

Chapter VI

Impact of Capital Structure Components on Profitability

CHAPTER VI

IMPACT OF CAPITAL STRUCTURE COMPONENTS ON PROFITABILITY

6.1 INTRODUCTION

Profitability is the ability of a company to generate profit. Profitability is considered to be an important criteria to measure and assess the relative effectiveness and efficiency of a company to generate profit. This proves to be an indication of how efficient the administration can generate income using the different sources of funds available in the market. Profitability of a business firm is very much helpful to the management, creditors and shareholders of business firm. The management of business firm has to take some crucial managerial decision like further expansion, raising of additional finance and dividend payment etc. For this purpose the management greatly rely-upon the profitability of the business firm. On the basis of profitability creditors decide their policy regarding the business. The shareholders are equally interested in the profitability of the company. Profitability is a good device which represent the earning capacity of a business firm. Based on profitability the shareholders can take their decision whether to hold their shares in the company or not. Thus analysing the profitability is essential to the management, creditors and owners of the company.

6.2 ANALYSING THE IMPACT OF CAPITAL STRUCTURE COMPONENTS ON PROFITABILITY

This chapter summarise the impact of capital structure components on the profitability of service sector. The profitability is a measure for using return on investment. Correlation analysis, multiple regression analysis and step- wise regression analysis has been used to analyse the relationship and impact of capital structure on profitability. Correlation analysis explains the relationship between profitability and capital structure components while multiple regression describes the impact of capital structure components on profitability. Step wise regression analysis is applied to find out the prominent component that account for the variations in profitability.

6.2.1 HEALTHCARE INDUSTRY

6.2.1.a CORRELATION ANALYSIS

The correlation analysis is applied to find out the relationship between profitability and components of capital structure. Here this analysis is applied to all capitalisation level of healthcare industry.

Capital Structure Components Associated with Profitability in Healthcare Industry under Large cap

The table 6.1 gives the details of capital structure components associated with profitability of large cap companies in healthcare industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.1 : Correlation Analysis - Healthcare Industry (Large cap)

Variables	r	r ²
Equity Share Capital	-0.235*	0.055
Preference Share Capital	0.192	0.037
Retained Earnings	0.191	0.037
Debentures	-0.029	0.001

* Significant at five per cent level ** Significant at one per cent level

Out of four components, equity share capital is found to be significant at five per cent level.

Equity Share Capital

Profitability and equity share capital (-0.235) is negatively correlated. The negative implication indicates that the decrease in equity share capital would increase the profitability. The coefficient of determination (r²) shows that equity share capital depicts 5.5 per cent of variations in the profitability.

Capital Structure Components Associated with Profitability in Healthcare Industry under Mid cap

The table 6.2 gives the details of capital structure components associated with profitability of mid cap companies in healthcare industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.2 : Correlation Analysis - Healthcare Industry (Mid cap)

Variables	r	r²
Equity Share Capital	-0.136	0.018
Retained Earnings	0.307**	0.095
Debentures	-0.022	0.000

* Significant at five per cent level ** Significant at one per cent level

Out of three components, retained earnings is found to be significant at one per cent level. Preference share capital is not considered since the healthcare companies in mid cap do not raise their funds in preference shares.

Retained Earnings

Profitability and retained earnings (0.307) is positively correlated. This shows that increase in retained earnings would increase the profitability. The coefficient of determination (r^2) shows that retained earnings depicts 9.5 per cent of variations in the profitability.

Capital Structure Components Associated with Profitability in Healthcare Industry under Small cap

The table 6.3 gives the details of capital structure components associated with profitability of small cap companies in healthcare industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.3 : Correlation Analysis - Healthcare Industry (Small cap)

Variables	r	r²
Equity Share Capital	-0.327**	0.107
Retained Earnings	0.246*	0.060
Debentures	-0.029	0.001

* Significant at five per cent level ** Significant at one per cent level

Out of three components, equity share capital is found to be significant at one per cent level and retained earnings is found to be significant at five per cent level. Preference share capital is not considered since the healthcare companies in small cap do not raise their funds in preference shares.

Equity Share Capital

Equity share capital (-0.327) is negatively correlated with profitability. The negative implication indicates that the decrease in equity share capital would increase the

profitability. The coefficient of determination (r^2) shows that equity share capital depicts 10.7 per cent of variations in the profitability.

Retained Earnings

The value of correlation coefficient (0.246) shows a positive relationship between retained earnings and profitability. This shows that increase in retained earnings leads to increase in profitability. The coefficient of determination (r^2) shows that retained earnings exhibits 6.0 per cent of variation in the profitability.

To summarise, equity share capital has a significant negative association with profitability in large and small cap companies while retained earnings has a significant positive association with profitability in mid and small cap companies.

6.2.1.b MULTIPLE REGRESSION AND STEP WISE REGRESSION

The regression analysis is used to find out the impact of capital structure components on profitability. Here this analysis is applied to all capitalisation level of healthcare industry.

Impact of Capital Structure Components on Profitability in Healthcare Industry under Large Cap

The table 6.4 shows the combined influence of the capital structure components on profitability of large cap companies in healthcare industry.

Table 6.4 : Multiple Regression - Healthcare Industry (Large cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	-0.004	0.002	-1.933
Preference Share Capital	0.035	0.021	1.706
Retained Earnings	0.000	0.000	1.642
Debentures	0.000	0.000	-0.091

* Significant at five per cent level ** Significant at one per cent level

Constant : 16.938

Std. Error of Estimate : 3.608

R^2 : 0.074

R^2 : 0.124

Out of the four variables introduced for regression analysis, no components are found to have significant association with profitability.

Capital Structure Components Prominently Associated with Profitability in Healthcare Industry under Large cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.5 : Step - wise Regression - Healthcare Industry (Large cap)

Step	Constant	Equity Share Capital	R ²
1	19.199	-0.004	0.055

In step wise regression equity share capital has been introduced. This component contributes 5.5 per cent of variation in the profitability. The R² value of multiple regression amounts to 12.4 per cent. The difference of 6.9 per cent is due to the contribution of other components.

Impact of Capital Structure Components on Profitability in Healthcare Industry under Mid Cap

The table 6.6 shows the combined influence of the capital structure components on profitability of mid cap companies in healthcare industry.

Table 6.6 : Multiple Regression - Healthcare Industry (Mid cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	-0.004	0.005	-0.835
Retained Earnings	0.037**	0.012	2.962
Debentures	-0.004	0.003	-1.223

* Significant at five per cent level ** Significant at one per cent level

Constant : 24.787

Std. Error of Estimate : 2.478

R² : 0.090

R² : 0.126*

Out of the three components introduced for regression analysis, retained earnings is found to have a significant association with profitability. Preference share capital is not considered since the healthcare companies in mid cap do not raise their funds in preference shares.

Retained Earnings

The regression coefficient between retained earnings and profitability is 0.037, which is significant at one per cent level. It implies that the retained earnings positively influence the

profitability. A unit increase in retained earnings shall increase the profitability by 0.037 units. High level of retained earnings leads to higher level of profitability.

The value of R^2 is found to be significant at five per cent level. This shows that the regression equation framed is a good fit. The value of R^2 indicates that around 12.6 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Healthcare Industry under Mid cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.7 : Step - wise Regression - Healthcare Industry (Mid cap)

Step	Constant	Retained Earnings	R^2
1	22.551	0.032	0.095

In step wise regression retained earnings has been introduced. This component contributes 9.5 per cent of variation in the profitability. The R^2 value of multiple regression amounts to 12.6 per cent. The difference of 3.1 per cent is due to the contribution of other components.

Impact of Capital Structure Components on Profitability in Healthcare Industry under Small Cap

The table 6.8 shows the combined influence of the capital structure components on profitability of small cap companies in healthcare industry.

Table 6.8 : Multiple Regression - Healthcare Industry (Small cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	-0.031	0.016	-1.995
Retained Earnings	0.011*	0.018	0.581
Debentures	-0.002	0.015	-0.155

* Significant at five per cent level ** Significant at one per cent level

Constant : 6.783

Std. Error of Estimate : 3.510

\bar{R}^2 : 0.074

R^2 : 0.111 *

Out of the three components introduced for regression analysis, retained earnings is found to have a significant association with profitability. Preference share capital is not considered since the healthcare companies in small cap are not raise their funds in preference shares.

Retained earnings

Retained earnings positively influences the profitability and it is significant at five per cent level. It indicates that a unit increase in retained earnings shall increase the profitability by 0.011 units. Increase in retained earnings leads to increase in profitability.

The value of R^2 is found to be significant at five per cent level. This shows that the regression equation framed is a good fit. The value of R^2 indicates that around 11.1 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Healthcare Industry under Small cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.9 : Step - wise Regression - Healthcare Industry (Small cap)

Step	Constant	Equity Share Capital	R²
1	6.734	-0.037	0.107

In step wise regression equation, equity share capital has been introduced. This component contributes 10.7 per cent of variation in the profitability. The R^2 value of multiple regression amounts to 11.1 per cent. The difference of 0.4 is due to the contribution of other components.

On the whole, equity share capital is the predominant component account for variation in profitability of large and small cap companies whereas retained earnings is the prominent component account for variation in profitability of mid cap companies.

6.2.2 HOTEL INDUSTRY

6.2.2.a CORRELATION ANALYSIS

The correlation analysis is applied to find out the relationship between profitability and components of capital structure. Here this analysis is applied to all capitalisation level of hotel industry.

Capital Structure Components Associated with Profitability in Hotel Industry under Large cap

The table 6.10 gives the details of capital structure components associated with profitability of large cap companies in hotel industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.10 : Correlation Analysis - Hotel Industry (Large cap)

Variables	r	r ²
Equity Share Capital	-0.427**	0.182
Preference Share Capital	0.030	0.001
Retained Earnings	0.617**	0.381
Debentures	-0.590**	0.348

* Significant at five per cent level ** Significant at one per cent level

Out of four components, equity share capital, retained earnings and debentures are found to have significant at one per cent level.

Equity Share Capital

The correlation coefficient value -0.427 shows a negative relationship between equity share capital and profitability. The negative association implies that as decrease in the equity share capital leads to increase in profitability. The coefficient of determination (r^2) reveals that 18.1 per cent of variation in profitability due to the changes in equity share capital.

Retained earnings

Retained earnings (0.617) have a positive relationship with profitability. Positive association indicates that increases in retained earnings would increase the profitability. The coefficient of determination (r^2) shows that 38.1 per cent of variation in profitability is due to the change in retained earnings.

Debentures

Debentures (-0.590) exhibits a negative correlation with profitability. Negative association indicates that decrease in debentures leads to increase in profitability. The coefficient of determination (r^2) shows that debentures accounts for 34.8 per cent of variation in profitability.

Capital Structure Components Associated with Profitability in Hotel Industry under Mid cap

The table 6.11 gives the details of capital structure components associated with profitability of mid cap companies in hotel industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.11 : Correlation Analysis - Hotel Industry (Mid cap)

Variables	r	r ²
Equity Share Capital	-0.028	0.001
Preference Share Capital	0.083	0.007
Retained Earnings	0.592**	0.350
Debentures	-0.497**	0.247

* Significant at five per cent level ** Significant at one per cent level

Out of four components, retained earnings and debentures are found to be significant at one per cent level.

Retained earnings

The correlation coefficient value 0.592 shows a positive relationship between retained earnings and profitability. The positive association indicates that as increase in the retained earnings leads to increase in profitability. The coefficient of determination (r^2) reveals that 35.0 per cent of variation in profitability due to the changes in retained earnings.

Debentures

Debentures (-0.497) have a negative relationship with profitability. Negative association indicates that decreases in debentures would increase the profitability. The coefficient of determination (r^2) shows that 24.7 per cent of variation in profitability is due to the change in debentures.

Capital Structure Components Associated with Profitability in Hotel Industry under Small cap

The table 6.12 gives the details of capital structure components associated with profitability of small cap companies in hotel industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.12 : Correlation Analysis - Hotel Industry (Small cap)

Variables	r	r²
Equity Share Capital	-0.233*	0.054
Retained Earnings	0.385**	0.148
Debentures	-0.176	0.031

* Significant at five per cent level ** Significant at one per cent level

Out of three components, equity share capital is found to be significant at five per cent level and retained earnings is found to be significant at one per cent level. Preference share capital is not considered since the hotels in small cap are not raise their funds in preference shares.

Equity share capital

Equity share capital (-0.233) and profitability is found to be negatively associated with each other. It implies that decrease in equity share capital leads to increase in profitability. The coefficient of determination (r^2) shows that equity share capital accounts for 5.4 per cent of variation in profitability.

Retained earnings

Retained earnings (0.385) exhibits a positive correlation with profitability. It inferred that increases in retained earnings leads to increase in profitability. The coefficient of determination (r^2) shows that 14.8 per cent of variation in profitability is due to the changes in retained earnings.

To Sum up, equity share capital and retained earnings have significant positive association with profitability in large and small cap companies while retained earnings and debentures have significant negative association with profitability in mid cap companies.

6.2.2.b MULTIPLE REGRESSION AND STEP WISE REGRESSION

The regression analysis is used to find out the impact of capital structure components on profitability. Here this analysis is applied to all capitalisation level of hotel industry.

Impact of Capital Structure Components on Profitability in Hotel Industry under Large Cap

The table below 6.13 the combined influence of the capital structure components on profitability of large cap companies in hotel industry.

Table 6.13 : Multiple Regression - Hotel Industry (Large cap)

Variables	Regression coefficient	Standard error	T
Equity Share Capital	-0.015**	0.005	-2.935
Preference Share Capital	-0.004	0.004	-0.809
Retained Earnings	0.006**	0.001	4.747
Debentures	0.000	0.000	-1.901

* Significant at five per cent level ** Significant at one per cent level

Constant : 22.918

Std. Error of Estimate : 3.250

\bar{R}^2 : 0.507

R^2 : 0.533**

Out of the four components introduced for regression analysis, equity share capital and retained earnings are found to have significant association with profitability.

Equity share capital

The regression coefficient between equity share capital and profitability is -0.015, which is significant at one per cent level. It implies that the equity share capital is negatively influence the profitability. A unit of decrease in equity share capital, increase the profitability by 0.015 unit. Decline in equity share capital leads to higher level of profitability.

Retained earnings

Retained earnings is positively influences the profitability. The value of regression coefficient is 0.006 and it is significant at one per cent level. It is inferred that a unit increase in retained earnings shall increase the profitability by 0.006 unit. Increase in retained earnings leads to increase in profitability.

The value of R^2 is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. The value of R^2 indicates that around 53.3 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Hotel Industry under Large cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.14 : Step - wise Regression - Hotel Industry (Large cap)

Step	Constant	Retained Earnings	Equity Share Capital	R ²
1	9.770	0.008		0.381
2	21.379	0.007	-0.019	0.507

In the step wise regression equation the component retained earnings is included as the first component and the contribution of this component is found to be 38.1 per cent. The contribution get further increased by 12.6 per cent to 50.7 per cent with the introduction of component 'equity share capital'. The total contribution of two component amounts to 50.7 per cent. The R² value of multiple regression amounts to 53.3 per cent. The difference of 2.6 per cent is due to the contribution of other components.

Impact of Capital Structure Components on Profitability in Hotel Industry under Mid Cap

The table 6.15 shows the combined influence of the capital structure components on profitability of mid cap companies in hotel industry.

Table 6.15 : Multiple Regression - Hotel Industry (Mid cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	-0.017	0.022	-0.757
Preference Share Capital	-0.173**	0.059	-2.918
Retained Earnings	0.052**	0.008	6.319
Debentures	-0.002**	0.001	-3.004

* Significant at five per cent level ** Significant at one per cent level

Constant : 17.323

Std. Error of Estimate : 4.849

R² : 0.507

R² : 0.534**

Out of the four components introduced for regression analysis, preference share capital, retained earnings and debentures are found to have significant association with profitability.

Preference share capital

Regression coefficient between preference share capital and profitability is -0.173 which implies that it is negatively influence profitability and this association is found to be significant at one per cent level. It indicates that a unit decrease in preference share capital shall increase the profitability by 0.173 unit. Low level of preference share capital leads to higher level of profitability.

Retained earnings

The Regression coefficient indicates that retained earnings positively influence the profitability which is significant at one per cent level. It inferred that a unit increase in retained earnings shall increase the profitability by 0.052 unit. Increase in retained earnings leads to increase in profitability.

Debentures

Debentures negatively influences the profitability. The value of regression coefficient is -0.002 and it is significant at one per cent level. It is inferred that a unit decrease in debentures shall increase the profitability by 0.002 unit. Lower debentures leads to higher level of profitability.

The value of R^2 is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. The value of R^2 indicates that around 53.4 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Hotel Industry under Mid cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.16 : Step - wise Regression - Hotel Industry (Mid cap)

Step	Constant	Retained Earnings	Debentures	Preference Share Capital	R^2
1	9.503	0.043			0.350
2	15.997	0.036	-0.003		0.473
3	14.082	0.051	-0.002	-0.173	0.530

In the step wise regression equation the component retained earnings is included as the first component and the contribution of this component is found to be 35.0 per cent. Debentures as a second component has increased the contribution by 12.3 per cent. The contribution get further increased by 5.7 per cent to 53.0 per cent with the introduction of component 'preference share capital'. The total contribution of three component amounts to 53.0 per cent. The R^2 value of multiple regression amounts to 53.4 per cent. The difference of 0.4 per cent is due to the contribution of equity share capital.

Impact of Capital Structure Components on Profitability in Hotel Industry under Small Cap

The table 6.17 shows the combined influence of the capital structure components on profitability of small cap companies in hotel industry.

Table 6.17 : Multiple Regression - Hotel Industry (Small cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	-0.034	0.046	-0.749
Retained Earnings	0.059*	0.017	3.391
Debentures	-0.001	0.003	-0.387

* Significant at five per cent level ** Significant at one per cent level

Constant : 15.323

Std. Error of Estimate : 3.649

R² : 0.407

R² : 0.214**

Out of the three components introduced for regression analysis, retained earnings is found to have significant association with profitability. Preference share capital is not considered since the hotels in small cap are not raise their funds in preference shares.

Retained earnings

Retained earnings positively influences the profitability. The value of regression coefficient is 0.059 and it is significant at five per cent level. It is inferred that a unit increase in retained earnings shall increase the profitability by 0.059 unit. Increase in retained earnings leads to increase in profitability.

The value of R² is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. The value of R² indicates that around 21.4 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Hotel Industry under Small cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.18 : Step - wise Regression - Hotel Industry (Small cap)

Step	Constant	Retained Earnings	R ²
1	7.210	0.062	0.148

In step wise regression retained earnings has been introduced. This component contributes 14.8 per cent of variation in the profitability. The R² value of multiple regression amounts to 21.4 per cent. The difference of 6.6 per cent is due to the contribution of other components.

To sum, retained earnings is significantly influence the profitability on all capitalisation level of companies. It is the predominant component that account for variation in profitability in hotel industry.

6.2.3 SOFTWARE INDUSTRY

6.2.3.a CORRELAITON ANALYSIS

The correlation analysis is applied to find out the relationship between profitability and components of capital structure. Here this analysis is applied to all capitalisation level of software industry.

Capital Structure Components Associated with Profitability in Software Industry under Large cap

The table 6.19 gives the details of capital structure components associated with profitability of large cap companies in software industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.19 : Correlation Analysis - Software Industry (Large cap)

Variables	r	r ²
Equity Share Capital	0.049	0.002
Preference Share Capital	0.289*	0.084
Retained Earnings	0.336**	0.113
Debentures	-0.128	0.016

* Significant at five per cent level ** Significant at one per cent level

Out of four components, preference share capital is found to be significant at five per cent level and retained earnings is found to be significant at one per cent level.

Preference share capital

Preference share capital (0.289) exhibits a positive correlation with profitability. This infers that increases in preference share capital leads to increase in profitability.

The coefficient of determination (r^2) shows that 8.4 per cent of variation in profitability is due to the preference share capital.

Retained earnings

Retained earnings (0.336) and profitability are positively correlated with each other. It indicates that higher level of retained earnings leads to higher level of profitability. The coefficient of determination (r^2) shows that retained earnings accounts for 11.3 per cent of variation in the profitability.

Capital Structure Components Associated with Profitability in Software Industry under Mid cap

The table 6.20 gives the details of capital structure components associated with profitability of mid cap companies in software industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.20 : Correlation Analysis - Software Industry (Mid cap)

Variables	r	r²
Equity Share Capital	-0.263*	0.069
Preference Share Capital	-0.106	0.011
Retained Earnings	0.670**	0.449
Debentures	-0.508**	0.258

* Significant at five per cent level ** Significant at one per cent level

Out of four components, equity share capital is found to be significant at five per cent level and retained earnings and debentures are found to be significant at one per cent level.

Equity share capital

The correlation coefficient value -0.263 shows a negative relationship between equity share capital and profitability. The negative association implies that decrease in equity share capital leads to increase in profitability. The coefficient of determination (r^2) reveals that 6.9 per cent of variation in profitability.

Retained earnings

Profitability and retained earnings (0.670) are positively correlated. This positive relationship shows that increase in retained earnings would increase the profitability.

The coefficient of determination (r^2) shows that retained earnings depicts 44.9 per cent of variations in the profitability.

Debentures

Debentures (-0.508) shows a negative correlation with profitability. This negative association implies that lower debentures leads to higher profitability. The coefficient of determination (r^2) shows that debentures accounts for 25.8 per cent of variation in the profitability.

Capital Structure Components Associated with Profitability in Software Industry under Small cap

The table 6.21 gives the details of capital structure components associated with profitability of small cap companies in software industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.21 : Correlation Analysis - Software Industry (Small cap)

Variables	r	r^2
Equity Share Capital	-0.196	0.039
Retained Earnings	0.738**	0.545
Debentures	-0.425**	0.181

* Significant at five per cent level ** Significant at one per cent level

Out of three components, retained earnings and debentures are found to be significant at one per cent level. Preference share capital is not considered since the software companies in small cap are not raise their funds in preference shares.

Retained earnings

Profitability and retained earnings (0.738) are positively correlated. This shows that increase in retained earnings would increase the profitability. The coefficient of determination (r^2) shows that retained earnings depicts 54.5 per cent of variations in the profitability.

Debentures

Debentures (-0.425) shows a negative correlation with profitability. This implies that lower debentures leads to higher profitability. The coefficient of determination (r^2) shows that debentures accounts for 18.1 per cent of variation in the profitability.

It conclude, it has been observed that retained earnings has a significant positive association with profitability on all capitalisation level of companies.

6.2.3.b MULTIPLE REGRESSION AND STEP-WISE REGRESSION

The regression analysis is used to find out the impact of capital structure components on profitability. Here this analysis is applied to all capitalisation level of software industry.

Impact of Capital Structure Components on Profitability in Software Industry under Large Cap

The table 6.22 shows the combined influence of the capital structure components on profitability of large cap companies in software industry.

Table 6.22 : Multiple Regression - Software Industry (Large cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	0.004	0.004	0.821
Preference Share Capital	0.016	0.011	1.473
Retained Earnings	0.006*	0.000	2.451
Debentures	-0.001	0.000	-1.784

* Significant at five per cent level ** Significant at one per cent level

Constant : 40.986

Std. Error of Estimate : 4.613

\overline{R}^2 : 0.167

R^2 : 0.212**

Out of the four components introduced for regression analysis, retained earnings is found to have a significant association with profitability.

Retained earnings

Retained earnings shows a positive influence on the profitability. The regression coefficient is significant at five per cent level. It indicates that a unit increase in retained earnings shall increase in profitability by 0.006 units. Increase in retained earnings leads to increase in profitability.

The value of R^2 is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. The value of R^2 indicates that around 21.2 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Software Industry under Large cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.23 : Step - wise Regression - Software Industry (Large cap)

Step	Constant	Retained Earnings	Debentures	R ²
1	42.521	0.000		0.113
2	44.414	0.000	0.000	0.176

In the step wise regression equation the component retained earnings is included as the first component and the contribution of this component is found to be 11.3 per cent. The contribution get further increased by 6.3 per cent to 17.6 per cent with the introduction of component 'debentures'. The total contribution of two component amounts to 17.6 per cent. The R² value of multiple regression amounts to 21.2 per cent. The difference of 3.6 per cent is due to the contribution of other components.

Impact of Capital Structure Components on Profitability in Software Industry under Mid Cap

The table 6.24 shows the combined influence of the capital structure components on profitability of mid cap companies in software industry.

Table 6.24 : Multiple Regression - Software Industry (Mid cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	0.000	0.003	0.003
Preference Share Capital	0.006	0.008	0.729
Retained Earnings	0.010**	0.002	4.935
Debentures	-0.001	0.001	-1.455

* Significant at five per cent level ** Significant at one per cent level

Constant : 19.223

Std. Error of Estimate : 3.875

R² : 0.437

R² : 0.467**

Out of the four components introduced for regression analysis, retained earnings is found to have a significant association with profitability.

Retained earnings

The regression coefficient between retained earnings and profitability is positively significant at one per cent level. It implies that the retained earnings is positively influence the profitability. A unit increase in retained earnings shall increase the profitability by 0.010 units. High level of retained earnings leads to higher level of profitability.

The value of R^2 is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. The value of R^2 indicates that around 46.7 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Software Industry under Mid cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.25 : Step - wise Regression - Software Industry (Mid cap)

Step	Constant	Retained Earnings	R^2
1	16.952	0.012	0.449

In step wise regression retained earnings has been introduced. This component contributes 44.9 per cent of variation in the profitability. The R^2 value of multiple regression amounts to 46.7 per cent. The difference of 1.8 per cent is due to the contribution of other components.

Impact of Capital Structure Components on Profitability in Software Industry under Small Cap

The table 6.26 shows the combined influence of the capital structure components on profitability of small cap companies in software industry.

Table 6.26 : Multiple Regression - Software Industry (Small cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	-0.012*	0.006	-2.193
Retained Earnings	0.193**	0.026	7.540
Debentures	-0.018	0.010	-1.745

* Significant at five per cent level ** Significant at one per cent level

Constant : 17.466

Std. Error of Estimate : 3.692

R^2 : 0.566

R^2 : 0.583**

Out of the three components introduced for regression analysis, equity share capital and retained earnings are found to have significant association with profitability. Preference share capital is not considered since the software companies in small cap are not raise their funds in preference shares.

Equity share capital

Equity share capital negatively influences the profitability. The value of regression coefficient is 0.012 and it is significant at five per cent level. It is inferred that a unit decrease in equity share capital shall increase the profitability by 0.012 unit. Decrease in equity share capital leads to increase in profitability.

Retained earnings

The Regression coefficient indicates that retained earnings positively influence the profitability which is significant at one per cent level. It inferred that a unit increase in retained earnings shall increase the profitability by 0.193 unit. Increase in retained earnings leads to increase in profitability.

The value of R^2 is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. The value of R^2 indicates that around 58.3 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Software Industry under Small cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.27 : Step - wise Regression - Software Industry (Small cap)

Step	Constant	Retained Earnings	R^2
1	10.317	0.217	0.545

In step wise regression retained earnings has been introduced. This component contributes 54.5 per cent of variation in the profitability. The R^2 value of multiple regression amounts to 58.3 per cent. The difference of 3.7 per cent is due to the contribution of other components.

To conclude, it has been observed that retained earnings significantly influences the profitability on all capitalisation level of companies in software industry. Retained earnings is the prominent component for the variation in profitability.

6.2.4 TRANSPORT INDUSTRY

6.2.4.a CORREALTION ANALYSIS

The correlation analysis is applied to find out the relationship between profitability and components of capital structure. Here this analysis is applied to all capitalisation level of transport industry.

Capital Structure Components Associated with Profitability in Transport Industry under Large cap

The table 6.28 gives the details of capital structure components associated with profitability of large cap companies in transport industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.28 : Correlation Analysis - Transport Industry (Large cap)

Variables	r	r²
Equity Share Capital	-0.380**	0.145
Preference Share Capital	0.140	0.019
Retained Earnings	0.394**	0.155
Debentures	-0.039	0.002

* Significant at five per cent level ** Significant at one per cent level

Out of four components, equity share capital and retained earnings are found to be significant at one per cent level.

Equity share capital

Equity share capital (-0.380) negatively correlated. The negative implication indicates that the decrease in equity share capital would increase the profitability. The coefficient of determination (r^2) shows that equity share capital depicts 14.5 per cent of variations in the profitability.

Retained Earnings

The value of correlation coefficient (0.394) shows a positive relationship between retained earnings and profitability. This shows that increase in retained earnings leads to increase in profitability. The coefficient of determination (r^2) shows that retained earnings exhibits 15.5 per cent of variation in the profitability.

Capital Structure Components Associated with Profitability in Transport Industry under Mid cap

The table 6.29 gives the details of capital structure components associated with profitability of mid cap companies in transport industry. The association is analysed using the correlation coefficient and coefficient of determination.

Table 6.29 : Correlation Analysis - Transport Industry (Mid cap)

Variables	r	r²
Equity Share Capital	-0.212	0.045
Preference Share Capital	0.387**	0.150
Retained Earnings	0.587**	0.345
Debentures	-0.209	0.044

* Significant at five per cent level ** Significant at one per cent level

Out of four components, preference share capital and retained earnings are found to be significant at one per cent level.

Preference share capital

Preference share capital (0.387) have a positive relationship with profitability. Positive association indicates that increases in preference share capital would increase the profitability. The coefficient of determination (r^2) shows that 15.0 per cent of variation in profitability is due to the change in preference share capital.

Retained earnings

Retained earnings (0.587) exhibits a positive correlation with profitability. The positive correlation indicates that increase in retained earnings leads to increase in profitability. The coefficient of determination (r^2) shows that retained earnings accounts for 34.5 per cent of variation in profitability.

Capital Structure Components Associated with Profitability in Transport Industry under Mid cap

The table 6.30 gives the details of capital structure components associated with profitability of mid cap companies in transport industry. The association is analysed using the correlation coefficient and coefficient of determination.

Out of four components, retained earnings is found to be significant at one per cent level.

Table 6.30 : Correlation Analysis - Transport Industry (Small cap)

Variables	r	r ²
Equity Share Capital	-0.095	0.009
Preference Share Capital	0.084	0.007
Retained Earnings	0.643**	0.414
Debentures	-0.200	0.040

* Significant at five per cent level ** Significant at one per cent level

Retained earnings

Retained earnings (0.643) have a positive relationship with profitability. Positive association shows that increases in retained earnings would increase the profitability. The coefficient of determination (r²) shows that 41.4 per cent of variation in profitability is due to the change in retained earnings.

On the whole, retained earnings has a significant positive relationship with profitability on all capitalisation level of companies.

6.2.4.b MULTIPLE REGRESSION AND STEP-WISE REGRESSION

The regression analysis is used to find out the impact of capital structure components on profitability. Here this analysis is applied to all capitalisation level of transport industry.

Impact of Capital Structure Components on Profitability in Transport Industry under Large Cap

The table 6.31 shows the combined influence of the capital structure components on profitability of large cap companies in transport industry.

Table 6.31 : Multiple Regression - Transport Industry (Large cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	-0.004**	0.001	-3.315
Preference Share Capital	-0.001	0.006	-0.218
Retained Earnings	0.003**	0.000	6.398
Debentures	0.001**	0.000	-3.222

* Significant at five per cent level ** Significant at one per cent level

Constant : 28.012

Std. Error of Estimate : 3.233

R² : 0.454

R² : 0.483**

Out of the four components introduced for regression analysis, equity share capital, retained earnings and debentures are found to have significant association with profitability.

Equity share capital

Equity share capital negatively influences the profitability. The value of regression coefficient is significant at one per cent level. It is inferred that a unit decrease in equity share capital shall increase the profitability by 0.004 unit. Decrease in equity share capital leads to increase in profitability.

Retained earnings

Regression coefficient of retained earnings is positively influence profitability and this association is found to be significant at one per cent level. It indicates that a unit increase in preference share capital shall increase the profitability by 0.003 unit. High level of retained earnings leads to higher level of profitability.

Debentures

Debentures positively influences the profitability. The value of regression coefficient is 0.001 and it is significant at one per cent level. It is inferred that a unit increase in debentures shall increase the profitability by 0.001 unit. Higher level of debentures leads to higher level of profitability.

The value of R^2 is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. The value of R^2 indicates that around 48.3 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Transport Industry under Large cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.32 : Step - wise Regression - Transport Industry (Large cap)

Step	Constant	Retained Earnings	Debentures	Equity Share Capital	R²
1	15.239	0.001			0.155
2	20.172	0.003	0.000		0.400
3	28.067	0.003	0.000	-0.004	0.483

In the step wise regression equation the component retained earnings is included as the first component and the contribution of this component is found to be 15.5 per cent. Debentures as a second component has increased the contribution by 24.5 per cent. The contribution get further increased by 8.3 per cent to 48.3 per cent with the introduction of component ‘equity share capital’. The total contribution of three component amounts to 48.3 per cent.

Impact of Capital Structure Components on Profitability in Transport Industry under Mid Cap

The table 6.33 shows the combined influence of the capital structure components on profitability of mid cap companies in transport industry.

Table 6.33 : Multiple Regression - Transport Industry (Mid cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	-0.010**	0.004	-2.797
Preference Share Capital	0.106**	0.033	3.236
Retained Earnings	0.023**	0.005	4.972
Debentures	-0.003**	0.001	-4.426

* Significant at five per cent level ** Significant at one per cent level

Constant : 24.874

Std. Error of Estimate : 4.071

R² : 0.499

R² : 0.526**

Out of the four components introduced for regression analysis, all capital structure components are found to have significant association with profitability.

Equity share capital

The regression coefficient indicates that equity share capital is negatively influences the profitability and this association is found to be significant at one per cent level. It indicates that a unit decrease in equity share capital shall increase the profitability by 0.010 unit. Lower level of equity share capital leads to higher level of profitability.

Preference share capital

The Regression coefficient indicates that preference share capital positively influence the profitability which is significant at one per cent level. It inferred that a unit increase in preference share capital shall increase the profitability by 0.106 unit. Increase in preference share capital leads to increase in profitability.

Retained earnings

Retained earnings positively influences the profitability and it is significant at one per cent level. It is inferred that a unit increase in retained earnings shall increase the profitability by 0.023 unit. Increase in retained earnings leads to increase in profitability.

Debentures

Debentures negatively influences the profitability and it is significant at one per cent level. It is inferred that a unit decrease in debentures shall increase the profitability by 0.003 unit. Lower level of debentures leads to higher level of profitability.

The value of R^2 is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. The value of R^2 indicates that around 52.6 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Transport Industry under Mid cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.34 : Step - wise Regression - Transport Industry (Mid cap)

Step	Constant	Retained Earnings	Debentures	Preference Share Capital	Equity Share Capital	R^2
1	9.363	0.030				0.345
2	15.246	0.031	-0.002			0.400
3	17.719	0.024	-0.002	0.108		0.473
4	24.874	0.023	-0.003	0.106	-0.010	0.526

In step wise regression the first step, the variable 'retained earnings' has been introduced. This component contributes 34.5 per cent to the variation in profitability. Debentures is the second variable that is introduced in step two. It has increased the contribution by 5.5 per cent. Preference share capital as a third component has increased the contribution from 40.0 per cent to 47.3 per cent. The contribution get further increased by 5.3 per cent to 52.6 per cent, with the introduction of component 'equity share capital'. The total contribution of four components amounts to 52.6 per cent.

Impact of Capital Structure Components on Profitability in Transport Industry under Mid Cap

The table 6.35 shows the combined influence of the capital structure components on profitability of small cap companies in transport industry.

Table 6.35 : Multiple Regression - Transport Industry (Small cap)

Variables	Regression coefficient	Standard error	t
Equity Share Capital	-0.091*	0.037	-2.465
Preference Share Capital	0.066	0.061	1.073
Retained Earnings	0.130**	0.016	8.116
Debentures	-0.004	0.002	-1.632

* Significant at five per cent level ** Significant at one per cent level

Constant : 21.413

Std. Error of Estimate : 3.878

R² : 0.486

R² : 0.514**

Out of the four components introduced for regression analysis, equity share capital and retained earnings are found to have significant association with profitability.

Equity share capital

Equity share capital negatively influences the profitability and it is significant at five per cent level. It is inferred that a unit decrease in equity share capital shall increase the profitability by 0.091 unit. Decrease in equity share capital leads to increase in profitability.

Retained earnings

The regression coefficient indicates that retained earnings is positively influence the profitability and this association is found to be significant at one per cent level. It indicates that a unit increase in retained earnings shall increase the profitability by 0.130 unit. Higher level of retained earnings leads to higher level of profitability.

The value of R² is found to be significant at one per cent level. This shows that the regression equation framed is a good fit. The value of R² indicates that around 51.4 per cent of variations in the profitability has been explained by the capital structure components.

Capital Structure Components Prominently Associated with Profitability in Transport Industry under Small cap

To find out the prominent component that account for the variations in profitability, step-wise regression has been carried out.

Table 6.36 : Step - wise Regression - Transport Industry (Small cap)

Step	Constant	Retained Earnings	Equity Share Capital	R ²
1	9.669	0.120		0.414
2	19.117	0.132	-0.090	0.480

In the step wise regression equation the component retained earnings is included as the first component and the contribution of this component is found to be 41.4 per cent. The contribution get further increased by 6.6 per cent to 48.0 per cent with the introduction of component 'equity share capital'. The total contribution of two component amounts to 48.0 per cent. The R² value of multiple regression amounts to 51.4 per cent. The difference of 2.6 per cent is due to the contribution of other components.

In general, it has been found that equity share capital and retained earnings significantly influences the profitability on all capitalisation level of companies. These are the prominent components for variation in profitability.

6.3 CONCLUSION

Industrial firm do conduct their business in highly complex and competitive business environment today. Financial problem persisted before and will always be there, and if an industry has to move on, it should prepare itself to tackle such challenges. In this context it may be said that holding an optimum capital structure is one among pre-requisites of company for staying fit and maintaining profitability in this complex business world. There are the capital structure component which predominantly affects the profitability. Analysing the various aspects of profitability depicts that equity share capital have a negative relationship with profitability in healthcare industry while retained earnings have a positive relationship with profitability in all four industries. From the multiple regression and step wise regression, retained earnings have a positive impact on profitability in all four industries. It concludes that the retained earnings is the predominant component in healthcare, hotel, software and transport industries. The earning capacity have helped to improve the profitability.