International Journal of Multidisciplinary Research and Development

International Journal of Multidisciplinary Research and Development

Volume: 2, Issue: 10, 632-636
Oct 2015
www.allsubjectjournal.com
e-ISSN: 2349-4182
p-ISSN: 2349-5979
Impact Factor: 5.742

Toba Michael Ayeni
Department of Accounting, Faculty of Management Science, University of Benin, Benin City, Edo State, Nigeria, West-Africa.

Babatunde Johnson Olaoye
Department of Accountancy, Faculty of Business Studies, Rufus Giwa Polytechnic, Owo, Ondo State, Nigeria, West-Africa.

Correspondence
Toba Michael Ayeni
Department of Accounting, Faculty of Management Science, University of Benin, Benin City, Edo State, Nigeria, West-Africa.

Cost of capital theory and firm value: Conceptual perspective

Toba Michael Ayeni, Babatunde Johnson Olaoye

Abstract
This paper examines the cost of capital theory and firm value. Also, the relationship between cost of capital theory and firm value are considered. From the review of conceptual and theoretical literature the study emphasis on how cost of capital theory can lead to an operational definition of the cost of capital and how that concept can be used in turn as a basis for rational investment decision-making within the firm that enhances firm value. This paper is a conceptual work which makes use of library desk research and existing literature on the subject matter. The study recommends that firm should have more debt for greater bargaining power and/or the market alternatives of its suppliers. The study recommends the debt can increase firm value. The implies that a firm should have more debt for greater bargaining power and/or the market alternative of its suppliers.

Keywords: Cost of Capital, Debt Financing, Equity Financing and Weighted Average Cost of Capital (WACC)

1. Introduction
For decades it had been taught to evaluate corporate investments by projecting cash flows and discounting them using the weight average cost of capital. The weight average cost of capital is composed of cost of equity and the cost of debt, these are weighted to reflect corporate leverage and debt is adjusted for corporate tax. In surveys such as (Graham & Harvey 2001) many financial managers say that they do this. So it might have an important impact. The corporate investment model of Abel and Blanchard (1986) is used as an organizing framework. Weight average cost of cost enters the model through the discount factor so that, when it is high the expected value of the future marginal benefit is reduced which reduces the incentive to invest now. Empirically, a high capital of debt has a negative impact on investment. High leverage also has a negative impact on investment.

The cost of capital concept has myriad applications in business decision-making. The standard methodology for deriving cost of capital estimates is based on Modigliani and Miller, (1958). Analysis cost of capital to a firm in a world in which funds are used to acquire assets whose yields are uncertain; and in which capital can be obtained by many different media, ranging from pure debt instruments, representing money-fixed claims, to pure equity issues, giving holders only the right to a pro-rata share in the uncertain venture? This has vexed at least three classes of economists: (1) the corporation finance specialist concerned with the techniques of financing firms so as to ensure their survival and growth; (2) the managerial economist concerned with capital budgeting; and (3) the economic theorist concerned with explaining investment behaviour at both the micro and macro levels. Modigliani and Miller formal analysis, relating the economic theorist at least has tended to side-step the essence of this cost-of-capital problem by proceeding as through physical assets-like bonds-could be regarded as yielding known, sure streams.

Modigliani and Miller (1963) presented new proof that cost of capital affect on capital structure, and therefore affect on value of the firm with relaxing unrealistic assumptions that there are existing taxes, which indicate that borrowing give tax advantage, where the interest deducted from the tax and it will result tax shields, which in tern reduce the cost of borrowing and then maximize the firm performance (Miller, 1977) and this require from the firm to make trade off between the cost of debt from side and the benefits of using debt from another side. Sequence, the researchers studied the relationship between capital structure and the value of the firm through appearing new theory called the agency theory which indicates to potential conflict beween shareholders and debtors from on the other hand. Potential conflict between shareholders and managers arises when the shareholders choose the manager as an agent of their

selves to manage the firm in order to maximize their wealth's but the managers concentrate on the high profitable and risky projects to achieve their interests at first that represented incentives and rewards, and after that concerning of shareholders benefits, all of these lead to maximize the firm value (Jensen and Meckling 1976; Harri & Raviv 1991; Myer 2001).

2. Literature Review

According to Barbuta-Misu, (2009) most enterprises look for to take full advantage of the value of the assets and minimize the cots. Thus, they will explore the weighting of each way of financing (own funds or debt) in total financing, i.e. optimize the financial structure of the enterprise and maximizing its value. On the other hand, they are trying to determine the weighting of each way of financing, which leads to maximizing of the enterprise value and to minimize the cost of capital. Barbuta-Misu, (2009) present the arbitrage used by an investor into an enterprise without debts and into an enterprise in debt, using the model Modigliani and Miller, relating to the financing policy neutrality towards the average cost of capital and the value of the enterprise Barbuta-Misu, (2009).

The decision for a specific structure of the enterprise capital must take into account of a series of **risks associated with debt burden**, risks that can offset or even cancel its positive effects. The identification and quantifying of these risks through risks primes represents a step very important in the estimations rates of updating the cash-flows generated by the enterprise Barbuta-Misu, (2009). Thus, the best know risks are:

- **Risk of obtaining losses**: the tax savings can be obtained only if the enterprise obtain an exploitation result superior of these expenses, ie the return to assets is higher than the interest rate on loans taken out. Also, once to the increase the debt is increased the risk that the exploitation profit to cover the high amount of interest expenses. In these conditions, the discount rate of tax savings will increase once with the degree of debt, including in its size the risk to obtain of loss.
- **The constraints of relations with third parties**: the excessive increase of the debt burden constitutes an alarm signal both to creditors, as well as business partners. A financial structure disrupted focused more on resources attracted from creditors, determined an increase of the enterprise risk.
- **The liquidity risk**: occurs when the financing policy was drawn up without coherent in the enterprise strategy and with the foreseeable future developments of the relations of current business and the lack of liquidity leading to cessation of payments situation.
- **The risk of bankruptcy**: once with increasing of debt burden, increases and the risk of an enterprise to go into default. A transient crisis to the operational level or enterprise management is much more difficult to control in this case. In a certain degree of debt, the benefits from tax savings will be an increasing of costs associated with risk of bankruptcy.

According to Barbuta-Misu, (2009) managers can guarantee a certain level of financial performance of the enterprise when granting credit. But it is possible that, in the future, their behaviour to amend and the creditors to record a loss in the value of their investment in the borrowed enterprise. The creditors with experience will anticipate these risks and will adjust the level of interest rates required whereas the direct cost of bankruptcy diminishes the enterprise value and a large part of these costs are incurred, in the end, by creditors. This fact makes them to add a risk prime to the interest rates charged to sums borrowed by enterprise. Paying this risk prime, the shareholders pay, in fact, the cost of bankruptcy estimated, whenever issued risky debt. That's why they should consider this risk prime a cost that balance other benefits associated with financing through debt.

Conceptual Issues Related to Cost of Capital and Firm Value

A company has various potential sources of funds in addition to use its own funds and losing opportunities to invest those funds elsewhere. Debt involves borrow money from a bank or issue bonds (pay a defined payment of principal plus interest rate per period, but retain complete ownership of the company). Selling of stocks involves raise money without committing to interest payments, but also give up ownership of the company.

Minimum Attractive Rate of Return

The Marginal Rate of Return (MARR) is the lowest return that you would be willing to accept given: To risks associated with this investment opportunities meeting the cost of capital, the other opportunities for investment. In general, is looked at the capital markets to find out of what kinds of return are available for different kinds of investment decisions. Interest rates for bonds and historical rates or return (that is growth rates) for stocks (assuming that stocks are priced prevailing price such that they will offer new owners similar rates of return in the future). In the financial market, operators have a rational conduct, seeking to maximize the usefulness function of their wealth: maximizing the enterprise value, the shareholders wealth.

Cost of Capital for Debt Financing

Interest rates will be determined by the capital markets and the credit of the company 9not the quality of the project). Rates will be higher if the interest rates in general move higher (as happens in times of inflation). If company is perceived as a credit risk and if company relies too much on debt financing risk bankruptcy by having high levels of interest payments. If company is in a risky industry and company operates within a risky political environment.

Cost of Capital for Equity Financing

To sell stock, you must persuade investors that the value of the company will grow fast enough to provide investors with a suitable return. In principal, investors can value the company at some future time, select an appropriate discount rate, and determine the maximum price that they would be willing to pay prevailing price. In practice, investors often look at the ratio of price to current earnings in comparison to P/E ratios for other companies with similar anticipated growth rates but if earnings are stable, the P/E is the inverse of the return on investment).

Relationship between Cost of Capital and Firm Value

Therefore, the theories of capital structure may provide only a broad theoretical framework for analyzing the relationship between leverage and cost of capital and value of the firm. A financial manager however, should go beyond these considerations as no empirical model may be able to incorporate all these subjective features. There are in fact, a whole lot of factors, qualitative, quantitative and subjective,

which should be considered and factored in the process of planning and designing a capital structure for a firm. Besides, these considerations, care should be taken to ensure that the capital structure is evaluated in its totality and a finance manager should find out as to which capital structure is most advantageous to the firm. The firm should also suitable take care of the interest of the shareholders, debt holders and management. Above all, the legal provisions (if any) regarding the capital structure should also be considered.

It may be noted that the balancing of both the financial and business risk is implied so that the total risk of the firm is kept within desirable limits. A firm having higher business risk usually should keeps the financial risk to the minimum level; otherwise the firm will becomes a high-risk proposition resulting to higher cost of capital. An appropriate capital structure is a critical decision for any business organization. The decision is important not only because of the need to maximize returns to various organizational constituencies, but also because of the impact such a decision has on an organization's ability to deal with its competitive environment. A company can finance investment decision by debt and/or equity. This is known as financing decision which could affect the debt-equity mix of firms. The debt-equity mix has an overall implication for the shareholders earnings and risk which will in turn affect the cost of capital and market value of the company. It is therefore imperative for financial managers of firms to determine the proportion of equity capital and debt capital (capital structure) to obtain the debt financing mix that will optimize the value of the firm.

Weighted Average Cost of Capital (WACC)

This is the composite cost of capital representing the aggregate of the various sources of finance in use. It is used as a discount rate in the appraisal of new investment. Brealey and Myers (2003) are of the opinion that in terms of the proportionate mix, one cannot say more debt is always better or more equity is the better, debt may be better than equity in some cases and worse in others. The Modigliani and Miller (1958) study laid out the foundation of modern theory of capital structure. They held the stance that there is independence of investment and financing decisions. They developed a defense of the net operating income approach to the effect of leverage on the cost of capital and the value of the firm which holds that the firm's value and overall cost of capital are independent of the firm's capital structure. Their theory was based on the behavioural proposition that investors would use arbitrage to keep the weighted average cost of capital (WACC) constant when changes in firm's earnings occur. Since then, there have been enormous efforts to study firm's capital structure choices and their implications. Popular models include the trade off models, the pecking order models, and the market-timing models, among others. In the trade off models firms balance the costs of equity financing and debt financing, and choose the optimal leverage level where the marginal cost of debt equals that of equity.

Equity and Firm Value

Equity unlike long-term debt includes paid-up share capital, share-premium, reserves and surplus or retained earnings. Igben (2004) and Izedonmi, (2002) defines paid-up capital as the portion of the call-up capital which has been paid-up by the shareholders. He also describes reserves as amounts set aside out of profits earned by the company, which are not designed to meet any liability, contingency, commitment or diminution in value of assets known to exist at the balance sheet date. Reserves may be voluntarily created by directors or statutorily required by law. Share premium is the excess amount derived from the issue of shares at a price that is above its par value. And lastly, retain earnings are profit plough back in to a company in order to create more resources for operations and invariably increase in the value of the firm. This generates our first hypothesis that there is a positive relationship between equity and firm value.

Dhankar and Boora, (1996) investigated cost of capital, optimal capital structure, and value of firm and found that cost of capital were negatively related firm value, but the result were not statistically significant. These results suggest that though cost of capital decreases when leverage increases, this decrease is very moderate and not proportional to debt level. The relationship between change in capital structure and dividend policy was not found definite and statistically significant.

Ogbulu and Emeni, (2012) examined the impact of capital structure on a firm's value. Their result of the study reveals that in an emerging economy like Nigeria, equity capital as a component of capital structure is irrelevant to the value of a firm, while Long-term-debt was found to be the major determinant of a firm's value. Ogbulu and Emeni, (2012) findings shows that corporate financial decision makers are advised to employ more of long-term debt than equity capital in financing their operations since it results in a positive firm value.

Long-term Debt and Firm Value

Leland and Toft (1991) state that, the value of a firm is the value of its assets plus the value of tax benefits enjoyed as a result of debt minus the value of bankruptcy cost associated with debt. Modigliani (1980) points out that, the value of a firm is the sum of its debt and equity and this depends only on the income stream generated by its assets. Pandey (2004) opines that the value of a firm is the sum of the values of all its securities. That is, the sum of its equity and debt if it's a leverage firm and the value of only its equity if it is an unleveraged firm. The value of the firm's equity is the discounted value of its shareholders earnings called net income. On the other hand, the value of debt is the discounted value of interest on debt.

Jensen (1986) posits that when firms have more internally generated funds than positive net present value projects; debt forces the managers to pay out funds that might otherwise have been invested in negative net present value projects. This over-investment problem can be lessened if managers are forced to pay out excess funds for servicing debt, therefore enhancing the firm's value. Myers (1993) suggests that, a firm with outstanding debt may have the incentive to reject projects that have positive net present value if the benefits from accepting the project accrue to the bondholders without also increasing shareholders' wealth. This under investment problem can harm the value of firms, especially for the firms with high levels of future investment opportunities. Building on Jensen's (1986) over-investment discussion & Myer's (1993) under-investment discussion.

Theoretical Framework

The theory of capital structure is closely related to the firm's cost of capital. The debate concerns whether or not there is an existence of optimal capital structure and the effect of the capital structure on the overall cost of capital on one hand and the value of the firm on the other hand. This view has been a major source of controversy among famous scholars in the

field of finance. Those who assert the existence of an optimal capital structure are said to take to the traditional approach, while those who do not believe not in optimal capital structure existence are referred to as supporters of the Modigliani and Miller (MM) hypothesis on capital structure.

Financial Distress and Bankruptcy Costs Theory: According to this theory, financial distress is generated by the presence of debt in the capital structure which could lead to bankruptcy. It states that the larger the fixed interest charges created by the use of leverage, the greater the probability of decline in earnings and greater the probability of incurrence of costs of financial distress. (Harris and Raviv, 1991; Riahi-Belkaoni, 1999). Costs of financial distress include the legal and administrative costs of bankruptcy as well as the subtler agency, moral hazard, monitoring and contracting costs which could erode firm value even if formal default is avoided (Myers, 1984).

The Net Income Approach Theory: Affirms that the use of debt will positively affect the value of the firm indefinitely, that is, the overall cost of capital or weighted cost can be increased or reduced through the changes in the financial mix or capital structure of the firm. According to Olowe (1998), the net income approach takes the view that leverage or capital structure can affect the value of the firm or its cost of capital. If a firm increases the debt in its capital structure, the value of the firm will increase while the overall cost of capital will be reduced. This approach is termed the dependent hypothesis, since the cost of capital value of the firm depends on the use of debt. This hypothesis assumes that the cost of debt is less than the cost of equity and that corporate income tax does exist (Pandey, 2009). This hypothesis simply calls for one hundred percent debt finance. Brigham (1999) criticized this on the ground that it is artificial and incomplete, because there is no firm in the real world that operates on 100% debt finance.

The Peeking Order Theory: The Pecking Order Theory of Myers and Majluf (1984), states that there is a correlation between capital structure and firm's value. This is because a firm's value can increase if the right form of capital is used. This theory advocates that firm's value can be affected positively if a capital structure hierarchy is followed. That is, financing with internal fund when available instead of financing with external fund. And when internal fund is completely depleted, debt should be preferred to equity because of the low transaction cost, tax benefits and other advantages attached to it.

The Trade-Off Theory: Also states that there is a relationship between capital structure and firm's value. This is because a firm's value can increase if the proper debt equity mix is used in the firm.

The Irrelevance Theory: of Modigliani and Miller (1958), posit that there is no relationship between capital structure and firm's value. However, their position changed when they considered the effect of tax shield and other imperfection in the capital market. They revise their earlier statement and opine that capital structure is very much related to firm's value. That notwithstanding, Miller (1977), came up with another argument and showed that capital structure is unrelated to firm's value because the tax benefit which is adduced for the relevance of capital structure in relation to firm's value is offset by the fact shareholders pay more tax than bondholders.

3. Methodology

This paper is conducted on the basis of extant literature survey information. Journals, and magazines articles are referred to in writing the paper.

4. Conclusion and Recommendation

From the review of conceptual, empirical and theoretical literature the study emphasis on how cost of capital theory can lead to an operational definition of the cost of capital and how the concept can be used in turn as a basis for rational investment decision-making within the firm that enhance firm value.

From the findings, debt can increase firm value, this implies that, a firm should have more debt for greater bargaining power and/or the market alternatives of its suppliers. The study recommends the debt can increase firm value. This implies that a firm should have more debt for greater bargaining power and/or the market alternative of its suppliers.

5. References

1. Abel AB, Blanchard OJ. The present value of profits and cyclical movements in investments, Econometrical 1986; 273:54-249.
2. Barbuta-Misu N. The financial structure influence on the cost of capital and enterprise value. The Annals of "Dunarea de Jos" University of Galati, Fascicle International Economics and Applied Informatics. 2009; 15(2):77-84.
3. Berger AN, Bonaccorsi di Patti. Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry. Journal of Banking and Finance. 2006; 30(4):1065-1102.
4. Brealey RA, Myers SC. Principles of Corporate Finance, New York, McGraw-Hill/Irwin. 2003.
5. Brigham FE. Fundamentals of Financial Management, Hinsdale Illinois, the Dryden Press. 1999.
6. Dhankar RS, Boora AJS. Cost of Capital, optimal capital structure, and value of firm: An empirical study of Indian Companies. 1996; 21(3):29-36.
7. Graham JR, Harvey CR. The theory and practice of corporate finance: evidence from the field. Journal of Finance. 2001; 60:187-243.
8. Harris M, Raviv A. The theory of capital structure, Journal of Finance. 1991; 48:297-356.
9. Igben RO. Financial accounting made simple. L(1), ROL Publishers, Lagos State, 2004, 356-362.
10. Izedonmi OIF. Another look at capital structure, cost of capital and cost of financing models. Nigerian Journal of Banking and Financial Issues, 2002; 1(5):63-84.
11. Jensen M, Meckling W. Theory of the firm: Managerial behaviour, agency costs and ownership structure. Journal of Financial Economics, 1976, 305-360.
12. Kim EH. A mean-variance theory of optimal capital structure and corporate debt capacity. Journal of Finance. 1998; 33:45-64.
13. Kraus A, Litzenberger R. A state-preference model of optimal financial leverage, Journal of Finance. 1982; 27:199-222.
14. Leland HE, Toft K. Optimal capital structure, endogenous bankruptcy, and the term structure of credit spreads. Journal of Finance. 1991; 51:987-1019.

15. Miller MH. Debt and taxes. Journal of Finance. 1977; 32:261-275.
16. Modiglian F, Miller MH. The cost of capital, corporation finance and the theory of investment. The American Economic Review. 1958; 48(3):262-297.
17. Modigliani F. Introduction in a Abel (ed), The Collected Papers of Franco Modigliani, Vol.3, pp.xi-xix. Cambridge, Massachusetts. MIT Press. 1980.
18. Modigliani F, Miller MH. Corporate Income Taxes and the Cost of Capital: A Correction. American Economic Review. 1963; 53:433-443.
19. Myers SC. The capital structure puzzle. Journal of Finance. 1984; 34:575-592.
20. Myers SC. Still searching for optimal capital structure. Journal of Applied Corporate Finance. 1993; 6(1):4-14.
21. Myers SC, Majluf NS. Corporate financing and investment decision when firms have information that investors do not have. Journal of Financial Economics. 1984; 13:187-221.
22. Ogbulu OM, Emeni FK. Capital structure and firm value: Empirical evidence from Nigeria. International Journal of Business and Social Science. 2012; 3(19):252-259.
23. Olowe RA. 1987. Financial Management: concepts, analysis and capital investments, first Edition, Lagos, Brierly Jones Nig. Ltd. 2012.
24. Pandey IM. Financial management 10th Edition, Indian Institute of Management Ahmedabad. Vikas Publishing. House P.VT. LTD. 2009, 289-350.
25. Rao RKS, Stevens EC. The firm's cost of capital, its effective marginal tax rate, and the value of the government's tax claim. Published by Berkeley Electronic Press, available retrieved from http://www.bepress.com/bejeap/topics/vol6/issl/art3. Topics in Economic Analysis & Policy. 2006; 6(1):3.
26. Riahi-Belkaonui A. Capital Structure: Determination, Evaluation and Accounting, Westport, Quorum Books Publisher. 1999.