

Capital Structure and Ownership Structure: A Review of Literature

by

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Abstract

There have always been controversies among finance scholars when it comes to the subject of capital structure. So far, researchers have not yet reached a consensus on the optimal capital structure of firms by simultaneously dealing with the agency problem. This paper provides a brief review of literature and evidence on the relationship between capital structure and ownership structure. The paper also provides theoretical support to the factors (determinants) which affects the capital structure.

Keywords:

Capital Structure ; Ownership Structure ; Agency Theory ; Leverage ; Corporate Finance

Introduction

Capital Structure is a mix of debt and equity capital maintained by a firm. Capital structure is also referred as financial structure of a firm. The capital structure of a firm is very important since it related to the ability of the firm to meet the needs of its stakeholders. Modigliani and Miller (1958) were the first ones to landmark the topic of capital structure and they argued that capital structure was irrelevant in determining the firm's value and its future performance. On the other hand, Lubatkin and Chatterjee (1994) as well as many other studies have proved that there exists a relationship between capital structure and firm value. Modigliani and Miller (1963) showed that their model is no more effective if tax was taken into consideration since tax subsidies on debt interest payments will cause a rise in firm value when equity is traded for debt.

In more recent literatures, authors have showed that they are less interested on how capital structure affects the firm value. Instead

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they lay more emphasis on how capital structure impacts on the ownership/governance structure thereby influencing top management of the firms to make strategic decisions (Hitt, Hoskisson and Harrison, 1991). These decisions will in turn impact on the overall performance of the firm (Jensen, 1986). Nowadays, the main issue for capital structure is how to resolve the conflict on the firms' resources between managers and owners (Jensen, 1989). This paper is review of literature on the various theories related to capital structure and ownership structure of firms.

Value and Corporate Performance of Firms

Capital structure is very important decision for firms so that they can maximize returns to their various stakeholders. Moreover an appropriate capital structure is also important to firm as it will help in dealing with the competitive environment within which the firm operates. Modigliani and Miller (1958) argued that an 'optimal' capital structure exists when the risks of going bankrupt is offset by the tax savings of debt. Once this optimal capital structure is established, a firm would be able to maximise returns to its stakeholders and these returns would be higher than returns obtained from a firm whose capital is made up of equity only (all equity firm).

It can be argued that leverage is used to discipline managers but it can lead to the demise

of the firm. Modigliani and Miller (1963) argued that the capital structure of a firm should compose entirely of debt due to tax deductions on interest payments. However, Brigham and Gapenski (1996) said that, in theory, the Modigliani-Miller (MM) model is valid. But, in practice, bankruptcy costs exist and these costs are directly proportional to the debt level of the firm. Hence, an increase in debt level causes an increase in bankruptcy costs. Therefore, they argue that that an optimal capital structure can only be attained if the tax sheltering benefits provided an increase in debt level is equal to the bankruptcy costs. In this case, managers of the firms should be able to identify when this optimal capital structure is attained and try to maintain it at the same level. This is the only way that the financing costs and the weighted average cost of capital (WACC) are minimised thereby increasing firm value and corporate performance.

Using theoretical models, top management of firms are able to calculate the optimal capital structure but in real world situations, many researchers found that most firms do not have an optimal capital structure (Simerly and Li, 2000). The reason underlying this argument is that, in general, the performance of a firm is not related to the compensation of the managers of the firm. Accordingly, managers prefer to surround themselves with all sorts of

luxury and amenities rather than sharing the firms' profits (paying out dividend) with its shareholders. Hence, the main problem that shareholders face is to make sure that managers work with the objective of increasing the firm's value instead of wasting the resources. In other words, shareholders have to find a way to deal with the principal-agent problem.

The Agency Theory

Berle and Means (1932) initially developed the agency theory and they argued that there is an increase in the gap between ownership and control of large organisations arising from a decrease in equity ownership. This particular situation provides a platform for managers to pursue their own interest instead of maximising returns to the shareholders.

In theory, shareholders of a company of the only owners and the duty of top management should be solely to ensure that shareholders interests' are met. In other words, the duty of top managers is to manage the company in such a way that returns to shareholders are maximised thereby increasing the profit figures and cash flows (Elliot, 2002). However, Jensen and Meckling (1976) explained that managers do not always run the firm to maximise returns to the shareholders. Their agency theory was developed from this explanation and the principal-agent problem was taken into

consideration as a key factor to determine the performance of the firm. Jensen and Meckling (1976, p. 308) states that "An agency relationship is a contract under which one or more persons (the principal[s]) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent". The problem is that the interest of managers and shareholders is not always the same and in this case, the manager who is responsible of running the firm tend to achieve his personal goals rather than maximising returns to the shareholders. This means that managers will use the excess free cash flow available to fulfil his personal interests instead of increasing returns to the shareholders (Jensen and Ruback, 1983). Hence, the main problem that shareholders face is to make sure that managers do not use up the free cash flow by investing in unprofitable or negative net present value (NPV) projects. Instead these cash flows should be returned to the shareholders, for example through dividend payouts (Jensen, 1986). The costs of monitoring the managers so that they act in the interests of the shareholders are referred as Agency Costs. The higher the need to monitor the managers, the higher the agency costs will be.

Pinegar and Wilbricht (1989) discovered that principal-agent problem can be dealt with to some extent through the capital structure by

increasing the debt level and without causing any radical increase in agency costs. Similarly, Lubatkin and Chatterjee (1994) argue that increasing the debt to equity ratio will help firms ensure that managers are running the business more efficiently. Hence, managers will return excess cash flow to the shareholders rather than investing in negative NPV projects since the managers will have to make sure that the debt obligations of the firm are repaid. Hence, with an increase in debt level, the lenders and shareholders become the main parties in the corporate governance structure. Thus, managers that are not able to meet the debt obligations can be replaced by more efficient managers who can better serve the shareholders. This means that leveraged firms are better for shareholders as debt level can be used for monitoring the managers.

In this case, it can be said that debt financed firms are more appropriate for investors but with a high debt level increases the cost of capital as well as bankruptcy costs. Moreover, there is more risk in investing in firms with high debt levels as these firms tend to have a bad or low rating by rating agencies. Obviously a low rating will in most cases not attract investors.

Governance Structure and Bankruptcy Costs resulting from High Debt Levels

Obviously, with an increase in debt level of a firm, debt holders (for example, lenders)

have a key role in the governance structure of the firm which means that these debt-holders will have an upper hand in the decision-making of the firm with regards to the strategies and to be adopted. However, this might lead to a conflict between shareholders and debt-holders as they do not share the same ideas. Debt-holders will ensure that the firm makes enough profit to be able to meet its debt obligations. On the contrary, shareholders are more interested in returns that they should obtain. However, if the profit the firm has made is just enough to cover its debt obligations, then there will not be any excess cash flow left to be paid out as dividend because debt-holders have the priority over shareholders.

In this case, shareholders will guide the management to invest in projects with higher expected returns which entails a higher risk level so that they can get a return. It is here that the conflict of interest arises since debt holders will impose certain restrictions so that the firm can repay their debt obligations by preventing them from making risky investments (Florackis, 2008). Hence, there are the managers, shareholders and debt-holders try to impose different strategies this might render the governance structure of the firm becomes constrained. It can be argued that if debt-holders exercise too much pressure on the management of the firm, this can lead to a drop in performance since the debt-holders will prefer that the firms invest in less risky projects to meet

the debt obligations and prevent the firms to invest in projects that can ensure long term return and comprising of a higher level of risk.

Warner (1977) argues that the potential bankruptcy costs a firm might face are reflected in its share price and this is taken into consideration by investors when they make investment decisions. Bankruptcy costs refer to the costs associated with declining credit terms with customers and suppliers. It can be argued that suppliers would not be willing to give long term credit terms to the firm as the latter faces the risk of default and similarly, customers would avoid buying products and services from a firm facing a high risk of default since warranties and other after sales services will be void or at risk.

The Free Cash Flow Theory

Jensen (1989) states that when free cash flows are available to top managers, they tend to invest in negative NPV projects instead of paying out dividends to shareholders. He argues that the compensation of managers with an increase in the firm's turnover. Hence the objective of the company is to increase the size of the firm by investing in all sorts of projects even if these projects have a negative NPV. Dorff (2007) argued that compensation of managers tend to increase when there is an increase in the firm's turnover.

Jensen (1986) defines free cash flow as the amount of money left after the firm has invested in all projects with a positive NPV and states that calculating the free cash flow of a firm is difficult since it is impossible to determine the exact number of possible investments of a firm. Lang, Stulz and Walking (1991) uses the Tobin's q as a proxy to determine the quality of investment. Firms with a high 'q' showed that firms were using their free cash flows to invest in positive NPV projects whereas firms with low 'q' showed that firms were investing in negative NPV projects and therefore, the free cash flows should instead be paid out dividends to the shareholders. As a whole, this study is in line with the free cash theory and was considered as very reliable among economists. We can conclude that using free cash flows to invest in negative NPV projects leads to an increase in agency costs.

Announcements of Capital Expenditures

The free cash flow theory argues that there should be a reduction in the free cash flow of firms with poor investments so that managers do not waste the firm's resources by investing in negative NPV projects. Hence reducing the free cash flow is advantageous but on the other hand, shareholders or potential investors get a bad image of the firm when the latter is cancelling or delaying investment opportunities. Vermaelen

(1981) and other studies discuss the effects of announcements of capital expenditures on the market value of the firm but their results are very unclear and in contradiction to each other; meaning that there is no real proof of the above mentioned relationship. However, McConnell and Muscarella (1985) found that announcements of future capital expenditures do have an impact on the value of firms operating in the industrial sector only.

Equity Financing and Firm Performance

We have observed from the previous chapter in this paper that managers use excess free cash flow to pursue their personal interests instead of paying out dividends to shareholders. Lambert and Larcker (1986) argued that managers of firms financed mostly with equity (where there are a large number of shareholders with very small shareholding power) tend to have this behaviour. In this case, since it will be difficult to regroup all the shareholders to pressure and control the management and as a result, the shareholders prefer to sell their stocks instead of incurring agency costs to solve this problem.

On the other hand, companies with a small number of shareholders with large shareholding can more easily regroup themselves to pressure and control the management on how to run the firm. The study of Dolmat-Connel

(2002) showed that the profitability of firms increase considerably when managers are given shares of the company. This is because the managers will work in the interest of the shareholders since the managers themselves own shares of the firm.

Therefore, linking the ownership structure to management can solve the principal-agent problem. This is in line with Smith (1990) who carried a study on 58 Management Buyouts of public companies during the period of 1977 to 1986. His findings revealed that there exists a positive relationship between management ownership and the performance of the firm. This study also provide empirical evidence that increase in operating profits result from the decrease in operating costs and the proper management of working capital of the firms. This is in line with Lichtenberg and Siegel (1990).

Conclusion

This paper is a review of the literatures on capital structure and provides empirical evidence that here exists a relationship between the capital structure and ownership structure of the firm. Economists have not yet reached a consensus on how to determine the optimal capital structure (debt to equity ratio) that will enable firms to maximise performance by simultaneously dealing with the principal-agent problem. Taking into consideration the shortcomings of both equity

and debt financing, it can be argued that debt financing is better as it allows tax deductibility on interest payments and also provides a mechanism to control the activities of managers.

We have observed that there are many factors which can be used to determine the capital structure of a firm. The estimated model below is more or less similar as the model used in Damodaran (1999) except that some of the independent variables are different as this model is based on the different theories discussed in this paper.

$$DE = \beta_0 + \beta_1 \text{Tax} + \beta_2 \text{Insider} + \beta_3 \text{Capex} + \varepsilon$$

where:

DE is the Debt to Equity ratio (Capital Structure) or Leverage (Dependent variable).

Tax is the Tax Rate of the industry. Modigliani and Miller (1963) argued that with a higher debt level, a firm benefits with more tax deductibility. In this case, we could expect the coefficient β_1 to be positive.

Insider is the Insider Holding of the company which is the percentage of shares that managers own. This variable takes into account the principal-agent problem which has been extensively discussed in this paper. When managers are also the shareholders of a firm, we can expect that the managers will not invest in risky projects thereby keeping the debt level low.

Therefore, the coefficient β_2 is expected to be negative and in this case, it will support the idea that agency costs can be reduced by giving shares of the firm to its managers.

Capex is the Capital Expenditure of the firm. Jensen (1989) argues that the more free cash available, the more the managers will invest irrespective of whether the investment is good or bad and this eventually leads to an increase in the leverage. Hence, we can expect the coefficient β_3 to be negative as with an increase in leverage, the firm will have more interest payment to make and therefore less free cash available.

The estimated model is very limited since it only includes variables which have been discussed in the brief literature review of this paper. In reality, it is much more complex to determine the optimal capital structure of a firm. However, the estimated model provides empirical evidence regarding the relationship between capital and ownership structure.

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