largely due to judicious use of debt by the company in its capital structure.The figures of shareholders' funds and debt were as follows for the period :

5 . 3 . a . DEBT EQUITY RATIO :

TABLE 5 . 16 showing computation of Debt Equity Ratio (Rs. in lacs)

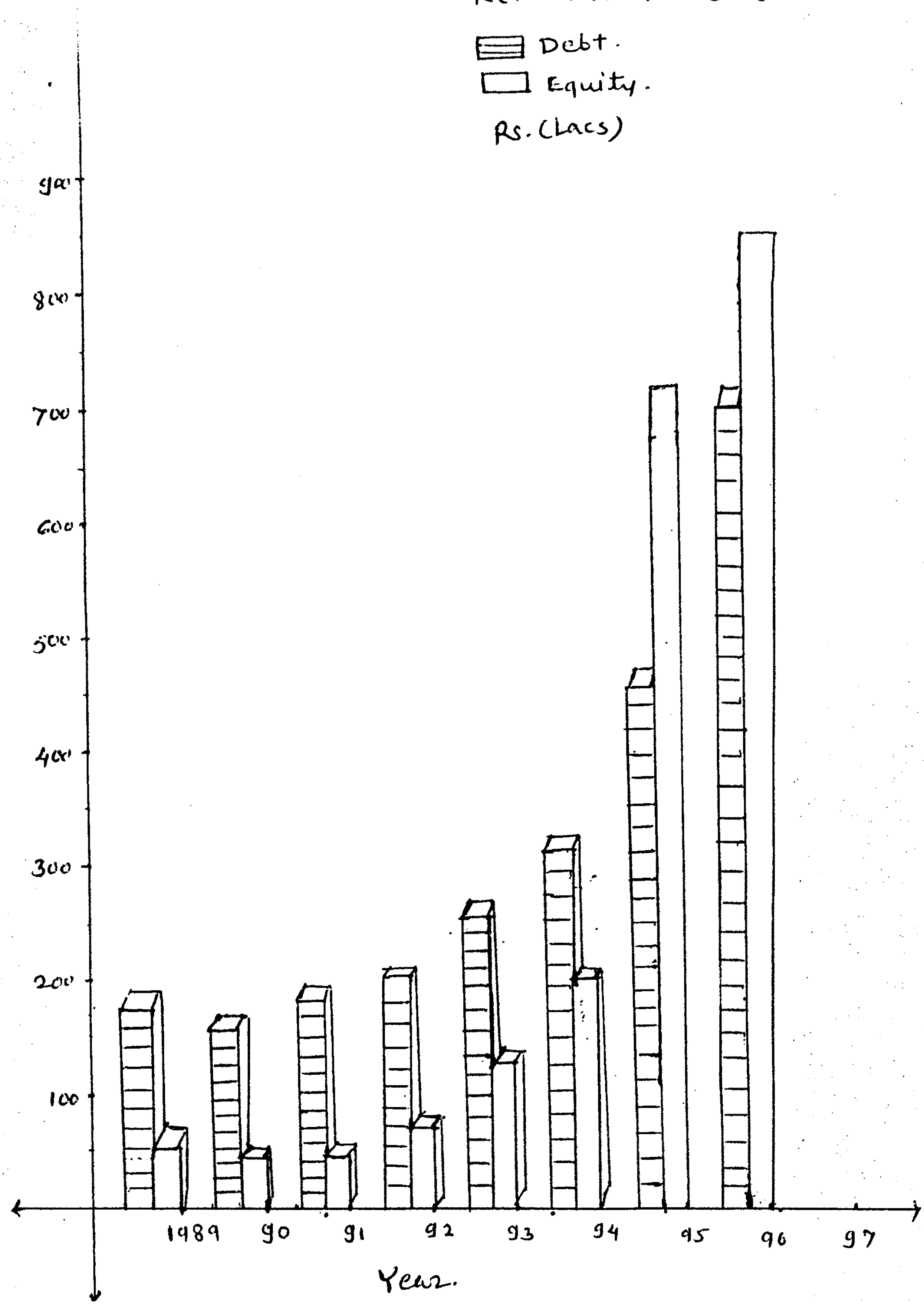
YEAR	1989	1990	1991	1992	1993	1994	1995	1996
Owned Funds	60.20	60.20	61.45	82.79	147.25	203.44	749.15	864.23
Debt	178.93	152.75	196.69	208.20	272.90	342.79	463.86	705.19
TOTAL	239.13	212.95	258.14	290.99	420.15	546.23	1213.01	1569.42
DEBT EQUITY RATIO	2.97	2.54	3.20	2.51	1.85	1.68	.62	.82

The Debt Equity Ratio was quite high upto 1992.This was due to the fact that the company was having heavy accumulated losses which reduced the effective owned funds.In 1992 the accumulated profits were wiped out completely and the profitability of the company started improving .This started reflecting in better Debt Equity Ratio which came down to 1.68 in 1994.A ratio of 2 : 1 is considered desirable but the ratio still came down in 1995 & 1996 with the significant profits earned by the company in those years.The ratio below 1 shows that the company can still raise debt further to finance its expansion programme & so long as the earnings

Graph No 5.16

Graph Showing Owned Funds and debt.

Ref. Table No 5.16.



before tax are higher than the interest cost the shareholders will gain.A ratio below 1 shows that the management is prudent and does not want to increase its risks.This may be due to the attitude of risk averse management or the management expects lower growth rate for the company in the near future which & therefore does not want to increase its financial risks.

5 . 4 . RATIO ANALYSIS :

In addition to what has been stated in the above pages the presentation and analysis of the figures and performance of the company for the above period can be done by calculating some key ratios of profitability the company over the period.

5 . 4 . PROFITABILITY RATIOS :

These ratios measure the profitability of the company in relation to the sales of the company i.e. what is the percentage of profits to the sales.

5 . 4 . (i) OPERATING PROFIT RATIO :

This ratio is calculated by the following formula :

$$\frac{\text{Profit before tax}}{\text{Sales}}$$

TABLE 5 .17 showing computation of

Operating profit Ratio (Rs. in lcas)

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
PBT	11.03	44.44	71.08	76.52	135.25	128.80	137.17	183.61
SALES	259.95	460.02	569.40	765.87	1099.92	1182.31	1615.29	1988.04
%	4.24	9.67	12.48	9.99	12.30	10.89	8.49	9.24

This ratio shows the operating profit as a percentage of sales.Improvement in the ratio indicates the efficiency of management in carrying on business.The ratio shows ups and downs over this period and the average ratio is 9.67.In the case of the company this ratio kept on declining due to the fact that the company was not been successful in curtailing its sales & admininstrative costs.

5 . 4 . (ii) Net Profit Ratio :

This ratio measures the percentage of net profit after tax i.e.earnings available to the shareholders in relation to the sales of the company.

TABLE 5 . 18 : Table showing computation of

Net profit Ratio (Rs. in lacs)

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
N. P.	11.03	39.34	62.52	33.34	79.45	72.39	130.17	148.10
SALES	259.95	460.02	569.40	765.87	1099.92	1182.31	1615.29	1988.04
%	4.24	8.55	10.98	4.35	7.22	6.12	8.06	7.45

The average ratio over the period works out to 7.12 %. This ratio is affected by the provision for tax made by the company which is dependent upon many factors e.g.incentives available to the industry to which the company belongs,tax planning of the company,tax rates applicable etc. Therefore where the tax planning is done efficiently this ratio will come closer to the operating profit ratio.The average fall in this ratio over the operating profit is 2.55.In the years 1992,1993 & 1994 the fall in this ratio over the operating ratio is more than 2.55 the reason being the management of taxation by the company was not good resulting in heavy liabliity.

5 . 4 . (iii) EBIT TO SALES RATIO :

This ratio will show the percentage of earnings before interest and tax to the sales of the company.As compared to the operating ratio this will show the percentage of interest to sales.

TABLE 5 . 19 of EBIT TO SALES Ratio (Rs. in lacs)

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
EBIT	33.50	69.88	106.75	125.84	221.66	232.18	266.13	370.36
SALES	259.95	460.02	569.40	765.87	1099.92	1182.31	1615.29	1988.04
%	12.89	15.19	18.75	16.43	20.15	19.64	16.47	18.63

The average ratio works out to 17.27 %.Interest costs nearly account for 7.60 % of the sales as the average operating ratio is 9.67.Interest at 7.60 % of sales can be considered as prudent since generally it is accepted that the interest costs should not exceed 10 % of sales.However for the last three years the interest cost rose over the average since the increase in sales is not in keeping with the increase in interest cost.This may be due to the fact that the projected sales on account of expansion did not materialise & to that extent the profitability of the company suffered.

5 . 4 .(iv) RETURN ON CAPITAL EMPLOYED (ROI) :

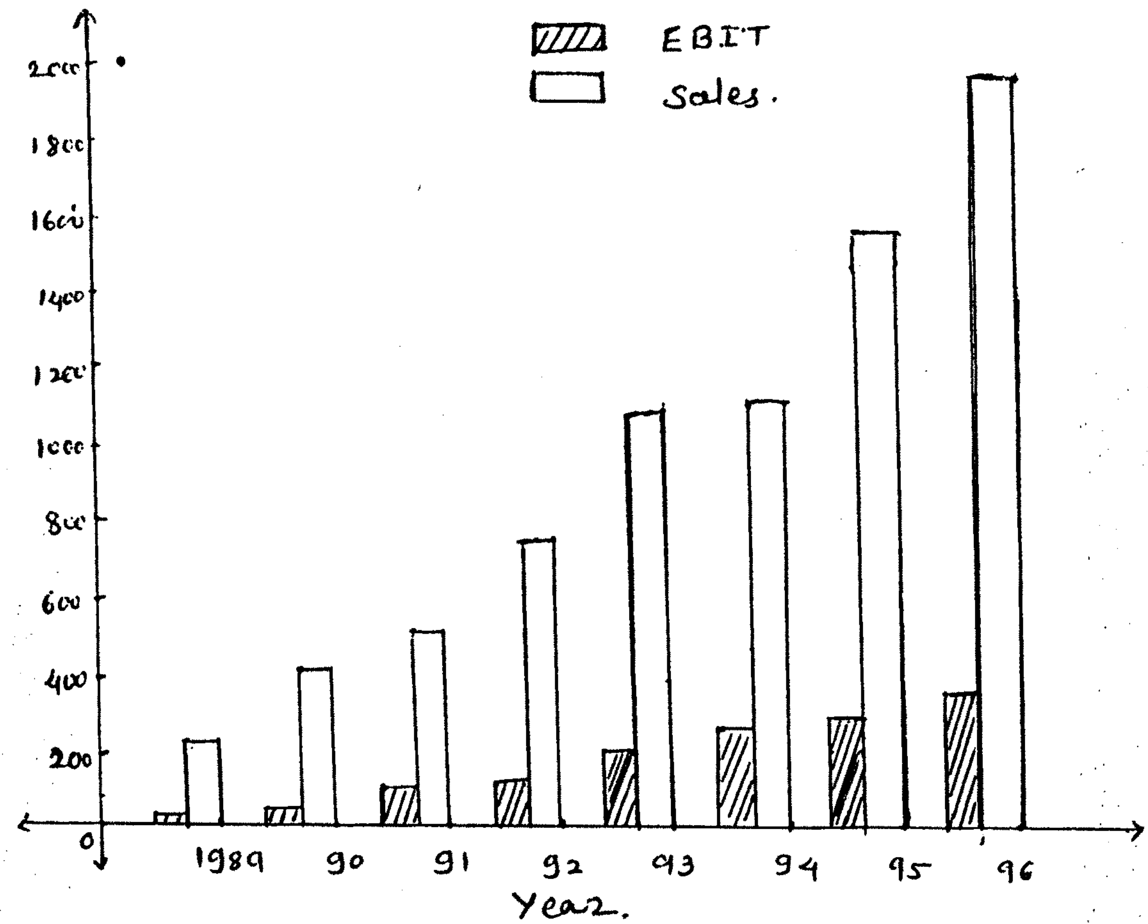
This ratio can be calculated in two ways :

a. EBIT TO CAPITAL EMPLOYED :

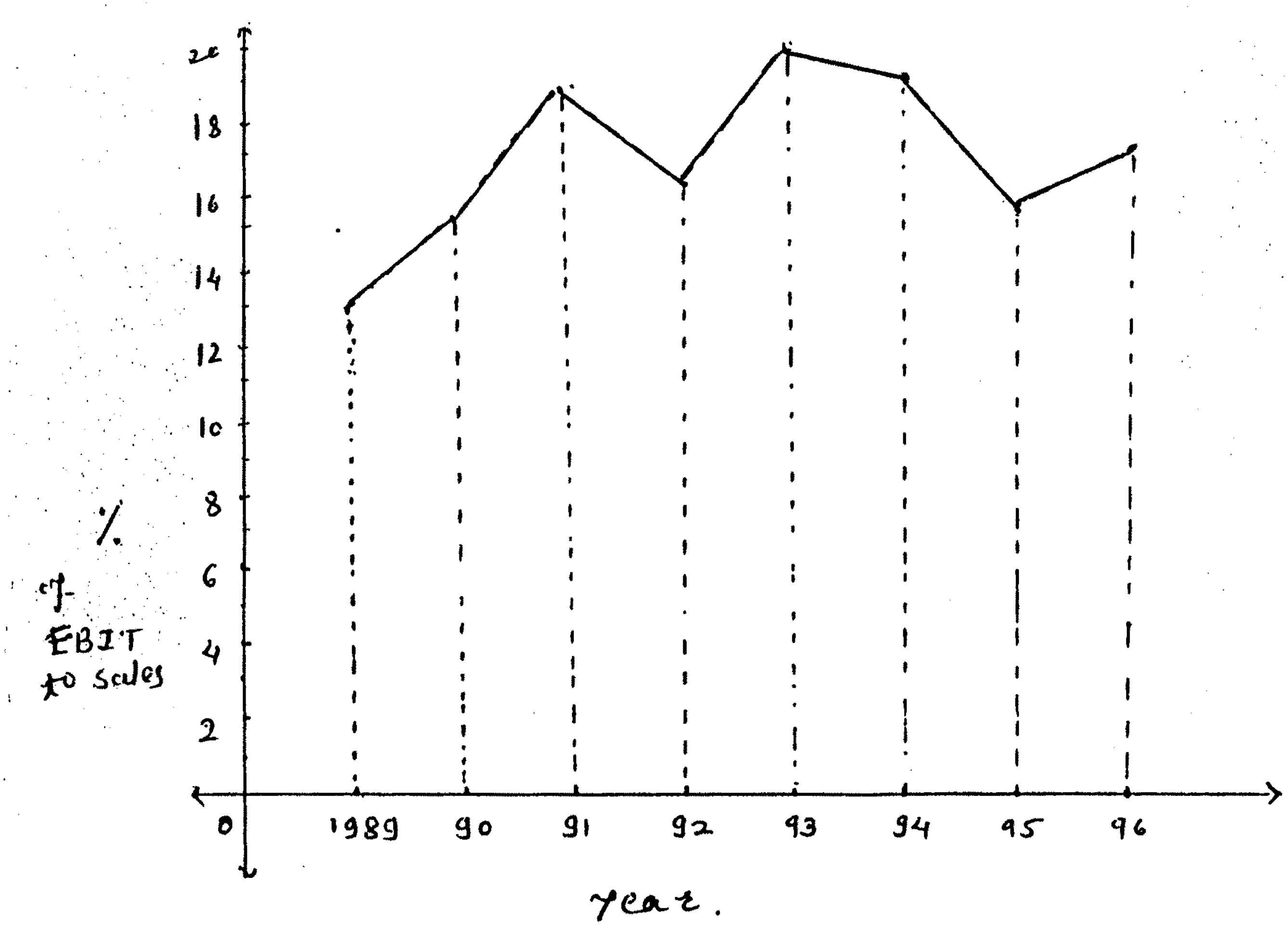
This has already been calculated above in 3 (i)

Graph No. 5.19

Graph showing EBIT and Sales. (Ref. Table No 5.19)



Graph showing percentage of EBIT to Sales.



b.NET PROFIT TO NET WORTH :

The significance of this ratio is it shows the return the equity shareholders get on their investment and can be compared with the returns available in the market as well as with the returns obtained by companies in the same industry. Further in order to properly appreciate the concept of trading on equity this ratio should be studied.In this ratio capital employed is equal to the shareholders' funds viz.Equity share capital & reserves & surplus.

TABLE 5 . 20 showing Net profit to Net Worth Ratio (Rs. in lacs)

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
N. P.	11.03	39.34	62.52	33.34	79.45	72.39	130.17	148.10
Owned Funds	60.20	60.20	61.45	82.79	147.25	203.44	749.15	864.23
%	18.32	65.34	101.74	40.27	53.95	35.58	17.38	17.14

This ratio properly brings out the advantage of having debt funds in the capital structure of a company.Surprisingly when the company was small from the point of view of sales,capital & profits the returns to the shareholders ranged from 18.32 % ,65.34 % ,101.74 % & 40.27 % for the years 1989,1990,1991 & 1992 respectively.The returns to the shareholders for the years 1993 & 1994 were also very good even though the shareholders' funds increased on account of ploughing back of profits.This was due to good profitability of the company in 1993 & 1994.However the returns to share-holders' fell sharply as compared to the earlier years since the profitability of the company fell.This is also borne out the ratios of Operating profit Ratio,Net profit Ratio and EBIT to sales Ratio.Surprisingly in these two years i.e. 1995 & 1996 the profitability of the company was at its best in rupee terms.However the net returns to the shareholders declined on account of increase in the owned funds through plough back of profits.The return on investment at 17 % is considered good but as compared to earlier years the share-holders appeared to have suffered.This is because the fruits of expansion undertaken by the company in the years 1995 & 1996 did not reflect in the balance sheet.

5 . 4 . (v) INTEREST COVERAGE RATIO :

This ratio shows the ability of the company to pay the interest obligations on time.It shows the margin a company has in terms of profitability to pay the interest.

$$\text{Interest Coverage Ratio} = \frac{\text{Profit Before Interest \& Depreciation (EBIT + DEP)}}{\text{Interest}}$$

TABLE 5 .21 showing Interest Coverage Ratio (Rs. in lacs)

YEAR	1989	1990	1991	1992	1993	1994	1995	1996
EBIT	33.50	69.88	106.75	125.84	221.66	232.18	266.13	370.36
DEP	4.45	6.54	7.52	8.40	21.98	21.78	29.39	56.40
	37.95	76.42	114.27	134.24	243.64	253.96	295.52	426.76
INT	22.47	25.44	35.67	49.32	86.42	103.39	128.96	186.76
%	1.69	3.00	3.20	2.72	2.82	2.46	2.29	2.28

The ratio appears to be low considering the fact that the tax liability has to be repaid out of the amount of EBIT + Depreciation.

CHAPTER 6

CONCLUSIONS AND SUGGESTIONS