CHAPTER VII

FINDINGS, SUGGESTIONS AND CONCLUSION

7.1 INTRODUCTION

The information technology industry consists of all software companies which provide software solutions to problems relating to business management namely production, marketing, finance and human resource. It has created a revolutionary change in the Indian economic scenario. Today software has come to stay as part and parcel of human life. The importance of software application was felt more, after the globalization of the economy. This industry has created a revolution by employing large number of people, earning huge profit and joining the club of MNCs. The Indian software companies hold the distinction of advancing the country into new age economy.

The growth momentum attained by the overall economy since the late 1990’s to a great extent can be owned to the IT sector.

7.2 FINDINGS

The following are the major findings of the study

7.2.1 ANALYSIS OF GROWTH

Growth of the IT companies can be measured in terms of four key variables such as Sales, Net worth, Net profit, Total assets. The annual compound growth rate is used to find out the compound growth of the variable during the study period.

The overall growth rate of net sales is 29.37 percent. The annual compound growth rate of net sales of ICSA indicates the highest growth rate of 125.50 percent followed by SKFT, which has a growth rate of 117.04 percent. The SFPS, TRGN, MLSR and RMSM recorded a negative growth rate of -15.01, -12.12, -7.41 and -2.50 respectively. The growth rate of net sales of 15 companies is greater than the overall growth rate. The growth rate of the remaining 19 companies is lower than the overall growth rate.

The overall growth rate of net worth is 28.9 percent. The annual compound growth rate of net worth of CRNS shows the highest growth rate of 122.7 percent followed by GDTS, which has a growth rate of 96.6 percent. RMCS, MLSR, RSST, SFPS and TRGN have the lowest compound annual growth rate. The growth rate of
The net worth of 16 companies is greater than the overall growth rate. The growth rate of the remaining 18 companies is lower than the overall growth rate.

The overall compound annual growth rate of net profit is negative for the selected IT companies during the study period. The annual compound growth rate of net profit for CRNS shows the highest growth rate of 131.69 followed by ICSA (99.89). The twelve companies indicate a negative growth rate of net profit.

The overall growth rate of total assets is 30.59 percent. The annual compound growth rate of total assets of CRSF indicates the highest growth rate of 142.7 percent followed by GDTS, which has a growth rate of 83.2 percent. The RMSM, MLSR, RSSF, SFPS and TRGN recorded a negative growth rate of -0.8, -9.84, -3.71, -12.96 and -1.21 percent respectively. The growth rate of total assets of 15 companies is greater than the overall growth rate. The growth rate of the remaining 19 companies’ is lower than the overall growth rate.

Analysis of Growth – Groupwise classification

The growth of large-size companies is better compared to medium and small-size companies under Sizewise classification. The southern companies recorded a high growth rate compared to northern companies under Regionwise classification. The growth rate of new companies is better compared to old companies under Agewise classification.

7.2.2 PROFITABILITY ANALYSIS

Profitability of IT companies has been studied with the help of three major groups of ratios, namely, profitability in relation to sales, profitability in relation to investment and other profitability ratios.

Profitability analysis-IT industry

The average operating profit ratio of 34 selected IT companies is 21.03 percent during the study period. Out of 34 selected IT companies, operating profit ratio of 20 companies are above the average and remaining 14 companies shows below average. The average gross profit ratio of the selected IT companies is 15.91 percent during the
study period. The average net profit ratio of selected 34 IT companies is 14.37 percent during the study period. The operating profit ratio of 16 companies is above the average and the remaining 18 companies are below the average.

The average return on equity ratio of selected 34 IT companies is 11.46 percent; of which the ratio 19 companies is above the average and the remaining 15 companies shows below the average. The average return on assets ratio of selected IT companies is 10.49 percent during the study period. Among these, 17 companies show above the average and the remaining 17 companies ratio is below the average level. Average return on investment ratio of the 34 selected IT companies is 15.69 percent during the study period. Out of 34 selected IT companies, the ratio of 16 companies is above the average and the remaining 18 companies is below average. The average interest coverage ratio of selected 34 IT companies is 154.33 percent during the study period, of which the ratio of 5 companies is above average and 29 companies show below average.

The average earning per share of selected IT companies is 11.65 percent during the study period. The earnings per share of seven companies is above the average and the ratio of the remaining 27 companies is below the average. The average dividend per share of selected 34 IT companies is 2.62 percent during the study period. The dividend per share of 3 companies is above the average and the ratio of 31 companies is below the average. The average dividend payout ratio of selected 34 IT companies is 20.06 percent during the study period, of which 15 companies are above average and 19 companies are below average.

**PROFITABILITY ANALYSIS BASED ON CLASSIFICATIONWISE**

Profitability is also measured on the basis of Size, Region and Age.

**Profitability ratios of selected IT companies – Sizewise**

The average operating profit ratio of large-size companies is healthier compared to medium and small companies. It is observed that large, medium and small-size companies secured an average operating profit ratio of 26.83, 22.87 and 13.99 respectively. The performance of large-size companies is stable with a standard deviation of 8.54. And the coefficient of variation of operating profit ratio reveals that there was a greater consistency maintained by small-size companies with the coefficient of variation as low as 23 percent.
The average gross profit ratio of large-size companies is 24.95 percent, 20.08 percent of medium-size companies and 12.76 percent of small-size companies during the study period, which demonstrates the healthier performance of large-size companies.

The quantum of variation in respect of gross profit ratio was higher in respect of small and medium companies and lower in respect of large-size companies. The coefficient of variation of gross profit ratio reveals that there was a greater consistency maintained by large-size companies.

Mean value of net profit of large-size companies is high (17.75) compared to medium and small-size companies. And also the smaller standard deviation of large-size companies denotes stable performance. However the coefficient of variation of medium size companies (45 percent) denotes consistent performance of medium size companies.

The average return on assets of large-size companies is 14.89 percent during the study period against 6.32 and 5.40 percent of medium and small-size companies shows good performance of large-size companies. The quantum of variation was higher in respect of small-size companies and lower in respect of large-size companies. It is also demonstrated by the lesser coefficient of variation of medium size companies.

The average ROE of large-size companies is high 21.79 percent compared to medium (8.50) and small-size companies (6.780). The standard deviation of return on equity of large-size companies is the lowest as 9.84 percent. The coefficient of variation of return on equity ratio reveals that there was a greater consistency maintained by small companies.

The average return on investments of large-size companies is high compared to medium and small-size companies. The performance of large-size companies is stable and consistent with a standard deviation of 8.45 percent and coefficient of variation of 47 percent respectively.

The average interest coverage ratio of large-size companies is 485.51 percent during the study period which is very high compared to medium and small companies. The standard deviation of interest coverage ratio of small-size companies is the lowest.
as 37.63 percent. It is also demonstrated by the lesser coefficient of variation of medium-size companies.

The average earning per share of large-size companies is high compared to medium and small-size companies. The standard deviation of earning per share of large size companies is high. The lowest coefficient of variation of medium-size companies shows consistent performance of medium-size companies.

The average dividend per share of large-size companies is good compared to medium and small-size companies. The standard deviation of small-size companies shows stable performance and the lowest coefficient of variation of medium-size companies shows consistent performance.

The average dividend payout ratio of medium-size companies is high compared to large and small-size companies. And also the lesser standard deviation and coefficient of variation of medium-size companies shows stable and consistent performance.

Profitability ratios of selected IT companies –Agewise

The average operating profit ratio of new companies is slightly better compared to old companies. The quantum of variation was higher in respect of old companies and lower in respect of new companies. And it is also demonstrated by lesser coefficient of variation of old companies.

The average gross profit ratio of old companies show good performance compared to new companies. And also the lesser standard deviation and coefficient of variation of old companies show stable and consistent performance during the study period.

The average net profit ratio of old companies is good compared to new companies. The quantum of variation was higher in respect of old companies and there was a greater consistency maintained by old companies with a lesser coefficient of variation.

The average Return on assets of old companies is higher than new companies. It reveals good performance of old companies compared to new companies. The standard deviation of new companies shows stable performance and old companies are consistent by the lowest coefficient of variation.
The mean value of ROE of new companies is higher than old companies. The quantum of variation was lower with a lesser standard deviation and it is inconsistent with a high coefficient of variation of new companies.

The mean value of Return on investment is higher for old companies (16.98 percent) than new companies. It denotes better performance of old companies compared to new companies. It denotes that the quantum of variation was higher in respect of old companies and lower in respect of new companies. The coefficient of variation of return on investments reveals that there was a greater consistency maintained by old companies compared to new companies.

The average Interest coverage ratio of old companies is very high compared to new companies. The standard deviation of old companies shows instability in their performance of old companies and also the high coefficient of variation shows inconsistent performance of old companies compared to new companies.

Average earning per share of old companies is high (19.59 percent) compared to the average earning per share of new companies. The standard deviation of new companies shows stable performance and the lesser coefficient of variation of old companies shows consistency in their performance.

The average dividend per share of new companies is low compared to old companies. The standard deviation and coefficient of variation of dividend per share of old companies is high. It indicates that instability and inconsistent performance of old companies compared to new companies.

The average dividend payout ratio of old companies is high compared to new companies. The lesser standard deviation and coefficient of variation shows the stable and consistent performance of old companies.

**Profitability ratios of selected IT companies –Regionwise**

The average operating profit ratio of southern companies is higher than northern companies. The standard deviation of southern companies shows stable performance and lesser coefficient of variation of old companies shows consistent performance in their earnings.

The average gross profit of southern companies is better compared to northern companies. The lesser standard deviation of southern companies indicates stability in
performance, but the high coefficient of variation denotes inconsistent performance during the study period compared to northern companies.

The average net profit ratio of southern companies is higher than Northern region. The lesser standard deviation and coefficient of variation of southern companies shows stable and consistent in their performance.

The mean value of ROA of southern companies is high against northern companies. The lower standard deviation denotes the stability in performance of southern companies. But the lesser coefficient of variation of northern companies is consistent in its performance.

The average ROE of southern companies is very high compared to northern companies. It indicates healthier performance of southern companies. The lower standard deviation and coefficient of variation of southern companies shows more stable and consistent performance than northern companies.

The average ROI of southern companies are high compared to northern companies. And also the lower standard deviation and coefficient of variation denote that stable and consistent performance of southern companies compared to northern companies.

The average interest coverage ratio of southern companies is high compared to northern companies. The high standard deviation of southern companies shows the instability position in their performance and consistent with 77 percent compared to northern companies.

Average earning per share of southern companies is high (15.38 percent) compared to the average earning per share of northern companies. The lesser standard deviation and coefficient of variation of Southern companies indicates stable and consistent in their performance compared to Northern companies.

The average dividend per share of southern companies is high (4.36 percent) compared to northern companies. The lesser standard deviation and coefficient of variation of northern companies show stable and consistent performance of northern companies compared to southern companies.

The average dividend payout ratio of southern companies is high compared to northern companies. The lesser standard deviation and coefficient of variation of
southern companies indicate the stable and consistent performance of southern companies.

ANOVA

The analysis of variance has been used to ascertain whether there is significant difference in the profitability ratios among the companies classified on the basis of age, size and region. Suitable hypotheses are framed for the ratios. Overall profitability of a company depends on age, size and region they belong to. The overall analysis of variance reveals that there is a significant difference in the profitability ratios. Hence all hypotheses are rejected except in the operating profit ratio, return on equity, dividend payout ratio and net profit ratio.

7.2.3 LIQUIDITY ANALYSIS

Out of 34 companies, the average current ratio of 30 companies is above 2:1 and the remaining 4 companies are having current ratio of below 2:1 during the study period. The average standard deviation of current ratio of the selected companies during the study period is 3.43 and the coefficient of variation is 61 percent. The average quick ratio of selected IT companies is 4.52. All the selected companies show the average quick ratio of above 1:1 except for CMC ltd. Average standard deviation of quick ratio is 3.12 during the study period and the coefficient of variation is 60 percent.

Out of 34 selected companies, the average absolute liquid ratio of 9 companies during the study period is above 0.5:1 and the average ratio of 18 companies is below 0.5:1 and the ratio of remaining 7 companies is above 1:1. The average standard deviation of absolute liquid ratio of the selected IT companies during the study period is 1.03 and the coefficient of variation is 106.24.

The average debtor’s turnover ratio of selected IT companies during the study period is 355.99. The maximum ratio is 788.20 and the minimum ratio is 81.49 percent during the study period. Debtor’s turnover ratio of 16 companies is above the average and the remaining 18 companies is below the average level. The average standard deviation of debtor’s turnover ratio of the selected IT companies is 160.91 and the coefficient of variation is 47.44.

The average working capital turnover ratio of the selected IT companies during the study period is 760.04. The maximum ratio is 2407.09 and the minimum ratio is -2551.37.
during the study period. The average standard deviation of working capital turnover ratio of the selected IT companies is 1047.65 and coefficient of variation is 137.84.

To analyze the relationship between liquidity and profitability, liquidity ratios have been taken as independent variable and Return on Investment has been taken as the dependent variable, with the pooled values of all the firms during the period of study. The analysis reveals that all the independent variables do not have significant influence on Return on Investment. Hence the null hypothesis is accepted at 5 percent significant level.

7.2.4 DETERMINANTS OF PROFITABILITY- IT COMPANIES

Correlation Analysis

The correlation coefficient shows positive correlation between ROI and other independent variables except operating ratio, working capital turnover ratio, debt equity ratio, administration expenses ratio and employee expenses ratio.

Multiple regression Analysis

There is a significant relationship between ROI and other ten variables such as size, operating ratio, sales, working capital turnover ratio, total asset turnover ratio, fixed asset turnover ratio, debt equity ratio, administration expenses ratio, age and employee expenses ratio. The other variables do not contribute significantly. The overall contribution of the fifteen variables is found out by calculating R square value which amounts to 32 percent. The R square value also tested for its significance through ‘f’ test and found to be highly significant.

Stepwise regression Analysis

The total contribution of seven variables amounts to 0.274. The R Square value in case of multiple regression amounts to 0.32 and it can be concluded that the difference in the R Square value is 0.046 (0.320-0.274). It is the contribution of the remaining variables to the dependent variable ROI.

Path Analysis

A sale has the highest direct effect on ROI while ‘size’ has the least direct effect.
DETERMINANTS OF PROFITABILITY- NORTH BASED IT COMPANIES

Correlation Analysis

The correlation coefficient shows positive correlation between ROI and other independent variables except size, operating ratio, working capital turnover ratio, debt equity ratio, administration expenses ratio and age and employee expenses ratio.

Multiple regression Analysis

There is a significant relationship between ROI and variables such as operating ratio, working capital turnover ratio, fixed asset turnover ratio, debt equity ratio and Age. The other variables do not contribute significantly. The overall contribution of the fifteen variables is found out by calculating R square value which amounts to 51.8 percent. The R square value is also tested for its significance through ‘f’ test and found to be highly significant.

Stepwise regression Analysis

The total contribution of seven variables amounts to 50.7 percent. The R square value in case of multiple regression amounts to 51.8 percent and it can be concluded that the difference in the R square is 1.1 percent (51.8-50.7). It is the contribution of the remaining variables to the dependent variable ROI.

Path Analysis

Sales have the highest direct effect on ROI, while operating ratio has the least direct effect.

DETERMINANTS OF PROFITABILITY- SOUTH BASED IT COMPANIES

Correlation Analysis

The correlation coefficient shows positive correlation between ROI and other independent variables except, operating ratio, liquidity ratio, current ratio, debt equity ratio, administration expenses ratio and age and employee expenses ratio.
Multiple regression Analysis

The variables Operating ratio, Debtor's turnover ratio, Total asset turnover ratio, Interest coverage ratio, Debt equity ratio and Administration expenses ratios have significant relationship with ROI. The other variables do not contribute significantly.

The overall contribution of the fifteen variables is found out by calculating R square value which amounts to 66.7 percent. The R square value is also tested for its significance through ‘f’ test and found to be highly significant.

Stepwise regression Analysis

The total contribution of five variables amounts to 61.1 percent. The R square value in case of multiple regression amounts to 66.7 percent and it can be concluded that the difference in the R square is 5.6 percent (66.7-61.1). It is the contribution of the remaining variables to the dependent variable ROI.

Path Analysis

Total asset turnover ratio has the highest direct effect on ROI while debtor’s turnover ratio has the least direct effect.

DETERMINANTS OF PROFITABILITY- LARGE IT COMPANIES

Correlation Analysis

The correlation coefficient shows positive correlation between ROI and other independent variables except, operating ratio, current ratio and debt equity ratio.

Multiple regression Analysis

Operating cost, Sales, Total asset turnover ratio, fixed asset turnover ratio and Age have significant relationship with ROI. The other variables do not contribute significantly. The overall contribution of the fifteen variables is found out by calculating R square value which amounts to 84.7 percent. The R square value is also tested for its significance through ‘f’ test and found to be highly significant.

Stepwise regression Analysis

The total contribution of four variables amounts to 81.1 percentage. The R square value in case of multiple regression amounts to 84.7 percent and it can be
concluded that the difference in the R square value is 3.6 percent (84.7-81.1). It is the contribution of the remaining variables to the dependent variable ROI.

**Path Analysis**

Total asset turnover ratio has the highest direct effect on ROI while operating ratio has the least direct effect on ROI.

**DETERMINANTS OF PROFITABILITY- MEDIUM IT COMPANIES**

**Correlation Analysis**

The correlation coefficient shows positive correlation between ROI and other independent variables except, operating ratio, current ratio and debt equity ratio. Strong correlation is observed between debtor’s turnover ratio and working capital turnover ratio.

**Multiple regression Analysis**

Dividend payout ratio, Operating ratio, Debtor’s turnover ratio, Total asset turnover ratio, Fixed asset turnover ratio and Debt equity ratio have significant relationship with ROI. The other variables do not contribute significantly. The overall contribution of the fifteen variables is found out by calculating R square value which amounts to 57.5 percent.

**Stepwise regression Analysis**

The total contribution of selected variables amounts to 53 percent. The R square value in case of multiple regression amounts to 57.5 percent and it can be concluded that the difference in the R square value is 4.5 percent (57.5-53). It is the contribution of the remaining variables to the dependent variable ROI.

**Path Analysis**

Total asset turnover ratio has the highest direct effect on ROI while operating ratio has the least direct effect on ROI.
DETERMINANTS OF PROFITABILITY - SMALL IT COMPANIES

Correlation Analysis

The correlation coefficient shows positive correlation between ROI and other independent variables except, size, operating ratio, working capital turnover ratio, debt equity ratio, administration expenses ratio and age and employee expenses ratio. Strong correlation is observed between debtor’s turnover ratio and working capital turnover ratio.

Multiple regression Analysis

There is a significant relationship between ROI and variables such as operating ratio, Working capital turnover ratio, Interest coverage ratio and Age. The other variables do not contribute significantly. The overall contribution of the fifteen variables is found out by calculating R square value which amounts to 54.4 percent.

Stepwise regression Analysis

The total contribution of seven variables amounts to 50.9 percent. The R square value in case of multiple regression amounts to 54.4 percent and it can be concluded that the difference in the R square is 3.5 percent (54.4-50.9). It is the contribution of the remaining variables to the dependent variable ROI.

Path Analysis

Administration expenses ratio has the highest direct effect on ROI while working capital turnover ratio has the least direct effect on ROI.

DETERMINANTS OF PROFITABILITY - NEW IT COMPANIES

Correlation Analysis

The correlation coefficient shows positive correlation between ROI and other independent variables except, dividend payout ratio, operating ratio, liquid ratio, current ratio, debt equity ratio, administration expenses ratio and employee expenses ratio. Strong correlation is observed between size and sales and current ratio and liquid ratio at 0.97 percent.
Multiple regression Analysis

There is a significant relationship between ROI and variables such as Size, Operating ratio, Sales, Total asset turnover ratio, Fixed asset turnover ratio, Liquid ratio, Current ratio and Debt equity ratio. The other variables do not contribute significantly. The overall contribution of the fifteen variables is found out by calculating R square value which amounts to 75.7 percent.

Stepwise regression Analysis

The total contribution of the eight variables amounts to Rs.74.3 percent. The R square value in case of multiple regression amounts to 75.7 percent and it can be concluded that the difference in the R square is 1.4 percent (75.7-74.3). It is the contribution of the remaining variables to the dependent variable ROI.

Path Analysis

Sales have the highest direct effect on ROI while current ratio has the least direct effect on ROI.

DETERMINANTS OF PROFITABILITY- OLD IT COMPANIES

Correlation Analysis

The correlation coefficient shows positive correlation between ROI and other independent variables except, size, operating ratio, working capital turnover ratio, debt equity ratio, administration expenses ratio, age and employee expenses ratio.

Multiple regression Analysis

There is a significant relationship between ROI and variables such as Dividend payout ratio, Operating ratio, Working capital turnover ratio, Total asset turnover ratio, Administration expenses and Age. The other variables do not contribute significantly. The overall contribution of the fifteen variables is found out by calculating R square value which amounts to 38.1 percent.

Stepwise regression Analysis

The total contribution of six variables amounts to 32.1 percent. The R square value in case of multiple regression amounts to 38.1 percent and it can be concluded that the difference in the R square is 6 percent (38.1 -32.1). It is the contribution of the remaining variables to the dependent variable ROI.
Path Analysis

Total asset turnover ratio has the highest direct effect on ROI while operating ratio has the least direct effect on ROI

7.3 SUGGESTIONS

This part is concerned with a few suggestions from the above observations relating to the study that are given to improve their operational efficiency.

- Judicious planning of operating cost would result in increased profits of the firm.
- Increase leverage to utilize the unused debt capacity and provide funds for further growth.
- Reduce the payout ratio because this would increase the proportion of earnings available to finance growth opportunities.
- The government should encourage growth of small-scale IT sector.
- The information technology companies receive their income through foreign currencies whose fluctuations could affect earnings. Any drop in quality, reflected in errors in code, could lead to defective solutions and customer attrition. In that case, they can make use of the services of external foreign exchange experts to risk management policies.
- Today, many Indian companies’ corporate giants have realized the power of togetherness. Hence, IT companies are also suggested to form consortium with global companies, which may be in the form of acquisition, merger and joint ventures to create competencies without losing time and quickly gain skill to satisfy the global demand.
7.4 CONCLUSION

Based on the analysis, it is inferred that all the IT companies performed better in terms of growth and profitability. All the information technology companies have sufficient liquid assets to meet the liabilities without affecting the value of the firm and therefore, no liquidity problem is cited.

It is concluded that Indian IT industry is a flourishing industry and the liberalized policies of Government help this sector to grow gradually. IT services and information technology enabled services have shown unprecedented growth. The demand for such services has grown substantially. The growth of the Indian IT industry is likely to be very good in future. The future trend of Indian IT industry appears to be very bright, promising and prosperous.