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Traditional versus Modern Perspectives of Capital Structure Theories: A Comprehensive Review.

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Abstract

Capital structure is as yet a riddle among researchers especially in the finance literature. The capital structure puzzle has been evolving over the years and there are several theories that seems to provide ideal solution or explanations. These theories are grouped into traditional and modern theories of capital structure. The overarching purpose of this study is to review extensively from traditional to modern the existing theories of capital structure that have been suggested in finance research to serve as guide for practitioners in taking decision about capital structure mix.

The traditional theory assumes three approaches which are Net Operating Income Approach, Net Income Approach, and Traditional Approach. Traditional Approach to capital structure assume that the value of the firm increases with debt to a definite point, then remains constant with judicious use of leverage and falls at last. Therefore, the main substance of Traditional Approach is that cost of capital rely on capital structure and hence there exists an optimum capital structure. Net Income Approach on the other hand, concluded that cost of utilizing equity and debt remains constant with variation of debt-equity ratio. This logically means the average cost of capital diminishes as debt-equity ratio increases with the value of the firm. Hence optimal capital structure under Net Income Approach would be 100% leverage financing. The substance of Net Operating Income Approach is that the capital structure decision of a firm is irrelevant. Thus, any fluctuation in leverage will not trigger any change in the total value of the firm and the market price of equity shares as well as the overall cost of capital is independent of the degree of leverage used. Starting from assumption of perfect capital market of capital structure, four major theories emerged over the years as modern theories of capital structure.

Peaking order theory argued that there is no defined optimum capital structure rather firms will always resort to internal source of financing (retain profit) then debt (borrowed fund) and finally Equity financing (issuing of new shares). Trade-off theory argued that managers would prefer leverage financing because of the set-off between tax benefit, bankruptcy cost, and agency cost. Market timing theory also, argued that fluctuations in share price influence capital structure of a firm and consequently the financing decision of the firm. They further explain that firms issue shares when shares are overpriced and buyback when they are undervalued hence they concluded that the main determinant of capital structure is the stock returns. Credit Rating hypothesis

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which is believed to be an extension of trade-off theory concluded that any firm closer to the credit rate, will prefer less debt composition as compare to firms not closer to the credit rate change.

Interestingly, there is no single theory that provides a decisive optimal capital structure that firms can utilized to enjoyed tax advantage. Hence, the question still remains ‘‘How do firms or Managers determine their capital structure.

Keywords: Review • Traditional Capital Structure Theories • Modern Capital Structure Theories

Introduction

The central source of funds available to companies to run the day-to-day expenses and for the modernization and replacement of the necessary assets include Owners Fund (internal finance) and Borrow Fund (external finance). The combination of owners funds and borrowed funds in the running of the business form the capital structure. The concept of capital structure plays a pivotal role in the achievement of organizational objectives due to its effect on firm’s performance . The suitable combination of debt and equity that will decrease the firm's cost of capital and make the most of the firm’s performance and fair value is the optimal capital composition. Decisive optimum capital structure is one of the most essential tasks to be contented by managers. Optimum capital structure remains a mystery in finance studies. However, one of the decisive questions remained unanswered by the scholars is how to estimate the finest source of capital that can curtail the firms cost of borrowing and mend return to shareholders [1].

The decision of optimum capital structure ought to be examined regarding how a mixture of debt and equity in a firm’s capital composition impact its fair value. Debt to equity ratio of the firm can have imperative repercussions for cost of capital and firm’s value. In exploiting stakeholder’s wealth, firms make use of more obligation in the capital structure as per the interest paid is a tax deduction and hence lowers the effective cost of debt. Also, Shareholders need not share their returns with obligation holders as the debt holders receive a fixed return. However, firms become riskier as they use a higher borrowed capital which in turns leads to higher cost of capital. Therefore, it is prudence to pinpoint the essential elements of capital structure, detailed measures of these rudiments and best capital structure for precise firm at specific time period [2].

Practitioners and Academia’s have explained contradictory models on capital structure. Employing Net Income Approach (IN), argued that firm can upturns its value and lower cost of capital through borrowed fun. In another angle, argued that under very restrictive assumptions of perfect capital markets, investors' homogeneous expectations, tax-free economy, and no transaction costs, capital structure is irrelevant in determining firm performance. They further argued that investors like to buy undervalued shares and sell overvalued shares to obtain returns. As stockholders exploit these arbitrage opportunities the price of the overestimated shares will fall and the underestimated shares will rise until both attained equilibriums. Capital structure irrelevant hypothesis was theoretically complete yet depended on an unfeasible set of presumptions. Subsequently, this theory prompted a lot of research on capital structure. Argued that the traditional approach of has arisen to a conciliation to the site taken by Net Income approach. The traditional approach does not take sight with the constant cost of equity change in obligation to equity ratio and continuous decreasing weighted average cost of capital (WACC). The traditional approach accepts the concept of optimum capital structure, and thus weighted average cost of capital declines only for a certain level of debt and attained the minimum. Therefore, further increase in borrowing would result to higher weighted average cost of capital [3].

For the past decades several theories have emerged to explicate the capital structure and firm performance as well as factors determining capital structure of a firm.Emphasizing on taxation and capital structure it is resolved that tax is one of the essential elements in making capital structure decision. A firm is likely to pay less tax when utilizing a higher debt financing. The fact that debt financing, and has been given more attention than traditionally equity financing has created the earlier mentioned tax puzzle. Thus firms enjoy tax benefit (tax shield) and exposed to insolvency in the form higher interest payment [4].

Concurrently, massive empirical research has emerged to explain these theories and their efficacy and how managers conduct capital structure decision. These studies concluded that several factors are responsible for the determination of capital structure other than tax shield benefits. Among the factors mentioned includes country and industrial specifics, and firm size. Also, studies like exploit the tax shield benefit of financial leverage and concluded that the tax puzzle remains a debatable topic in finance studies. In addition,argued that tax shied benefit motivates firms to embrace debt financing, and subsequently leads to bankruptcy. To better Understanding capital structure and the best combination that foster firm’s growth required having faired knowledge on theories of capital structure, its strength and drawbacks. This paper therefore discussed the emergence, strength, and drawbacks of existing theories of capital structure [5].

Materials and methods

Theories of Capital Structure

It is often said that the choice of capital structure among firms has theoretical underpinnings as such, among others the provides the theoretical justification for examining the relationships and impacts of capital structure on firm performance. This theory deals with the interactions between the capital structure and firm performance and thus examines the connection under restrictive rules of the perfect capital market. However, numerous theories have developed after the traditional theories of capital structure which is considered as modern view of capital structure having its root from theory and consequently, other theories emerged to clarify firms' capital structures and their resultant impacts on their fairly estimated valuations which MM theory failed to addressed. The image-1 below provides a summary of capital structure theories that have emerged over the past years starting from traditional to modern theories(Image-1).

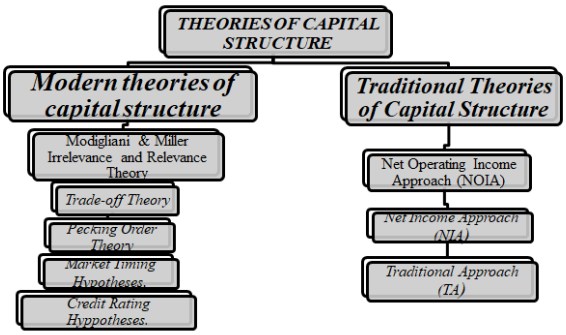

Image1: Summary of Capital Structure Theory.

Traditional Theories of Capital Structure

The traditional theory of capital structure is made of Net Operating Income Approach also known as (NOIA) and Net Income Approach (Known as NIA) and the traditional approach (TA).

Net Operating Income Approach

As per 'Net Operating Income Approach (NOI)', estimation of the firm is free of its capital structure. It believes that the weighted average cost of capital is unaltered regardless of the degree of gearing. The basic presumption behind this methodology is that the expansion in the use of debt capital builds the probable rate of return by the investors and the advantage of utilizing moderately less expensive debt is set-off by the misfortune emerging out of the expansion in cost of equity. An adjustment in extent of different wellsprings of finance can't change the weighted average cost of capital and in that capacity, the estimation of firm remains unchanged for all degrees of leverage. Under this methodology, ideal capital structure doesn't exist as average cost of capital stays consistent for varied sorts of financing mixture. NOI approach is inverse to the NI approach. According to this methodology, the fair value of the firm relies on the earnings before interest and tax or net-operating income and the general cost of capital, weighted average cost of capital. The financing mixture or the capital structure is irrelevant and doesn't influence the estimation of the firm. The NOI approach is anchor on the followings assumptions; The investors consider the company as a whole and in this manner underwrite the absolute income of the firm to discover the estimation of the firm in totality; The general cost of capital, (Ko), of the firm is consistent and relies on the business risk which likewise is thought to be unaltered; The cost of obligation, (Kd) is likewise steady; There is no tax; The utilization of increasingly more obligation in the capital structure builds the danger of the investors and therefore brings about the expansion in the cos of equity capital (Ke). The NOI approach accepts that the market estimations of the firm in general for a given risk composition. thus, for a given value of EBIT, the estimation of the firm continues as before regardless of the capital mix, and rather relies upon the general cos of the capital.

PBIT/Ko =Firm value (V)

Where, PBIT = Earnings before interest and tax

Ko = Overall cost of capital

Equity value (S) = V-B

V = Firm value

B = Value of obligation

Consequently, financing mix is redundant and doesn't influence the fair value of the firm. The value stays constant for a wide range of debt-equity ratio. Since there will be change in risk of the investors because of evolution under debt to equity composition, hence, Ke will be changing proportionate with change in the debt ratio. A closely look at the diagram below revealed that the overall cost of capital remains unchanged at all level regardless of leverage degree therefore, the division between debt and equity is extraneous. On this note, a rise in the use of debt is set-off by increase in the rate of capitalization. This occurs as a result of higher compensation demanded by stockholders as they encounter greater risk resulting from increase in leverage level. Therefore, concluded that fair value of a firm relies solely on net operating profit and corporate risk.

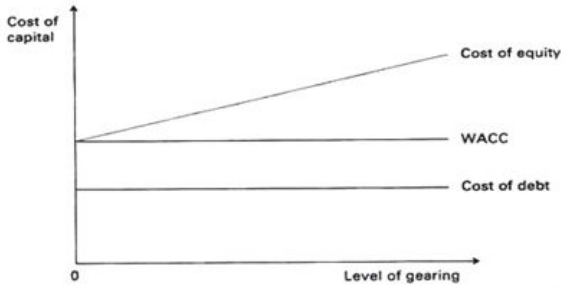

Figure1: Net Operating Income Approach of Capital structure.

Net Income Approach

This approach is given by ,As indicated by this methodology, the capital structure choice is important to the valuation of the firm. Equally an adjustment in the capital structure causes a general change in the cost of capital and also in the all-out estimation of the firm. A higher obligation in the capital structure implies a high financial leverage and this outcome in a decrease weighted average cost of capital. This outcome leads to increment in the appraisal of the firm and further increase in the valuation of the equity shares. In a contrary circumstance, the opposite conditions will emerge.Upheld this approach, as per him the average cost of capital will diminish with more utilization of obligation and the equity investors won't demand for higher return with expanded degrees of gearing brought about by the continuous utilization of debt. It is likewise argued that money lenders will not demand for higher return with escalating levels of obligation. Consequently, the average outlay of capital falls until the level of obligation is reached since there is no upswing in the cost of either equity or debt. The assumptions that explain the Net Income Hypothesis is basically described in three dimensions as follows; Debt content doesn't change the risk impression of the stockholders; Cost of obligation is not as much as cost of equity; Corporate taxation doesn’t exist. The above view (assumptions) is represented in figure-2.

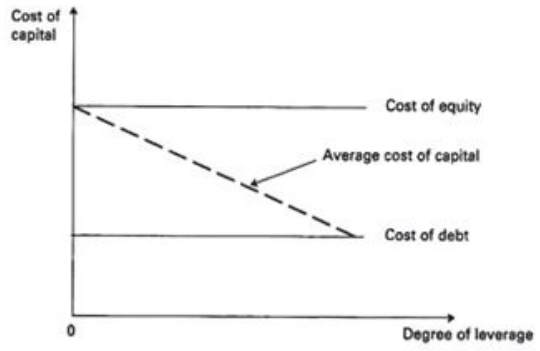

Figure2: Net Income Approach of Capital structure.

The Figure-2 above explained that total cost of capital decreases as level of leverage takes upwards trend due to the fact that debt increases with capital structure. In reality, Net Income approach is weak and has no justification. This is so, because Net Income Approach proposes 100% leverage financing and this is not the case.

Traditional Approach (TA)

This approach argued that cost of capital is related on the level of debt. The least element in the cost of capital is identifies with the fixed interest bearing project. According to traditional view , ideal capital structure is expected at a point where weighted average cost of capital (WACC) is minimized. Firms can obtain loan at a lower rate of interest for the start. With the growth in debt, lenders will be stress over the settlement of interest, principal and the accessible security. The financing cost will be higher on extra fund borrowed. In this regards, average cost of debt begins to go up. The stock holders won't be trouble when the obligation levels of the organization are lower. However, with expanding leverage finance, the stock holders are tremendously worried about the degree of interest payments influencing the unpredictability of inflows for equity. At that point the stock holders demand for additional rate of return for fronting an extra risk. In this way, a combination of both sources of finance, with the growth in debt, the general cost of capital will likewise begin rise after the ideal level of gearing as represented in Figure-3

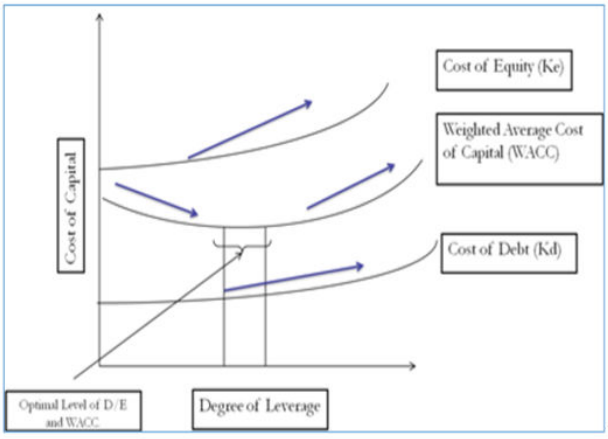

Figure3: Traditional Approach to Capital Structure Theory. (Source: Wikipedia).

The traditional approach has been extensively criticized particularly subject to the form assumed by cost of capital curve . Some scholars describe the shape as V-shaped sophisticated there is a precise explanation to capital structure. U-shaped was adopted by others to indicates a variety of leverage level. The traditional approach holds a different opinion about the shape of equity function. Scholars like sight the equity function as a function that rises slightly at initial stage and then a faster rate whereas others considered it horizontal shaped. However, those who supported the traditional approach agreed on one point which is cost of capital decreases as debt increases. In addition, the assumption that fair value of the firm relies on the net operating profit and the associated risk has been criticized. The required form of financing doesn't fluctuate the net operating income or even the risk but only affect dividend payment to shareholders and income distribution to debt holders . the concession that cost of equity remains constant by level of leverage up to certain degree. However, commended that traditional approach of capital structure has provided justification for new ways of looking at capital structure and appropriate example is the modern view which includes Trade-off theory, pecking order theory, market timing and credit rating. Despite the shortfall, traditional theory of capital structure has paved way to continuing debate of optimum capital structure existence .

Modigliani and miller irrelevance and relevance theory.

These theory as propounded by Modigliani and Miller express that under impeccable capital economic situations, a firm's growth relies upon its operating gains as opposed to its capital structure, that is, esteem unimportant. Stocks are traded in impeccable capital market where all applicable data are accessible for insiders and outsiders to take the best decision, that is transaction cost, liquidation cost and tax collection don't exist. Lending and borrowing is workable for firms and stakeholders at a similar loan fee which warrants domestic borrowing, firms working in a comparable risk and have comparable operational leverage, interest payments on obligation do not spare any tax and firms follow 100% profit payout. Under these propositions, MM theory demonstrated that there is no optimum debt to equity ratio and capital structure is independent of investors wealth maximization. The following assumptions underlying the MM theory of capital structure; There are no taxes; Transaction cost for buying and selling securities as well as bankruptcy cost is nil; there is information asymmetry. Thus investor will have access to same information that a corporation would and investors would behave rationally; the cost of borrowing is the same for investors as well as companies; there is no floatation cost like underwriting, commission, payments to merchant bankers, and advertisement expenses and finally, there is no corporate dividend tax.

This relational word introduced by in their original paper and contend that value of leverage firm is same as the estimation of unleveraged firm. Thus, they suggest that managers ought not concern the capital structure and they can openly choose the piece of debt to equity combination. They further argued that investors like to buy undervalued shares and sell overvalued shares to obtain returns. As stockholders exploit these arbitrage opportunities the price of the overestimated shares will fall and the underestimated shares will rise until both attained equilibriums. Capital structure irrelevant theory was theoretically feasible yet depended on unrealistic set of presumptions. Subsequently, this model prompted a lot of research on capital structure. Despite the fact that their model was theoretically

valid, the world without taxes was not feasible. So as to make it increasingly accurate joined the impact of taxation on the cost of capital and firm worth. Indicated in their tax-adjusted paper that when tax laws grant the deductibility of paid interests, the market valuation of a firm is an expanding capacity of debt financing. They further argued that in the mixed of corporate taxes, firm value increase with the effect of the tax shield. Cost on debt capital is a commendable deduction from the firm's revenue and hence diminishes the net tax payment of the firm. This would bring about an additional advantage of utilizing financial leverage by down casting the cost of capital of a firm. The MM theory employed the following symbols to explained the capital structure irrelevance hypothesis.

Vu = Fair Value of Firm wholly finance with equity.

Veg = Fair Value of stock in a Geared firm.

D = Fair Value of Debt in a Geared Firm.

Vg = Veg+ D

Ku = Cost of Equity in Firm wholly finance with equity.

Kg = Cost of Equity in Geared Firm.

Kd = Cost of Debt

Therefore, from their proposition I, they estimated the valued of geared firm as follows:

Vg = Vu

Vg = Weighted Average Cost of Capital (WACC)/ Earnings before interest (EBIT)

Vu = Vg = Cost of Equity in Firm wholly finance with equity (Ku)/ profit in partially equity finance firm. Hence, Weighted Average Cost of Capital (WACC) is autonomous of the debt to-equity ratio which is equivalent to the cost of capital the company would have with no debt component in its capital structure. They further argued in their proposition II that, Weighted Average Cost of Capital is identical to cost of equity of firms wholly financed by equity which is resolute by summation of risk free returns and the company's business risk premium. Also, the financial risk can be estimated as debt-to-equity ratio multiply by the difference between cost of equity for firms wholly financed by equity and risk free cost of debt. Therefore, the cost of equity for firm partially financed by equity is given as:

Via the introduction of obligation in capital structure, equity cost raises proportional to compensate directly the lower of debt giving a persistent Weighted Average Cost of Capital regardless the degree of gearing. This advocates that the appraisal of a Company is irrelevant to its capital structure. Thus whether a firm is highly leveraged or has lower debt component, it has no bearing or effect on its market value. Rather, the market value of a firm is dependent on the operating profit of the firm. The figure (4&5) below describe the MM theory of capital structure.

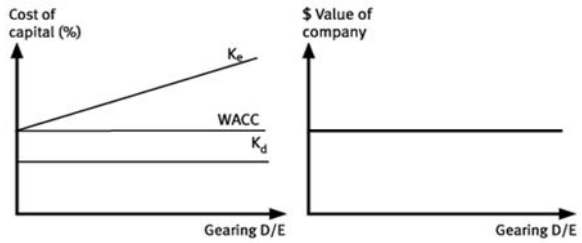

Figure 4: MM Theory View of Capital Structure. (Source: Wikipedia.org).

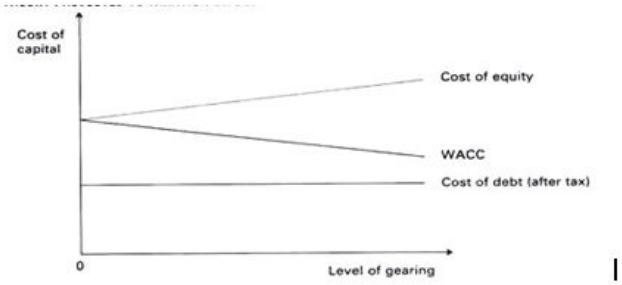

Figure 5: MM Theory Adjusted to Taxation on Debt. (Source: Wikipedia.org).

Drawbacks in theory prompted series of research aimed at demonstrating MM theory as theoretical and empirical issue. After the emergence of MM theory of capital structure, other theories have been developed based on the principles of MM theory however, these theories are as well proven difficult to be validated. Despite the pinioning role played by MM theory in attempt to explain capital structure, the following criticism was leveled against the MM theory which paved way for other theories. Few of these criticism is; In this present reality, costs of transaction exist. It is unreasonable to accept that intermediary commission, transaction costs and other fees doesn't exist in security trading; The presence of productive and impeccable capital markets is just theoretical. Then again, the capital markets operate in feeble and semi-solid structure because of distorted information; One of the significant thoughts of MM hypothesis is that corporate cost of borrowing doesn't increment with the degree of gearing. Be that as it may, the debt providers demand for increase cost of obligation for tolerating higher levels of financial related risk; MM hypothesis assume that financing costs are equivalent among individuals and corporates. However, practically speaking, the obligation finances accessible to corporate at less expensive rates when contrasted with individuals; The lending and borrowing rates can't be equivalent. It relies on the return risk sensitivity of the moneylenders; MM hypothesis overlooks the significant part of financing through retained profit. In genuine world, corporates won't payout the whole profit as dividend; MM hypothesis anticipated that there are no Distress costs. In any case, the firm needs to bring about costs like legal costs, loss of investment opportunities, if the organization fails to meet its money related commitments; Investors won't show a lot of enthusiasm for acquisition of low evaluated bonds gave by profoundly gearing firms; Corporate leverage and home-made leverage are not ideal substitutes from the perspective of individual financial providers; MM hypothesis was tremendously criticized for the explanation that it disregards the personal tax and corporate tax.

Trade off Theory

Basically, the trade- off hypothesis deals with three main issues associated with capital structure. Namely, the theory explained capital structure on the principles of corporate tax (Tax benefit), Bankruptcy cost and Agency cost.

Taxation and Capital Structure (Trade-off theory)

The Connection between debt and tax was initiated. He focused on the impacts of corporate and personal taxes on leverage ratio. This study also attempted to prove the existence of tax benefit that causes the preferences of companies towards debt financing. Trade off theory is currently considered as the dominant capital structure theory which recommends the relevance of optimum level of debt. The company can achieve an optimal capital structure by adjusting the debt and equity level by balancing the tax shield and financial bankruptcy cost. Thus optimal capital structure is where the marginal benefit of debt is equal to its marginal cost. Later, indicated that the relevancy of capital structure only exists in several situations. The uniqueness of optimal capital structure equilibrium can be reached in the presence of corporate and personal taxes. They indicated that the increase of inflation decreases the real value of investment tax shield and increases the percentage of debt. Therefore, by incorporating the tax element, tax deduction or tax benefit may make debt financing cheaper than equity financing. Thus, without the existence of personal tax, company may use debt to reduce corporate tax liability.The trade of theory of capital structure as a theoretical foundation to explain the “Capital Structure Puzzle”. suggested that the use of debt up to a certain level offset the cost of financial bankruptcy and interest tax shield.

Incremental and probity model to explain the relationship between corporate tax and incentive for company to utilize debt. The conclusions indicated that the high tax shield may increase the probability of tax deduction. Therefore, it reduces the expected marginal rate and thence, there's a less tendency to use debt finance. On the other hand, the higher dividend payment can cause individuals to pay high personal tax. Therefore, in order to increase the company value, companies have to maintain low dividend and low debt. It implies that companies reduce interest payment and taxable dividend without reducing the return on capital. The best strategies of tax deduction and the maximization of company value are: issue more debt and maintain small dividend payment. However, the empirical evidence produced by Proved that positive and negative relationships exist between the dividend and company value; and between the former and taxes, respectively.Further indicated that the optimal capital structure can be identified through the benefits of debt tax deductibility of interest, agency cost and bankruptcy cost explained how the increase in debt component in the capital structure impact the value of the company. As debt component increase, Weighted Average Cost of Capital of the company declines until the company reaches the optimal gearing level and cost of financial bankruptcy increases along with the debt level. This is confirmed by the optimal debt to equity ratio shows the highest possible tax shield that the company can enjoy.

Bankruptcy Cost verses Capital Structure (Trade-off theory)

Apart from tax shield, debt financing also results in bankruptcy. The question arises on how to achieve balance between the tax benefit and the bankruptcy cost. Company faces financial bankruptcy because of the extremely high interest payment which may result to higher probability of bankruptcy. The probability of the company to face bankruptcy is also because of economic factors including the economic risk and financial risk. The process of company recapitalization has been proposed. In this study, bankruptcy impacts the equity value, subordinated debt and secured debt differently. The findings of this study shows that; first, the equity value of company based on the value of net operating income and the interest that should be paid to debt holders. Company with small earnings compared to interest payment can avoid bankruptcy and fulfill the interest payment by selling additional debt (such as subordinated debt), sell assets and equity.

Secondly, the total market value of company which issues only subordinated debt based on the current value of equity and the face value of debt. For these companies, if they sell the subordinated debt only, then the optimal capital structure is considered irrelevant. Thirdly, the issuance of secured debt increases the company value. As long as the company has unutilized secured debt capacity, it can increase its total market value by issuing additional secured debt. The findings indicated that the capital structure is relevant if the debt is fully secured. But if capital structure is irrelevant in two situations. First, if additional debt is issued until the debt holders claim greater than the company value; and second, in the situation where interest payment does not occur. These situations may cause debt holders to gain only the face value of debt, hence, company debt cannot be fully secured.

The effect of bankruptcy cost on company financing choices was pioneered. They considered two situations, bankruptcy cost without any boundary and bankruptcy cost with boundary in debt ratio. In addition, they divided the bankruptcy cost into direct cost and indirect cost.Explained that cost of bankruptcy include legal and administrative cost, other indirect cost that result from loosing of customers and trust between staff and suppliers due to the uncertainties. They also indicated that the irrelevance of capital structure may arise from absence of corporate taxes and the domination of debt in capital structure within the existence of company taxes underneath the framework of excellent markets and associated costless bankruptcy. Their findings indicated that bankruptcy prices that have an effect on the capital structure choice should be trivial if one assumes that the capital market cost area competitively determined by rational investors. Therefore, advised that it's higher for firms to extend their equity once there's a direct bankruptcy cost and contrariwise. suggested that companies also make recapitalization to prevent bankruptcy. The increasing amount of debt decreases the leverage ratio and results in increase the debt amount and gets the tax benefit. Thus, in this circumstance, it is better for the company to recapitalize. On the other hand, the decrease of debt ratio increases the company leverage ratio. Besides preventing bankruptcy, the company needs to recapitalize because the equity holders could not sell the asset to pay the coupon payment. In addition, the coupon payment decreases the dividend received by the equity holders. In the case of unlevered and

levered companies, the dividends are negative. Therefore, this situation may cause the equity holders to experience default and the debt holders will take over the company and recapitalize. additionally, they examine the company's characteristics and embody the debt range in analyzing the dynamic capital structure. When the company faces financial bankruptcy because of high interest expense, suggested several alternatives to avoid company bankruptcy. The alternatives include the issuing of public debt or private debt, assets sales, restructurings, merger and/or reduction in capital expenditure. Companies can restructure the private debt by negotiating the content of contract such as exemption in debt payment or full provision of principal payment, and finally, companies with greater secured debt are more prone to bankruptcy. Companies can also restructure the public debt by exchange offers. The company that completes the exchange offers has less probability to be included in bankruptcy. By selling assets, companies that sell a large portion of their assets also have less probability to be included in bankruptcy. The results show that existence of positive relationship between the likelihood of associate assets sales and also the outstanding debt. They also indicated that if the public debt is difficult to restructure, companies need to sell assets or merge in order to avoid bankruptcy. In addition, companies that face financial bankruptcy may reduce the capital expenditure because of a wide reduction in the industry and the reduction in the size of company as companies sell their assets. However, it is difficult to determine whether capital expenditure reductions during financial bankruptcy are efficient or inefficient. Since the interest rate results to bankruptcy, suggested the interest rate swap in order to analyze the dynamic of capital structure model. Their study is aimed to answer the hypothesis that it's higher for company to endure the high debt quantitative relation to induce the tax break. The interest rate swap is expected to reduce the company incentive to take high-risk investment and reduce the bankruptcy cost especially among big companies. The result shows that the company with low bankruptcy prefers to lower its debt ratio. In line with the positive relationship between bankruptcy price and debt quantitative relation, it indicates that the rate of interest swap induces the swap users with higher bankruptcy cost to possess less debt ratio.

Agency cost verses Capital Structure (Trade-off theory)

Addition to Tax shield and bankruptcy cost, agency cost of which was considered in the trade off approach. explains that separation of ownership and control is considered as the basic reason to raise the agency cost. According to study of agency costs are classified into direct and indirect costs result from principals and agents act in their best interest and, failure to make agents to act this way. Stated that debt can reduce the agency cost and argued that higher the debt capital grater the commitment to pay out more cash. Though, contend that it's not been wholly explained the impact of agency conflicts on capital structure. The study of indicated that debt capital within the capital structure will turn out valuable information to observe the agency behavior and for self-interest reasons managers are reluctant to liquidate the company or provide such information which could result in bankruptcy. Debt holders also concerned only on their benefit and would prefer companies to undertake safe investments and do not bother about the profitability of those investments in these companies.

The cost of debt would prompt agency conflicts between shareholders and bondholders. According to stated that the presence of optimal capital structure or target capital structure increase the shareholder wealth. The study further explained that even the worth maximizing company use debt capital to full capacity face low chance of going bankrupt. indicated that high profitability of gearing proposes that the company's tax shield higher and lower the possibility of bankruptcy. This is consistent with the key expectation of the trade-off approach that there is a positive correlation between profitability and gearing. But none of these theoretical and empirical studies fully substitute the traditional version and researchers still test the trade-off approach focused on the original assumptions. In the literature contradictory evidence may be found in favor and against the trade-off theory and optimal capital structure. non-debt tax shield and use of debt capital in the capital structure is positively correlated. Contradictory to these findings. Consistent with indicated that companies which occur a tax loss are rarely issue debt capital. According to Gearing level of companies are steady even the tax rates vary to great extent. Contrary to this found that capital structure choice based on tax rates. Optimal capital structure choice of the company would be to issue debt capital and/or equity capital. Trade off model postulate that all companies have an optimal debt ratio at which the tax shield equal the financial bankruptcy cost. This model eliminates the effect of information asymmetry and incorporating the different information on conflicts between insiders and outsiders Pecking Order Theory proposed. The theoretical model tested by scholars like is expressed as:

Where: DR, represent Debt Ratio, V, represent independent variable, and er. Represent error term. In a generic term, Trade-off theory is modeled on this principle as:

Where: V, represent Firm Value, PV1, represent tax shield, PV2, represent Bankruptcy cost. The figure below described the trade-off hypothesis.

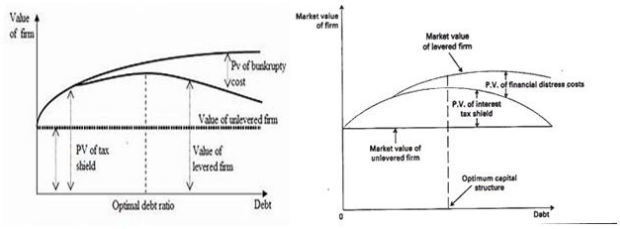

Figure 6: Trade-off View of Capital Structure (Source: Wikipedia.org).

The disadvantage of debt financing is that it binds the company to the obligation of periodic fixed interest rates and to the repayment of the principal. Failure to do, the bank will make property and asset repossession. These drawbacks prompted further theories which is discussed in the next level.

Credit Rating Hypothesis

Kisgen (2006) proposed CR-CS hypothesis which is considered as an extension of the existing trade off theory of capital structure. Capital structure decision would change depended on the cost and benefit associated with the different rating levels. Further indicated that credit rating changes directly impacts capital structure decision of the company and when the companies closer to a rating change

issues less debt capital than companies not closer a rating change. CR-CS hypothesis complements traditional capital structure theories in order to decide the capital structure.

Pecking Order Theory

Introduced pecking order hypothesis which indicated that there is no well-defined target debt ratio. The underlying assumptions of pecking order theory is presented as: First, there are no costs engaged with utilizing internal generated resources, since there are no issue costs associated with utilizing retained income; second, It is costly to outsource funds; third, Raising of obligation is generally less expensive than raising of equity funds; forth, Raising of term advances from banks and monetary institutions is less expensive than giving debt securities for raising funds; fifth, Issue of equity capital is highly costly; finally, Servicing of debt fund is less expensive than overhauling of equity funds. Pecking Order theory is based on above assumptions of perfect capital market. Propose pecking order theory following the findings of which indicated that management prefer internal funds rather than using external funds. Pecking order theory suggested that company prefer internal financing over debt capital and explained that companies utilize internal funds first then issue debt and finally as the last resort issue equity capital. According to confirmed that companies prefer to finance new investments with internal funds first and then with debt capital and as the last resort they would go for equity issue. Pecking order approach further explained that corporations borrow extra once internal funds don't seem to be comfortable to meet the investment wants and found that debt ratio of the company reflects the cumulative figure for external financing and companies with higher profit and growth opportunities would use less debt capital. If the company has no investment opportunities profits are retained to avoid the future external financing.

In addition, company's' debt ratio represents the accumulated external financing as the company do not have optimal debt ratio. Subject to the pecking Order theory, argued that capital structure decisions are intended to eliminate the inefficiencies caused by information asymmetry. Asymmetry information between insiders and outsiders and separation of management create a case for why companies avoid capital markets. The study of indicated that debt issue of the company give a signal of confidence to the market that company is an outstanding company that its management not afraid of debt financing. According Further pecking order can occur due to the agency conflict between managers and owners and outside investors. Studies on pecking order approach have not been able to show the significance of this approach on determining company s' capital structure. The study of compared the trade-off approach and pecking order approach and showed that certain features of financial data are better described by the pecking order theory. This opinion is confirmed by The model adopted to empirically test the fluctuation in debt is presented as:

Where: D represent Debt Ratio, DEF, represent Deficit to total Assets (Financing Gap) and er, represent error terms.

Pecking order theory is widely discussed, however what have not been discuss is the advantages of this theory in practice. Therefore, advantages of this theory is that, it guarantees the security of the company and also safe the Company from repayment and meeting the debt covenants with its associated negativities. However, the question of how the company justify that they have exhausted internal source of funds available remains unanswered. Disadvantages of this theory compelled the further development of capital structure theories(**Image-2**).

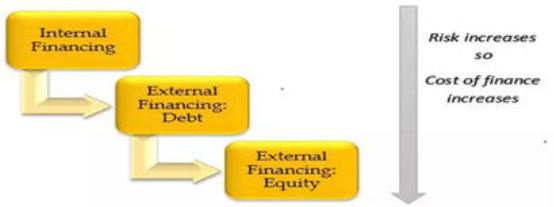

Image2. Hierarchy of pecking order theory.

The market timing theory.

The market timing hypothesis of capital structure explains that corporations issue new stock when their stock price is overvalued and they repurchase stock when the price is undervalued . These changes in stock price influence the corporate financing choices and last of all the capital structure of the firm. further clarify that predictable with the pecking order hypothesis of capital structure showcase market timing hypothesis does not move to target leverage as equity business is totally time to financial market conditions. This suggests capital structure fluctuations influenced by market timing are resilient . This relational word clarifies that gearing ratios are adversely identified with the past stock returns establishes that the most significant determinant of capital structure is the stock returns.

In attempt to test market timing hypothesis, Market-to-book ratio was used by, and the model adopted is presented below:

(Source: Ahmadimousaabad et.al. (2013))

Where: MB connote Weighted average, PROF, TANG and Size connote independent Variable.

In the words of expressed that market timing does not have notable consequences for the organizations' capital structure over the long run. However, the effect of market timing on gearing will totally fade out within a short period.

Results and discussion

As discussed earlier, all theories have merits and demerits. have extensively tested the theories and the findings are not decisive. In fact, there is no mutual decision on the best theory that is used to determine the capital structure.

Trade-off hypothesis proposes that managers are motivated by three factors to choose debt financing or combination of equity and debt financing. They argued that managers would prefer leverage financing because of the set-off between tax benefit and the cost associated with borrowed fund which includes bankruptcy cost, and agency cost. Therefore, trade-off theory concluded that always managers will combine debt and equity to finance its resource because of tax shield advantage. Studies also supported Trade-off hypothesis as a benchmark for determine optimum capital structure., finds positive relationship between new debt and internal funds flow

deficits wherever the matched relationship between the two is much below as mentioned by Pecking Order Hypothesis and was relatively the same as the findings of who indicated that static trade-off is more suitable in order to determine the optimal capital structure because financial flexibility is very important, however not driven by the pecking-order theory. Also, indicated in their paper that connection between leverage and the determinants such as size, tangibility of assets, and nondebt tax shield behaves as expected by the trade-off theory. Moreover, added that the determinants of cash are so closely related to the determinants of debt specifically in order to examine the determinants and implications of holdings of cash and marketable securities by publicly traded U.S companies. Supported this by approximated that as long as capital structure decisions follow more than one theory, further research is included in the conditions under which each capital structure theory dominates relatively. These conditions represent company's characteristics such as growth, size, business risk, etc. This provides a support for searching the conditions under which the company moves from a theory to another. To summarized, trade-off theory provided three factors that informed the capital structure decision of management which are Tax shield, Agency cost and Bankruptcy cost.

Peaking order theory on the other hand, argued that there is no defined optimum capital structure rather firms will always resort to a certain order of financing preference. They suggested that firms will always utilized internal source of financing (retain profit) then debt (borrowed fund) and finally Equity financing (issuing of new shares). The model and other empirical studies proof that information asymmetry between managers and stockholders is the fundamental principle that guides the pecking order hypothesis. The theory has been tested and confirmed by many researchers both theoretical and empirically as a widely accepted capital structure theory. According to although at a lower significance level, and referred to a significant positive correlation between current leverage and past dividends which bring result that favors the pecking order theory. Also, the study of believed that Chinese companies prefer short-term finance and have lower amounts of long-term debt. To this extent, the pecking order theory is consistent with asymmetric information theory which seems to provide partial explanations. studies also concluded that the pecking order theory is considered as the dominant stream to determine the capital structure of Brazilian companies. All these studies support the findings that even if there were debt target level to pursue, economic and institutional conditions would impose strong obstacles to it. Therefore, it is not difficult to understand why the pecking order theory is widely used as guide to capital structure decision. However, the theory supports the fact that debt financing cannot be ignore when explaining capital structure decision by firms but the difference is the order of preference of choice stipulated in the pecking order hypothesis.

Market timing theory also, argued that fluctuations in share price influence capital structure of a firm and consequently the financing decision of the firm. They further explain that firms issue shares when shares are overpriced and buyback when they are undervalued hence they concluded that the main determinant of capital structure is the stock returns. However, some eminent empirical studies like proof that effect of market timing hypothesis on gearing ratio is a short term phenomenon. In the conditions of issuance of marketable securities, hold up the realistic presence of market timing assumptions, nevertheless, every one of them have contradicting the on the unremitting power going on capital formation by means of market timing. By completing their investigations; depicted that US firms have powerfully rebalanced the influence to be situated in the most profitable arrangement, in this manner, the effects of market timing are temporary. Market timing explanation of information has been questioned by different studies. For example, give affirmation that regardless of whether market timing exists, it doesn‟t incorporate long term impact on corporation‟s power and that organizations do acutely rebalance their leverage composition toward a few target point. Notwithstanding studies and discussion by either find obstinate confirmation for market timing or raise issues about the understanding of target corrections. Actually, the literature in this area required hypothetical models. Thus, various opinions have been clarified by several authors while decoding market timing.

Finally, Credit Rating hypothesis which is believed to be an extension of trade-off theory also added to long standing debate that capital structure of a firm is directly related to diverse rating levels available. The theory concluded that any firm closer to the credit rate, will prefer less debt composition as compare to firms not closer to the credit rate change.

The overarching aim of the capital structure decision is to define the financial leverage that exploits the value of corporation. In the theory developed devoid of taxes, capital structure is extraneous and has no effect on firm value. Utilizing more debt in a company's capital structure reduces the agency cost of equity. The cost of distorted information upturn as more equity is used against debt, signifying the pecking order theory of leverage, in which additional equity issuance is the least preferred method of raising capital. A corporation may identify its target capital structure, but this at any point in time may not equate its target for many reasons. Several firms have goals for upholding a certain credit rating, and these goals are swayed by the comparative costs of debt financing among the different rating classes.

Conclusion

Appreciating the capital structure choice of firms is the focal point of capital structure theories discussed in this paper. From the theories discussed, hypothesis of capital structure irrelevance which was created dependent on the central idea of obligation and value of the firm and arbitrary assumptions make way to different theories of capital structure. The trade-off hypothesis, advocates tax shield advantageous position and worth amplifying through the ideal obligation to equity mixture. The trade-off theory is extensively explained, and their conclusion clearly indicate the existence of an optimum debt level where companies partially congregate. In general, the results show that the explanatory power of the models is relatively high which indicates that the construct validity of the models is acceptable. Then again, contention of pecking order model as it explained that profitable firms would attempt to issue off their obligation as per the principle that internal finances must be considered first, and when plough back income are not satisfactory, arrangements must be changed to outsource financing. The tax shield advantage gives sound to the inclination for outside obligation and which connote trade-off hypothesis as reciprocal to the pecking order hypothesis. Contrasts in capital structure theories happens in their clarifications of relevancy of taxes, fluctuations in information and agency costs.

In addition, market timing theory does not explain an optimal capital structure and that capital structure is a product of strategic decisions companies takes over time. This theory advocates that firms issue shares when their shares are overvalued and buyback shares when the shares are underrated. It is important to have more comprehensive view on capital structure of companies as these theories are not able to suggest definite solution to capital structure dilemma. Interestingly, there is no single theory that provides a decisive optimal capital structure that firms can utilized to enjoyed tax advantage hence the capital structure puzzle still remains unexplained. Therefore, it can be concluded that extensive development is needed to expand the scope of the theories discussed in this paper to incorporate all the factors considered by the individual models to establish a theoretical result that can clearly explain the complexity of capital structure.

The study recommends that as companies' sourcing for funds to finance asset, it is prudent for the managers to decide on the best capital source for the firm either external or internal funding. Also, deciding on whether to go for external or in ternal funds which is (Equity, Debt or Both), certain factors must be taking into account since a wrong capital mix can result in some serious consequences like bankruptcy or liquidation. Managers should not also consider only equity or debt as their sole source of finance because it is not appropriate capital structure decision.

Finally, financial forecaster must look at the capital structure of the players that have similar business risk, and firm-specific factors that may impact agency costs when evaluating a companies' capital structure.

References

1. Adedeji A. A cross-sectional test of Pecking Order Hypothesis Against Static Trade-off Theory on UK data. (2002).
2. Aggarwal R. International differences in capital structure norms: An empirical study of large European companies. Management International Review (1981):75-88.
3. Al-Tally HA. An investigation of the effect of financial leverage on firm financial performance in Saudi Arabia's public listed companies (Doctoral dissertation, Victoria University) (2014).
4. Alti A. How persistent is the impact of market timing on capital structure? J Finance 61(2006):1681-1710.
5. Anderson CW, Makhija AK. Deregulation, disintermediation, and agency costs of debt: evidence from Japan. J Financial Economics 51(1999):309-339.

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