CHAPTER 5

SUMMARY AND CONCLUSION

The capital structure of a business concern reflects its equity and debt obligations. The investors analyse the capital structure and dividend payout policies to determine the risk and cost involved in investment. Therefore, the decisions regarding capital structure and dividend policy should consider its impact on each other. The evaluation of factors determining capital structure and dividend decisions, the impact of capital structure on firm value, the impact of dividend decisions on firm value, the compound annual growth rate and trend analysis of capital structure and dividend decision factors and the impact of capital structure on dividend decisions, supports the companies to frame an appropriate and profitable capital structure and dividend policies.

This research study examines the impact of capital structure on dividend decisions of construction associated industries in India for a period of ten years from 2007-2008 to 2016-2017. The sample consists of 30 companies belonging to steel (7), cement (12), paint (4), granite (4) and ceramic tiles (3) industries were selected forming base as construction associated industries in India. For analyzing purpose, required financial data were collected from Capitaline database. The financial statements were investigated using appropriate dependent variables and independent variables. Various statistical techniques such as reliability test, descriptive statistics, compound annual growth rate, trend analysis, correlation and multiple regression analyses were applied to attain the following objectives:

- To identify the factors influencing the capital structure and dividend decisions of the select industries.
- To examine the impact of capital structure on the firm value of the select industries.
- To assess the impact of dividend decisions on the firm value of the select industries.
- To study inter and intra industry trends of capital structure and dividend decisions.

- To study the impact of capital structure on dividend decisions of the select industries.

The hypotheses developed for the research purpose are as follows,

- There is no significant impact of capital structure on the firm value of the select construction associated companies
- There is no significant impact of dividend decisions on the firm value of the select construction associated companies
- There is no significant impact of capital structure on dividend decisions of the select construction associated companies

The dependent and independent variables used in the study are,

- To identify the factors influencing the capital structure, the factors such as Long term debt Ratio, Short term debt Ratio and Total debt Ratio are used as dependent variables and Return on Asset, Return on Equity, Growth, Risk, Asset Tangibility, Firm size, Earning volatility, Non-debt tax shields and Liquidity Ratio are used as independent variables.
- To identify the factors influencing dividend decisions, Dividend Payout Ratio is used as dependent variable and Return on Asset, Return on Equity, Earnings per share, Risk, Liquidity, Growth, Leverage, Size, Cash holdings and Solvency Ratio are used as independent variables.
- To examine the impact of capital structure on the firm value of the selected industries, Firm value is used as dependent variable and Long term debt to equity and Long term debt to asset are used as independent variables.
- To access the impact of dividend decisions on the firm value of the selected industries, Firm value is used as dependent variable and Dividend payout ratio and Dividend yield ratio are used as independent variables.
- To study the inter industry and intra industry differences on capital structure and dividend decisions, capital structure variables used are Long term debt ratio, Short term debt ratio, Total debt ratio, Return on

Asset and Return on Equity. Dividend decision variables used are Dividend payout ratio and Dividend yield ratio.

- To study the impact of capital structure on dividend decisions of the select industries, Dividend payout ratio is used as dependent variable and independent variables used are Return on Asset, Return on Equity, Risk, Asset Tangibility, Firm size, Earning volatility, Non-debt tax shields and Liquidity Ratio.

5.1 FINDINGS OF THE STUDY

The summary of major findings that are revealed from the study are as follows:

I. Factors influencing the capital structure and dividend decisions of selected Construction associated industries

In order to determine the factors that holds significant influence on the capital structure and dividend decisions of selected industries, the computation has been carried out and the findings are summarized below.

- In the steel industry, Long term debt ratio has a mean of 0.889 with a standard deviation of 0.116. It shows that the long term debt was highly fluctuating. Growth implied a mean of 2.879 with standard deviation 43.6 indicates higher deviation in market capitalization and net asset value. Risk showed a mean of 15.66 and variance 5559.7. It indicates higher fluctuation in market price per share and a low dividend payout. Long term debt to equity showed a variance of 0.117 signifying fluctuation and higher degree of business risk to meet the company's principal and interest obligations. Firm value had mean 7.782 with standard deviation 5.501 infers consistency and an enriched company value of steel companies. The remaining variables indicated consistency during the study period.
- On examining cement industry, long term debt ratio showed a mean of 0.063 and standard deviation 0.076 implies higher deviation in long term debt capital. Risk showed a mean 16.35 and standard deviation 47.04 indicating higher fluctuation in market price per share and a low dividend payout. Earnings per share has a mean of 35.99 and standard

deviation 54.61, indicating higher fluctuation in earnings. It also implies better earning capacity of the companies, to distribute better profits to its shareholders. The long term debt to equity shows a mean of 0.125 and variance 0.033 indicating fluctuation and a higher degree of business risk to meet the company's principal and interest obligations. Firm value has a mean of 6.598 with a variance of 26.17 implies consistency and a better company value of cement companies. All other variables portrayed consistency during the study period.

- As in case of paint industry, Cash holdings had mean 8.763 with a standard deviation 9.944. It inferred higher fluctuation in holding of most liquid cash that are used for routine expenditures. The companies should avoid holding of excess cash. Firm value has a mean of 2.751 with a standard deviation of 1.838 denotes consistency and a good company value of paint companies in India. The variables such as growth, asset tangibility, EPS, firm size, leverage, non-debt tax shields, liquidity, solvency and long term debt to equity showed consistency during the study period.
- On observing granite industry, Long term debt ratio has a mean of 0.020 with a standard deviation of 0.044. It infers fluctuation in long term debt capital. Growth ratio had a mean of 1.754 with standard deviation 1.829 infers deviation in market price per share and a low dividend payout. Risk had a mean 15.73 and standard deviation 18.54 indicating higher fluctuation in market price per share. Non-debt tax shields has a mean of 0.081 with a variance of 0.069. It shows a fluctuation in depreciation because of varying units of production. The long term debt to equity shows standard deviation 0.082 specifying deviation and a higher degree of business risk to meet the company's principal and interest obligations. Firm value has a mean of 2.931 with a variance of 15.7 indicates deviation in market price of shares of granite companies. The remaining variables denoted consistency during the study period.
- In ceramic tiles industry, Growth ratio is having a mean of 0.043 with a variance of 7.56. It shows fluctuation in market price per share and a low dividend payout of the companies. Risk had a mean 9.802 with

standard deviation 10.66 indicating higher deviation in market price per share and a low dividend payout. Dividend yield showed a variance 0.032 denotes deviation in market price per share. Firm value has a mean of 1.462 with a standard deviation of 0.239 implies consistency and a better company value of ceramic tiles companies in India. The remaining variables such as liquidity, leverage, dividend payout, solvency, EPS, firm size indicated consistency during the study period.

- The multiple regression analysis revealed that in steel industry, long term debt ratio having R square value of 62 per cent, short term debt ratio with R square value 17 per cent and total debt ratio R square value 76.4 per cent relations are explained with the capital structure influencing factors. The steel industry reveals return on asset, return on equity, firm size and liquidity ratio as the capital structure influencing factors. The analysis implies R square value of 88.6 per cent relation explained with Dividend payout ratio and dividend decision factors. Risk, firm size and liquidity ratio are derived as the dividend decision influencing factors.
- On observing the cement industry, the regression results specifies long term debt ratio having R Square value of 27.9 per cent, short term debt ratio showing R Square value at 37.4 per cent and total debt ratio with R Square value of 75.8 per cent relations are explained with the capital structure influencing factors. In cement industry, the factors that determines capital structure are return on asset, return on equity, risk, firm size, non-debt tax shields and liquidity ratio. The analysis shows R Square value of 51.4 per cent relation explained between Dividend payout ratio and dividend decision factors. Earnings per share and risk are the factors that influences dividend decisions of cement industry.
- The regression results of paint industry identifies long term debt ratio having R Square value of 12.2 per cent, short term debt ratio R Square value of 8.3 per cent and total debt ratio R Square value at 12.9 per cent relations are explained with the capital structure influencing factors. In case of paint industry, return on asset, return on equity, asset tangibility, firm size, non-debt tax shields and liquidity ratio are revealed as capital structure influencing factors. The analysis implies R

Square value of 15.2 per cent relation explained with dividend payout and the dividend decision influencing factors. Earnings per share and firm size are arrived as dividend decision influencing factors.

- On examining the granite industry, the multiple regression analysis indicates long term debt ratio having R Square value of 50.2 per cent, short term debt ratio with R Square value 45.4 per cent and total debt ratio having R Square value 86.7 per cent relations are explained with the capital structure influencing factors. It is revealed that return on asset, return on equity, asset tangibility, firm size, earning volatility and non-debt tax shields are the capital structure influencing factors of granite industry. The analysis indicates R Square value of 62.9 per cent of relation are explained with the dividend payout and dividend decision factors. Growth, firm size and solvency ratios are arrived as the dividend decision influencing factors.
- The multiple regression analysis of ceramic tiles industry reveals long term debt ratio having R Square value of 44.3 per cent, short term debt ratio R Square value of 58.6 per cent and total debt ratio showing R Square of 96.8 per cent relations are explained with the capital structure influencing factors. In ceramic tiles industry, the factors such as return on asset, return on equity, Risk, asset tangibility, firm size, earning volatility, non-debt tax shields and liquidity ratio significantly influences the capital structure. The multiple regression analysis indicates R Square value of 63.8 per cent of relation are explained with dividend payout and dividend decision factors. Risk, cash holdings and solvency are implied as the dividend decision influencing factors.

II. Impact of capital structure on the firm value of the selected Construction Associated Industries

To reveal the impact of capital structure on the firm value of selected industries, the analysis has been carried out and the findings are summarized below.

- The Correlation analysis results of steel industry reveals that there exists a higher impact of capital structure on the firm value among

Hisar LTDA (r = -0.896) and LTDE (r = -0.797), JSW LTDA (r = 0.787) and LTDE (r = 0.695), Kirloskar LTDA (r = 0.896) and LTDE (r = 0.797), Sardha LTDA (r = 0.710) and Tata steel LTDA (r = -0.710) and LTDE (r = -0.735) showing significance at either 5 per cent or 1 per cent level. The positive association implies indicates that an increase in debt capital, leads to an increase in firm value. The negative association denotes that an increase in debt capital would reduce its firm value. In case of Rishabh and Tata sponge steel companies, there does not exist any impact of capital structure on the firm value.

- The Correlation analysis results of cement industry implies that there exists higher impact of capital structure on the firm value in ACC LTDE (r = -0.647), Birla LTDA (r = -0.690), Kakatiya LTDA (r = 0.887) and LTDE (r = 0.862), KCP LTDE (r = -0.647), Ramco LTDA (r = -0.638) and LTDE (r = -0.772) and Shree cements LTDE (r = -0.701) showing significance at either 5 per cent or 1 per cent level. The positive association infers indicates that an increase in debt capital, leads to an increase in firm value. The negative association signifies that an increase in debt capital would reduce its firm value. In case of Ambuja, JK, Deccan, JK Lakshmi, OCL, and Mangalam cements there does not exist any impact of capital structure on the firm value.
- The Correlation analysis results of paint industry identifies that in Asian LTDA (r = -0.759) and LTDE (r = -0.672) and Kansai Nerolac paints LTDA (r = -0.950) and LTDE (r = -0.877), there exist impact of capital structure on firm value showing significance at either 5 per cent or 1 per cent level during the period of study. The negative association signifies that an increase in debt capital would reduce its firm value. Among Akzo Nobel and Berger paint companies, there does not exist any impact of capital structure on the firm value.
- The Correlation analysis results of granite industry shows that in Divyashakti granites LTDE (r = 0.886) has been positively correlated with firm value, significant at 1 per cent level. The positive association infers indicates that an increase in debt capital, leads to an increase in firm value. Among other granite companies in India namely Aro, Inani

and Madhav granites there does not exist any impact of capital structure on firm value.

- The Correlation analysis results of ceramic tiles industry reveals that among the ceramic tiles companies in India namely, Kajaria, Orient bell and Somany ceramics there does not exist any impact of capital structure on firm value during the period of study.

III. Impact of dividend decisions on the firm value of the selected Construction Associated Industries

With a view to analyse the impact of dividend decisions on the firm value of selected industries, the computation has been carried out and the findings are summarized below.

- The Correlation analysis results of steel industry indicates that, there exist significant impact of dividend decisions on the firm value in Hisar DPR (r = -0.798), JSW DPR (r = 0.695) and DYR (r = 0.787), Sardha DPR (r = -0.853), Tata DPR (r = -0.887) DYR (r = -0.865) and Tata sponge DPR (r = 0.908) showing significance at either 5 per cent or 1 per cent level. The positive association infers that an increase in dividend payout and dividend yield simultaneously increases the firm value. The negative association indicates that an increase in dividend payout would negatively impacts on the firm value of the companies. Among Kirloskar and Rishabh steel companies, there does not exist any impact of dividend decisions on the firm value.
- The Correlation analysis results in cement industry infers that, there exist higher negative impact of dividend decisions on the firm value among majority of Cement companies in India namely ACC DPR (r = -0.662), Ambuja DPR (r = -0.650), Birla DPR (r = -0.999), JK DPR (r = -0.750), Kakatiya DPR (r = -0.897), Mangalam DPR (r = -0.634) and Ramco cement DPR (r = -0.853) and DYR (r = -0.937) showing significance at either 5 per cent or 1 per cent. The negative association indicates that an increase in dividend payout would reduce the firm value of the companies. There does not exist any impact of dividend

decisions on the firm value with Deccan, JK Lakshmi, KCP, OCL India and Shree cement companies.

- The Correlation analysis results in paint industry reveals that there exist substantial impact of dividend decisions on the firm value of Paint companies namely Berger paints DPR (r = 0.804) and DYR (r = 0.791) and Kansai Nerolac paints DPR (r = 0.656) showing significance at either 5 per cent or 1 per cent during the period of study. It implies that an increase in dividend payout and dividend yield ratio increases the firm value of these companies. In Akzo Nobel and Asian paints, there is no correlation among dividend decisions and firm value.
- The Correlation analysis results specifies that, there exist a significant negative impact of dividend decisions on the firm value in Divyashakti granites DPR (r = -0.950) and DYR (r = -0.747). The negative association indicates that an increase in dividend payout and dividend yield reduces the firm value. Among Aro, Inani and Madhav granite companies there is no impact during the study period.
- The Correlation analysis results denotes that, there exist significant impact of dividend decisions on the firm value (showing significance at 5 per cent level) among all of the Ceramic tiles companies namely Kajaria DPR (r = 0.763), Orient bell DPR (r = -0.664) and Somany ceramics DYR (r = -0.723).

IV. Inter and intra industry trends of capital structure and dividend decisions of the selected Construction Associated Industries

In order to reveal the inter industry and intra industry trends of capital structure and dividend decisions the investigation has been carried out and the findings are summarized below.

- On observing steel industry, the compound annual growth rate of long term debt ratio is 19.1 per cent in Sarda steel followed by JSW at 6.9 per cent and all other companies showed a negative growth. It specified the practice of redemption of debenture by the steel companies and a low financial risk association attracted for its potential investors. The return on asset showed a mild positive growth in Hisar

steel and the remaining companies indicated a negative growth. The return on equity implied a moderate growth of 25 per cent in Rishabh steel and a mild growth in Hisar steel at 0.5 percent. This specifies the need for the steel companies to increase their efficiency to pay a good return its potential investors. The dividend payout ratio showed 19.4 per cent growth in Rishabh and Hisar 4.2 per cent. It indicates that the other steel companies retain the earnings as reserves. The dividend yield implied 8.4 per cent growth in Kirloskar steel and a negative growth in the remaining steel companies implies low market value of shares.

- In cement industry, the compound annual growth rate of long term debt ratio was higher in 17.9 per cent in JK steel followed by KCP at 14.3 per cent. The short term growth was 9.5 per cent in ACC, followed by 5.9 per cent in Ambuja and OCL cements. The return on asset showed a mild positive growth in OCL at 5.8 per cent and 0.1 per cent in Kakatiya. This specifies the need for the steel companies to increase their efficiency to pay a good return its potential investors. The dividend payout ratio revealed 27.7 per cent growth in Mangalam cements and Deccan 26.5 per cent. Majority of the cement companies showed negative compound annual growth or no growth in dividend payout, this depicts the strategy of retaining profits for future investment plans. The dividend yield implied 26.2 per cent growth in Deccan, 6.2 per cent in Mangalam and 5.4 per cent in OCL cements revealed better growth in market price of the companies during the study period.
- On analysing paint industry, the compound annual growth rate of long term debt ratio was 14 per cent in Berger, followed by Asian paints at 11 per cent, Kansai Nerolac at 2.7 per cent and no growth in Akzo Nobel. The return on asset showed 13.4 per cent growth in Akzo Nobel, followed by Kansai Nerolac at 3.3 per cent. This specifies the paint companies to increase their efficiency, to earn a good return from the fixed assets. The return on equity inferred a moderate growth of 14.5 per cent in Akzo Nobel steel and a mild growth in Kansai Nerolac paints at 1.4 per cent. The dividend payout ratio showed 3 per cent

growth in Berger and a negative growth in the remaining paint companies. The dividend yield implied 1 percent growth in Berger and a negative growth in the remaining paint companies during the study period. This indicates the strategy of paint companies to retain profits for investment purposes and also specifies the need to increase the dividend payout, thereby can increase the market value.

- In case of granite industry, the compound annual growth rate of total debt ratio in Aro granites was 19.5 per cent, followed by Inani 16.4 per cent and no growth in remaining companies. The return on asset and the return on equity implied 12.7 percent growth individually in Divyashakti granites and negative growth in other granite companies. This denotes that the granite companies should improve their capacity to earn a good return using the assets and also should pay a better return to the equity shareholders. The dividend payout indicated 14.2 per cent and dividend yield showed 5.4 per cent growth in Inani granites and the remaining granite companies during the study period.
- The ceramic tiles industry showed, the compound annual growth rate of total debt ratio was negative in all the companies during the study period. It inferred that the ceramic tiles companies are largely depended on equity capital. The return on asset showed 1.5 per cent growth in Kajaria, 2.1 per cent in Orient bell and 21.6 per cent in Somany ceramics. This depicts the efficiency of the ceramic tiles companies to earn a better return from the fixed assets. The dividend payout ratio and dividend yield ratio seemed to be higher in Kajaria ceramics i.e, 22.5 per cent and 67.8 per cent correspondingly. It indicated growth in dividend payouts and increase in market price of shares. Orient bell and Somany ceramic companies should increase dividends so as to raise their share price.
- On analysing steel industry, the trend analysis indicated that in Hisar steel, the return on asset and return on equity is expected to be around 1 per cent. They have to concentrate on increasing the income level and reduce expenditure to pay a good return to the investors. In JSW steel, the investors can expect a reduction in return on equity up to 5

per cent by 2021-22. The company should improve its financial position in order to provide a better return to its potential investors. In Kirloskar, dividend payout is anticipated to maintain at 2.6 per cent by 2021-22. It indicates lesser payout of the company and its strategy of retaining higher profits. In Rishabh Digha, return on equity is projected to reach at 7 per cent during 2021-22. The company should improve its technology to increase the return on asset and return on equity. In Sardha, The dividend payout and dividend yield ratios are anticipated to very low during 2021-22 and the return on asset will reach 7.6 per cent. Hence the company should improve its efficiency and reduce expenditure in order to pay a good return to the investors in nearby future. In Tata sponge, dividend payout is forecasted to nil indicates the retaining policy of the company for investment plans. In Tata steel, the return on asset is expected to be 11 per cent by 2021-22, denotes the necessity to improve financial ability of the company for better earnings in future.

- In cement industry, the trend analysis revealed that in ACC cements, the dividend yield seemed to reach 12.1 per cent by 2021-22 implies the possibility of raise in market price of shares. In Ambuja, return on asset is projected to reach 27.7 per cent, showing the financial efficacy of the company to earn good profits. In Birla, lesser dividend payout implies the policy of the company to retain profits in the nearby future. In Deccan, return on equity is projected to attain 15 per cent by 2021-22, showing improved productivity of the company to earn good profits to the shareholders. In JK cements, the dividend payout shows nil value by the next five years indicates the plan of the company for increasing reserves. In JK Lakshmi, dividend yield ratio is expected to reach 4.6 per cent signifies the possibility of raise in market price of shares by the next five years. In Kakatiya, return on asset is projected to be at 11.2 per cent by the next five years i.e, 2017-18 to 2021-22, indicating the necessity of the company to improve its productivity to pay a better return to the shareholders. In KCP, the dividend yield is expected to reach 2.7 percent, specifies the company to increase its dividend payout so as to raise its share price. In Mangalam, dividend

yield seemed to reach 7.4 per cent, shows a raise in the market value of shares in the forthcoming years. In OCL India, The return on asset and return on equity are anticipated to be in negative and the dividend payout and dividend yield are also projected to be very less. Hence, the company should improve its productivity and financial efficiency to earn a better return from asset. It should pay a better return to its investors so as to increase its market share price in the nearby future. In Ramco, dividend payout is forecasted to be very less in coming years and therefore the company should increase its income level to pay a better return to its potential investors. In Shree cements, return on equity is anticipated to reach 47 per cent during 2021-22, implying better financial ability of the company to earn profits in the next five years.

- On observing paint industry, the trend analysis signified that in Akzo Nobel there does not exist any long term debt and the equity shareholders are projected to be safe during the next five years i.e, 2017-18 to 2021-22. In Asian paints, dividend payout is expected to reach 81.6 percent indicates higher payout policy in the coming years. In Berger, The dividend payout is projected to reach 55.7 per cent denoting the company's policy of distributing a fair return to the potential investors in the coming years. In Kansai Nerolac, The return on equity is projected to 32.2 per cent and dividend payout at 53.5 per cent by 2021-22. It indicates that the company possess good financial effectiveness to provide a better return to its shareholders.
- In case of granite industry, the trend analysis implied that in Aro Granite, return on equity is expected to reach 19 per cent by 2021-22 signifying the efficiency of the company to provide a better return to its potential investors. In Divyashakti, the return on asset and return on equity seemed to be nil in coming years, specifies the company to increase its productivity and financial efficiency so as to make better payments to the shareholders. In Inani marbles, dividend yield showed lesser market price of shares. The company should increase the dividend payouts in order to raise its market price. In Madhav marbles,

there will be very lesser return on asset, return on equity and dividend payout till 2021-22. It indicates that the company should improve its productivity and income level so as to provide a better return to its investors.

- In ceramic tiles industry, the trend analysis showed that in Kajaria, return on equity is forecasted to be 51.4 percent shows efficient productivity to pay a better return to the shareholders. In Orient bell, dividend payout ratio is forecasted at 40 per cent in the next five year period implying the policy of the company to pay higher dividends. In Somany ceramics, the return on asset will reach 4.1 per cent by 2021-22 and a very low dividend payout. It indicates that the company should improve its financial efficacy in order to provide a better return to its investors.

V. Impact of capital structure on dividend decisions of the selected Construction Associated Industries

With a view to reveal the impact of capital structure on dividend decisions, computation has been carried out and the findings are summarized below.

- On analysing steel industry, in Hisar, the multiple regression analysis indicates return on equity significantly impacts the dividend payouts and dividend payout ratio having R Square value of 24.5 per cent relation explained with the independent variable. With the increase of return on equity, the company increases the dividend payout. In JSW steel, return on equity mildly influence the dividend payouts during the period of study. As the return on equity raises, the company reduces the dividend payout. It specifies dividend payout ratio showing R Square value of 20.5 per cent relation explained with the capital structure. In Kirloskar, firm size showing 5.6 per cent negative influence on dividend payout. It indicates dividend payout ratio having R Square value of 66.6 per cent relation explained with the independent variable. In Rishabh Digha Steel and Allied Products, there does not exist any impact of capital structure on dividend payout policy during the study

period. The analysis shows dividend payout ratio showing R Square value of 28.5 per cent relation explained with the capital structure. In Sardha energy and minerals, firm size holds a mild negative association with the dividend payout. It implies that as the sales increase the company reduces the dividend payouts. It specifies dividend payout ratio showing R Square value of 50.6 per cent relation explained with the independent variable. In Tata sponge, firm size holds mild negative association with the dependent variable and dividend payout ratio having R Square value of 61.2 per cent relation are explained with the independent variable. In Tata steel, return on asset holds -4.1 per cent, return on equity shows 2.6 per cent and liquidity ratio implies a very mild positive impact on the dependent variable. Since the profit available for equity shareholders and liquidity ratio increase, the company raises the dividend payout ratio accordingly. The multiple regression results depicts dividend payout ratio showing R Square value of 84 per cent elation are explained with the independent variables.

- In cement industry, the multiple regression analysis reveals that in ACC cement, return on asset showed 1.3 per cent and non-debt tax shields implied 1.9 per cent influence on the dependent variable. As the return on asset increase, the dividend payouts are increased during the study period. The analysis indicated dividend payout ratio having R Square value of 58.3 per cent relation are explained with the independent variables. In Ambuja, return on equity implies 58 per cent strong positive association with dependent variable and dividend payout ratio having R Square value of 85.4 per cent relation are explained with the capital structure. In Birla, risk and non-debt tax shields depicted mild positive association with dividend payout and firm sales implied a mild negative impact on the dividend payout. It indicates the practice of reduction in dividend payouts at the times of increase in sales so as to retain profits. The analysis specifies dependent variable showing R Square value of 59.1 per cent relation are explained with the independent variables. In Deccan cements, firm size implies mild negative association and non-debt tax shields showing 8.7 per cent

influence on dividend payout and indicated dividend payout ratio showing R Square value of 96.3 per cent relation are explained with the independent variables. In JK cement, the return on asset showed 2.1 per cent and risk with mild positive influence on dividend payout. The multiple regression analysis revealed dividend payout ratio showing R Square value of 89.2 per cent relation are explained with the capital structure. In J.K Lakshmi, risk had mild positive association and firm size showed 1 per cent negative association with dividend payout. It indicates that as sales increases the company reduces the dividend payments. The multiple regression analysis indicates dividend payout ratio having R Square value of 85.3 per cent relation are explained with the independent variables. In Kakatiya cements, return on equity, risk and non-debt tax shields implied mild positive influence on the dependent variable. The analysis indicates dividend payout ratio showing R Square value of 49.9 per cent relation are explained with the independent variables. In KCP, risk denoted mild positive association with dividend payout and indicated dividend payout ratio showing R Square value of 43 per cent relation are explained with the independent variable. In Mangalam cements, risk and firm size signified mild positive impact on dividend payout indicating that as sales and liquidity increases the company reduces the dividend payments. The results indicated dividend payout ratio showing R Square value of 61.1 per cent relation are explained with the capital structure. In OCL India, return on asset, risk and liquidity ratios inferred mild positive influence on dividend payout. It denotes that with the increased return, improved sales and better liquidity position, the company raised its dividend payouts. The analysis indicated dividend payout ratio showing R Square value of 67.9 per cent relation are explained with the capital structure. In Ramco, return on asset showed -2.1 per cent association and return on equity implied 1.3 per cent impact on dividend payout. The analysis indicated dividend payout ratio showing R Square value of 54.1 per cent relation are explained with the independent variables. In Shree cement, return on asset possessed mild negative association and return on equity showed a

mild positive association with dividend payout. This indicates the practice of reduction in dividend payouts at the times of increase in return on asset. The results indicated dividend payout ratio showing R Square value of 93.3 per cent relation are explained with the independent variables.

- On observing paint industry, the multiple regression analysis specifies that, in Akzo Nobel firm size had 101.7 per cent association and liquidity ratio showed 68 per cent higher impact on the dependent variable. The results indicated dividend payout ratio showing R Square value of 56.2 per cent relations are explained with the independent variables. In Asian paints, return on equity is implied 50.6 per cent strong positive influence and non-debt tax shields showed -544.7 per cent influence on the dependent variable. It denotes that dividends are distributed with the increased return on equity. The analysis indicates dividend payout ratio showing R Square value of 98.9 per cent relation are explained with the independent variables. In Berger paints, return on asset had -160.7 per cent and asset tangibility showed -61.8 per cent influence on dividend payout. Firm size implied 18.9 per cent association, non-debt tax shields -4.07 association and liquidity ratio shows -31.6 association with dividend payout. During times of increase in return on asset and fixed assets, the company reduced the dividend payouts. At times of increase in sales, they reduced payouts. The analysis indicates dividend payout ratio showing R Square value of 99.7 per cent relation are explained with the capital structure. In Kansai Nerolac, return on asset had -724.3 per cent and return on equity showed 492 per cent impact on dividend payout. Non-debt tax shields implied -372 per cent influence on the dividend payout and indicates dividend payout ratio showing R Square value of 91.2 per cent relation are explained with the capital structure.
- In granite industry, the multiple regression analysis specifies that, in Aro granites the return on asset had 3.9 per cent negative association with the dependent variable. It showed that during times of increase in profitability, the company tend to decrease the payout. The results indicated dividend payout ratio having R Square value of 82.7 per cent

relations are explained with the capital structure. In Divyashakti, asset tangibility showed 5.1 per cent and earning volatility had -2.1 per cent association with the dependent variable and indicated dividend payout ratio showing R Square value of 92.1 per cent relation are explained with the capital structure. In Inani marbles, return on asset showed -112.2 per cent and return on equity had 27.6 per cent impact on dividend payout. Firm size implied 5.7 per cent negative association, earning volatility showed 44.1 per cent positive association and non-debt tax shields had -81.5 per cent strong association with dividend payout. It reveals that with the increased return on equity and reduction of sales, the company raises its dividend payouts and indicated dividend payout ratio showing R Square value of 97 per cent relation are explained with the independent variables. In Madhav marbles, return on equity depicted 28.6 per cent negative impact and asset tangibility showed 1.3 per cent mild positive impact on the dependent variable. It shows that during times of increase in profitability, the company tend to decrease the payout and increase the reserves. The multiple regression analysis indicates dividend payout ratio showing R Square value of 89.7 per cent relation are explained with the independent variables.

- On analysing ceramic tiles industry, the multiple regression analysis reveals that, in Kajaria ceramics risk showed mild positive association and asset tangibility depicted 2.4 per cent negative association with dividend payout. It denotes that the company on increasing the fixed assets, tend to reduce dividend payouts. The non-debt tax shields had 9.4 per cent influence and liquidity ratio showed -1.1 per cent influence on dividend payout and indicated dividend payout ratio showing R Square value of 97.6 per cent relation are explained with the independent variables. In Orient bell, return on equity had 887 per cent impact and earning volatility showed 6.04 impact on the dependent variable. The multiple regression analysis indicated dividend payout ratio showing R Square value of 94.3 relation are explained with the independent variables. In Somany ceramics, the return on asset implied -10.6 per cent and return on equity showed -1.2 per cent

association with dependent variable. This denoted that with the increase of profitability, the company deduced the dividend payout. Risk and liquidity ratio showed mild positive impact, asset tangibility and firm size showed mild negative impact with dividend payout. Earning volatility revealed 9.4 percent and non-debt tax shields had 7.4 percent association with dependent variable. The multiple regression analysis implies dividend payout ratio showing R Square value of 99.8 per cent relation are explained with the independent variables.

5.2 CONCLUSION

In this study, the factors that determine the capital structure and dividend decisions of construction associated industries and their association are studied. The results reveal that return on asset, return on equity, firm size and liquidity ratio significantly influence the dividend decisions of steel industry. The factors such as return on asset, return on equity, risk, firm size, non-debt tax shields and liquidity ratio significantly impacts the dividend decisions of cement industry. The factors namely return on asset, return on equity, asset tangibility, firm size, non-debt tax shields and liquidity ratio significantly influence the dividend decisions of paint industry. The factors such as return on asset, return on equity, asset tangibility, firm size, earning volatility and non-debt tax shields significantly impacts the dividend decisions of granite industry. The factors namely return on asset, return on equity, risk, asset tangibility, firm size, earning volatility, non-debt tax shields and liquidity ratio significantly influence the dividend decisions of ceramic tiles industry.

The development of an economy depends upon the sophisticated infrastructure and economic contentment of its people. An affordable construction and its associated activities forms base for the economic fulfillment of individual and the nation. The successful construction associated industries in India will tackle foreign competitors, utilize necessary funds, adopt new technologies, manufactures efficiently, increases its productivity, shares the profits to its investors promptly and expands itself with environmental and societal consciousness. It will boost construction and provides opportunity for the development of other industries like brick, plastic,

automobile and energy for their growth and thereby gradually improves the incredible Indian economy.

5.3 SUGGESTIONS

Based on the research findings, the following suggestions are given to design an appropriate capital structure and a strategic dividend policy by the Construction associated industries in India.

- The steel industry should increase the dividend payout and reduce retention of earnings in order to raise the market price of shares. Kirloskar, JSW and Sardha steel companies can increase their debt capital, so as to an increase their firm value. The Tata steel company can reduce its debt capital and issue new equity shares with a view to increase the firm value.
- The cement industry should adapt new technologies to increase the productivity and concentrate on financial efficiency, so as to increase return on asset and return on equity. Kakatiya and KCP cement companies can issue new debentures in order to raise their firm value. OCL India should strengthen its liquidity position so as to make good dividend payouts. JK cements can improve its productivity, to increase the return on asset. ACC, Ambuja, Birla, JK, Kakatiya, Mangalam and Ramco cement companies can concentrate on retaining of earnings and also should pay nominal dividends, to increase their firm value.
- In paint industry, Asian and Kansai Nerolac paint companies can reduce debt capital in order to raise their firm value. Akzo Nobel paints should improve its liquidity so as to make better dividend payouts. The Berger paints should concentrate on increasing the dividend payout, with a view of raising its market price of shares.
- The granite industry should concentrate on adapting new technologies and increase efficiency, so as to increase the return on asset and return on equity. The granite companies should improve their profitability and can increase dividend payouts with a view to raise the market price of shares. Divyashakti granites can issue new debentures and strengthen its reserves and earnings in order to raise its firm value.

- The ceramic tiles industry should increase its profitability and dividend payouts in order to raise the market price of its shares and the firm value. Orient bell ceramic tiles company can concentrate on its productivity and return on equity so as to make better payments to the shareholders.
- Majority of the construction associated industries have concentrated on retaining major portion of their earnings. Shareholders prefer current dividends to future capital gains and a high dividend will increase the market value of shares and in turn will increase the value of the firm. Therefore the selected companies can execute their capital structure decisions after comparing their impact on the dividends of their firm.

5.4 SCOPE FOR FURTHER RESEARCH

The study has revealed some facts in the current research area, some more researches can identify an elaborate information in this area of study.

- ✓ The present study has concentrated on five industries associated with construction industry listed in Bombay Stock Exchange for a period of ten years. Further research can concentrate on other associated industries covering additional financial years.
- ✓ The study concentrating on financial aspects other than capital structure, dividend policy and firm value could be done in construction associated industries covering all the listed companies.