CHAPTER V

SUMMARY AND CONCLUSION

5.1 INTRODUCTION

Capital Structure decisions show how an organization finances its activities with proper mix of debt and equity. To run a business efficiently, an organization uses a variety of funding options. Internal finance, equity and external finance which is debt, is the two primary forms of money that businesses can employ to supply the required funds. According to Shah and Khan (2010), capital structure choice is important task carried out by the financial manager compared to other financial decisions. The capital structure of most of the enterprises is made up of a mix of stock and debt. The optimal capital structure refers to the financial structure which has the low weighted average cost of capital and maximum firm value. The determinants of Capital Structure and Dividend Policy, the influence of capital structure on Dividend Policy and Firm value, supports the companies to frame appropriate capital structure and dividend policy.

The present study "Impact of Capital Structure and Dividend Policy on Firm Value of select Pharmaceutical Companies in India" examines the influence of capital structure and dividend policy on the firm value of Indian Pharmaceutical Companies for the period of fifteen years from 2007-2008 to 2021-2022.The sample consists of 31 companies belonging to Large Capital Companies, Mid Capital Companies and Small Capital Companies. For data analysis, required financial data was collected from Money Control (Website), Capital line database and Annual reports. Statistical analytical tools like Descriptive Statistics, Multiple Regression, Correlation Analysis, Panel Data Regression Analysis, Compound Annual Growth Rate and Trend Analysis were applied for the following research objectives:

1. To analyze the factors determining Capital Structure and Dividend Policy of select Pharmaceutical Companies in India.

2. To examine the impact of Capital Structure on the firm value of select Pharmaceutical Companies in India.

3. To assess the impact of Dividend Policy on the firm value of select Pharmaceutical Companies in India.

4. To determine the impact of Capital Structure on Dividend Policy of select Pharmaceutical Companies in India.

5. To identify the relationship between Capital Structure, Dividend Policy and Firm Value of select Pharmaceutical Companies in India.

6. To find out the intra industry differences of pharmaceutical companies in Capital Structure and Dividend Policy.

The Hypotheses framed is given below:

H_{01}: There is no significant impact of Capital Structure on Firm Value of select Pharmaceutical Companies in India.

H_{02}: There is no significant impact of Dividend Policy on Firm Value of select Pharmaceutical Companies in India

H_{03}: There is no significant impact of Capital Structure on Dividend Policy of select Pharmaceutical Companies in India.

H_{04}: There is no significant impact of Capital Structure on Dividend Policy of select Pharmaceutical Industries in India.

H_{05}: There is no significant relationship between the Capital Structure, Dividend Policy and Firm Value of select Pharmaceutical Companies in India.

5.2 FINDINGS OF THE STUDY

The findings from the study are presented as follows:

5.2.1 Capital Structure and Dividend Policy - Descriptive Statistics

5.2.2 Factors Determining the Capital Structure of select Pharmaceutical Companies in India – Multiple Regression

5.2.3 Factors Determining the Dividend Policy of select Pharmaceutical Companies in India – Multiple Regression.

5.2.4 Impact of Capital Structure on Firm Value of select Pharmaceutical Companies in India – Multiple Regression.

5.2.5 Impact of Dividend Policy on Firm Value of select Pharmaceutical Companies in India - Multiple Regression.

5.2.6 Impact of Capital Structure on Dividend Policy of select Pharmaceutical Companies in India - Multiple Regression.

5.2.7 Category Wise Impact of Capital Structure on Dividend Policy of select Pharmaceutical Industries in India – Correlation Analysis and Panel Data Regression.

5.2.8 Category Wise Relationship between Capital Structure, Dividend Policy and Firm Value of select Pharmaceutical Industries in India – Correlation Analysis.

5.2.9 Relationship between Capital Structure, Dividend Policy and Firm Value of select Pharmaceutical Companies in India - Multiple Regression.

5.2.10 Intra Industry differences in Capital Structure and Dividend Policy of select Pharmaceutical companies – Compound Annual Growth Rate and Trend Analysis.

5.2.1 Capital Structure and Dividend Policy - Descriptive Statistics

In **Large Capital Companies**,

The Sun Pharma, the GR has the highest mean (0.48), which means that this company is utilizing the equity capital to generate better income and to enhance their sales volume.

The Divi's Labs, has the highest mean value of LTDR (24.84) and it has the maximum mean in Firm Value (17.57). It shows that this company utilizes the debt wisely to enhance their firm value.

The Dr.Reddy Labs, has the highest mean value of STDR (16.41).It indicates that they were good at managing their current obligations.

The Cipla has the utmost mean value of DPR (4.53). It indicates that this company is good at their dividend payouts to the shareholders.

The Aurobindo Pharma, maximum mean value of ROE (90.74).It shows that this company is generating profits by utilizing the maximum of equity.

The Lupin Pharma has the highest mean value of DYR (3.29) with a decrease in the firm value (2.27).So, this company payout more dividends than retaining their earnings for further business operations.

The Torrent Pharma has the highest mean value of DT (1.78).It shows that the debt level can be increased if there are incentives for additional debt in the form of tax reductions and the imposition of debt interest on profit.

In **Mid Capital Companies**

The Alkem Labs has the highest mean value of ROE (53.72), it indicates that this company is generating profits of around 53 percent by utilizing their equity capital.

The IPCA Labs has the maximum mean value of FV (5.22) and the DER (2.15).It means that the increase in Debt capital will also enhance the firm value.

The Glaxosmithkline ltd has the highest mean value of ROA (17.45).It shows that this company is utilizing the assets around 17 percent for generating their profits.

The Ajanta Pharma has the highest mean value of CR (9.46).It means that this company is good at their current obligations.

The Nacto Pharma, DER (2.74) has the highest mean value, which means that it utilizes the Debt capital wisely for their enhancement of operating efficiency.

The Glenmark, DPR (0.52) has the maximum mean value, it indicates that this company issue maximum of dividends to the shareholders.

In Small Capital Companies,

The Aarti Drugs, the mean value of FV (4.33) and DER (2.74) is higher, it shows that this company has good financial ability to manage their debt capital and firm value.

In Orchid Pharma, the TDR has the lowest mean value (0.06) with increase in firm value (8.63), which means that this company is utilizing the debts to enhance their firm value.

In IOL Chemicals (2.10) and Bliss GVS (3.02), the DER has the maximum mean value which means that this company utilizes the debt capital rather than equity.

In Amrutanjan Healthcare ltd, the DPR has the minimum mean value (0.02),it shows that this company is issuing only minimum of dividend to the shareholders.

In Novartis ltd, the LTDR has the highest mean value (1.31), it means that this company is utilizing the maximum of long term debt.

The STDR has the highest mean value of (1.87) in Bliss GVS Pharma, this company has better financial ability to manage their regular short term obligations.

In SMS Pharma, the DER has the lowest mean value (0.49), it indicates that this company utilizes the minimum amount of debt for their financial activities.

In Orchid Pharma, the TDR has a minimum mean value (0.06).Thus, it shows that this company utilizes minimum of assets in their debt capital.

In Amrutanjan Healthcare ltd, the DPR has a minimum mean value (0.02), which means that this company has to increase its operating efficiency to enhance their dividend payouts.

In Novartis ltd, the LTDR has the highest mean value (1.31).It indicates that this company is good at their financial ability to manage the long term debts.

In Bliss GVS, the DYR has the maximum mean value (3.40).Thus, it shows that the company is financially good to pay better dividend payments to the shareholders.

In SMS Pharma, the DER has the lowest mean value (0.49), it means that this company depend on debt rather than equity.

In Anuh Pharma,the mean value of DER,TDR,LTDR,STDR,DPR and DYR is higher than the standard deviation.So,it indicates that there is a consistency in Debt capital, Dividend Payout and Firm value.

In Linclon Pharma, the firm value has the highest mean value (9.47),which shows that this company is good at their operating efficiency to enhance their firm value.

In Kappac Pharma, the DYR has the minimum mean value (0.04),it indicates that this company is issuing minimum dividends to the shareholders.

The Jenburkt Pharma, has the fluctuation in ROE (7.87), it means that this company utilizes debt capital or other funding sources efficiently to enhance their financial performance rather than equity.

In Brooks labs, the mean value of DER (1.31) is also highest but the standard deviation is greater, it shows that there is an inconsistency in debt capital.

In Kilitch Drugs, the STDR has the minimum mean value (0.02), as this company is quiet low in their liquidity.

In Bal Pharma, the mean value of DER (2.14) is less than the standard deviation,it means that this company is can use debt with low interest to enrich their operating efficiency and firm value.

In Alpa Labs, the ROA (30.04) has the highest mean value,it indicates that this company utilizes the assets efficiently for their financial operations.

In Gennex labs, the LTDR has the lowest mean value (0.04), this company is utilizing the minimum of long term debt for the financial activities.

In Alembic Pharma, the TDR has the highest mean (7.43), it means that this company utilizes the maximum of debt capital compared to equity in its capital structure.

Overall, it is figured out there is a consistency in the LTDR, DPR, DYR, Growth and Quick Ratio in the select large capital companies.In LTDR,DPR and Interest Coverage Ratio there is a consistency in mid capital companies.The LTDR,STDR and Quick Ratio is consistent in small capital companies.

5.2.2 Factors Determining the Capital Structure of select Pharmaceutical Companies in India – Multiple Regression

In **Large Capital Companies**,the GR has a significant negative impact on DER, it indicates that the higher rate of growth in sales, the use of debt in the financing of a

company will be larger.The CR has a positive impact on DER. It means that the company operates with adequate revenues and cash flow to meet its regular payment obligations.

Return on Asset and Interest Coverage Ratio has a positive impact on LTDR.It means that these companies are good to cover its interest payments on its debts in long term. The Current Ratio and Return on Asset has a negative impact on STDR. It reveals that these companies can use debt than equity with low interest to improve their firm value and shareholders return.

In the large capital companies, the Growth, Current Ratio, Return on Asset and Interest Coverage Ratio are the factors influencing capital structure.

In **Mid Capital Companies,** the Growth, Return on Asset and Interest Coverage Ratio has a positive impact on DER. It shows that these companies were using the debt capital wisely. Return on Asset has a negative influence and Interest Coverage Ratio has a positive impact on LTDR.

The Return on Asset has a negative impact on STDR.It indicates that these companies should borrow debt with low interest to manage the long term debts efficiently.

In mid capital companies, the Growth, Return on Asset and Interest Coverage Ratio are the factors influencing capital structure.

In **Small Capital Companies,** the Growth and Return on Asset has a positive impact and CR has a negative impact on DER. It indicates that these companies utilize the assets properly to enhance their income and sales.ICR has a positive influence on TDR.It shows these companies are good to cover its interest payments.

Growth has a negative impact and ICR has a positive influence on LTDR.It means that these companies were good at managing their interest payments in long term debt.The CR has a positive influence on STDR.

In small capital companies, the Growth, Return on Asset, Current Ratio and Interest Coverage Ratio are the factors influencing capital structure.

Overall, it is figured out that under the three select categories the Interest Coverage Ratio has the positive impact on LTDR. It reveals that these companies were good at managing their long term debt with minimum interest. The positive

impact means that the increase in ICR, will increase the shareholders wealth as well as the firm value and vice versa.

5.2.3 Factors Determining the Dividend Policy of select Pharmaceutical Companies in India – Multiple Regression

In **Large Capital Companies**, the Return on Equity and Quick Ratio has a positive impact on DPR.It indicates that these companies should utilize the equity capital properly and they should improve their operational efficiency to provide better returns to the shareholders.

Price Earning Ratio, Return on Asset and Return on Equity has a positive impact on DYR.It shows that these companies are good at utilizing the assets properly to generate more revenue and to issue better dividends to the shareholders.

In the large capital companies, the Price Earning Ratio, Return on Asset, Return on Equity and Quick Ratio are the factors influencing capital structure.

In **Mid Capital Companies**, the Return on Asset has a positive impact on DPR, it indicates that these companies utilizing the assets efficiently to issue normal dividends to the shareholders.

The Price Earning Ratio, Return on Asset and Quick Ratio has a positive impact on DYR. It indicates that these companies utilize the assets wisely enhance their financial efficiency and they are good at their liquidity position.

In mid capital companies, the Price Earning Ratio, Return on Asset and Quick Ratio are the factors influencing capital structure.

In **Small Capital Companies**, the Return on Equity has a negative impact on DPR.It shows that these companies need to utilize the equity capital wisely to increase their financial position, so the dividend payout can also be improved.

The Return on Asset and Quick Ratio has a positive impact on DYR .It indicates that these companies were good at short term obligations and in utilizing the assets efficiently.

In small capital companies, the Return on Equity, Return on Asset and Quick Ratio are the factors influencing capital structure.

Overall it is concluded that the under the three select categories, the Return on Asset has a positive impact on DYR. It means that these companies were utilizing the assets efficiently and it increases the firm value as well as the dividend payouts.

5.2.4 Impact of Capital Structure on Firm Value of select Pharmaceutical Companies in India – Multiple Regression

i) In **Large Capital Companies,** there is an impact of Capital Structure on Firm Value for four companies (Sun Pharma,Divi's Labs,Lupin Pharma and Torrent Pharma). **Hence, the Null Hypothesis H_{01} is rejected.**

In Sun Pharma, the DER has a negative impact on Firm Value at 73 percent (R^2:0.73). In Divi's Labs, the LTDR has a positive effect on Firm Value at 88 percent (R^2 :0.88).In Lupin Pharma, the DER has a positive influence on Firm Value at 76 percent (R^2 :0.76).In Torrent Pharma, the DER has the positive effect on Firm Value at 43 percent (0.43) is significant at 5 and 1 percent level.

For three companies (Dr.Reddy Labs,Cipla & Aurobindo) Capital Structure has no impact on firm value.**Hence, the Null Hypothesis H_{01} is accepted.**

In Sun Pharma, the capital structure has a negative impact on firm value.It supports the "Pecking Order Theory".In Divi's Labs,Lupin Ltd and Torrent Pharma, the capital structure has a positive impact on firm value.It indicates the confirmation of Trade-off Theory (Divya Aggarwal,2017).

ii) In **Mid Capital Companies**, there is an impact of Capital Structure on Firm Value for four companies (IPCA Labs, Glaxosmithkline Pharma,Glenmark and Nacto Pharma). **Hence, the Null Hypothesis H_{01} is rejected.**

In IPCA Labs, the TDR has negative impact on Firm Value at 51 percent (R^2 : 0.51).In Glaxosmiithkline Pharma, the TDR has a negative effect on firm value at 49 percent (R^2 :0.49).In Glenmark, the DER has a positive effect on Firm value at 62 percent (R^2 :0.62).In Nacto Pharma the DER and TDR has a positive influence on Firm Value at 56 percent (R^2 :0.56) is significant at 5% and 1% level.

For two companies (Ajanta Pharma,& Alkem labs) Capital Structure has no impact on firm value. **Hence, the Null Hypothesis H_{01} is accepted.**

In IPCA Labs and Glaxosmithkline Ltd, the capital structure has a negative impact on firm value.This result support the "Pecking Order Theory".In Glenmark and Nacto Pharma the capital structure has a positive impact on firm value.It supports the Trade-off Theory (Thi Ngoc Bui,2023).

iii) In **Small Capital Companies**, there is an impact of Capital Structure on Firm Value of thirteen companies (Aarti Drugs,IOL Chemicals,Amrutanjan Healthcare ltd,Novartis Ltd,Bliss GVS,Anuh Pharma,Linclon Pharma,Kappac Pharma,Jenburkt Pharma,Brooks Labs,Kilitch Drugs,Coral Labs and Bal Pharma).**Hence, the Null Hypothesis H_{01} is rejected.**

In Aarti Drugs, the DER has a positive influence on Firm Value, the TDR and LTDR has a negative effect on firm value at 48 percent (R^2 :0.48). In IOL Chemicals, the DER and TDR has a positive influence on Firm Value at 41 percent (R^2:0.41).In Amrutanjan Healthcare ltd, the DER, LTDR and STDR has a positive effect and TDR has a negative influence on firm value at 68 percent (R^2 :0.68).In Novartis Ltd, the DER and STDR has a positive impact on firm value.The Long Term Debt has a negative influence on firm value at 63 percent (R^2 :0.63).

In Bliss GVS Pharma, the DER has a positive influence on firm value at 56 percent (R^2 :0.56).In Anuh Pharma, the DER and STDR has a positive influence on firm value at 30 percent (R^2 :0.30).In Linclon Pharma, the STDR has a positive influence on firm value at 54 percent (R^2 :0.54).In Kappac Pharma,DER and LTDR has a positive effect on firm value at 20 percent (R^2 :0.20).In Jenburkt Pharma, the DER has a positive effect on firm value at 20 percent (R^2 :0.20).In Brooks Labs, the DER and LTDR has a positive influence on Firm Value at 56 percent (R^2 :0.56).In Kilitch Drugs the DER has a positive effect on firm value at 62 percent (R^2 :0.62).In Coral labs, the DER and LTDR has a positive effect at 25 percent (R^2 : 0.25). In Bal Pharma, the DER has a positive effect and STDR has a negative effect on firm value at 35 percent (R^2:0.35) is significant at 5% and 1% level.

For five companies (Orchid Pharma,SMS Pharma,Alpa labs,Gennex Labs and Alembic Pharma) Capital Structure has no impact on firm value. **Hence, the Null Hypothesis H_{01} is accepted.**

In Aarti Drugs,Bal Pharma and Amrutanjan Healthcare ltd, the capital structure has a negative impact on firm value.It supports the "Pecking Order Theory".In the remaining

companies, the capital structure has a positive impact on firm value.It supports the "Trade-off Theory".

Overall, it is proved that in most of the selected companies (Twenty one companies), DER, LTDR, STDR have a positive impact on firm value. The TDR has a negative influence on firm value. It reveals that increase in debt capital, will enhance the firm value and vice versa for negative association.

In Large and Mid Capital companies, the DER has a positive impact and TDR has a negative impact of firm value. The positive impact shows that increase in Debt Ratio will increase the firm value and its financial efficiency. The negative impact reveals that a high debt burden leads to a greater amount of liabilities eventually decreases the firm value.

In Small Capital companies, the LTDR and STDR have a positive impact of firm value. It reveals that increase in long term and short term debt will increase the firm value and its financial performance and vice versa. Hence, null hypothesis H_{01} is rejected. There is an impact of Capital Structure on firm value of select Pharmaceutical Companies in India.

5.2.5 Impact of Dividend Policy on Firm Value of select Pharmaceutical Companies in India – Multiple Regression

i) In **Large Capital Companies**, there is an impact of Dividend Policy on Firm Value for two companies (Sun Pharma and Lupin Pharma).**Hence, the Null Hypothesis H_{02} is rejected.**

In Sun Pharma, the DYR has a positive significant influence on Firm Value at 44 percent (R^2:0.44). In Lupin Pharma, the DYR has a positive significant influence on Firm Value at 47 percent (R^2:0.47) is significant at 1% and 5% level.

For five companies (Divi's Labs,Dr.Reddy Labs,Cipla and Aurobindo) Dividend Policy has no impact on firm value.**Hence, the Null Hypothesis H_{02} is accepted**.

In Sun Pharma and Lupin Ltd, the Dividend Policy has a significant impact on firm value.This result support the "Dividend Relevance Theory" (Abhijit Sinha,2020).

ii) In **Mid Capital Companies**, there is an impact of Dividend Policy on Firm Value for four companies (IPCA Labs, Glaxosmithkline,Ajanta Pharma and Glenmark Pharma). **Hence, the Null Hypothesis H_{02} is rejected.**

In IPCA labs, DPR has significantly positive impact on Firm Value at 66 per cent (R^2:0.66).In Glaxosmithkline Ltd, the DPR has significant optimistic influence on Firm Value at 46 percent (R^2:0.46). In Ajanta Pharma, the DPR has a significant positive influence on Firm Value at 76 percent (R^2:0.76). In Glenmark Pharma, DYR has negative effect on Firm Value at 50 percent ($R^{2:}$ 0.50) is significant at 1% and 5% level.

For two companies (Alkem Labs and Nacto Pharma) Dividend Policy has no impact on firm value.**Hence, the Null Hypothesis H_{02} is accepted.**

In IPCA Labs,Glaxosmithkline Ltd,Ajanta Pharma and Glenmark, the Dividend Policy has a significant impact on firm value.It supports the "Dividend Relevance Theory" (Abhijit Sinha,2022;Buti et al.2023).

iii) In **Small Capital Companies**, there exists an impact of Dividend Policy on Firm Value for three companies (Kappac Pharma,Brooks Labs and Coral labs). **Hence, the Null Hypothesis H_{02} is rejected.**

In Kappac Pharma,the DYR has significantly negative impact on Firm Value at 29 percent (R^2 :0.29). In Brooks labs, the DPR has a negative influence on Firm value at 52 percent (R^2 :0.52).In Coral Labs, the DPR has significant positive influence on Firm Value at 53 percent(R^2 :0.53) is significant at 5% and 1% level.

For fifteen companies (Aarti Drugs,Orchid Pharma,IOL Chemicals,Amrutanjan Healthcare,Novartis ltd,Bliss GVS ,SMS Pharma,Anuh Pharma,Linclon Pharma,Jenburkt Pharma,Kilitch Drugs,Bal Pharma,Alpa Labs,Gennex Labs and Alembic Pharma). Dividend Policy has no impact on firm value. **Hence, the Null Hypothesis H_{02} is accepted.**

In Kappac Pharma,Brooks Labs and Coral Labs, the Dividend Policy has a significant impact on firm value,as indicated in the "Dividend Relevance Theory" (Abhijit Sinha,2020;Seth and Sakthi,2022).

Overall result shows that most of the selected companies (Nine Companies), the DPR and DYR have a positive impact on firm value.In Large Capital Companies, the DYR has a positive impact on Firm value.

It shows that high dividend payouts are considered by the market as a positive signal of the company's future performance and vice versa (Bhattacharya, 1979; Miller and Rock, 1985; Charitou et al., 2010; Skinner and Soltes, 2011).

In Mid and Small Capital Companies, the Dividend Yield has a negative impact and Dividend Payout has a positive impact on firm value.The positive influence shows that, increase in dividend payouts will raise the firm value and vice versa.

It shows that when a company wishes to maximize shareholder wealth through dividend distribution but lacks sufficient free cash flow, it can seek external funding with minimum interest. So, it will automatically give rise to the financial performance and dividend payouts. Hence, null hypothesis H_{02} is rejected. There is an impact of Dividend Policy on firm value of select Pharmaceutical Companies in India.

5.2.6 Impact of Capital Structure on Dividend Policy of select Pharmaceutical Companies in India – Multiple Regression

In **Large Capital Companies**, there is an impact of Capital Structure on Dividend Policy for five companies (Sun Pharma,Divi's Labs,Cipla ltd,Aurobindo and Torrent Pharma). **Hence, the Null Hypothesis H_{03} is rejected.**

In Sun Pharma, the LTDR has a positive influence on DYR at 61 percent (R^2:0.61) In Divi's Labs, the LTDR has a negative influence on DPR at 75 percent (R^2 :0.75).In Cipla Ltd, the DER has a positive influence and LTDR has a negative impact on DPR at 59 percent (R^2 :0.59) and the TDR has a positive influence on DYR at 65 percent (R^2 :65).In Aurobindo Pharma, STDR has a positive impact on DYR at 37 percent (R^2:0.37).In Torrent Pharma, the DER has a positive influence on DYR at 56 percent (R^2:0.56) is significant at 5% level and 1% level.

For two companies (Dr.Reddy Labs and Lupin Pharma) the capital structure has no impact on dividend policy. **Hence, the Null Hypothesis H_{03} is accepted.**

In **Mid Capital Companies**, there is an impact of Capital Structure on Dividend Policy for five companies (Alkem Labs,IPCA Labs,Ajanta Pharma,Nacto Pharma and Glenmark Pharma). **Hence, the Null Hypothesis H_{03} is rejected.**

In Alkem Labs, the LTDR has a negative influence on DPR at 17 percent (R^2:0.17).In IPCA Labs, the DER has a negative impact on DPR at 36 percent (R^2:0.36). In Ajanta Pharma, TDR has a negative influence on DPR at 35 percent (R^2: 0.35).In Glenmark Pharma, STDR has a negative influence on DYR (R^2:84).

In Nacto Pharma, the DER has a negative impact on DPR at 39 percent (R^2:0.39) and the TDR has a positive effect on DYR at 62 percent (R^2:0.62) is significant at 5% level and 1% level.

In Glaxosmithkline Pharma, the Capital Structure has no impact on Dividend Policy. **Hence, the Null Hypothesis H_{03} is accepted.**

In **Small Capital Companies**, there exists an impact of Capital Structure on Dividend Policy for eight companies (Aarti Drugs, Amrutanjan Healthcare ltd,Anuh Pharma,Linclon Pharma,Jenburkt Pharma,Brooks Labs,Alpa Labs and Alembic Pharma). **Hence, the Null Hypothesis H_{03} is rejected.**

In Aarti Drugs, the LTDR has a significant positive influence on DYR at 62 percent (R^2:0.62). In Amrutanjan Healthcare Ltd, DER and LTDR have a positive effect on DYR at 75 percent (R^2:0.75).In Anuh Pharma, the DER has a positive influence and STDR has a negative effect on DYR at 89 percent (R^2:0.89).In Linclon Pharma, the TDR has a negative influence on DYR at 67 percent (R^2:0.67).In Jenburkt Pharma, LTDR has a negative effect on DYR at 41 percent (R^2:0.41).In Brooks Labs, LTDR have a negative effect on DYR at 84 percent (R^2:0.84). In Alpa Labs, the DER has a positive influence on DPR at 66 percent (R^2:0.66).In Alembic Pharma the LTDR and STDR has a negative impact on DYR at 61 percent (R^2:0.61) is significant at 5% level and 1% level.

For ten companies (Orchid Pharma,IOL Chemicals,Novartis India,Bliss GVS,SMS Pharma,Kappac Pharma,Kilitch Drugs,Coral Labs,Bal Pharma and Gennex Labs), the capital structure has no impact on dividend policy. **Hence, the Null Hypothesis H_{03} is accepted.**

Overall, it is concluded that most of the selected Companies (Eight companies) Capital Structure has either positive or negative influence on Dividend Policy. The negative impact means that a higher debt burden leads to a decreased ability to pay dividends and vice versa for a positive association.

In Large and Mid capital companies, the LTDR and TDR has a positive impact on DYR. In Small capital companies, LTDR has a positive impact on DYR.The positive impact shows that the increase in Long term debt and Debt funds will increase the dividend payout of the companies. Hence, null hypothesis H_{03} is rejected. There is an impact of capital structure on dividend policy of select Pharmaceutical Companies in India.

5.2.7 Category Wise Impact of Capital Structure on Dividend Policy of select Pharmaceutical Industries in India – Correlation Analysis and Panel Data Regression

In **Large Capital Companies,** the correlation analysis shows that the DER has the highest positive association with DPR. The DER, LTDR and TDR have the negative correlation with DYR at 1 percent level of significance.

In **Panel Data Regression**, the DER, TDR, LTDR, STDR have no impact on DPR. Hence, the null hypothesis H_{04} is accepted. "There is no significant impact of Capital Structure on Dividend Policy of select Pharmaceutical Industries in India". The Random effect model is appropriate for Dividend Payout.

The LTDR has a negative impact on DYR at 16 per cent respectively. Hence, the null hypothesis H_{04} is rejected. The Fixed effect model is appropriate for the Dividend Yield. A company with a low DER means that it has a low debt level as well, a low debt level is considered as to increase the company's revenue.If the company's revenue increases, the dividends distributed will also increase, this increase in dividends will also have an impact on increasing firm's efficiency.

In **Mid Capital Companies,** the correlation analysis shows that the STDR has a negative relationship with DPR**.** The TDR, LTDR and STDR have a negative association with DYR at 1 per cent and 5 per cent level of significance.

In **Panel Data Regression**, The DER, TDR, LTDR, STDR have no impact on DPR. Hence, the null hypothesis H_{04} is accepted. "There is no significant impact of Capital

Structure on Dividend Policy of select Pharmaceutical Industries in India". The random effect model is appropriate for Dividend Payout.

The STDR has a negative impact on DYR at 13 per cent respectively. Hence, the null hypothesis H_{04} is rejected. The Random effect model is appropriate for the Dividend Yield.

In **Small Capital Companies,** the correlation analysis shows that the LTDR has the negative relationship with DPR and positive association DYR. The STDR has a positive relationship with DPR and negative association with DYR at 1 per cent level of significance

In **Panel Data Regression**, that LTDR has a positive impact on DPR at 3 per cent and DER has a positive impact on DYR at 3 per cent. Hence, the null hypothesis H_{04} is rejected. The Random effect model is appropriate for Dividend Payout and the fixed effect model is appropriate for Dividend Yield.

Overall it is concluded that, in large capital companies the DER has a positive relationship with DPR. In Mid capital companies, the STDR has the negative association with DPR.In small capital companies, STDR has a positive association with DPR and negative relationship with DYR.

In Large capital companies, the LTDR has a negative impact on DYR. In Mid capital companies, the STDR has a negative influence on DYR. In Small capital companies, the LTDR positively affects the DPR and DER has a positive influence on DYR.

The positive impact shows that an increase in the Debt Capital increases the dividend payouts and vice versa. Hence, null hypothesis H_{04} is rejected. There is an impact of capital structure on dividend policy of select Pharmaceutical Industries in India.

5.2.8 Category Wise Relationship between Capital Structure, Dividend Policy and Firm Value of select Pharmaceutical Companies – Correlation Analysis and Multiple Regression

In **Large Capital Companies**, there is an association between the Capital structure, Dividend Policy and Firm value. The DPR (0.40) has the highest positive

association with DER. It means that, a high firm value will attract investors to invest in these manufacturing companies and will result in improving the company's financial operations.

The TDR (-0.21) has a highest negative association with DYR is significant at 1% level. It shows that the positive association means that increase in Debt Capital and Dividend payouts increases the firm value.

In Large Capital Companies, there is a relationship between Capital Structure, Dividend Policy and Firm value for four companies (Sun Pharma,Divi's Labs,Cipla ltd and Torrent Pharma).**Hence, the Null Hypothesis H_{05} is rejected.**

In Sun Pharma, the DER has negative impact on Firm Value at 78 per cent (R^2: 0.78).The negative association means that the increase in debt funds decreases the firm value.

In Divi's Labs, the STDR have a negative impact on Firm value at 88 per cent (R^2:0.88).It shows that the company should increase their productivity to enhance their firm value.

In Cipla ltd, the TDR has an optimistic impact on Firm Value at 77 per cent (R^2:0.77). In Torrent Pharma, the STDR has a negative impact on Firm Value at 68 percent (R^2:0.68) is significant at 1% and 5% level.

For three companies (Dr.Reddy Labs,Aurobindo Ltd and Lupin Pharma), there is no relationship between the capital structure,Dividend Policy and Firm value.**Hence, the Null Hypothesis H_{05} is accepted.**

In **Mid Capital Companies**, there is an association between the Capital structure, Dividend Policy and Firm value. The DPR (0.24) has the highest positive association with Firm Value. The DPR (-0.12) has the highest negative association with DER.

The positive association between dividend policy means that the increase in dividend payout will increase the firm value and vice versa.The STDR has a negative impact on DPR (-0.24).

It indicates that these companies can increase their dividend payouts to enhance their firm value.

In Mid Capital Companies, there is a relationship between Capital Structure, Dividend Policy and Firm value for four companies (IPCA Labs,Ajanta Pharma,Glenmark and Nacto Pharma).**Hence the Null Hypothesis H_{05} is rejected.**

In IPCA Labs,the DER and DPR has a positive influence and the TDR have negative impact on Firm Value at 88 per cent (R^2:0.88). In Ajanta Pharma, the DPR has a positive effect on Firm value at 76 percent (R^2:0.76).

In Glenmark Pharma, the DER has a positive effect on Firm value at 78 percent (R^2:0.78).In Nacto Pharma, the DER and TDR has a positive effect and DYR has negative influence on Firm value at 62 percent (R^2:0.62) is significant at 1 percent and 5 percent level.

There is no relationship between Capital Structure, Dividend Policy on Firm value for two companies (Alkem Labs and Glaxosmithkline ltd). **Hence, the Null Hypothesis H_{05} is accepted.**

In **Small Capital Companies**, there is an association between the Capital structure, Dividend Policy and Firm value. The STDR (0.559) has a highest positive correlation with DYR.It means that the increase in debt capital will increase the dividend payouts.

The DYR (-0.13) has a highest negative association with Firm value.The negative association means that the increase in dividend payouts will decrease the firm value and vice versa.

In Small Capital Companies, there is a relationship between Capital Structure, Dividend Policy and Firm value for four companies (Novartis Ltd,Jenburkt Pharma, Brooks Labs and Alembic Pharma). **Hence the Null Hypothesis H_{05} is rejected**.

In Novartis ltd, the TDR has a positive influence on Firm Value at 63 percent (R^2 : 0.63).In Jenburkt Pharma, the DER and TDR has a positive effect and DYR has a negative influence on Firm value at 84 percent (R^2:0.84).It shows that the increase in debt fund will enhance the firm value.

In Brooks Labs, the DPR has a negative influence on Firm value at 56 percent (R^2:0.56).In Alembic Pharma, the DPR has a positive effect on Firm value at 20 percent (R^2: 0.20) is significant at 1% and 5% level.

For Fourteen companies (Aarti Drugs,Orchid Pharma,IOL Chemicals Ltd,Amrutanjan Healthcare ltd,Bliss GVS,SMS Pharma,Anuh Pharma, Linclon Pharma,Kappac Pharma,Kilitch Drugs,Coral Labs,Bal Pharma,Alpa Labs and Gennex Labs), there is no relationship between Capital structure,Dividend Policy and Firm value.**Hence, the Null hypothesis H_{05} is accepted.**

Overall, it is concluded that in four companies, there is an association between Capital Structure, Dividend Policy and Firm Value. In Large and Mid Capital companies, the DPR has a positive relationship with Firm value.In Small Capital Companies, the DYR has a negative relationship with Firm value.

In Large capital companies and Small capital companies, the TDR has a positive influence on Firm value. In Mid capital companies, the DPR and DER has a positive impact on Firm value. The positive relationship means that the increase in capital structure or dividend payout will increase the firm value and vice versa.

Hence, null hypothesis H_{05} is rejected. There is a relationship between capital structure, dividend policy and firm value of select Pharmaceutical Companies in India.

5.2.9 Intra Industry differences in Capital Structure and Dividend Policy of select Pharmaceutical Companies - Compound Annual Growth Rate and Trend Analysis

The Compound Annual Growth Rate of **Large Capital Companies** reveal that, DER (-0.11) shows negative growth in Cipla Ltd, it means that this company is cautious in reducing borrowing capital.

The remaining companies shows positive growth.The TDR (-0.04) shows negative influence in Divi's Labs.It means that the debt involved in asset in reducing year by year.

The LTDR shows positive growth under large capital companies. The STDR shows negative growth in Sun Pharma (-0.07), Aurobindo (-1.52) and Torrent Pharma (-1.80). The remaining companies show positive growth.

The DPR shows negative growth in companies except Cipla Ltd (0.00).The DYR (-0.22) shows negative growth in Sun Pharma.The remaining companies show positive growth during the study period. These companies should retain earnings to issue dividend for shareholders.

The Trend and Projection of **Large capital companies,** shows that the DER is forecasted at 167 percent, TDR shows 313.44 percent, LTDR is forecasted at 833.14 percent, STDR is forecasted at 140.89 percent, DPR is forecasted at 65.22 percent and the DYR is forecasted at 95.97 percent in 2026.

The Compound Annual Growth Rate of **Mid Capital Companies** reveals that,the DER shows positive growth in Alkem labs (0.02), IPCA Labs (0.20), Glaxosmithkline Ltd (0.09), Glenmark (0.16) and a negative growth in Ajanta Pharma (-0.05) and Nacto Pharma (-0.14).In Glaxosmithkline ltd, TDR (-0.06) shows negative growth and the remaining companies (Alkem Labs (0.02),IPCA Labs (0.16),Ajanta Pharma (0.33) ,Glenmark (0.06) and Nacto Pharma (0.19) shows a positive growth.

The LTDR shows positive growth in Alkem Labs (0.15), IPCA Labs (0.11), Ajanta Pharma (0.10), Glenmark (0.07) and Nacto Pharma (0.24).The remaining company (Glaxosmithkline ltd) shows negative growth in LTDR (-0.14).It means that they should improve their productivity to manage their business activities. The STDR shows negative growth in Alkem Labs (-0.02) and Nacto Pharma (-0.07).

The remaining companies (IPCA Labs (0.12), Glaxosmithkline ltd (0.98), Ajanta Pharma (0.05) and Glenmark (0.05)) shows positive growth in STDR, but the DPR was decreasing except IPCA Labs (0.02) and Glenmark (0.06). The Dividend Yield is decreasing in Ajanta Pharma (-0.03) and Nacto Pharma (-0.04).The remaining four companies shows a positive growth.

The Trend and Projection of **Mid capital companies,** shows that the DER is forecasted at 143 percent, TDR is forecasted at 352.55, LTDR is forecasted at 75.19 percent, STDR is forecasted at 235.75 percent, DPR is forecasted at 68.72 and DYR is forecasted at 95.97 in 2026.

The Compound Annual Growth Rate of **Small Capital Companies** reveal that, the DER has a negative growth in Amrutanjan Healthcare ltd (-0.04), Kappac Pharma (-0.12), Bal Pharma (-0.01), Alpa Labs (-0.01) and Gennex Labs (-0.04).The remaining companies shows positive growth. The TDR shows negative growth in IOL Pharma (-0.06), Kappac Pharma (-0.25), Bal Pharma (-0.01), Alpa Labs (-0.01) and Gennex Labs (-0.03), the remaining companies shows positive growth during the study period.

The LTDR shows positive growth in all companies except IOL Pharma (-0.14).The STDR indicates negative growth in Aarti Drugs (-0.01), Bliss GVS Pharma (-0.06),Anuh Pharma (-0.03), Bal Pharma (-0.02),Alpa Labs (-0.02) and Gennex Labs (-0.07),the remaining companies shows positive growth.

The DPR was found to be highly decreasing in Aarti Drugs (-0.14) and DYR (-2.08) is highly decreasing in Brooks labs during the study period.

The Trend and Projection of **Small capital companies,** shows that DER is forecasted at 95 percent, TDR is forecasted at 352.55 percent, LTDR is forecasted at 66.21 percent, STDR is forecasted at 182.42 percent, DPR is forecasted at 3.19 percent and DYR is forecasted at 111.50 percent in 2026.

The Dividend Yield Ratio shows decreasing trend in Large Capital and Mid Capital Companies.It means that these companies utilizing some of their earnings for future investments.

Overall it is found that, the DER shows a decreasing trend in Small Capital Companies. It shows that these companies utilizes minimum of debt compared to equity or internal funds.

The DER indicates a increasing trend in Large Capital and Mid Capital Companies. It indicates that these companies are good at utilizing the internal sources to enhance their financial position.

The DPR is fluctuating in Large and Mid capital companies, it means that these companies were utilizing most of their profits for their further business expansion compared dividend payments.

The DPR shows a negative trend in Small capital companies, it shows that these companies can increase their debt capital with low interest to cover the interest payments as well as to increase their dividend payments.

5.3 SUGGESTIONS

The following suggestions are given for designing appropriate Capital Structure and Dividend Policy to the Pharmaceutical Companies in India.

5.3.1 Company Wise Suggestions

Large Capital Companies

1. In **Sun Pharma**, the DER has a negative impact. Therefore, they should reduce their debt capital to enhance their firm value.The DYR has a positive effect on

Firm value. So, they need to concentrate on retaining the earnings to pay dividends to shareholders.

2. In **Divi's Labs**, the LTDR has a positive effect on Firm Value. Hence, they can borrow long term debt with low interest rate to finance the company assets and their financial operations.
3. In **Cipla ltd**, the TDR has a positive influence on DYR. It shows that this company has the good ability to pay their debts. So, they can invest in new projects to increase their operational efficiency and to pay better returns to the shareholders.
4. In **Lupin Pharma** and **Torrent Pharma**, the DER has a positive effect on Firm Value. Thus, they can utilize the debt funds for the company's financial operations.The company's productivity will get better, the sales increases, and the company's profits will also rise.

An increased level of influence from the capital structure is associated with a decreased ability of the company to fulfil its obligations. Conversely, a higher proportion of debt within the capital structure leads to an increase in liabilities. With a higher debt burden, the company's capacity to distribute dividends is diminished. So, the remaining companies (Dr.Reddy Labs and Aurobindo) can utilize the minimum amount of debt capital for their financial activities.

Mid Capital Companies

1. In **Alkem Labs**, the LTDR has a positive influence on DPR.This company can utilize the long term debt with minimum of interest to fulfil their financial activities.
2. In **IPCA Labs** and **Glaxosmithkline ltd**, the TDR has negative influence on firm value. These companies should reduce the usage of debt capital in their capital structure decisions, to enhance their firm value.
3. In **Ajanta Pharma**, the DPR has a positive influence Firm value. Hence, this company can increase the dividend payouts to the shareholders to enhance their firm value, operational efficiency etc.
4. In **Glenmark Pharma** and **Nacto Pharma**, the DER has a positive impact on firm value. These two companies can include debt with minimum of interest in their capital structure, to increase their firm value and financial efficiency.

Small Capital Companies

1. In **Aarti Drugs, IOL Chemicals,Bliss GVS** and **Kilitch Drugs**, the DER has a positive impact on firm value.These companies are aggressive in financing their growth with debt. So, it is recommended.
2. In **Amrutanjan Healthcare ltd,** the TDR has a negative impact on firm value.It can include minimum debt capital compared to equity, to finance its assets.It helps the investors to invest their funds in the company and this will obviously increase the value of the company.
3. In **Novartis Ltd,** the LTDR has a negative influence on firm value. Therefore, this company can reduce the long term debt to manage the company operations efficiently.
4. In **Anuh Pharma**, the DER has a positive impact on DYR.It can increase its Debt funds to enhance their firm value and thereby they can enhance their dividend payouts of the company.
5. In **Linclon Pharma**, the TDR has a negative influence on DYR.Hence, this company should reduce their Debt funds. Because, the higher debt burden leads to a decreased ability of dividend payments.
6. In **Kappac Pharma**, the DYR has a negative influence on firm value. It shows that this company is should concentrate on their debt funds to increase the dividend payouts and firm value.
7. In **Jenburkt Pharma,** the LTDR has a negative impact on DYR.It means that increase in long term debts may hinder the issue of dividends to the shareholders.So they should not increase Long Term Debt.
8. In **Brooks Labs,** the DPR has a negative impact on firm value. It shows that increase in dividend payout reduces the firm value. In the case of increasing debt burden, companies tend to rely more heavily on debt to fulfil their financial requirements, which makes it less likely for them to distribute dividends.Hence, they need to reduce their debt capital.
9. In **Coral Labs**, the DPR has a positive impact on firm value. They can increase the dividend payouts to the shareholders. It will attract many shareholders to invest in their company.

10. In **Bal Pharma,** the STDR has a negative impact on firm value.It shows that this company should reduce their short term debt capital and they can increase their equity capital to enhance their financial efficiency.
11. In **Alembic Pharma,** the LTDR has a negative impact on DYR.It shows that this company can borrow long term debt out with minimum interest, it will automatically increase the company performance and dividend payouts.

The remaining companies (Orchid Pharma,SMS Pharma,Alpa Labs and Gennex Labs) for their growth or return, they need to make accurate future financial decisions.They may also reduce the debt funds and utilize the equity capital, to improve their financial efficiency and firm value.

5.3.2 Category Wise Suggestions

i) In **Large Capital Companies**, the TDR and DPR have a positive association with Firm value. It means that a high firm value will attract the investors to invest in these companies and it will eventually increase their overall performance. The LTDR has the negative impact on DYR. It shows that these companies should use long term funds with low interest for their efficient Financial management.

ii) In **Mid Capital Companies**, the DPR has a positive association with Firm Value.It shows that these companies can increase their dividend payouts to the shareholders. It will attract the shareholders to invest in their company and to raise the market price of shares. The usage of debt capital can be reduced compared to equity, in order to increase the company performance, business expansion and new projects etc.

iii) In **Small Capital Companies**, the STDR has a highest positive correlation with DYR. These companies can increase their liquidity to enhance its dividend payouts. It should retain some of their earnings for their further business expansion and they may also raise their debt capital to increase their firm value. Because, the "Firm value has become a successful benchmark in valuing past and future performance of management".

5.3.3 OVERALL SUGGESTIONS

In all the three categories of companies, the Capital Structure has a negative impact on Dividend Policy. It means that these companies should reduce their debt capital.

Maintaining of higher debt may also results in financial distress, when they cannot afford to pay off the debts. Further, the issue of shares can help the companies to enrich their capital as well as the business activities, but the cost of issue is also high.It may also cause difficulties to the business. For Debt funds, the companies needs to pay interest, for equity capital the business has to fulfil the shareholder's expectations through sufficient dividends and their business growth in the future.So, the company's Capital Structure needs to balance the board of directors, creditors and shareholder's return.

Since, in all these companies capital structure have a negative impact on dividend policy, it is suggested that they must reduce their debt capital.

5.3.4 RECOMMENDATIONS OF THE STUDY

The Policy recommendations based on the findings are listed below:

i) The Managers of the organization must try to balance the cost and the usage of debt and equity to enrich their firm value and shareholder's wealth.

ii) The Board of Directors should develop strategic suitable policies which will be helpful for the organisation to increase their cash flow, to reduce the debt and bankruptcy risk.It will be a good signal for the investors.

iii) The Finance managers should be efficient and careful while utilizing the long term funds to get the benefit of tax shield.The strategic decisions will help to reach the maximum company value.

iv) For the future growth, the relevant & efficient techniques should be applied by the organization to identify the fruitful investment avenues and to utilize those with long term loans.

5.4 SCOPE FOR FUTURE RESEARCH

The current study shows some of the areas offering scope for the future researchers. They are listed below:

i) The future researchers can choose other financial aspects such as Corporate Ownership, Corporate Governance and Stock Returns etc for their research study.

ii) The research study can consider industries other than Pharmaceutical industries or companies.

5.5 CONCLUSION

The impact of capital structure and dividend policy on firm value of Pharmaceutical Companies in India is investigated in this study. The results of the study show that in Large Capital Companies, the Dividend Payouts were increasing. It shows that these companies have good potential. It is a good signal to the shareholders to invest to get better returns. In Mid Capital companies the DER is higher, because they were aggressive in financing its growth with debt funds. But they can involve minimum amount of debts with low interest for their financial activities.

The small capital companies have a decreasing trend in DER. These companies can use less debts compared to equity and it will be less risky for the investors and lenders.The managers should properly match their capital structure to prevent overmatching and mismatching of financial resources.The failure to do so will negatively affect the company's long term operations, leading to layoffs and decline in revenue.The research study contributes significantly to the corporates to have wise strategic capital structure decisions.That will result in increasing the financial strength and stability of the Pharmaceutical Companies.This contributes significantly to the growth & financial development of Pharmaceutical Industry in India.