

Capital Structure Decision: An Overview

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Abstract

Capital structure decision poses a lot of challenges to firms. Determining an appropriate mix of equity and debt is one of the most strategic decisions public interest entities are confronted with. A wrong financing decision has the tendency of stalling the fortunes of any business. Therefore, if managers are to achieve the goal of wealth maximization, conscious steps must be taken in the right direction and at the right time to identify those factors that must be taken into cognizance in determining appropriate financing mix. It is upon this premise that this conceptual piece is designed to guide the top echelons of corporate managers in capital structure decisions. The paper explores a vast body of literature in articulating critical issues in capital structure decision.

Introduction

Capital structure refers to the different options used by a firm in financing its assets (Bhaduri, 2002). Generally, a firm can go for different levels/mixes of debts, equity, or other financial arrangements. The foundation for theories and research focus on the subject of capital structure began with the introduction of Modigliani and Miller's (M&M) theoretical model about corporate capital structure in 1958 which is considered to have created the turning point for modern corporate finance theory. The theory provides insight into a firm's capital structure decision in a capital market free of taxes, transaction costs, and other frictions.

Following Modigliani and Miller (1958), most theories such as the Pecking Order Theory, Agency Theory and Trade Off Theory have sought to explain capital structure by introducing frictions omitted in the original Modigliani and Miller framework. According to Myers (2001) there is no universal theory of the debt-equity choice, and no reason to expect one. However, there are several useful theories as identified earlier each of which helps to understand the debt-to-equity structure that firms choose. These theories can be divided into two groups – either they predict the existence of the optimal debt-equity ratio for each firm (so-called static trade-off models) or they declare that there is no well-defined target capital structure (pecking-order hypothesis).

Static trade-off models understand the optimal capital structure is achieved when the marginal present value of the tax shield on additional debt is equal to the marginal present value of the costs of financial distress on additional debt. On the other hand, the pecking-order theory suggests that there is no optimal capital structure but firms ration between internal financing (retained earnings) to external funds depending on the extent of perceived information asymmetry in the financing environment. A number of factors may influence the financial structure of companies.

For example Salawu (2007) identifies factors such as ownership structure and management control, growth, profitability, issuing cost, and tax issues associated with debt as the major factors influencing bank's capital structure. Bevan and Danbolt (2001) also highlights company size, profitability, tangibility, growth opportunities, non-debt tax shields and dividend as possible determinants of the capital structure choice. The focus of this study is to discuss these factors influencing the capital structure of quoted companies. This is imperative as the corporate sector in Nigeria is characterized by a large number of firms operating in a largely deregulated and increasingly competitive environment. Since 1987, financial liberalization has changed the operating environment of firms, by giving more flexibility to the Nigerian financial managers in choosing the firm's capital structure (Salawu, 2007).

In addition, there are only a limited number of studies that examine factors which influence the capital structure of Nigerian firms. As Salawu and Agboola (2008) note that though the capital structure issue has received substantial attention in developed countries, it has remained neglected in the developing countries.

Concept of Capital Structure

In their attempt to maximise the overall value, firms differ with respect to capital structures. This has given birth to different capital structure theories that attempt to explain the variation in capital structures of firms over time or across regions (Shah & Hijazi 2004). The capital structure of a firm consists of various sources, which are presented in the equity and liability side of the balance sheet. Huang and Vu Thi, (2003) note that a firm has three main sources of financing, also called capital components (at their disposal to fund new investment opportunities. It includes the use of retained earnings (internal equity), issuing new shares (external equity) or borrowing money through debt instruments (debt capital). These sources of financing constitute the capital structure of a firm and also reflect the ownership structure of the firm

According to Brigham & Daves (2004) absolutely nothing is more important to a new business than raising capital. The way that money is raised can, however, have an enormous impact on the success of a business. This argument may be applicable to all businesses and not only to new businesses. How a firm chooses the combination of debt and equity in their capital structure depends on various factors such as the characteristics of the firm, the economy and the perceptions and objectives of the managers. Karadeniz, Kandir, Balcilar, and Onal (2009) notes that management's first priority is to evaluate the various costs and benefits associated with the use of both debt and equity.

Management will base their decision with regard to the combination of debt and equity on these various costs and benefits. According to these researchers, management will be able to set up an optimal capital structure, which can maximise the value of the firm. This, however, is only one side of the debate on capital structures. In doing this, management will consider all methods of financing available and use the least expensive source first (Myers, 1984). Although empirical research (Eriotis, Vasiliou, & Ventoura-Neokosmidi, 2007) provides mixed evidence with regards to the existence of an optimal capital structure, financial theory still provides some help in understanding how the financing mix (i.e debt and equity) could affect the firm's value.

Debt Financing

Zietlow, Hankin, & Seidner (2007) notes that debt is one of the important items in the capital structure of companies and it provides a medium for corporate financing as firms borrow money in order to obtain the capital they require for capital expenditure. It represents any agreement between a lender and a borrower: notes, certificates, bonds, debentures, mortgages and leases.

The main characteristic of debt financing is that the amount borrowed, plus interest, must be paid back to the providers of debt over a given period of time. The interest rate that must be paid on the borrowed money, together with a repayment schedule will be set out in the contract between the lender and the borrower. If the borrower does not fulfill their obligations set out in the contract, it can negatively impact on their credit rating, which in turn can make it more difficult for them to obtain funds in the future and it can also lead to financial failure. Even if a firm suffers financially and is not able to make the scheduled payments, they still have an obligation towards the debt providers (Shah & Hijazi 2004).

Debt can either be short-term or long-term. Short-term debt represents funds needed to finance the daily operations of the firm, such as trade receivables, short-term loans and inventory financing. These types of funds' repayment schedules take place in less than one year. Long-term financing is usually acquired when firms purchase assets such as buildings, equipment or machinery. The scheduled repayments for these funds extend over periods longer than one year (Zietlow, Hankin, & Seidner 2007).

Equity

According to Sibilkov (2009) equity enables the firm to obtain funds without incurring debt. This means that the fund obtained through equity do not have to be repaid at a particular time. The investors who purchase shares in the firm hope to reclaim their investment out of future profits. The shareholders have the privilege to share in the profits of the firm in the form of dividends or future capital gains. However, if the firm suffers a loss, the shareholders have limited liability, which means that the only loss they face is the amount that they had invested in the firm (Sibilkov 2009).

There are two kinds of equity: internal equity and external equity (Myers, 1984). Internal equity refers to the retained earnings of a firm which forms part of the firm's distributable reserves. When distributable profit is determined in the income statement, the firm has to decide what proportion of that profit will be paid out as dividends to the ordinary shareholders. The remaining amount represents the retained earnings and this amount will be carried over to the firm's distributable reserves in the balance sheet. The retained earnings therefore represent the amount that is reinvested back into the firm. External equity refers to outside capital which is obtained through the issuing of new shares.

It generally consists of ordinary share capital and preference share capital. A firm has to raise external equity when its internal equity (retained earnings) is not sufficient for the required investment opportunity (Graham and Harvey 2001). According to Narayanan (2008) when a firm raises too much capital through equity issues, it could be interpreted as a signal to the market that it does not have sufficient reserves or cash flows, and this could result in the undervaluation of the firm's shares. When investments are financed with external equity, the share prices of firms sometimes fall. Therefore, it is better to build up reserves so that a higher proportion of capital needs can be supplied from internal sources.

Combination of debt and equity

When considering the characteristics of and the various advantages and disadvantages associated with debt and equity, it is clear that firms should consider a combination of these different sources of financing. As already mentioned, using only debt in the capital structure can be very risky (especially due to the risk of bankruptcy, because the more debt a firm uses, the higher the bankruptcy risk) (Huang & Vu Thi, 2003). During periods of high interest rates, it can cause the earnings on an investment to be wiped out by high interest payments (Huang & Vu Thi, 2003). Issuing only shares in an attempt to raise funds can also be a very risky option.

The main reason is because a firm must use cash to fund new investments, while shares may not generate cash at the time the firm needs to pay for the new investment (Huang & Vu Thi, 2003). Theoretical research (Chaplinsky and Niehaus 2003, Rajan and Zingales 2005, Bhaduri 2002) to date has indicated that firms can influence its value by varying its ratio of debt and equity. The main argument is that firms need to find an optimal combination of debt and equity that will ultimately increase the overall value of the firm. Therefore, it appears that the decisions regarding capital structure could impact on the success and future prosperity of the firm.

Firm Characteristics and Capital Structure Decision

Thus far, evidence (Zietlow, Hankin, & Seidner 2007 and Sibilkov 2009) has been provided that capital structures differ between countries, industries and firms within a given industry. This supports Baral's (2004) argument that differences in capital structures between industries may be due to attributes specific to the firm. The focus of capital structure studies to date has been to identify determinants that can explain the financing behaviour and choices of firms. As a result of these theoretical and empirical studies, several determinants have emerged to better explain capital structures.

According to Harris & Raviv (1991) and Brigham & Daves (2004), the consensus is that firm' levels of leverage increase with fixed assets, non-debt tax shields, investment opportunities and firm size. Similarly, levels of leverage decrease due to volatility, advertising expenditure, the probability of bankruptcy, profitability and the uniqueness of the product (Rajan & Zingales, 1995). The predominant firm characteristics from prior research (Booth, Aivazian, Demirgüç-Kunt, Maksimovic, 2001, Vasiliou, Eriotis, Daskalakis, 2005, Baral 2004, Chen & Hammes 2004) that are included in this study are profitability, asset structure, liquidity, business risk, growth and size. These firm characteristics are identified as important factors in both developed countries and developing countries.

Profitability

According to Chen & Hammes (2004) Profitability indicates how efficiently management utilizes its total assets in order to generate earnings. Shareholders are concerned with the profitability of a firm because this can predict the future earnings of that firm. Outside investors will, therefore, include profitability in their analysis of the firm when making investment decisions. Traditional financial literature states that profitable firms can employ more debt because they are exposed to lower risks of bankruptcy and financial distress.

Baral (2004) supports this by stating that more profitable firms have more capacity to borrow and providers of debt will be more willing to provide funds because the probability of default is lower than for less profitable firms. With profitable firms also subject to higher tax payments, there is a greater incentive to employ more debt to exploit debt interest tax shields. The theoretical and empirical results of the relationship between profitability and capital structure are controversial. The results from previous studies correspond with both the trade-off theory and the pecking order theory.

Most studies found a negative relationship between profitability and leverage, which supports the pecking order theory where firms prefer internal financing to external financing (Booth et al., 2001; Fama & French, 2002; Drobetz et al., 2007; Baral, 2004). This negative relationship is observed for both developed as well as developing countries (Chen & Strange, 2005). Drobetz et al., (2007) argue that firms prefer internal financing to external financing to fund investments and, therefore, raise capital in a specific order. If the internal funds are not sufficient, firms prefer debt financing to equity financing.

This theory therefore suggests that firms with a higher profitability will use their internal funds (retained earnings) and rely less on debt financing. Firms that generate high retained earnings, generally tend to avoid gearing (Vasiliou, Eriotis & Daskalakis, 2005). This implies a negative relationship between profitability and capital structure. Akhtar and Oliver (2009) argues that this might be due to the higher costs from issuing equity. The past profitability of a firm and the amount of retained earnings should be an important determinant of its capital structure (Chen & Hammes 2004). Frank & Goyal, (2004) however, found a positive relationship between profitability and leverage, which supports the trade-off theory. Firms with high profitability imply higher debt capacity and consequently less risk for debt providers (Baral, 2004).

Debt providers will, therefore, be more willing to provide funds to more profitable firms, because these firms have the ability to fulfill their debt obligations. According to Hutchinson & Hunter (1995) profitable firms will use debt to take advantage of the tax shields. The most important advantage of debt is the fact that the interest payments on debt are tax-deductible, which creates a tax shield. This tax shield allows firms to pay lower taxes than they should when they use debt capital instead of their own equity capital. This implies that profitable firms have higher leverage, because they can take advantage of tax shields. Another possible reason why profitable firms use more debt in their capital structure is to minimize agency costs.

Huang & Vu Thi, (2003) notes that debt can be used as a tool to reduce agency costs. The use of more debt limits the actions taken by management, since debt is associated with compulsory interest payments. In terms of free cash flow, it would therefore be advisable for profitable firms to use more debt as a tool to discipline managers (Bauer, 2004). Thus, due to higher debt capacity, lower agency costs and the advantage of tax shields, it is expected that firms with a higher profitability will have a higher degree of leverage, which results in a positive relationship between profitability and leverage. This result supports the trade-off theory of capital structure. According to the above findings, support exists for both the trade-off theory and the pecking order theory of capital structure. The arguments provided by both theories are valid.

Asset structure

Booth, Aivazian, Demirgüç-Kunt and Maksimovic, (2001) and Vasiliou, Eriotis and Daskalakis, (2005) note that most capital structure theories argue that a contributing factor of capital structure is the types of assets owned by a firm. This is because the cost of financial distress depends on the types of assets in the asset structure. The asset structure of a firm consists of tangible and intangible assets. Tangible assets are those assets that have a physical form and there are two subclasses: current assets (inventory, cash, and trade receivables) and non-current assets (machinery, plant, equipment, buildings).

Intangible assets are not physical in nature, but they are very valuable to the firm and can be critical to its future success or failure. These types of assets consist of patents, brand recognition, goodwill and copyrights (Vasiliou, Eriotis, & Daskalakis 2005). According to Akhtar (2005), assets reflect the unique characteristics of a firm. From a theoretical perspective, tangible assets, more specifically non-current assets, can be used as collateral for debt, which means that the more tangible assets a firm has, the lower the risk for the debt provider. The liquidation value of the firm's assets will also be higher with tangible assets, which will decrease the probability of mispricing in the event of bankruptcy and make lenders more willing to supply loans (Huang & Vu Thi, 2003).

Booth et al. (2001) also state that a large amount of tangible assets increases a firm's ability to issue secured debt. Also tangible assets are associated with higher leverage because they provide better collateral for loans. The fact that non-current assets can serve as collateral, is the main argument to support the notion that the asset structure of a firm can affect its capital structure.

Pandey (2001) argues that the total value of a firm can be increased with the issuance of secured debt. He states that the agency costs of secured debt are lower than the costs for unsecured debt; therefore, firms will issue as much secured debt as possible. This argument is supported by Akhtar and Oliver (2009) who state that the agency costs of debt increases when firms cannot collateralize their debt. In line with the pecking order theory which assumes there is no target capital structure and that instead of putting a target debt-equity ratio into place, firms adapt their financing policy to minimize associated costs, Chen and Strange, (2005) argue that firms with more intangible assets face more serious information asymmetry problems, which will result in more agency costs for the firm.

Narayanan (2008) also suggests that higher debt levels lessen the tendency of management to act in their own interest due to the increased risk of bankruptcy and hence the borrower is restricted to use the funds for a specified project, if the debt can be collateralized. However, as observed by Rao et al. (2007), due to the fact that management is restricted in what they do with the funds, it can decrease the conflict between debt holders and equity holders, which will subsequently decrease the agency costs of the firm. A further argument is that the business risk of a firm will ultimately be reduced, thus resulting in lower financial distress costs for the firm. Thus, generally, when a firm has collateral for debt, they can borrow at lower interest rates (Rao et al. 2007),

According to Akhtar and Oliver (2009) firms can borrow at a lower interest rate if their debt is secured by assets with stable, long-term value. This implies that firms with less non-current assets generally have higher costs of borrowing due to the lack of collateralized assets. It is therefore expected that firms with a large amount of non-current assets will borrow more due to the fact that they can get debt at lower rates.

The majority of previous studies found a positive relationship between the tangibility of assets and leverages (Frank & Goyal, 2004; Vasiliou et al., 2005; Drobetz, Pensa, Wanzenried (2007). This positive relationship supports the prediction of the trade-off theory that debt capacity increases with the proposition of tangible assets on the balance sheet (Drobetz et al., 2007). Contradicting results were also found with regard to the relationship between the tangibility of assets and leverage. Bevan and Danbolt (2002) and Booth et al. (2001) found that the tangibility of assets is negatively related to leverage.

Liquidity

Sibilkov (2009) notes that liquidity is defined as the ability of a firm to fulfill its short-term obligations; hence, the ease with which a firm's assets can be converted into cash. A firm with sufficient liquidity has sufficient current assets available to cover its current liabilities. If a firm, therefore, has sufficient liquidity it may decrease its chances of bankruptcy, because there will be enough cash reserves to cover its debt. Liquidity is also an important determinant of the costs of financial distress.

According to Rao, Mohamed Al-Yahyaee & Syed, (2007), if a firm's liquidity is insufficient over the long-term it may eventually lead to solvency problems and subsequently threaten the survival of a firm. This will increase the financial distress costs of a firm.

Liquidity is an important factor in the capital structure debate, because if a firm faces a threat of bankruptcy, they will be better able to use more debt, given that they own sufficient liquid assets (With the threat of bankruptcy, the firm can more easily convert its liquid assets into the funds required).

According to Zietlow, Hankin and Seidner (2007), the traditional view is that liquidity increases debt capacity, because higher liquidity may increase firm value in liquidation and thus liquidity could reduce a firm's ability to issue debt securities.

Another rationale for the existence of a relationship between liquidity and capital structure is provided by the agency theory. The conflict between management and shareholders may influence the financing choices of a firm. The argument is that management is extremely risk averse and therefore builds excess liquidity. Zietlow et al., (2007), notes further that managerial risk aversion exceeds shareholders' risk aversion, because the shareholders are well diversified. This may lead to conflict between management and shareholders, because shareholders may argue that the excess cash can be put to better use to maximise their wealth. This conflict will eventually result in higher agency costs for the firm. Liquidity management is extremely important for every firm.

According to Eriotis et al., (2007) it is to the advantage of a firm to invest in liquid current assets, because that generates sufficient cash flows in order to be able to cover its current liabilities. Management, however, must maintain an optimal balance between current assets and current liabilities. If the liquidity is too high (current assets is much higher than current liabilities), it may signal to investors that the firm has a lot of funds tied up in non-productive assets such as excess cash, marketable securities or inventory. As noted earlier, this might pose a problem to the shareholders since those funds can be put to better use to maximise their wealth.

On the other hand, if liquidity is too low, it could indicate that the firm does not have the ability to cover its current liabilities. If the firm's liquidity continues to remain too low, it will eventually lead to solvency problems. This balance between current assets and current liabilities is influenced by the financing decisions of management. The more debt a firm uses, the more current liabilities will be implied and the fewer current assets will remain after dealing with the liabilities.

However, if a firm employs more current assets, it can generate more internal cash inflows that can be used to finance its investment opportunities. The predominant finding from various empirical studies (Eriotis et al. 2007 and Rao et al. 2007) is that liquidity is negatively related to leverage, thus firms with high liquidity tend to borrow less.

Business risk

According to Chen and Strange (2005) there is consensus in financial literature that business risk is among the primary determinants of a firm's capital structure. Theoretical and empirical research, however, cannot reach consensus on whether leverage is an increasing or decreasing function of business risk. Empirical evidence (Wiwattanakantang 1999 and Deesomsak et al. 2004) can be found in favour of both. A few empirical studies show that no relationship between the two variables exists.

Booth et al. (2001) argue that the relationship between business risk and leverage is different for different countries and says that this might reflect the institutional structures within which the firms operate. Deesomsak, Paudyal and Pescetto (2004) and De Jong, Kabir, Nguyen, (2008) support Booth et al.'s (2001) theory, regarding different coefficients for different countries.

From a business perspective, risk is often associated with a potentially negative impact on the firm's value, and most financial textbooks and empirical research predict an inverse relationship between business risk and the amount of leverage which a firm can use. An inverse relationship implies that an increase in business risk, results in a decrease in the amount of leverage that can be used by a firm.

The basis for this prediction is that the use of debt in the capital structure increases the probability of financial distress. By using more debt, the cash flows of the firm become less stable because of the firm's larger debt obligations. According to the bankruptcy theory, a negative relationship between business risk and leverage is therefore predicted (Baral, 2004).

Other empirical studies that support this negative relationship are Graham and Harvey (2001), Singh, Wallace and Suchard (2003) and Deesomsak et al. (2004). Baral (2004) has also noted that firms with a high business risk may have lower agency costs of debt and will therefore borrow more and this proposes a positive relationship between business risk and leverage. Gaud, Jani, Hoesli and Bender (2003) have also shown that in several countries, firms with a larger variance in earnings, appear to use more debt, which is contradictory to the traditional view that firms with larger variances in earnings should use less debt.

Other empirical studies such as Chen and Strange (2005) also support a positive relationship between business risk and leverage. Empirical studies by various researchers, such as Wiwattanakantang (1999) and Deesomsak et al. (2004), report that there is no relationship between business risk and leverage, since the coefficients between the two variables is insignificant. However, it does again emphasize the fact that empirical research to date cannot find consensus with regard to the relationship between business risk and leverage. It is therefore important and relevant to determine whether a relationship does exist for the firms included in this study.

Growth

According to Pandey (2001), generally, when a firm experiences high growth in its sales, it often needs to acquire more non-current assets, which means that higher growth firms have a greater need for future funds. Hence Growth firms are usually still relatively young and therefore have limited internal funds available to finance investment opportunities. Since growth firms are still relatively young and have limited internal funds, they are highly dependent on external financing to be able to acquire the assets required to grow.

Drobtz et al. (2007) argue that even if these firms have to use external funds to finance investment opportunities, the value of the firm may remain unchanged because of the positive effects of future growth opportunities. This holds even under asymmetric information. However, a non-growth firm can only change its capital structure by swapping debt against equity, or vice versa. In the presence of asymmetric information, this swapping may result in negative signaling effects, which have a negative impact on the value of the firm (Drobtz et al., 2007). The theoretical and empirical results on the relation between growth and capital structure are controversial. This controversy is explained by the different theories of capital structure.

According to the trade-off theory, agency costs are likely to be higher for growing firms, because these firms have more flexibility with regard to their choice of investments. In this regards, Shah & Hijazi, (2004) argue that when a firm's leverage is high, management have an incentive to engage in asset substitution, which will transfer wealth from the shareholders to the bondholders.

This will result in higher agency costs for the firm. Booth et al. (2001) support this by stating that improvements in a firm's growth opportunities will lead to higher agency costs of debt. This proposes a negative relationship between growth and capital structure. The free cash flow theory of Jensen (1986) strengthens the above prediction that growth is negatively related to leverage (Bauer, 2004). According to the free cash flow theory, firms with limited growth opportunities should use more debt, because this will prevent managers from using the money for investments that are not beneficial to the firm. Empirical studies by Frank and Goyal (2004) and Eriotis et al. (2007) support this finding that firms with a high growth potential employ less debt and more equity. Baral (2004) report a positive relationship between growth and leverage, which supports the pecking order theory.

Size

According to Vasiliou, Eriotis and Daskalakis (2005), the size of a firm is closely related to the amount of risk associated with it and bankruptcy costs. Larger firms tend to have less risk than smaller firms, because they are more diversified and therefore have more stable cash flows. Consequently, the larger firms will have a lower probability of bankruptcy and therefore also have lower financial distress costs. This implies that larger firms are prone to use more debt to finance their investment opportunities (Vasiliou, Eriotis & Daskalakis 2005).

According to Ezeoha and Francis (2010), generally, larger, well-known firms have easier access to the capital market and the stock market than their smaller counterparts. This is because the risk of default by a larger firm is much lower than for a smaller firm. Larger firms also have a better reputation in the debt market because they would generally receive higher credit ratings. Due to more security, financial institutions would be more willing to provide funds to larger firms and these funds are usually obtained at lower interest rates than by smaller firms. Small firms cannot access long-term debt markets since their growth opportunities usually exceed their amount of assets that can serve as collateral. Smaller firms have a higher risk of bankruptcy and will, therefore, borrow less. Also smaller firms tend to either use short-term funds by means of bank loans, or issue stock. This will ultimately result in higher costs of capital for the smaller firms. According to Bauer (2004), there is less asymmetric information in larger firms. Larger firms generally provide more information than smaller firms, which means that the public are more aware of what is going on in larger firms. This reduces the information asymmetry, which implies that the chances of a new equity issue being undervalued is reduced and therefore encourages larger firms to use equity financing.

However, theoretical expectations on the relationship between the size of a firm and its capital structure are also controversial. In terms of information asymmetry explained above, a negative relationship can be expected. Since larger firms have less information asymmetry, their equity becomes more attractive to outside investors and will, therefore, have more capital available to them. However, in terms of the bankruptcy theory, it is expected that the size of a firm and its capital structure will be positively related. Due to the fact that larger firms are more diversified, they have a lower risk of bankruptcy, which lowers their financial distress costs and they have easier access to capital markets. Larger firms will, thus, use more debt in their capital structure to take advantage of the lower financial distress costs and the lower interest rates provided by financial institutions.

Theoretical Frameworks

The importance of capital structure has resulted in the development of different capital structure theories to explain firms' financing decisions and the variation in capital structures of firms over time or across regions (Shah & Hijazi, 2004).

Thus there are several theories of capital structure that can be found in the literature. However, in this study, we shall examine two of the most dominant theories; the trade-off theory and the pecking order theory respectively. They are discussed below;

Trade-Off Theory

The trade-off theory states that there is an optimal capital structure that maximises the value of a firm. Therefore, management will set a target leverage ratio and then gradually move towards that. De Wet (2006) has demonstrated that firms select target leverage ratios based on a trade-off between the benefits and costs of increased leverage. This target leverage ratio is influenced by three factors: tax, financial distress costs and agency costs.

Managers will therefore choose the combination of debt and equity that achieves a balance between the benefits of debt (tax advantage) and the various costs associated with debt (financial distress costs and agency costs) (De Wet, 2006). These three factors are discussed in more detail to demonstrate how they could affect the capital structure.

Tax

Modigliani and Miller (1958) show that the value of a company is not affected by its capital structure, which indicates that no optimal capital structure exists. However, the study was conducted under certain strict assumptions (perfect capital markets, homogenous expectations, no taxes and no transaction costs). This implies that there is no gain from opportunistically switching between debt and equity, because the costs of the different forms of capital do not vary independently (Baker & Wurgler, 2002). Considering the strict assumptions of Modigliani and Miller (1958), there is no gain to a firm to switch between debt and equity.

The capital structure, therefore, has no effect on the overall value of a firm. Modigliani and Miller (1963) adjusted their own model by including company tax and further research by Miller (1977) also included personal tax in the model. The most important advantage of using debt as a source of financing is the fact that the interest payments on debt are tax-deductible which creates a "tax shield" for firms. This tax shield allows a firm to pay lower taxes when using debt capital than they would when using only their own capital (Eriotis et al., 2007). This means that by including a large portion of debt in the capital structure, it will lower the real after-tax cost of capital, which will subsequently raise the value of the firm.

This more recent approach of incorporating company and personal tax into Modigliani and Miller's model indicated that an optimal capital structure, which could maximise the value of the firm, could possibly exist. However, it also raised the important implication that firms should finance their projects completely with debt in order to maximise the total value of the firm (Chen & Strange, 2005). This is impractical and contradicts reality, since firms cannot make use of debt only in their capital structure. Thus far the focus has been placed on the advantages of using debt, which refers to lower taxes paid by firms due to the fact that the interest payments on the debt are tax-deductible.

Financial distress costs

The more debt a firm uses in its capital structure, the larger the legal interest obligation becomes. During periods of high interest rates, it can cause the earnings on an investment to be wiped out by high interest payments. This puts more and more pressure on firms to survive because there is an increased probability that a firm may not be able to successfully meet all its debt obligations (Eriotis et al., 2007).

If a firm cannot fulfill all its legal interest obligations, this can ultimately lead to bankruptcy. Financial distress costs consist of two parts, namely direct and significant indirect financial distress costs. The direct financial distress costs are the costs of bankruptcy and this usually includes legal and administrative fees. Indirect costs are defined as expenses or economic losses that result from bankruptcy but are not cash expenses of the process itself (Bauer, 2004). Therefore, when a firm includes too much debt in its financing mix, the financial distress costs will significantly increase. The impact of these increased financial distressed costs will increase the risk of bankruptcy, which will cause a decrease in the overall value of a firm (De Wet, 2006).

Agency costs

The use of debt in the capital structure can also lead to agency costs which arise due to a conflict of interest. According to Jensen and Meckling (1976), conflicts of interest can arise either between shareholders and bondholders (agency costs of debt) or between shareholders and managers (agency costs of equity) (Vasiliou, Eriotis & Daskalakis, 2003).

Agency costs of equity may arise when the incentives of the shareholders and management do not coincide. According to Myers (2001), "... *perfect alignment is implausible in theory and impossible in practice*".

Shareholders will expect of management to run the firm and take advantage of opportunities that will increase shareholders' value. On the other hand, management may wish to over-expand the size of the firm in order to maximise their own personal wealth at the expense of the shareholders (Jensen & Meckling, 1976). Managers may at times act in their own interest to obtain job security or higher salaries, and these individual incentives may deviate from the maximization of the value of the firm. According to Vasiliou et al., (2003), to prevent this, firms need to employ various mechanisms of monitoring and control, such as supervision by independent directors.

These monitoring and control mechanisms result in agency costs, which can be extremely expensive. Therefore, the shareholders will seek solutions that will monitor and control the actions of the managers, and that will not extract large amounts of the value of the firm. According to Sibilkov (2009) debt can be used as a tool to reduce agency costs. The use of debt limits the scope of managerial discretion because debt is associated with compulsory interest payments which will result in cash outflows. When financial distress was discussed earlier, it was said that higher debt increases the probability of bankruptcy. This will result in increased risk for managers as well, because they can lose their jobs or their reputation may be damaged. Consequently, managers will be less likely to undertake unprofitable investments that they otherwise would have done to maximise their own interest. When firms increase the level of debt in the capital structure, their legal obligation to pay interest payments will also increase. In turn, the possible remaining cash flows will be reduced. This implies that managers will rather use their remaining cash flows to pay their debt obligations than use these cash flows for personal wealth. Firms will therefore choose the amount of debt that will minimize their total agency costs. The optimal capital structure will thus be derived from the balance between the costs of debt and the benefits of debt (Eriotis et al., 2007).

Pecking Order Theory

The pecking order theory differs from the trade-off theory in that there is no well-defined debt-equity ratio (Singh, Wallace, & Suchard, 2003). According to Smart, Megginson and Gagman (2004), the pecking order theory assumes there is no target capital structure. Instead of putting a target debt-equity ratio into place, firms adapt their financing policy to minimize associated costs.

The results from studies (La Rocca, Cariola & La Rocca, 2007) concluded that firms prefer internal financing to external financing. This means that the order in which financing is obtained is firstly the use of retained earnings, then debt, then convertible debt and preference shares, while the issuing of new equity will be the last resort to obtain financing.

Therefore, if external financing is required, firms will issue the safest security first. The pecking order theory was first introduced by Donaldson (1961), and he observed that management strongly favoured internal generation as a source of new funds even to the exclusion of external funds except for occasional unavoidable 'bulges' in the need for funds. Myers (1984) argued that he could not find any theoretical foundation for these results that correspond with the modern theory of finance. Myers' (1984) main argument was that the capital structure theories up to the 1980s did not explain actual financing behavior. According to him, firms cannot be advised on optimal capital structure if actual financing decisions cannot be explained thoroughly.

He elaborated on the pecking order theory, which was originally developed by Donaldson in 1961 in an attempt to explain the financing behaviour of management. In an attempt to explain the pecking order theory, several theoretical and empirical studies state that this theory is based on the information asymmetries between well-informed managers and less-informed investors. Based on this information asymmetry, firms will use a specific order when it comes to financing. In the presence of information asymmetry, Adesola (2009) have shown that firms may prefer debt to equity financing. An extended discussion on the concept of information asymmetries and its effect on capital structure will now follow.

Conclusion

Companies' assets are financed by either internal or external capital. It is incumbent on the firm's management to determine which source best suits the firm at any point in time. In deciding whether to finance the firm's assets with equity, debt or both, certain conditions must first be considered. A wrong composition of a firm's capital structure can result in liquidity and solvency problems. In taking this strategic decision, managers must of necessity apply caution in ensuring that a right mixture of equity and debt are used to harness the benefits accruable from such combination. Financing a company solely with equity or debt may not be an optimal capital structure decision. This is against the backdrop of the reasons already stated.

References

- Akhtar, S. (2005). The determinants of capital structure for Australian multinational and domestic corporations. *The Australian Graduate School of Management*, 30, 321-341.
- Akhtar, S. and Oliver, B. (2009). Determinants of capital structure for Japanese multinational and domestic corporations. *International Review of Finance*, 9, 1-
- Bhaduri, S.N. (2002). Determinants of capital structure choice: a study of the Indian corporate sector". *Applied financial economics*, vol. 12, p. 655-665.
- Baker, M. Wurgler, J (2002): Market timing and capital structure. *Journal of Finance*, 57(1):1-32.
- Baral, K. J. (2004): Determinants of capital structure: A case study of listed companies in Nepal. *The Journal of Nepalese Business Studies*, 1(1):1-13.
- Bauer, P. (2004). Capital structure of listed companies in visegrad countries. *Praque Economic Papers*, 2004(2):159-175.
- Bevan, A.A. & Danbolt, J. (2002). Capital structure and its determinants in the UK – a decompositional analysis. *Applied Financial Economics*, 12(3):159-170.
- Booth, L., Aivazian, V. Demirgüç-Kunt, A. Maksimovic, V. (2001). Capital structure in developing countries. *Journal of Finance*, 56(1):87-130.
- Brigham, E. F. Daves, P. R. (2004). *Intermediate financial management*. 8th edition. Mason, OH: South-Western College.
- Chaplinsky, S. Niehaus, G. (2003). Do inside ownership and leverage share common determinants? *Quarterly Journal of Business and Economics*, 32(4):51-65.
- Chen, J. Strange, R. (2005). The determinants of capital structure: Evidence from Chinese listed companies. *Economic Change and Restructuring*, 38(1):11-35.
- Chen, Y. Hammes, K. (2004). *Capital structure theories and empirical results: A panel data analysis* [Online]. Available: <http://www.ssrn.com/abstract=535782> [17 September 2009].
- Drobetz, W. Pensa, P. Wanzenried, G. (2007). Firm characteristics, economic conditions and capital structure adjustments. Working paper, University of Basel, Basel.
- Deesomsak, R. Paudyal, K. Pescetto, G. (2004). The determinants of capital structure: Evidence from the Asia Pacific region. *Journal of Multinational Financial Management*, 14(4/5):378-405.
- De Jong, A. Kabir, R. Nguyen, T.T. (2008). Capital structure around the world: The roles of firm- and country-specific determinants. *Journal of Banking and Finance*, 32(9):1957-1969.
- De Wet, J.H. (2006). Determining the optimal capital structure: A practical contemporary approach. *Meditari Accounting Research*, 14(2):1-16.
- Donaldson, G. (1961). Corporate debt capacity: a study of corporate debt policy and the determination of corporate debt capacity. Harvard Business School, Boston.
- Drobetz, W. Fix, R. (2003). What are the determinants of the capital structure? Some evidence for Switzerland. Working paper, University of Basel, Basel.
- Drobetz, W. Pensa, P. Wanzenried, G. (2007). Firm characteristics, economic conditions and capital structure adjustments. Working paper, University of Basel, Basel.
- Eriotis, N., Vasiliou, D. Ventoura-Neokosmidi, Z. (2007). How firm characteristics affect capital structure: An empirical study. *Managerial Finance*, 33(5):321- 331.
- Ezeoha A. E and Francis O. O, (2010) "Local corporate ownership and capital structure decisions in Nigeria: a developing country perspective", *Corporate Governance*, Vol. 10 Iss: 3, pp.249 – 260
- Fama, E. F. French, K. R. (2002). Testing trade-off and pecking order predictions about dividends and debt. *Review of Financial Studies*, 15(1):1-33.
- Frank, M. Z. Goyal, V. K. (2004). Capital structure decisions: Which factors are reliably important? Working paper, University of British Columbia, Vancouver.

- Gaud, P, Jani, E., Hoesli, M. Bender, A. (2003). The capital structure of Swiss companies: An empirical analysis using dynamic panel data. *European Financial Management*, 11(1):51–69.
- Graham, J. Harvey, C. (2001). The theory and practise of corporate finance: Evidence from the field. *Journal of Financial Economics*, 60(2/3):187–243.
- Harris, M. Raviv, A. (1991). The theory of capital structure. *Journal of Finance*, 46(1):297–355.
- Huang, H. Vu Thi, T. (2003). The determinants of capital structure in shipping companies: Case studies of Broström and Concordia AB. Unpublished master's thesis, University of Gothenburg, Gothenburg.
- Hutchinson, R. W. Hunter, R. L. (1995). Determinants of capital structure in the retailing sector in the UK. *The International Review of Retail, Distribution and Consumer Research*, 5(1):63–78.
- Jensen, M. Meckling, W. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3(4):305–360.
- Karadeniz, T Kandir, J, R. Balcilar & N Oner. (2009). The effect of business risk on corporate capital structure: Theory and evidence. *Journal of Finance*, 46(5):1693–1715.
- La Rocca, M. Cariola, A. La Rocca, T. (2007). *Capital structure decisions in multibusiness firms* [Online]. Available: <http://www.fma.org/Prague/Papers/LaRocca.pdf> [17 September 2009]
- Miller, M. H. Modigliani, F. (1966). Some estimates of the cost of capital to the electric utility industry, 1954–57. *The American Economic Review*, 56(3):333–391.
- Modigliani, F. Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. *The American Economic Review*, 48(3):261–297.
- Myers, S. C. (2001). Capital structure. *Journal of Economic Perspectives*, 15(2):81–102.
- Narayanan, M. P. (2008). Debt versus equity under asymmetric information. *The Journal of Financial and Quantitative Analysis*, 23(1):39–51.
- Pandey, I. M. (2001). Capital structure and the firm characteristics: Evidence from an emerging market. Working paper, University of Delhi, Delhi.
- Pinches, G. E. Mingo, K. A. (1973). A multivariate analysis of industrial bond ratings. *Journal of Finance*, 28(1):1–8.
- Rajan, R.G. Zingales, L. (2005). What do we know about capital structure? *Journal of Finance*, 50(5):1421–1460.
- Rao, N. V. Mohamed Al-Yahyaee, K. H. Syed, L. A. M. (2007). Capital structure and financial performance: Evidence from Oman. *Indian Journal of Economics and Business*, 6(1):1–14.
- Salawu, R.O. (2007), “An Empirical Analysis of the Capital Structure of Selected Quoted Companies in Nigeria”. *International Journal of Applied Economics and Finance* 1 (1). 16-28.
- Shah, A. Hijazi, T. (2004). The determinants of capital structure of stock exchanged listed non-financial firms in Pakistan. *The Pakistan Development Review*, 43(4):605–618.
- Sibilkov, V. (2009). Asset liquidity and capital structure. *Journal of Financial and Quantitative Analysis*, 44(5):1173–1196.
- Singh, M. Wallace, N. D. Suchard, J. (2003). Corporate diversification strategies and capital structure. *The Quarterly Review of Economics and Finance*, 43:147– 167.
- Vasiliou, D. Eriotis, N. Daskalakis, N. (2005). The determinants of capital structure: Evidence from the Greek market. Working paper, University of Piraeus, Piraeus.
- Williamson, O. E. (1988). Corporate finance and corporate governance. *Journal of Finance*, 43(3):567–591.
- Wiwattanankantang, Y. (1999). An empirical study on the determinants of the capital structure of Thai firms. *Pacific-Basin Finance Journal*, 7(3/4):371–403.
- Zietlow, J. Hankin, J. Seidner, A. (2007). *Financial management for non-profit organizations: Policies and practices*. Hoboken, NJ: Wileys