CHAPTER IV

CONCLUSION
CHAPTER IV
CONCLUSION

For a firm one of the most important financing decisions is to choose between the most appropriate level of debt and equity in its capital structure. Excess use of debt may endanger the very survival of a firm, on the other hand, a conservative policy may deprive its equity holders a higher return on their investments as debt is considered a relatively cheaper source of finance.

The theories of capital structure like the Static Trade off theory (STT) and the Pecking Order Theory (POT) have identified some determinants of capital structure, which are – Size, Tangibility, Profitability, Growth, Liquidity, and Cost of borrowing.

The purpose of this research is to investigate the inter-industry differences in capital structure and the determinants of capital structure for a sample of 824 companies spread over 10 industries for a period of 11 years. Through this study, the explanatory power of these Capital Structure theories (determinants of capital structure) has been tested for their applicability to the selected ten industries. Another objective is to check the applicability of these theories (namely the Pecking Order theory and the Trade off theory) in the context of an emerging market like India.

Differences in Predictions of Determinants of Capital Structure

The two major theories of capital structure i.e. the Static Trade off theory (STT) and the Pecking Order Theory (POT) differ on their predictions of the applicability of the different determinants of capital structure i.e Size, Tangibility,
Growth, Profitability, and Liquidity. Size, one of the most important variables in defining the capital structure of a firm has been said to have a positive relationship with the amount of leverage in the capital structure by the Static Trade Off Theory whereas Pecking Order Theory predicts an inverse relationship between Size and Leverage. Similarly for Tangibility, Pecking Order Theory predicts a negative relationship whereas the Static Trade Off theory predicts a positive relationship between the two. For the variable – Growth, both the theories again provide opposite results. Trade off theory predicts a negative relationship whereas Pecking Order theory states that the relationship between Growth and Leverage can be both positive and negative. According to the Static Trade off Theory, firms with high profits employ higher amount of debt to gain tax benefits. On the contrary, the pecking order hypothesis postulates negative association between profitability and leverage. For Liquidity, the Pecking Order Theory postulates the hypothesis that firms tend to use their liquid assets to finance their investment in preference to raising external debt. Cost of Borrowing should have a negative relationship with Leverage or Debt of a firm. As higher the Cost of borrowing or raising external finance higher lower will be the amount of debt a firm will incorporate in its capital structure.

**Results and Conclusion**

The results of this study indicate that the theories of capital structure, which have been empirically tested on developed countries, also apply to a developing country like India.

- Hypothesis Testing –

  The second analysis was performed to verify the null hypothesis – “firms in different industries have the same capital structure”, one-way analysis of variance was
performed for this cross-sectional analysis. The null hypothesis was rejected at .00 level of significance. Thus, the results show that firms in different industries have different capital structure. The proportion of debt and equity in the capital structure varies with the industry class the firm is associated with. Though differences in firm size and the other variables defined earlier contribute to the variation in financial leverage ratio across industry-classes to some extent, it is the nature of the industry itself or more precisely the differences in the fund requirement of industry groups, which is a potential source of the existing variation.

- Hypothesis Testing for Sub Hypothesis –

(A) For Dependent Variable: Financial Leverage

1. Independent Variable – Size:
   - Hypothesis testing: The null hypothesis has been accepted that “Size of a firm has positive relationship with Financial Leverage of a firm”

2. Independent Variable – Tangibility:
   - Hypothesis Testing: For the variable Tangibility, the null hypothesis “Tangibility of a firm has negative relationship with Financial Leverage of a firm” was tested and The result shows significant negative returns between Tangibility and Financial Leverage. Thus, the null Hypothesis is accepted.

3. Independent Variable – Profitability
   - Hypothesis Testing: For the variable Profitability, the null hypothesis “Profitability of a firm has negative relationship with Financial Leverage of a firm” was tested and The result shows
significant negative returns between Profitability and Financial Leverage. Thus, the null hypothesis is accepted.

4. Independent Variable – Growth
   - Hypothesis Testing: For the variable Growth, the hypothesis “Growth of a firm has positive relationship with Financial Leverage of a firm” was tested and the results for dependent variable Financial Leverage shows significant negative returns between Growth and Financial Leverage (which are consistent with the Pecking Order Theory). Thus the null hypothesis is rejected.

5. Independent Variable – Liquidity
   - Hypothesis Testing: For the variable Liquidity, the hypothesis “Liquidity of a firm has negative relationship with Financial Leverage of a firm” was tested and the result shows significant negative returns between Liquidity and Financial Leverage. Thus, the null hypothesis is accepted.

6. Independent Variable – Cost of Borrowing
   - The null hypothesis “cost of borrowing has a negative relationship with financial leverage of a firm” is accepted.

(B) For Dependent Variable: Debt-equty

1. Independent Variable – Size:
   - Hypothesis testing: The null hypothesis “Size of a firm has positive relationship with Debt Equity Ratio of a firm” is accepted.

2. Independent Variable – Tangibility:
Hypothesis Testing: For the variable Tangibility, the null hypothesis “Tangibility of a firm has negative relationship with Financial Debt Equity of a firm” was tested and the result shows significant negative returns between Tangibility and Debt Equity. Thus, the null Hypothesis is accepted.

3. Independent Variable – Profitability:

Hypothesis Testing: For the variable Profitability, the null hypothesis “Profitability of a firm has negative relationship with Debt Equity of a firm” was tested and the result shows significant negative returns between Profitability and Debt Equity ratio.

4. Independent Variable – Growth:

Hypothesis Testing: For the variable Growth, the hypothesis “Growth of a firm has positive relationship with Debt Equity of a firm” was tested. The results for the dependent variable Debt Equity are not conclusive.

5. Independent Variable – Liquidity:

Hypothesis Testing: For the variable Liquidity, the hypothesis “Liquidity of a firm has negative relationship with Debt-equity ratio of a firm” was tested and the result shows significant negative returns between Liquidity and Debt Equity ratio. Thus, the null hypothesis is accepted.

6. Independent Variable – Cost of Borrowing:

The null hypothesis “cost of borrowing has a negative relationship with financial leverage of a firm” is accepted.

- The Results also show that in comparison to the Static Trade Off Theory, the Pecking Order Theory has explanatory powers to predict the capital structure of Indian firms in the selected 10 industries. This is based on the
results that for all of the independent variables except Size, the Pecking Order Theory was applicable in explaining the relationship between the dependent variables i.e. Financial Leverage and Debt Equity. Results and Explanation for the regression equation for dependent variables Debt Equity and Financial Leverage are provided below -

- Both the Pecking Order Theory and the Static Trade Off theory have explained the relationship between Tangibility and Leverage. However, they both have different stance on the relationship. While the Static Trade Off theory presumes a positive relationship, the Pecking Order Theory predicts a negative relationship between Tangibility and Leverage. Tangibility is one of the most important variables considered for the Pecking Order Theory. The results for this study strongly support the Pecking Order theory in explaining the relationship between the independent variable Tangibility and the dependent variables – Financial Leverage and Debt Equity. This can be explained by the rationale that firms with few tangible assets will tend to accumulate more Debt over time due to the asymmetric information problem.

- Like Tangibility, both the Static Trade Off Theory and the Pecking Order Theory predicts opposite relationship between Profitability and Leverage. While the Static Trade off theory predicts a positive relationship whereas the Pecking Order Theory predicts a negative relationship. For the current study the Pecking Order Theory can explain the relationship between Profitability of the Indian Industries and the amount of leverage in their Capital Structure. The results of the analysis by grouping the data based on Size or degree of Leverage also supported the
Pecking Order Theory. The results were consistent for both the dependent variables i.e. Financial Leverage and Debt Equity. The results suggest that firms prefer to sequence financing, giving preference to internal sources and later Debt and external equity. It may also be due to the high issue costs, transaction costs in the capital markets and that is why firms depend on the retained profits to finance their needs.

According to the Trade-off theory the companies with Growth opportunities, in the form of intangible assets, tend to have a lower level of Debt than companies with tangible assets. The Pecking Order Theory takes a neutral stance for Growth in assets and states that the relationship between Growth and Debt can be positive or negative. For this study, the variable Growth represented by Growth in assets supports the Pecking Order theory for the variable Financial Leverage. However, for the dependent variable- Debt Equity the results were mixed between the Static Trade Off Theory and the Pecking Order Theory.

The relationship between Liquidity of a firm and leverage has been predicted by the Pecking Order Theory, which assumes the relationship to be negative. For the selected Indian companies for the study, the variable Liquidity had a negative relationship with the dependent variables – Financial Leverage and Debt Equity Ratio and thus the Pecking Order Theory could be applied to predict their relationship. The results of the analysis by grouping the data based on Size or degree of Leverage also supported the Pecking Order Theory. The results were
consistent for both the dependent variables i.e. Financial Leverage and Debt Equity.

- The only variable that differs on the applicability of the theories is Size. The relationship between Leverage and variable Size has been explained differently by both the theories. The Static Trade-off theory predicts that large firms are expected to employ more Debt in their capital structure. In contrast, the Pecking Order Theory expects an inverse relationship between Size and Debt because of the cost of information asymmetry. The results of the study favor the Static Trade Off theory as the relationship between independent variable Size and dependent variables Financial Leverage and Debt Equity is positive. The results of the analysis by grouping the data based on Size or degree of Leverage also supports the Static Trade Off Theory. The results were consistent for both the dependent variables i.e. Financial Leverage and Debt Equity.

Scope for further study:

Rajan and Zingales (1998) provides evidence in favour of the fact that it is the relative need of external finance that results in a disproportionate development of industrial sectors, faster in countries with more-developed financial markets. Under the assumption of perfect capital market, the authors have identified the financing needs of the finance hungry industries as an industry’s technological demand for external financing. Since external fund requirement indicates the amount of desired investment that cannot be financed through the internal cash flows; external fund composition is important. Further analysis can be performed to understand the extend of the impact of external funds on the regression model developed in the current study. Thus, the scope of the current study can be
extended by including external finance (proportion of external funds to total funds) as a dependent variable in the regression equations for dependent variables Debt Equity and Financial Leverage.