Chapter-6

Summary and Conclusions

The present study has made an attempt to study the relationship between economic reforms and the performance of Indian corporate sector over the period 2003-14. The present chapter summarises the important findings and conclusions. These conclusions and suggestions should provide relevant information to the concerned parties.

Over the years, the Indian economy has transformed significantly since independence, with the first push to the Indian economy was given by the economic reforms in 1980s and the second major push came post 1991. India made a radical shift in 1991 from a closed economy to an open economy inviting huge foreign investment. The liberalization of the economy helped it to move on to a sustainable higher growth path. Though the reform process continued but the cumulative impact of the gradual reforms started reflecting from year 2000. India achieved a GDP growth of eight-plus per cent per annum during 2001-11. During the five years of Yr 2003-08, prior to the global financial crisis of 2008, the growth in GDP of Indian economy had averaged 9 per cent. But the financial crisis of 2008 spoiled the party and there has been a slowdown. Though the Indian economy was better placed as compared to many other economies due to its demographic advantage, the burning topic for the analysts as on date is - whether this slowdown is temporary or is the economy moving to a lower growth rate in the medium term. ‘While RBI estimates that the trend/potential growth rate of the Indian economy, which averaged around 8.5 per cent during 2005-06 to 2007-08, dipped gradually thereafter and presently stands at about 7.0 per cent, the draft Twelfth Five Year Plan (2012-2017) document prepared by
government of India indicates that India’s full growth potential remains around 9 per cent\(^1\).

At the domestic front, like the other emerging market economies, the Indian economy is also facing problem of inflation and slowdown in the growth rate. The focus of RBI in the recent past has been on containing the inflation. The RBI has been continuously emphasising for more reforms by the government and to curtail the fiscal deficit. Despite the pressure from the industrialists and other corporate bodies, RBI has not been reducing the interest rates due to higher risks of inflation. The fall in crude and other commodities prices have given a cushion to the government on the fiscal front. The recent reform measures announced by the Modi government have given a scope for the RBI to lower down the interest rates and give some push to the growth rate. The pressure on the foreign exchange rate is another reason of worry for the government. While, global slowdown is an important factor, the domestic factors are also no less important.

There are concerns at the macro level but the Indian economy is still better placed because of its demographic advantage. One of the major challenges before the economy is financial inclusion. Though the economy is growing, but the growth is not broad based and is not touching the lives of all the sections of the society. There is a need for more spending on inclusion and social protection.

Some of the challenges before Indian economy are – (i) To provide world-class infrastructure for a rapidly-growing economy, and (ii) to manage the macro indicators such as fiscal deficit, inflation and declining growth rate.

In the years to come, lakhs of people in India are expected to move out of the agricultural sector and the economy has to generate the sufficient number of jobs for them. For this purpose India needs to increase its manufacturing capability. In the recent past, the growth of the manufacturing sector has

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\(^1\) Opening Address by Dr. K. C. Chakrabarty, Deputy Governor, Reserve Bank of India at International Factors Group’s Annual Conference on October 7, 2013 in New Delhi.
generally outpaced the overall growth rate of the economy. But still the contribution of the manufacturing sector in India is much below its potential. Every job created in manufacturing has a multiplier effect of creating two to three additional jobs in related activities. Therefore, a thrust on manufacturing is integral to the inclusive growth agenda of the Government. The National Manufacturing Policy announced by the Government of India proposes to increase the sectoral share of Manufacturing in GDP to 25% over the next decade.\(^2\)

The government is very well aware of the need for skilled workforce to attain such optimistic manufacturing targets. One of the biggest challenges before the government is now to bridge the gap between a growing demand for different skills and their supply. The demographic opportunity needs to be exploited in favour of the economy as 50 per cent of present India’s population is below 25 years of age. The demographic opportunity is increasing for India as population of working age in the percentage terms will continue to increase for another 40 years. To meet the aspirations of young India, the government needs to focus on skill building, higher education, innovation, knowledge creation, and knowledge sharing. Recently Modi government has initiated ‘skill India’ programme. The Government of India’s National Skill Development Initiative uses public-private partnership to address this challenge.

There is also the need for increasing our integration with the world. India is now closely integrated with the rest of the world both by way of financial and trade integration. It is the intent and objective of the Government of India to attract and promote foreign direct investment in order to supplement domestic capital, technology and skills, to accelerate economic growth.

\(^2\) National Manufacturing Policy 2011, Department of Industrial Policy & Promotion, Ministry of Commerce and Industry, Government of India
With the announcement of these reform measures, the Indian economy can achieve a new level of maturity. It is quite obvious to assume that these reforms will attract the advanced economies and the foreign institutional investors to park their funds in the Indian economy. This prompted me to study the performance of Indian Corporate Sector as a result of economic reforms. The following section revisits the objectives and the research methodology of the study followed by the major findings.

6.1 Objectives Revisited

The basic objective of the study is to examine the relationship between economic reforms and the performance of Indian corporate sector. Under the guideline of this primary objective, the specific objectives set in the study are:

1. To take stock of the economic reforms undertaken by the government and their impact on the performance of the Indian Economy.
2. To measure the financial performance of the Indian Corporate Sector through selected indicators.
3. To analyse the relationship between economic reforms and financial performance of Indian Corporate Sector.

Hypotheses

The following hypotheses have been formulated to examine the different objectives of the study:

1. To examine the first objective, the study will test the following null hypotheses:
   1.1 Ho : The GDP has not increased over the period of the study.
   1.2 Ho : The inflation rate has remained same over the period.
   1.3 Ho : The interest rate has not changed much over the period under study.
   1.4 Ho : The position of FDI and FPI has not improved over the period.
   1.5 Ho : The dollar-rupee exchange rate has not changed.
1.6 Ho: Balance of payments and Foreign exchange reserves have depleted over the period under study.

1.7 Ho: Fiscal deficit as a percentage of GDP for India has deteriorated over the period under study.

1.8 Ho: Tax Revenue, Gross savings and Capital formation as a percentage of GDP has not increased.

2. To examine the second objective, the study will test the following null hypothesis:

2.1 Ho: The operating profit ratio has declined over the years

2.2 Ho: Return on assets (ROA) has declined over the period under study.

2.3 Ho: Return on capital employed (ROCE) has declined over the period of study.

2.4 Ho: The cost efficiency of the firms has not improved over the period.

2.5 Ho: The proportion of debt in the capital employed has not gone down and

2.6 Ho: The liquidity position of the firm has not changed.

3. To examine the third objective, the study will test the following null hypothesis:

3.1 Ho: There is no relationship between economic development and operating profits of corporate sector.

3.2 Ho: There is no relationship between economic development and return on assets of corporate sector.

3.3 Ho: There is no relationship between economic development and return on capital employed of corporate sector.

3.4 Ho: There is no relationship between economic development and the raw material cost ratio of the corporate sector.

3.5 Ho: There is no relationship between economic development and the wage cost ratio of the corporate sector.

3.6 Ho: There is no relationship between economic development and the selling and distribution cost ratio of the corporate sector.
3.7 Ho: There is no relationship between economic development and debt equity ratio of corporate sector

3.8 Ho: There is no relationship between economic development and current ratio of corporate sector.

6.2 Research Methodology Revisited

In order to accomplish the objectives of the study, a number of statistical tools are used. The details of the data and methodology used in the study are explained in the following section.

The basic data for the study is secondary in nature. The data about the financial statements and the financial structure is being collected from ‘PROWESS’ data base available in the public domain and maintained by Centre for Monitoring Indian Economy (CMIE). This data base has collected information for thousands of companies from regulatory reports, official websites and the press releases from the respective companies. The other sources used to supplement the basic data are the various publications and the respective websites of the regulator of capital markets (SEBI), the Reserve Bank of India (RBI), other institutions and intermediaries (MCA, Ministry of Finance etc.).

To avoid the impact of temporary factors and the business cycle, a longer time frame of study of 12 years period i.e. 2002-03 to 2013-14 has been used. The significance of the period chosen lies in the fact that the Indian economy witnessed major structural reforms during this period. It is only during this period that the Indian industries and the capital markets grew at a very fast pace.

For the analysis in this section, the income statement and balance sheet data for the nifty fifty companies has been used. The present study covers the data of 50 companies of which 3 were deleted because of late entry of these companies in the nifty index. Thus the study is based on a sample of 47 companies spread over different sectors of the economy for a period of

The financial ratios, a widely accepted tool of financial analysis have been relied upon to analyse the impact of economic reforms on the financial performance of the Indian Corporate Sector. For this purpose, following ratios are used.

Ratio 1 \((R_1) = \) Operating Profit Ratio (EBIT as a percentage to sales)

Ratio2 \((R_2) = \) Return on Assets

Ratio 3 \((R_3) = \) Return on Capital Employed

Ratio 4 \((R_4) = \) Raw material as a percentage to sales

Ratio 5 \((R_5) = \) Wages as a percentage to sales

Ratio 6 \((R_6) = \) Selling and Distribution expense as a percentage to sales

Ratio 7 \((R_7) = \) Debt – Equity Ratio

Ratio 8 \((R_8) = \) Current Ratio

These ratios indicate the financial performance of the corporate sector. Total eight ratios are being computed. First six ratios are calculated to judge the operating efficiency and the last two ratios are computed to judge the leverage and liquidity position of the firm. To study the trend of financial performance over a period of time, the mean and median values along with standard deviation are computed for each year for each company. Relationship between economic development and performance of the Indian companies has been established using Multiple Correlation Analysis and appropriate statistical tests (t-test, F-test etc.) for hypothesis testing.

### 6.3 Major Findings

#### I. Economic Reforms and the Performance of Indian Economy

1. The GDP recorded a level of 8% in the year 2003-2004 as against the 3.9% in the year 2002-2003. The GDP increased to a record level of
more than 9% in the subsequent three years 2005-2008 before catching a downward trend. The year 2008-2009 which is marked as the period of global recession and rapid downturn of the economy faced a drastic fall in the level of GDP. Due to instability of the financial sector, high rates of inflation, falling income level, contraction in the demand and high crude oil prices forced the government along with the central bank to take several bold initiatives to restore the economic stability of the country. In 2010-2011 Q1 experienced a growth of 8.9% of GDP, but the prevailing unemployment, sharp increase in prices of food, energy and other commodity prices have pulled down the overall GDP. Subsequently the growth rate declined substantially. However, the growth trend started reversing in 2014 when it increased to about 4.7% in 2014 as compared to 4.5% in the year 2013. A sudden sharp fall in the commodity prices and oil prices are expected to take India to a new growth trajectory in the coming years. The average GDP in the second sub period – 6.68 has been lower as compared to sub period I when GDP was 7.90 but the difference is not very large. Therefore, there is no evidence to reject the null hypothesis that GDP has not improved over the two sub periods.

2. The annual rate of inflation was around 5% during the sub period I. However it accelerated after March 2008. The average rate of inflation during the second sub period increased to 7.3%. The figures show the declining trend of inflation only after 2010. The decline of base effect along with sharp increase in food and oil prices on account of lower agricultural production and increase in international commodity prices, especially crude oil, contributed to the faster increase in inflation during the second half. The paired sample t-test also gives the same results that the there was a huge difference in the
inflation rate over the two sub periods which is also statistically significant. Therefore, the null hypothesis that inflation rate has remained same over the period is rejected.

3. Though the average annual rate of interest during the two sub periods has remained almost same but interest rates have been changing during the different time periods. During sub period I of 5 years of 2003-08 of high growth but rising inflation concern towards the later part of the period, the repo rate was raised from 6 per cent to 9 per cent and the cash reserve ratio (CRR) was raised from 4.5 per cent to 9 per cent. During sub period II, during 2008-10 following the global financial crisis, the repo rate was reduced from 9 per cent to 5.25 per cent and CRR was reduced from 9 per cent to 5.75 per cent. During 2010-12, the policy rate was raised from 5.25 per cent to 8.5 per cent but CRR was reduced to 5.5 per cent. However, during the years 2012-13 and 2013-14, the repo rate was reduced to 7.25 per cent and CRR lowered to 4.0 percent. The paired sample t-test result also reflects that the difference in the means of the two sub periods is not significant even statistically. Therefore, there is no evidence to reject the null hypothesis that interest rates have not changed over the period under study.

4. As a response to the policies of liberalisation, the foreign investors were very keen to undertake portfolio investment, including GDR. The foreign investment which had declined to dollar 1 billion in 2002-03 touched a record level of 11.4 billion dollars in 2003-04 and 62 billion dollars in 2007-08. During 2008-09, the FDI continued unabated but the portfolio investments became negative. In 2013-14, the total foreign investments declined to 35 billion dollars. The average foreign investment during the sub period I was 25 billion dollars which increased to 48.5 billion dollars in the sub period II. The trend is
supported by the results of the paired sample t-test. The difference is statistically significant. Therefore, the null hypothesis that the FDI and FPI has not improved over the period is rejected.

5. The rupee dollar exchange rate took a dramatic turn since the middle of 2003. Due to huge influx of foreign exchange into India, the rupee appreciated considerably below 40 rupees mark till the end of 2007. The Government of India opened up manufacturing, IT and other service sectors for direct foreign investment. But the rupee started depreciating again from the year 2008 because of huge foreign exchange outflow due to global financial crisis. The dollar touched the sixty rupees mark by March 2014. The average rate during sub period I was Rs. 43.82 as against a rate of Rs. 51.06 during the sub period II. The observation is supported by the results of the paired sample t-test which is statistically significant at 0.05 level. Therefore, the null hypothesis that the exchange rate has not changed is rejected.

6. The BOP situation improved from average 143956.2 million dollars during sub period I to 287754.5 million dollars and FER also increased from 47738 million dollars to 215233.3 million dollars during the same periods. On the basis of this, the null hypothesis that the BOP and foreign exchange reserves have depleted over the period under study is rejected.

7. The average fiscal deficit during sub period I was 3.96% of GDP while the average fiscal deficit of sub period II was 5.39% of GDP. There was significant difference in the mean deficit of the two sub periods. The results of the paired sample t-test confirm it at a significance level of 0.05. Hence there is no evidence to reject the null hypothesis that fiscal deficit as a percentage of GDP has deteriorated over the period under study.
8. The average tax revenue collection as a percentage of GDP has been 10.2% during sub period I which increased to 11.7 during sub period II. But this change has been mainly due to significant increase to 15.5% in the year 2014. Otherwise the difference in mean tax revenue during the two sub periods was insignificant. The result of paired sample t-test also confirms that the difference is not significant.

9. The gross domestic savings (GDS) rose sharply to 36.8% of GDP in 2008 from 25.9% of GDP in the year 2003. But the trend reversed from year 2009 to 2014 when the rate declined to 29.6%. The average rate of GDS for the first sub period was 32.02% and that of second sub period was 31.74%. There is no significant difference in the mean of the GDS of the two sub periods. The paired sample t-test also confirms that there is no significant difference.

10. The average rate of capital formation during sub period I was 32.15 which was not significantly different from 34.83 during the sub period II. The observation is statistically authenticated by the paired sample t-test but is not statistically significant at 0.05 confidence level. Hence, there is no evidence to reject the null hypothesis that tax revenue, gross savings and capital formation as a percentage of GDP has not increased.

**Correlation**

The Correlation coefficients among the different indicators of Indian economy are calculated to see whether there is similarity in movement for all the selected indicators over the concerned period. It is observed that:

(i) GDP and Foreign exchange rate are negatively correlated. The relationship is quite strong and is statistically significant. It shows that the increase in GDP depreciates the dollar in rupee terms.

(ii) GDP and savings are positively correlated. The relationship is quite strong and is statistically significant.
(iii) WPI and FDI are positively and strongly correlated. The relationship is statistically significant.

(iv) There is a positive correlation between WPI and Fiscal Deficit. The relationship is quite strong and is statistically significant.

(v) WPI and Tax revenue (% of GDP) are positively correlated. The relationship is statistically significant.

(vi) FDI and Capital Formation (% of GDP) are positively correlated. The relationship is quite strong and is statistically significant.

(vii) Savings (% of GDP) and Capital Formation (% of GDP) are positively and strongly correlated. The relationship is statistically significant.

II. Performance of Indian Corporate Sector

1. The operating profits have remained above 20% over the entire period of the study. The ratio has been on the rising trend in the initial six years, declined for the year 2009 but improved significantly in the year 2010 and 2011. However, it has fallen continuously thereafter. During 2003-08 the mean value of the operating ratio of Indian corporate sector was near 23%. However, during the second sub period II (2009-14), this ratio was higher at 24%. This was mainly because of very high i.e. 27% ratio in the year 2010 and 2011. The above conclusion has been tested statistically by taking the two sub-periods as separate samples to see whether there is any significant change during the two sub periods. Paired sample t-test does not show any significant difference and therefore the null hypothesis that operating profit ratio has declined over the years for the Indian firms has been rejected.

2. During the period 2003-08, the return on assets has been continuously increasing from 11% to 15%. This may be the result of the market reforms announced by the government and the opening of the Indian markets. However, this momentum could not sustain. During the
period 2009-14, the ratio has fallen from 16% to near 12%. This was the result of global financial crisis which originated from the west and covered the entire globe. The mean return over the two sub periods has remained almost same. It was 14% during the first sub period and 13% in the sub period II. The results of the statistical test also support the same where, for the sub period I and sub period II, the observed value of t at 5% of significance level is greater than the critical value of t at 5% significance level. Thus the null hypothesis is rejected that the return on assets is declining over the period under study.

3. The above table shows that the return on capital employed increased from 16% in 2003 to 24% in the year 2008. However, the ratio declined to 21% in the year 2009 and remained almost at the same level for the remaining period till 2014 at 20%. During the period 2003-08, the mean value of the ratio was 20%. The mean value of the ratio during sub period II also remained at the same level of 20% showing no change in the return on capital employed. The statistical results show that the difference in the mean of the two sub periods is almost zero. Therefore, for the two sub-periods, null hypothesis that ROCE has declined is rejected as the observed value of t is more than the critical value of t at 5% level of significance.

4. During the period of 2003-08, the average raw material to sales ratio was 19% which increased to 22% in the sub period II. The material cost has significantly increased over the period. The results of paired sample t-test show that as value of p at 5% significance level is less than 0.05. The difference in the mean of the two sub periods is significant. It evidences that the proportion of material cost in the sales has risen over the period under study.

The wages to sales ratio during the sub period I and sub period II is same at 11%. The results of t-test show that for the two sub-periods the
difference in means is not significant. Therefore, it may be concluded that the wages as a proportion of sales has not increased over the period.

The selling and distribution expense ratio is flat almost at 5% for the entire period under study. The results of t-test show that for the two sub-periods the difference in means is not significant. Therefore, it may be concluded that the selling and distribution expense ratio has not increased over the period.

It may be noted that raw material cost as a percentage to sales has increased. Though the wages cost ratio and selling and distribution cost ratio have not changed much over the period under study, the combined cost of the goods has increased. Therefore, no evidence is found to reject the null hypothesis that the cost efficiency over the period has not improved. The results are very much in line with the results of the study made earlier by Rakesh Basant and Pulak Mishra.

5. The average debt equity ratio during sub period II has fallen to 21% from 23% during sub period I. The debt equity ratio which explains the capital structure of a firm has remained on the higher side prior to the global financial crisis. In-fact 2002 onwards, a huge amount of liquidity was available in the global markets at a very low rate of interest. The advanced economies had stagnated or were having a very low demand. Those economies pumped in a lot of money at ever low rates of interest. The Indian economy due to its high demand and demographic advantage offered a lot of opportunities for the corporate houses to expand their capacities. These corporate houses used these global funds in the debt form to augment their capacities. However, due to turmoil in the financial markets, the uncertain business environment did not allow these corporate houses to operationalize their capacities. Year 2008 onwards, the restrictions on lending and
focus on repayment of loans is trending towards fall in the leverage ratio. Thus the null hypothesis is rejected that the proportion of debt in the total capital employed has not gone down.

6. The current ratio of the firms over the two sub periods (1.51 and 1.53) has not changed much. The results of the statistical test also support the same. For the sub period I and sub period II, the observed value of t is more than the critical value of t at 5% significance level. Therefore, no evidence is found to reject the null hypothesis that the liquidity position of the firm has not changed.

III. Relationship between Economic Reforms and the Performance of Indian Corporate Sector

1. Correlation analysis among the indicators of economic development and ratios of Indian Corporate financial performance reveals that-
   i. There is high degree of negative correlation between GDP and Foreign exchange rate. It indicates that as the GDP increases, the value of dollar declines in terms of rupees.
   ii. There is high degree of positive correlation between GDP and savings. The relationship is quite strong and is statistically significant. It shows that increase in savings improves the GDP of the economy.
   iii. There is a high degree of positive correlation between GDP and operating profit ratio. It indicates that the operating profits and GDP both increase.
   iv. There is significant and positive relation between GDP and ROA.
   v. There is significant and positive relation between GDP and ROCE.
   vi. WPI and FDI are positively and strongly correlated. The relationship is statistically significant. It shows that WPI also increase when FDI increases in the economy, which is a sign of increase in demand.
   vii. There is a positive correlation between WPI and Fiscal Deficit. The relationship is quite strong and is statistically significant.
viii. There is a positive correlation between WPI and the Raw Material Cost/Sales ratio. As the inflation goes up, the raw material cost also goes up.

ix. There is positive correlation of Interest rate with ROA and ROCE.
x. WPI and Tax revenue (% of GDP) are positively correlated. The relationship is statistically significant.

xi. FDI and Capital Formation (% of GDP) are positively correlated. As the FDI increases, the capital formation of the economy improves.

xii. There is strong positive correlation between FDI and Raw material cost ratio. It has also a strong relationship with Debt – equity ratio. It indicates that the FDI comes mostly in the form of Debt.

xiii. Fiscal deficit is negatively correlated with ROA. The return on assets declines when the fiscal deficit of the country goes up.

xiv. Savings (% of GDP) and Capital Formation (% of GDP) are positively and strongly correlated. It is obvious because both are expressed as a % of GDP and the capital formation is made out of the savings only.

xv. Savings and Capital formation both are positively related to the three profitability ratios, raw material cost ratio. However, it is negatively correlated with the debt equity ratio of the corporate sector.

2. The regression analysis to measure the impact of economic development on the operating profits of the corporate sector shows the following results:

Wholesale Price index and Exchange rate are the only significant independent variables, explaining the operating profit of the Indian corporate sector during the period under study. The relationship between WPI and operating profit is positive but the relationship between dollar-rupee exchange rate and operating profits is negative which indicates that in case of depreciation of dollar, the operating profitability improves.
The $R^2$ for the ratio is .96 showing that 96% of the variations in the observed values of operating profit ratio are explained by independent variables of the economic development together. The computed $F$ value is far above the critical value of $F$ at 5% level of significance. Hence regression as a whole is highly significant. Therefore the null hypothesis that there is no relationship between economic development and operating profits of corporate sector is rejected.

3. The regression analysis to measure the impact of economic development on the ROA of the corporate sector shows the following results:

WPI, FDI and fiscal deficit negatively impact the ROA; however, interest rate and capital formation positively impact the ROA. But none of the variables are statistically significant. The explanatory power of the independent variables is shown by $R^2$. The $R^2$ for the ratio is .861 showing that 86% of the variations in the observed values of ROA ratio are explained by independent variables. The computed value of $F$ is higher than the critical minimum at 5% level making the whole regression analysis significant.

Therefore the null hypothesis that there is no relationship between economic development and return on assets of corporate sector is rejected.

4. The regression analysis to measure the impact of economic development on the ROCE of the corporate sector shows the following results:

There is significant relationship between interest rate, Exchange rate, fiscal deficit and capital formation. Fiscal deficit negatively impact the ROCE, however, the interest rate, exchange rate and capital formation positively impact the ROCE. WPI and FDI are also related to ROCE
but are not statistically significant. $R^2$ explains that 98.6% of the variations in the observed values are explained by the independent variables. F-statistics is far above the critical minimum at 5% significance level, therefore, the regression analysis is significant. Therefore the null hypothesis that there is no relationship between economic development and return on capital employed of corporate sector is rejected.

5. The regression analysis to measure the impact of economic development on the cost efficiency of the corporate sector shows the following results:

(a) WPI and interest rates are negatively related to the raw material cost ratio. FDI, fiscal deficit and capital formation positively impact the ratio. But none of the above results are statistically significant. $R^2$ indicates that 93% of the variations in the observed values are explained by the independent variables. The computed F value is higher than the critical value of F at 5% level. Hence regression is significant. Thus no evidence is found to reject the null hypothesis that there is no relationship between economic development and the raw material cost ratio of the corporate sector.

(b) WPI, exchange rate and interest rates positively impact the wage cost ratio. FDI, fiscal deficit and capital formation negatively impact the ratio. But none of the above results are statistically significant. $R^2$ indicates that 67% of the variations in the observed values are explained by the independent variables. The computed F value is less than the critical value of F at 5% level, hence regression results are not reliable. Thus no evidence is found to reject the null hypothesis that there is no relationship between economic development and the wage cost ratio of the corporate sector.
(c) Interest rates and fiscal deficit positively impact the selling and distribution ratio. However, FDI and Capital Formation negatively impact the ratio. But none of the above results are statistically significant. \( R^2 \) indicates that 63\% of the variations in the observed values are explained by the independent variables. The computed F value is less than the critical value of F at 5\% level; therefore regression results are not reliable.

Thus no evidence is found to reject the null hypothesis that there is no relationship between economic development and the selling and distribution cost ratio of the corporate sector.

6. The regression analysis to measure the impact of economic development on the debt-equity ratio of the corporate sector shows the following results:

FDI negatively impact the debt equity ratio. The relationship is statistically significant. There is positive relationship between interest rate, WPI and the debt equity ratio but the results are not statistically significant. Also, fiscal deficit and capital formation negatively impact the debt equity ratio but again the results are statistically significant.

\( R^2 \) explains that 88.5\% of the variations in the observed values are explained by the independent variables. F-statistics is above the critical minimum at 5\% significance level; therefore, the regression analysis is significant.

Therefore the null hypothesis that there is no relationship between economic development and debt equity ratio of corporate sector is rejected.

7. The regression analysis to measure the impact of economic development on the current ratio of the corporate sector shows the following results:
There is positive relationship between FDI, exchange rate, fiscal deficit and capital formation and the current ratio. However, WPI, interest rate and current ratio are negatively related. But the results are not statistically significant. $R^2$ explains that 46% of the variations in the observed values are explained by the independent variables. F-statistics is less than the critical minimum at 5% significance level; therefore, the regression results are not reliable. Therefore, no evidence is found to reject the null hypothesis that there is no relationship between economic development and current ratio of corporate sector.

The following section summarises the impact of financial performance of Indian Corporate Sector on the different indicators of economic development.

8. Operating profit ratio, ROCE, Raw materials cost, Wage cost ratio all impact positively to GDP, however the selling and distribution cost ratio and current ratio negatively impact the GDP. But none of the variables are statistically significant. The $R^2$ for the ratio is .88 showing that 88% of the variations in the observed values of GDP are explained by independent variables. The computed F value is above the critical value of F at 5% level of significance. Hence regression as a whole is highly significant. Therefore, there is no evidence to reject the null hypothesis that there is no relationship between performance of the Indian Corporate Sector and GDP of India.

9. Operating profit ratio, ROCE, Raw materials cost, Wage cost ratio all impact positively to WPI, however the selling and distribution cost ratio and Current ratio negatively impact the WPI. But none of the variables are statistically significant. The $R^2$ for the ratio is .75 showing that 75% of the variations in the observed values of WPI are explained
by independent variables. The computed F value is near the critical value of F at 5% level of significance. Regression as a whole is not reliable in this case.

Therefore, there is no evidence to reject the null hypothesis that there is no relationship between performance of the Indian Corporate Sector and WPI.

10. ROCE, Raw materials cost, ratio all impact positively to interest rates, however the Operating profit, wage cost and Current ratio negatively impact the interest rates. But none of the variables are statistically significant. The R\(^2\) for the ratio is .78 showing that 78% of the variations in the observed values of interest rates are explained by independent variables. The computed F value is less than the critical value of F at 5% level of significance. Regression as a whole is not reliable in this case.

Therefore, there is no evidence to reject the null hypothesis that there is no relationship between performance of the Indian Corporate Sector and Interest Rates.

11. ROCE and wage cost ratio impact negatively to FDI, however all other ratios of corporate performance positively impact the FDI. But none of the variables are statistically significant. The R\(^2\) for the ratio is .78 showing that 78% of the variations in the observed values of interest rates are explained by independent variables. The computed F value is more than the critical value of F at 5% level of significance. Regression as a whole is significant.

Therefore, there is no evidence to reject the null hypothesis that there is no relationship between performance of the Indian Corporate Sector and FDI.

12. Operating profit ratio, Wage cost ratio and current ratio impact positively to exchange rates, however the ROCE, Raw materials cost, and selling and distribution cost ratio negatively impact the exchange
rates. But only the operating profits ratio is statistically significant and all other variables are statistically not significant. The $R^2$ for the ratio is .89 showing that 89% of the variations in the observed values of exchange rates are explained by independent variables. The computed F value is above the critical value of F at 5% level of significance. Hence regression as a whole is highly significant. Therefore, the null hypothesis that there is no relationship between performance of the Indian Corporate Sector and exchange rates is rejected.

13. Operating profit ratio, ROCE and current ratio impact positively to fiscal deficit, however all other ratios impact negatively to fiscal deficit. But none of the variables are statistically significant. The $R^2$ for the ratio is .70 showing that 70% of the variations in the observed values of fiscal deficit are explained by independent variables. The computed F value is near the critical value of F at 5% level of significance but regression as a whole is not reliable. Therefore, there is no evidence to reject the null hypothesis that there is no relationship between performance of the Indian Corporate Sector and fiscal deficit.

14. ROCE, raw material cost and current ratio impact negatively to Tax revenue, however all other ratios impact positively to Tax revenue of the government. But only raw material cost ratio is statistically significant and all other variables are statistically not significant. The $R^2$ for the ratio is .78 showing that 78% of the variations in the observed values of Tax revenue are explained by independent variables. The computed F value is near the critical value of F at 5% level of significance but regression as a whole is not reliable. Therefore, the null hypothesis that there is no relationship between performance of the Indian Corporate Sector and tax revenue of the government is rejected.
15. ROCE and current ratio impact negatively to the gross savings, however all other ratios impact positively to savings. But only raw material cost ratio is statistically significant and all other variables are statistically not significant. The $R^2$ for the ratio is .97 showing that 97% of the variations in the observed values of savings are explained by independent variables. The computed F value is far above the critical value of F at 5% level of significance. Hence, regression as a whole is highly significant. Therefore, the null hypothesis that there is no relationship between performance of the Indian Corporate Sector and savings of the government is rejected.

16. All the ratios impact positively to capital formation. Only return on capital employed ratio impact negatively to the capital formation. But none of the variables are statistically significant. The $R^2$ for the ratio is .96 showing that 96% of the variations in the observed values of savings are explained by independent variables. The computed F value is far above the critical value of F at 5% level of significance. Hence, regression as a whole is highly significant. Therefore, there is not sufficient evidence to reject the null hypothesis that there is no relationship between performance of the Indian Corporate Sector and capital formation.

6.4 Contribution of the Study

The Indian economy noticed different pace of growth in the different time periods but not necessarily accelerated after the reforms. However, the corporate sector has been growing at a consistent rate. It may be concluded that in developing economies like India, it is a necessary condition, but not sufficient as it is only when other favorable conditions like the liquidity position in the globe and the +ve sentiments of the retail investors etc. are
present that economic reforms may result into an accelerated growth for the Indian Corporate Sector.

In the context of various policy initiatives made during the last two decades to reform the Indian economy in general and corporate sector in particular, the present paper attempts to assess how the firms have responded to these policy measures and the resultant changes in the business conditions in a long run perspective.

During the post-reform, industrial sector as a whole in general and the manufacturing sector in particular have grown at a consistent rate. However, growth rate of the Indian industry sector has not accelerated following economic reforms probably due to slow growth in agriculture and industrial productivity. On the positive side, investment in general and FDI in particular showed considerable increase in the sub period II. The Indian corporates have adopted different strategies to compete with their international rivals by adopting the latest technologies, mergers and tie-ups with the different international partners but cost-efficiencies in the Indian manufacturing sector do not show improvements. The share of production costs in total sales has increased largely on account of increasing expenses for raw materials. Wages and sales costs have remained constant or slightly on the declining side. Profitability of the firms measured through the ratio of PBIT to sales and return on assets showed marginal improvement but rate of return on capital employed has improved. This means that reforms have contributed for the efficient use of capital by companies.

As economic reform deepens and competitive pressures build up, an analysis of these interactions would provide useful insights for understanding corporate behavior and for making policy choices.

The Indian economy is the one of the fastest growing economy among the emerging economies. Its demographic factors and the consumption story has been the major attraction for the large institutional investors. The various initiatives taken by the Indian government to bring the Indian capital markets
at par with the international standards has been quite successful in attracting huge foreign institutional investments to India. The study has made an attempt to evaluate the impact of economic reforms on the financial performance of the Indian corporate sector.

The study shall be quite useful for the academicians, policy makers and the finance managers for their financial decisions. The study reveals many important conclusions and their implications that will play a vital role in having better understanding of the economy and economic development and performance of Indian corporate sector.

The present study, besides augmenting the existing empirical literature, has empirically challenged the theoretical belief. For instance, it has established the fact that economic reforms do not necessarily improve the performance of the corporate houses.

The study will also be helpful to regulatory authorities like Securities and Exchange Board of India (SEBI) and other government regulatory agencies. In the economically integrated global world, the investment opportunities have expanded, financing options have widened and above all dependence on capital market has increased. Under these circumstances the empirical findings of this study will be quite useful for lending banks and institutions as well.

### 6.5 Suggestions for Future Research

The study has concentrated on economic development and the performance of Indian corporate sector. A few suggestions and related areas where further investigations required are as follows:

1. Re-specification of financing ratios and inclusion of more ratios from the balance sheet of the companies is always a possibility.
2. The parameters of growth and development of the economy can always be changed.
3. The study can be conducted on the basis of data of all the companies listed on the national stock exchange rather than on the fifty companies which are part of the Nifty index.

4. The impact of internal factors affecting the performance of the companies can also be considered.

5. The change in strategies by the corporate sector in response to the economic reforms can be another dimension for research.