# American Journal of **Finance** (AJF)



Debt Capacity and Financial Performance of Quoted Firms in Nigeria

Matthew A. Asaolu





### Debt Capacity and Financial Performance of Quoted Firms in Nigeria

Matthew A. Asaolu Department of Banking and Finance, Rivers State University, NIGERIA Email: <u>mathewadekunle@yahoo.com</u>

#### ABSTRACT

**Introduction:** The field of research treating debt capacity can be comprehended as a unique piece of a lot more extensive capital structure hypothesis. This started with the paper of Modigliani/Miller in 1958. There has been a continuous and serious hypothetical dialog about the ideal capital structure of an organization. One generally new piece of the related discussion is debt capacity and potential connection to the capital structure of an organization.

**Purpose:** The purpose of the study was to examine the effect of debt capacity and financial performance of quoted firms in Nigeria. This study expected that debt capacity can be a way to characterize and deal with the capital structure of an organization.

**Methodology:** The study formulated 3 hypotheses and the least square multiple regression was used for hypothesis testing empirical results based on 2014 to 2018 accounting and marketing data for 20 quoted firms in Nigeria lend some support to the pecking order and static tradeoff theories of optimal capital structure. Data were sourced from the Nigeria Stock Exchange, Security and Exchange Commission, and other relevant data sources. This study investigated, experimentally, if there might be a significant relationship between the debt capacity of organizations and their financial and market performance.

**Findings:** A firm's debt capacity was found to have a significant impact on the firm's accounting performance measure. Debt capacity measures have a positive and significant relationship with the market performance measure (Tobin's Q). A fascinating finding is that all the influence estimates have a positive and exceptionally critical association with the market execution measure (Tobin's Q), which could somewhat bolster Myers, (1977)'s contention that organizations with high transient obligation to add up to resources have a high development rate and superior.

Unique contribution to theory, practice and policy: The consequences of this result further affirm some earlier discoveries by different researchers and prior analysts and the exploration work has had the option to discover answers to the examination addresses prior brought up in the basic part in the accompanying ways. It was therefore recommended that Companies can finance themselves with debt and equity capital. By increasing the amount of debt capital relative to its equity capital, a company can increase its return on equity. Also, in transition, the economic environment is more volatile and riskier than in developed markets. Therefore, a management scheme of capital structure that provides for flexibility in financing is preferable.

Keywords: Capital structure, Debt capacity, Financial Performance, Pecking order theory,

Trade off theory.



#### 1. 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 mixes of debts or equity. The foundation for theories and research focus on the subject of capital structure could be traced to introduction of Modigliani and Miller's (M&M) theoretical model about corporate capital structure in 1958. The theory provides insight into a firm's capital structure decision in a capital market free of taxes, transaction costs, and other frictions (Modugu, 2013).

On the other hand, debt capacity implies the ability to borrow. It is the amount of fund that a company can borrow. There is no set pattern to set the portion of debt in the capital structure. The choice of debt for the fund is the crucial issue in the corporate finance policy. There are different factors which company considers before taking any decision regarding its debt. Taxes are deductible expense therefore are favorable for the firms when tax rates are high companies move to debt to reduce the burden of taxes. Management styles either conservative or aggressive may also be a reason which can support company to determine its debt level. Generally, firms with conservative style use less debt and prefer equity and firms with aggressive style use more debt. Sometime company preferred to borrow fund when company is not in a position to issue more equity. When the firms projected earnings are higher and secure in this situation firms do not increase equity because here earnings are reflected in stock prices, so firms prefer to finance with debt than higher earnings are reflected in stock prices. When the firm is financially strong it increases money from the equity but when firm is not financially strong it arranges money from debt.

Organizations do not have ability to borrow money as much as they want in some cases. Many factors are involved which stops them to borrow but the main factor is the growth of the company because if the company growth is on the track their debt level would be high and if the company growth level is not on track then their debt level would be low. This is consistent with the dynamic view of Pecking order theory. So generally, it can be concluded that when company increase their debt level there should be positive impact on growth of the firm. Several prior studies like Cai and Zhang (2006) found that the negative effect is stronger with high leveraged firms and also found that negative effect of leverage change the future investment and change in long term debt affect the stock return more than the short-term debt. Johnson (2003) found the negative relation of debt and growth opportunities.

The financing decision mix of debt and equity represents a fundamental issue faced by financial managers of firms. The actual impact of capital structure on corporate performance in Nigeria has been a major problem among researchers that has not been resolved. Hitherto, there is still no conclusive empirical evidence in the literature about how capital structure influences corporate performance of firms in Nigeria. According to Kochar (1997), poor capital structure decisions may lead to a possible reduction/loss in the value derived from strategic assets. Hence, the capability of a firm in managing its financial policies is important, if the firm is to realize gains from its specialized resources. The raising of appropriate fund in an organization will aid the firm in its operation; hence, it is important for firms in Nigeria to know the debt-equity mix that gives effective and efficient performance, after a good analysis of business operations and obligations.



Debt financing affects a company's performance because companies will usually agree to fixed repayments for a specific period. These repayments occur regardless of the firm's performance. Although equity financing typically avoids these repayments, it requires companies to give an ownership stake in the company to venture capitalist or investors. Thus, the choice of capital structure is fundamentally a financing decision problem which becomes even more difficult in times when the economic environment in which the company operates presents a high degree of instability like the case of Nigeria. Hence, making appropriate capital structure decision becomes crucial for Nigerian firms.

Nigerian stock exchange market established in 1960 like any other capital market in the world played a vital role in listing and market capitalization of firms. Nigerian capital market which had undergone various stages of development, since its inception till date, currently has 156 quoted firms operating on its floor with a market capitalization of over N38 trillion. In recent times, firms' participation in the Nigerian stock exchange market is on the increase hence the need to provide knowledge on the relevance of debt capacity to the performance of firms quoted in Nigeria.

In Nigeria, investors and stakeholders appear not to look in detail the effect of capital structure in measuring their firm's performance as they may assume that attributions of capital structure are not related to their firms' value. Indeed, a well attribution of capital structure will lead to the success of firms; hence the issues of capital structure which may influence the corporate performance of Nigerian firms have to be resolved. Also, the capital structure choice of a firm can lead to bankruptcy and have an adverse effect on the performance of the firm if not properly utilized. The research problem therefore is to find an appropriate mix of debts and stocks through which a firm can increase its financial performance more efficiently and effectively.

#### **1.1 Purpose of the Study**

The main objective of this study is to determine the effect of debt capacity on corporate performance of Nigerian quoted firms. The specific objectives derived from the major objective are:

To establish the relationship between the debt capacity of the quoted firms in Nigeria and their return on assets;

To establish the relationship between the debt capacity of the quoted firms in Nigeria and their return on equity;

To ascertain the effect debt capacity of quoted firms in Nigeria have on their Tobin's Q as a market performance measure.

#### 2. LITERATURE REVIEW

#### 2.1 Conceptual of Capital Structure

The term 'structure' has been associated with the term 'capital'. The term 'capital' may be defined as the long-term funds of the firm. Capital is the aggregation of the items appearing on the left-hand side of the balance sheet minus current liabilities. In other words. Capital may also be expressed as follows Capital= Total assets- Current Liabilities.

According to Kulkarni, (1988). "Capital structure is composed of a firm's finance of its



assets." It is the permanent financing of a firm represented by long-te Im debt plus preferred stock plus net worth. Essentially the word structure is a term used in the science of engineering. In case of construction of a building there are some standard proportions in which various elements are integrated together to achieve a quality edifice. This is the basis for the concept of capital structure. The concept of capital is understood variously. Capital structure is defined in two ways. According to some authors capital structure refers to the relationship between the long-term debts and equity. In other words, it takes into consideration only the long-term sources of capital. It excludes short term capital from its purview. On the other hand, some believe that capital structure refers to the relationship among all sources of capital. They do not want to distinguish between long-term and short-term sources. In the opinion of Walker and Baughn (1967) Capital structure is synonymous with total capital this term refers to the make up the credit side of claims among trade creditors, bank creditors, bond holders etc. Lindsay and Sametz, (1963) feel that in view of the great importance of bank credit and trade credit it seems artificial to omit short term or informal debt from capital structure problems especially for small films where current liabilities comprise a large part of the sources of funds. In the word of Pandey (2005), Capital Structure is the term known as financial plan that refers to the composition of long-term sources of funds such as debentures, long term debts, preference share and ordinary shares capital including reserves and surplus. Again, capital structure is frequently used to indicate the long-term sources of funds employed in a business enterprise. The optimal capital structure would be the one at which the total value of the firm is greatest, and the cost of capital is the lowest at the structure, and the market price purchase of stock is maximized.

#### 2.1.1 Sources of Capital

The sources of raising capital for a firm may be through External and Internal Sources. External capital includes the capital raised through shareholders equity; long- term loans raised from long- term lending Financial Institutions. In addition to long term lending institutions even the commercial banks provide term loans ranging up to five to seven years. The internal sources of funds include earned surplus and depreciation provision. Capital structure is made up of debt and equity securities which comprise a firm's finance of its assets. It is the permanent financing of a firm represented by long-term debt, plus preferred stock and plus net worth.

#### 2.1.2 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 long leases, etc.

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).

#### 2.1.3 Equity Financing

According to Ibikov (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 fim1 which forms part of the firm's distributable reserves. When distributable profit is detem1ined 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.

#### 2.1.4 Capital Structure and Firm's Performance

Durand, (1952), Modigliani and MiJler (1958), Donaldson (1961), Alchian Kessal (1959). Soloman (1978) and other have made a great contribution to the development of theories at capital structure. A great deal of controversy has developed over whether the capital structure of a firm as determined by its financing decision affects its cost of capital. Traditionalists argue that the firm can lower its cost of capital and increase the market value per share by the judicious use of leverage. Modigliani & Miller (1958), on the other hand argue that in the absence of taxes and other market imperfections, the total value of the firm and its cost of capital arc independent of capital structure. There are four major theories explaining the relationship between capital structure, cost of capital and value of the firm: 1. Net Income Approach. 2. Net Operating Income Approach. 3. Traditional Approach and 4. Modigliani & Miller Approach.

#### 2.1.5 Net Operating Income Approach

This approach is also suggested by Durand (1952). It is diametrically opposite to the Net Income Approach. The essence of this approach is that the capital structure decision of the firm is irrelevant. Any change in leverage will not lead to any change in the total value of the firm and the market price of shares, as the overall cost of capital is independent of the degree of the leverage. The Net Operating Income Approach is based on the following propositions: The overall cost of capital remains constant for all degrees of leverage; The value of equity is residual which is determined by deducting the total value of debt from the total value of the firm: The cost of equity increases with the degree of leverage and that cost of debt has two parts: explicit and implicit t cost. The explicit cost is represented by the rate of interest. Irrespective of the degree of leverage the firm is assumed to be able to borrow at a given rate of interest. This implies that the increasing proportion of debt in the financial structure does not affect the financial risk of the lenders and they do not penalize the firm by charging higher interest.

American Journal of Finance ISSN 2520-0445 (Online) Vol.6, Issue 2, pp 1-24, 2021



#### 2.1.5 Traditional Approach

The Traditional Approach or the interme diate Approach is a mid-way approach between the Net Income and Net Operating Income approach. It partly contains features of both the approaches. The traditional approach accepts that the capital structure of the firm affects the cost of capital and its valuation. However, it does not subscribe to the Net Income approach that the value of the firm will necessarily increase with all degrees of leverages. It subscribes to the Net Operating Income approach that beyond a certain degree of leverage, the overall cost of capital increases resulting in decrease in the total value of the film. However, it differs from Net Operating Income approach in the sense that the overall cost of capital will not remain constant for all the degree of leverages. The essence of the traditional approach lies in the fact that a firm through judicious use of debt equity mix can increase its total value and thereby reduce its overall cost of capital. According to this approach, up to a point, the content of debt in the capital structure will favorably affect the value of the firm. However, beyond that point, the use of debt will adversely affect the value of the firm. At this level of debt-equity mix the capital structure will be optimal.

#### 2.1.6 The Debt Capacity

The most common definition of financial flexibility follows Graham and Harvey (2002) and classifies a firm as financially flexible if it is unconstrained in its issuance decision, sufficiently liquid to react to cash flow shocks, and able to timely pursue investment opportunities due to an easy access to external funds. A factor that is inherently related to this definition of financial flexibility is the firm's debt capacity. Often, studies argue that unused debt capacities provide financial flexibility (DeAngelo, DeAngelo, and Whited (2011), Denis and McKeon (2012)). However, none of these studies provides a measure of the debt capacity, and hence, it is not possible to use their frameworks to identify unused debt capacities explicitly.

In this study, we provide firm-year specific estimates of the debt capacity which can be used to identify unused debt capacities and test the hypothesis that financing decisions are driven by concerns over financial flexibility.

#### 2.1.7 The Economic Framework for Estimating the debt capacity

Generally, the debt capacity of a firm can be seen as an assessment of the amount of debt that a firm can bear given the constraints in its financial policy. This critical amount of debt is an upper boundary for the amount of debt that a firm is willing to hold but it does not have to coincide with a default threshold. A firm's default threshold is a critical debt ratio or a related financial figure which ceases the existence of the firm if it is exceeded. Commonly, this boundary is tied to the value of the firm or to the value of stockholder's equity (Brennan and Schwartz (1978), Leland and Toft (1996)). Financial managers are constrained in their choice of funding means even before the firm defaults so that the capacity of debt that a manager can use to fund projects is determined by other economic forces, which may or may not be under the control of managers. Investors limit credit supply if they expect that further debt issues are not supported by a firm's liquidity and profitability and would jeopardize the quality of current debt outstanding even immediate liquidation (Leary (2009), Lemmon and Roberts (2010)). In addition, lenders protect their claims through bond covenants and loan agreements which all result in an upper threshold for the amount of firm's debt. On the other hand, corporate managers have incentives not to use excessive debt financing to avoid costly renegotiations with creditors and to maintain in control over the firm (Jensen and Meckling (1976), Roberts



and Sufi (2009)), so that it is in their best interest to stay below some critical amount of debt. We call the critical amount of debt which is determined by these various forces the firm's debt capacity.

#### 2.2 Theoretical Review

#### 2.2.1 Capital Structure Irrelevance Theory of Modigliani and Miller

Capital structure irrelevance theory) of Modigliani and Miller (1958) is considered as the starting point of modern theory of capital structure. Capital structure irrelevance theory was theoretically very sound but was based on unrealistic set of assumptions. Therefore, this theory led to a plenty of research on capital structure. Even though their theory was valid theoretically, world without taxes were not valid in reality. In order to make it more accurate Modigliani and Miller (1963) incorporated the effect of tax on cost of capital and firm value. In the presence of corporate taxes, the firm value increase with the leverage due to the tax shield. Interest on debt capital is an acceptable deduction from the firm's income and thus decreases the net tax payment of the firm. This would result in an added benefit of using debt capital through lowering the capital cost of the firm. Drawbacks in MM theory stimulated series of research devoted on proving irrelevance as theoretical and empirical matter. So many other theories that contribute to capital structure theorem have developed based on the MM theorem and it is much hard to validate any of them. Even though there are weaknesses in MM theorem it cannot be completely ignored or excluded.

#### 2.2.2 Trade-off-Theory

One of the theories that have dominated the capital structure theory which recommends that optimal level of debt is where the marginal benefit of debt finance is qual to its marginal cost. Firms can achieve an optimal capital structure through adjusting the debt to equity level thereby balancing the tax shield and financial distress cost. There is no consensus among researchers on what consist the benefit and costs. Eliminating the constraints of the capital structure irrelevance proposition of MM. Myer (1984) used the trade of theory as a theoretical foundation to explain the capital structure puzzle'. Myers (1977) suggest that the use of debt up to a certain level offset the cost of financial distress and interest tax shield. According to Fama and French (2002) the optimal capital structure can be identified through the benefits of debt tax deductibility of interest and cost of bankruptcy and agency cost.

A rnold (2008) explains how the increase in debt capital in the capital structure effect the value of the firm. As debt capital increase WACC of the firm declines until the firm reaches the optimal gearing level and cost of financial distress increases along with the debt level. This is confirmed by Miller (1988) that the optimal debt to equity ratio shows the highest possible tax shield that the company can enjoy. Further consistent with Modigliani and Miller (1963). Miller (1988) confirmed the fact that firms increase the risk of bankruptcy due to the debt capital in their capital structure. In the trade off theory cost of debt are linked with direct as well as indirect cost of bankruptcy. Bradley et. al., (1984) explained that cost of bankruptcy includes legal and administrative cost. Other indirect cost resulting from loosing of customers and trust between staff and suppliers due to the uncertainties.

Brounen et. al., (2005) states that the presence of optimal capital structure or target capital structure increase the shareholder wealth. Further this study explains that even the value maxinlizing firm use debt capital to full capacity they face low probability of going bankrupt. Hovakimian et. al. (2004) claims that high profitability of gearing proposes that



the firms tax shield higher and lower the possibility of bankruptcy. This is consistent with the key prediction of the trade-off model that there is a positive correlation between profitability and gearing. But none of these theoretical and empirical studies fully substitute the traditional version and therefore researchers still test the trade-off theory based on the original assumptions. In the literature contradictory evidence can be found in favor and against the trade-off model and optimal capital structure. Titman and Wessels (1988) found that non-debt tax shield and use of debt capital in the capital structure is positively correlated. Contradictory to this result. Consistent with Modigliani and Miller (1963) Mackie-Mason (1990) found that firms which incur a tax loss are rarely issue debt capital. Gearing level of the firms are steady even the tax rates vary to great extent (Wright, 2004). Contrary to this Graham and Harvey (2001) revealed that capital structure choice depends on tax rates.

Optimal capital structure choice of the firm could be to issue debt capital and/or equity capital. Trade off theory postulate that all firms have an optimal debt ratio at which the tax shield equal the financial distress cost. This theory eliminates the impact of information asymmetry and incorporating the different information on conflicts between insiders and outsiders Pecking Order Theory proposed.

#### 2.2.3 Pecking Order Theory

Myers and Majluf (1984) propose pecking order theory following the findings of Donaldson (1961) which found that management prefer internally generated funds rather using external funds. Pecking order theory suggest that firm prefer internal financing over debt capital and explains that films utilize internal funds first then issue debt and finally as the last resort issue equity capital. Al-Tally (2014) confirmed the same that firms prefer to finance new investments with internally generated funds first and then with debt capital and as the last resort they would go for equity issue. Pecking order theory further explains that firms borrow more when i internally generated funds are not sufficient to fulfill the investment needs ((Shyam-Sunder and Myers, 1999). This is confirmed by Myers (2001) and found that debt ratio of the firm reflects the cumulative figure for external financing and firms with higher profit and growth opportunities would use less debt capital. If the firm has no investment opportunities profits are retained to avoid the future external financing. Further firms debt ratio represents the accumulated external financing as the firm do not have optimal debt ratio.

Based on the pecking order theory Harris and Raviv (1991) claim that capital structure decisions are intended to eliminate the inefficiencies caused by information asymmetry. Information asymmetry between insiders and outsiders and separation of ownership explain why firms avoid capital markets (Myers. 2001). Frydenberg (2004) explains that debt issue of a firm gives a signal of confidence to the market that firm is an outstanding firm that their management is not afraid of debt financing. Further Frank and Goyal (2007) show that due to the agency conflict between managers and owners and outside investor's pecking order can occur.

#### 2.2.4 Agency costs-based theory

Theory based on agency costs postulated by Jensen and Meckling (1976) illustrates that firm's capital structure is determined by agency costs which includes the costs for debt and equity issue. The costs related to equity issue may include: the monitoring

American Journal of Finance ISSN 2520-0445 (Online) Vol.6, Issue 2, pp 1-24, 2021



expenses of the principal (the equity holders); the bonding expenses of the agent (the manager); reduced welfare for principal due to divergence of agent's decisions from those which maximize the welfare of the principal. Besides, debt issue increases the owner-manager's incentive to invest in high-risk projects that yield high returns to the owner-manager but increase the likelihood of failure that the debt holders have to share if it is realized. If debt holders anticipate this, a higher premium will be required, which in turns increase the costs of debt. Then, the agency costs of debt include the opportunity costs caused by the impact of debt on the investment decisions of the expenditures by both the bondholders and the owner-manager; and the costs associated with bankruptcy and reorganization (S e e Hunsaker 1999). Since both equity and debt incur agency costs. The optimal debt-equity ratio i nvolves a trade-off between the two types of cost. Agency costs arise due to the conflicts of interest between firm's owners and managers. Jensen and Meckling (1976) introduce two types of conflicts: conflicts between shareholders and managers; and conflicts between shareholders.

#### **2.3 Empirical Review**

Barclay and Clifford (2006) reported negative relationship between leverage and financial ratio. It is inspired by several past works like Bradley, Jarrell and Kim (1984), Long and Malitz (1985), Smith and Watts (1992) and Barclay, Smith and Watts (1995) also reported negative relationship between leverage and the financial performance, leverage is discussed with growth option, all were significant and showed negative relationship with growth. They discussed on book leverage and market to book ratio and makes contribution that the debt capacity with growth option is negative confirmed empirically and the leverage ratio should be lower for firms with more growth options although the debt capacity of growth option may be small but it is positive when the market value of firm increases.

Johnson (2003) found the negative relation of debt and growth opportunities and found the reason that is increase of liquidity risk. Pet and Juo (2001) found a significant negative relationship between debt by only taken bank loan from total debt and growth by taking the minor ranges of growth while it also found a significant positive relation in the higher range of market to book ratio. Therefore, in different growth ranges when firm has high growth range firms use more monitored debt but when firms is in low growth range it rely on banks and financial institutes. Data taken from annual balance sheet and income statements of capital market listed firms with excluded financial, transportation and communication sectors. Suhaila, Mat and Wan (2008) examine the determinants of the capital structure. Cai and Zhang (2006) found that firms with higher leverage changes on average have lower returns. This study focused on earning control and firm's characteristics but still they found negative relationship. Heisz and Sebastien (2004) emphasize on financial structure and employment growth and between financial structure and inventories. They worked on small firms with high leverage and focused on inventory and employment and found that highly leverage firm also has negative effect on employment growth and inventories.

Following the review of empirical studies, the optimal debt capacity of a firm is very paramount to its successful operation though these decisions differ from one firm to another. Some authors are of the view that a positive relationship exists between debt capacity and the firm performance while some believes that there is a negative relationship.

American Journal of Finance ISSN 2520-0445 (Online) Vol.6, Issue 2, pp 1-24, 2021



#### **3 METHODOLOGY**

This section presents the procedures and techniques used by the researcher in data collection and analysis. Specifically, the methodological issues discussed in this section include population of the study; data sources; variables measurement; model specification; methods of estimation and diagnostic tests. The population of this research is made up of quoted firms on the Nigerian Stock Exchange that were active between 2014 and 2018 other than banks and other financial institutions that are regulated by Central Bank of Nigeria. This is because the leverage of non- financial firms' is not affected by minimum capital requirement that financial institutions are expected to keep with the Central Bank. A total number of 20 non-financial quoted firms' active between 2014 and 2018 on the floor of the Nigerian Stock Exchange were randomly selected out of the population of 89 non-financial Nigerian listed firms. The researcher has used only secondary data collection for the purpose of this study. This study utilized the financial information of Nigerian nonfinancial listed firms for the period 2014 - 2018. Data was sourced from the annual reports and financial statements of companies, daily official list and fact book of the Nigerian Stock Exchange for the period under review. The study is made up of a period of the 5accounting year starting from 2014 to 2018 of 20 quoted firms in Nigeria. This study investigated, experimentally, if there might be a significant relationship between the debt capacity of organizations and their financial and market performance. The researcher adopted panel data analysis method using E-view statistical software.

#### **3.1 Model Specification**

In this study, three measures of corporate performance were used – ROA, ROE and Tobin's Q. The researcher used the proxies (ROA and ROE) as accounting performance measures and the (Tobin's Q) as a market performance measure. More than one proxy for performance were used in this study in order to investigate whether the independent variables explain the performance measures (accounting and stock market) at the same level or not. Three measures of leverage were also used in the study:

- 1. The ratio of total debt to total assets (TD/TA);
- 2. The ratio of long-term debt to total assets (LTD/TA);
- 3. The ratio of short-term debt to total assets (STD/TA).

The short-term debt to total assets (STD/TA) and the long-term debt to total assets (LTD/TA) are used to examine the third hypothesis (H3) to establish the effect of debt maturity ratio on performance. The accounting and market measures used in this study are similar to the variables used by Blaine (1994), Krishnan and Moyer (1997) and Tian and Zeitun (2007). Blaine however did not use a market performance measure and Krishnan and Moyer did not employ Tobin's Q as their market proxy.

Accordingly, a functional relationship between firms' performance (PER) and the chosen explanatory variables (different measures of leverage) is shown below:

PER = f (LEV). (1) With:

(PER)' = (ROA, ROE, Tobin's Q)'

(LEV) ' = (Lev1, Lev2, Lev3) '

PER represents the different measures of performance (ROA, ROE and Tobin's Q) and LEV shows the different measures of leverage (Lev1, Lev2, Lev3).



#### Where:

ROA = Return on asset and is measured by earnings before interest and tax (EBIT) divided by total assets ROE = Return on equity, measured by earnings before interest and tax (EBIT) Preference Dividend), all divided by equity Tobin''s Q = Market value of equity plus total debt to total asset [(E+TD)/TA]Lev1 = the ratio of total debt to total asset (TD/TA)Lev2 = the ratio of long-term debt to total asset (LD/TA) Lev3 = the ratio of short-term debt to total asset (STD/TA) The relationships between the components of PER and the different independent variables can be re-written implicitly as follows:  $ROA_{it} = f(Lev1_{it}, Lev2_{it}, Lev3_{it},$ u*it*)..... (2) $ROE_{it} = f(Lev1_{it}, Lev2_{it}, Lev3_{it},$ μ*it*)..... (3) Tob Q it = f(Lev1it, Lev2it, Lev3it,v*it*)..... (4) with: i = 1,...., N  $t = 1, \dots, T$ and

 $u_{it}$ ,  $\mu_{it}$ , and  $v_{it}$  = Error terms (the time-varying disturbance term is serially uncorrelated with mean zero and constant variance).

Hence:  $u_{it}$  *iid* N (0, <sup>2</sup>u) *iid* N (0, <sup>2</sup>µ) vit *iid* N (0, <sup>2</sup>y)

Equations 2 - 4 depict short panel models with few time series and large cross sections (individual companies). Using this panel method in estimation of the data obtained will enable us obtain estimates that are unbiased and efficient since it avoids loss of degree of freedom. Hence, the analytical panel data model tested in this study consists of three different equations which are structured as follows:

Setting:  $y_{it} = PER_{it}$  and  $x_{it} = LEV_{it}$ Then:  $y_{it} = \alpha_i + \beta_{ij} x_{it} + \mu_{it}$ .....(5) Where:

yit = vector of dependent variables, such that  $(y_{it})' = (\text{ROA}, \text{ROE}, \text{Tobin''s Q})'$   $x_{it} = \text{vector of the explanatory variables, such that } (x_{it})' = (\text{Lev1}, \text{Lev2}, \text{Lev3})'$  i = 1, -----, 20 j = 1, -----, 5t = 2014 - 2018 American Journal of Finance ISSN 2520-0445 (Online) Vol.6, Issue 2, pp 1-24, 2021



The vector of dependent variables  $(y_{it})$  are the firms accounting and market performance indicators to be determined, while  $(x_{it})$  is vector of the explanatory variables i.e. factors that can influence firms' performance. The parameters  $(\beta_{ij})$  are the various coefficients of the explanatory variables that were obtained when the model was fitted into the data. The constant term  $(\alpha_i)$  represents the intercept of the equations while the  $(\mu_{it})$  are the error terms that captures variables not included and expected to be identically distributed with zero mean and constant variance.

#### 4.1 RESULT PRESENTATION

 $H_{01}$ : A firm's debt capacity does not have significant influence on its accounting performance as measured by the return on assets and return on equity.

### Debt Capacity (TDTA, STDTA, LTDTA) and accounting performance as measured by ROA

#### **Running Regression**

 Table 1: Fixed Effect Model When ROA is the dependent Variable and TDTA, LTDTA and STDTA are the Independent Variables

Dependent Variable: ROA Method: Panel Least Squares Date: 10/18/19 Time: 05:55 Sample: 2014 2018 Periods included: 5

Cross-sections included: 20 Total panel (balanced) observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.344570	0.082265	-4.188536	0.0001
TDTA	0.398070	0.331743	1.199936	0.2338
STDTA	0.223626	0.344224	0.649652	0.5179
LTDTA	0.254453	0.399946	0.636218	0.5265

**Effects Specification** 

Cross-section fixed (dummy variables)

R-squared	0.744359	Mean dependent var	0.028403
Adjusted R-squared	0.671318	S.D. dependent var	0.429861
S.E. of regression	0.246443	Akaike info criterion	0.235262
Sum squared resid	4.676526	Schwarz criterion	0.834452
Log likelihood	11.23688	Hannan-Quinn criter.	0.477765
F-statistic	10.19105	Durbin-Watson stat	1.685858
Prob(F-statistic)	0.000000		

#### Source: E-view Statistical Software Package



#### **Running Hausman Test**

The Null Hypothesis for the Hausman test state that: Random effects are independent of the explanatory variables. Means that Random Effect is the most appropriate. Alternative Hypothesis: Fixed effect is the most appropriate

#### **Table 2: Correlated Random Effects - Hausman Test Equation: Untitled**

Test cross-section random effects

Test Summary	Chi-Sq. Statistic Chi-Sq. d.f.		Prob.
Cross-section random	42.497350	3	0.0000

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
TDTA STDTA LTDTA	0.223626	-0.029024	0.017390 0.024433 0.047825	0.0294 0.1060 0.9873

#### Source: E-view Statistical Software Package

We can further check which model is the most appropriate between fixed effect and Pooled regression model.

Using the Wald Test

#### Table 3: Null Hypothesis: Pool regression model are appropriate

Wald Test: Equation: Untitled					
Test Statistic	Value	Df	Probability		
F-statistic	0.081436	(2, 94)	0.0219		
Chi-square	0.162872	2	0.0192		
Null Hypothesis: C Null Hypothesis Su					
Normalized Restric	ction (= 0)	Value	Std. Err.		
C(5)		-0.026367	0.065895		
C(6)		-0.006784	0.128908		

Source: E-view Statistical Software Package

So we reject the null hypothesis since the p-value is less than 0.05. So the fixed effect model is the most appropriate model for this model

We reject the null

meaning that the Fixed effect model

appropriate model

hypothesis

is the most



#### **RESULT**

### So the fixed effect model is the most appropriate model for the test hence the result of the test is as follows:

- A one unit change in TDTA will result to a 0.398 change in ROA. And also the effect TDTA on ROA is not statistically significant to explain ROA since the P-value is 0.2338
- A one unit change in STDTA will result to a 0.223 change in ROA. And also the effect STDTA on ROA is not statistically significant to explain ROA since the P-value is 0.5179
- A one unit change in LTDTA will result to a 0.2544 change in ROA. the effect LTDTA on ROA is not statistically significant to explain ROA since the P-value is 0.5265
- The  $R^2 = 0.744$  which explains the fitness of the model showing that 74% of the variation ROA is accounted for by the independent variables.

### Table 4: Fixed Effect Model When ROA is the dependent Variable and TDTA, LTDTA and STDTA are the Independent Variables

Dependent Variable: ROA Method: Panel Least Squares Date: 10/18/19 Time: 05:55 Sample: 2014 2018 Periods included: 5 Cross-sections included: 20 Total panel (balanced) observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.344570	0.082265	-4.188536	0.0001
TDTA	0.398070	0.331743	1.199936	0.2338
STDTA	0.223626	0.344224	0.649652	0.5179
LTDTA	0.254453	0.399946	0.636218	0.5265

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.744359	Mean dependent var	0.028403
Adjusted R-squared	0.671318	S.D. dependent var	0.429861
S.E. of regression	0.246443	Akaike info criterion	0.235262
Sum squared resid	4.676526	Schwarz criterion	0.834452
Log likelihood	11.23688	Hannan-Quinn criter.	0.477765
F-statistic	10.19105	Durbin-Watson stat	1.685858
Prob(F-statistic)	0.000000		



# H<sub>02</sub>: A firm's debt capacity does not have significant influence on its market performance as measured by Tobin's Q.

The effect of debt capacity (TDTA, STDTA, LTDTA) on market performance as measured by Tobin's\_Q

Table 5: Fixed Effect Model When TOB\_Q is the dependent Variable and TDTA,LTDTA and STDTA are the Independent Variables

Dependent Variable: TOB\_Q Method: Panel Least Squares Date: 10/18/19 Time: 09:27 Sample: 2014 2018 Periods included: 5 Cross-sections included: 20

#### Total panel (balanced) observations: 100

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	2.764173	0.602679	4.586479	0.0000
TDTA	0.677792	2.430367	0.278885	0.7811
STDTA	-0.935931	2.521801	-0.371136	0.7116
LTDTA	0.615943	2.930028	0.210217	0.8341

**Effects Specification** 

Cross-section fixed (dummy variables)

R-squared	0.890529	Mean dependent var	2.832898
Adjusted R-squared	0.859252	S.D. dependent var	4.812436
S.E. of regression	1.805455	Akaike info criterion	4.218137
Sum squared resid	250.9944	Schwarz criterion	4.817327
Log likelihood	-187.9069	Hannan-Quinn criter.	4.460640
F-statistic	28.47195	Durbin-Watson stat	1.552175
Prob(F-statistic)	0.000000		

#### Source: E-view Statistical Software Package



#### Table 6: Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

	Chi-Sq.		
Test Summary	Statistic Chi-Sq. d.f.		Prob.
Cross-section random	1.247365	3	0.7417

So we fail to reject the null hypothesis since the p-value is less than 0.7417. So the **random effect** model is the most appropriate model for this model

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
TDTA	0.677792	0.429055	0.261908	0.6269
STDTA	-0.935931	-0.395378	0.415737	0.4018
LTDTA	0.615943	-0.302141	0.813601	0.3088

#### Source: E-view Statistical Software Package

#### Table 7: Cross-section random effects test equation:

Dependent Variable: TOB\_Q Method: Panel Least Squares Date: 10/18/19 Time: 09:37 Sample: 2014 2018 Periods included: 5 Cross-sections included: 20 Total panel (balanced) observations: 100



Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	2.764173	0.602679	4.586479	0.0000
TDTA	0.677792	2.430367	0.278885	0.7811
STDTA	-0.935931	2.521801	-0.371136	0.7116
LTDTA	0.615943	2.930028	0.210217	0.8341

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.890529	Mean dependent var	2.832898
Adjusted R-squared	0.859252	S.D. dependent var	4.812436
S.E. of regression	1.805455	Akaike info criterion	4.218137
Sum squared resid	250.9944	Schwarz criterion	4.817327
Log likelihood	-187.9069	Hannan-Quinn criter.	4.460640
F-statistic	28.47195	Durbin-Watson stat	1.552175
Prob(F-statistic)	0.000000		

#### Source: E-view Statistical Software Package

#### **Discussion of Finding**

### Debt Capacity (TDTA, STDTA, LTDTA) and Accounting Performance As Measured By ROA

Debt Capacity level is fundamental for the survival of business organizations. Capital structure represents the proportions of capital from different sources. In a simplified context, it is the proportion of financing from debt and from equity capital. Common ratios such as debt-to-total capital quantify this relationship. Furthermore, understanding debt capacity level in relation to financial flexibility discussed by pecking order theory and optimal capital structure documented by trade off theory, calls for an examination of certain aspects of risk, return, and value. Business, financial, and total risk is related to the level of economic income. Business risk reflects all sources of risk that affect revenues, costs, and asset operation. Some of the factors affecting business risk are: (i) changes in the relative efficiency of manufacturing process; (ii) relative effectiveness of advertising; (iii) changes in interest rates that influence product demand; (iv) government actions that create uncertainty in a company's operation. Financial risk results from commitments to use expected cash flows to service creditors and taxing authorities. Creditors stand in line ahead of stockholders. This form of risk arises from promises and requirements resulting from the use of debt and the tax



environment. Examples of financial risk include uncertainty about interest rates and a change in the interest payments if the company has variable rate of debt or if it plans to raise debt in the future. The risk that taxing authorities will change tax rates also adds to financial risk. The aggregate effects of all factors that influence business and financial risk ultimately determine the total risk borne by the stockholders. Risk affects the expected level and uncertainty of the economic net operating income (NOI).

The NOI is the normal source of cash flow for the payment of interest and principal on debt. The level and uncertainty in NOI affects the amount the company can borrow and the terms of borrowing. In general, the greater the level of NOI, the greater the borrowing capacity; the lower the risk in NOI, the greater the borrowing capacity. For a given level of NOI and a given amount of borrowing, the lower the risk of NOI, the lower the cost of borrowing.

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 result of the findings of the study showed that good financial flexibility of quoted firms in Nigeria will enhance their performance.

If a company generates cash in excess of its needs, it has free cash flow. Free cash flow companies enjoy an enviable position of generating sufficient equity internally so that the company does not have to raise capital in markets. Instead, the company can focus on finding attractive uses for its cash, use the cash to manage its capital structure, or return the cash to shareholders. Free cash flow companies have an expanding economic equity base. This expanding base changes the debt to capital ratio. The company can repurchase equity and issue additional debt as necessary to pursue the desired capital structure. Free-cash generating companies enjoy the luxury of choosing the timing of interaction with capital markets. A company having cash generation less than its equity capital needs must resort to raising equity and debt in the appropriate ratios to pursue its target capital structure. Companies needing capital from external sources face the risk of changing capital market conditions. Common sense suggests issuing equity and restoring a cushion of equity during times of market euphoria rather than having the lack of good debt capacity and financing needs compel the issuance of equity during 15 downturns in the market. During good times the merit is of paying down principle on debt to restore "good" borrowing capacity.

Capital structure is sensitive also to expected opportunities. Good borrowing capacity during transition may allow the company to take advantage of opportunities that result from the failure of other companies to prudently manage their financial needs. Unused good debt capacity permits borrowing quickly and on favorable terms. Issuing equity normally is disadvantageous due to market conditions. In addition, usually an equity issue takes a relatively long time or it is often impossible to obtain in the economies in transition. The strategy of a firm may influence the choice of our result on hypothesis 1 which states that "a firm's capital structure does not have significant influence on its accounting performance as measured by the return on assets and return on equity", was reject the null hypothesis since the p-value is less than 0.05. So the fixed effect model is the most appropriate model for this model.



The result of further showed that a firm's capital structure has a significant influence on its accounting performance measured by the return on assets and return on equity.

So the fixed effect model is the most appropriate model for the test hence the result of the test is as follows:

- A one-unit change in TDTA will result to a 0.398 change in ROA. And also, the effect TDTA on ROA is not statistically significant to explain ROA since the P-value is 0.2338
- A one-unit change in STDTA will result to a 0.223 change in ROA. And also, the effect STDTA on ROA is not statistically significant to explain ROA since the P-value is 0.5179
- A one unit change in LTDTA will result to a 0.2544 change in ROA. the effect LTDTA on ROA is not statistically significant to explain ROA since the P-value is 0.5265
- The  $R^2 = 0.744$  which explains the fitness of the model showing that 74% of the variation ROA is accounted for by the independent variables

In line with this result, Brounen et. al., (2005) states that the presence of optimal capital structure or target capital structure increase the shareholder wealth. Further this study explains that even the value maxinlizing firm use debt capital to full capacity they face low probability of going bankrupt. Hovakimian et. al. (2004) claims that high profitability of gearing proposes that the firms tax shield higher and lower the possibility of bankruptcy. This is consistent with the key prediction of the trade-off model that there is a positive correlation between profitability and gearing. But none of these theoretical and empirical studies fully substitute the traditional version and therefore researchers still test the tradeoff theory based on the original assumptions. In the literature contradictory evidence can be found in favor and against the trade-off model and optimal capital structure. Titman and Wessels (1988) found that non-debt tax shield and use of debt capital in the capital structure is positively correlated. Contradictory to this result. Consistent with Modigliani and Miller (1963) Mackie-Mason (1990) found that firms which incur a tax loss are rarely issue debt capital. Gearing level of the firms are steady even the tax rates vary to great extent (Wright, 2004). Contrary to this Graham and Harvey (2001) revealed that capital structure choice depends on tax rates.

Based on the pecking order theory Harris and Raviv (1991) claim that capital structure decisions are intended to eliminate the inefficiencies caused by information asymmetry. Information asymmetry between insiders and outsiders and separation of ownership explain why firms avoid capital markets (Myers. 2001). Frydenberg (2004) explains that debt issue of a firm gives a signal of confidence to the market that firm is an outstanding firm that their management is not afraid of debt financing. Further Frank and Goyal (2007) show that due to the agency conflict between managers and owners and outside investors' pecking order can occur.

## EFFECT OF DEBT CAPACITY (TDTA, STDTA, LTDTA) ON MARKET PERFORMANCE AS MEASURED BY TOBIN'S\_Q

The result for the null hypothesis which states that Short term debt does not significantly affect firm performance" showed that the RANDOM effect model is the most appropriate model for the test hence the result of the test is as follows:

• A one-unit change in TDTA will result to a 0.4290 change in TOB\_Q. The POSITIVE coefficient indicates that as TDTA increases TOB\_Q increases (they have positive



correlation). And also TDTA does not have a statistically significant effect on TOB\_Q since the P-value is 0.8571.

- A one-unit change in STDTA will result to a 0.3953 change in TOB\_Q. The negative coefficient indicates that as STDTA increases TOB\_Q decreases (they have negative correlation). And also STDTA does not have a statistically significant effect on TOB\_Q since the P-value is 0.8715.
- A one-unit change in LTDTA will result to a 0.3021 change in TOB\_Q. The negative coefficient indicates that as LTDTA increases TOB\_Q decreases (they have negative correlation). And also LTDTA does not have a statistically significant effect on TOB\_Q since the P-value is 0.9139

The  $R^2 = 0.000379$  which explains the fitness of the model showing that 0% of the variation TOB\_Q is accounted for by the independent variables. Showing that the Debt Capacity (**TDTA**, **STDTA**, **LTDTA**) does not contribute to the variation of Market Performance as measured by **TOBIN'S\_Q**.

Hence, the null hypothesis was rejected and the alternate accepted. Supporting this result, 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 long leases, etc.

The most common definition of financial flexibility follows Graham and Harvey (2001) and classifies a firm is financially flexible if it is unconstrained in its issuance decision, sufficiently liquid to react to cash flow shocks, and able to timely pursue investment opportunities due to an easy access to external funds. A factor that is inherently related to this definition of financial flexibility is the firm's debt capacity. Often, studies argue that unused debt capacities provide financial flexibility (DeAngelo, DeAngelo, and Whited (2011), Denis and McKeon (2012)). However, none of these studies provides a measure of the debt capacity, and hence, it is not possible to use their frameworks to identify unused debt capacities explicitly.

In this study, we provide firm-year specific estimates of the debt capacity which can be used to identify unused debt capacities and test the hypothesis that financing decisions are driven by concerns over financial flexibility.

#### CONCLUSION

This paper concludes that there is significant relationship between debt and financial performance of firms in Nigeria and therefore null hypothesis is rejected. This paper reveals that if company debt capacity increases or decreases, there is significant effect on the performance of the company. The researcher used the proxies (ROA and ROE) as accounting performance measures and the (Tobin's Q) as a market performance measure. More than one proxy for performance were used in this study in order to investigate whether the independent variables explain the performance measures (accounting and stock market) at the same level or not. Three measures of leverage were also used in the study: The ratio of total debt to total assets (TD/TA); the ratio of long-term debt to total assets (LTD/TA); and the ratio of short-term debt to total assets (STD/TA). A selected total of 20 quoted firms in Nigerian was contemplated in this Study.



A fascinating finding is that all the influence estimates have a positive and exceptionally critical association with the market execution measure (Tobin's Q), which could somewhat bolster Myers, 1977)'s contention that organizations with high transient obligation to add up to resources have a high development rate and superior.

The consequences of this result further affirm some earlier discoveries by different researchers and prior analysts and the exploration work has had the option to discover answers to the examination addresses prior brought up in the basic part in the accompanying ways:

i. There is a noteworthy connection between the debt capacity of firms in Nigeria and market performance.

ii. Debt Capacity has positive effect on available performance of quoted Nigerian firms however negative impact on their bookkeeping execution.

iii. The development structure of obligations affects the exhibition of quoted firms in Nigeria fundamentally.

#### RECOMMENDATIONS

In accordance with the discoveries of this examination, the accompanying suggestions are made:

- 1. The organizations ought to build up a decent procedure focused at utilizing a greater amount of value to boost their market execution so that it yields development openings.
- 2. Companies can finance themselves with debt and equity capital. By increasing the amount of debt capital relative to its equity capital, a company can increase its return on equity.
- 3. In transition, the economic environment is more volatile and risky than in developed markets. Therefore, a management scheme of debt level that provides for flexibility in financing is preferable. The weighted cost of capital curve is flat at debt to equity ratios less than the optimal capital structure. Hence, the gain in flexibility has a small cost in terms of the weighted cost of capital and provides for more unused good debt capacity. In fact, markets may value this flexibility in which case the optimal use of debt might even be less than the theoretical proportion. Proper selection and management of capital structure would offer the prospect of enhancing value for shareholders.
- 4. Management should strive to improve on their companies' financial leverage ratio, as this will go a long way in determining their survival.

#### REFERENCES

- Al-Tally, H. A. (2014). An investigation of the effect of financial leverage on firm financial performance in Saudi Arabia's public listed companies (Doctoral dissertation, Victoria University).
- Arnold, G. (2008). Corporate Financial Management. 4th ed. Harlow: Prentice-Hall.
- Bhaduri, S. (2002) Determinants of Capital Structure Choice: A Study of the Indian Corporate Sector. Applied Financial Economics, 12, 655-665. https://doi.org/10.1080/09603100010017705
- Bradley, M., Gregg, J.A. & Kim, E.H. (1984). On the Existence of an Optimal Capital Structure: Theory and Evidence. *The Journal of Finance*. *39*(3), 1421-1460. https://doi.org/10.1111/j.1540-6261.1984.tb03680.x



- Brennan. M. J & Schwartz. E. S (1978), "Corporate income taxes, valuation, and the problem of optimal capital structure" *Journal of business*, 51(1), 103–114. Retrieved from https://www.jstor.org/stable/2352621.
- Brounen, D., De-Jong, A., Koedijk, K. (2005). Capital structure policies in Europe: Survey evidence. *Journal of Banking & Finance. 30*(5), 1409-1442. https://doi.org/10.1016/j.jbankfin.2005.02.010
- Cai, J, and Zhang, Z., (2006) Capital Structure Dynamics and Stock Returns. SSRN: https://ssrn.com/abstract=685462 or http://dx.doi.org/10.2139/ssrn.685462
- DeAngelo, H., DeAngelo, L. & Whited, T. M., (2011). Capital structure dynamics and transitory debt. *Journal of Financial Economics*. 99 (1), 235-261. https://doi.org/10.1016/j.jfineco.2010.09.005
- Denis, D. J., & McKeon, B. S. (2012). Debt Financing and Financial Flexibility Evidence from Proactive Leverage Increases. *The Review of Financial Studies*, 25(6), 1897– 1929. https://doi.org/10.1093/rfs/hhs005
- Donaldson, G. (1961). Corporate Debt Capacity: A Study of Corporate Debt Policy and the Determination of Corporate Debt Capacity. Boston: Harvard. Retrieved from https://www.worldcat.org
- Durand, D., (1952). Cost of Debt and Equity Funds for Business: Trends and Problems of Measurement. In *Conference on Research in Business Finance*, New York: National Bureau of Economic Research, pp. 215-147.
- Fama, E., & K.R. French. (2002). Testing trade-off and pecking order predictions about dividends and debt. *Review of Financial Studies*, *15*, 1–33.
- Frydenberg, S. (2004). Determinants of Corporate Capital Structure of Norwegian Manufacturing Firms, Trondheim Business School Working Paper No. 1999:6. https://doi.org/10.2139/ssrn.556634.
- Frank, M.Z, & Goyal, V.K. (2007). Tradeoff and pecking order theories of debt. In: Eckbo, B. (Ed.). *Handbook of Corporate Finance: Empirical Corporate Finance*. Amsterdam: North-Holland, 135–202.
- Graham, J.R., & C. Harvey. (2001). The theory and practice of corporate finance: evidence from the field. *Journal of Financial Economics*, 60, 187-243. https://doi.org/10.1016/S0304-405X(01)00044-7
- Harris, M., & Raviv A. (1991). The theory of capital structure. *Journal of Finance*, 46, 297-356. https://doi.org/10.1111/j.1540-6261.1991.tb03753.x
- Hovakimian, A., Hovakimian, G. & Tehranian, H. (2004). Determinants of Target Capital Structure: the Case of Dual Debt and Equity Issues. *Journal of Financial Economics*, 71(3), 517-540.
- Jensen, M.C. & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, *3*(4), 305-360.



- Johnson, S. (2003). Debt Maturity and the Effects of Growth Opportunities and Liquidity Risk on Leverage. The Review of Financial Studies, 16(1), 209-236. Retrieved September 2, 2021, from http://www.jstor.org/stable/1262730
- Kulkarni, M. S. (1988). *Agency theory*. Hull, England, Barmarick Publications. Retrieved from https://nla.gov.au/nla.cat-vn2161565.
- Leland. H. E & Toft. K. B. (1996). "Optimal Capital Structure, Endogenous Bankruptcy, and the Term Structure of Credit Spreads." *The Journal of Finance, Vol.* 51(3)
- Lindsay, L. & Sametz, A. W. (1963), Financial Management: An Analytical Approach. *The American Economic Review*, **53** (4), 799-801.
- Leary, M. T. (2009). "Bank Loan Supply, Lender Choice, and Corporate Capital Structure." *Journal of Finance*, vol. 64, issue 3, 1143-1185. https://doi.org/10.1111/j.1540-6261.2009.01461.x
- Lemmon, M. & Roberts, M. R. (2010). The Response of Corporate Financing and Investment to Changes in the Supply of Credit. *Journal of Financial and Quantitative Analysis*
- MacKie-Mason, J.K. (1990). Do Taxes Affect Corporate Financing Decisions? *The Journal* of Finance, 45(5), 1471-1493.
- Miller, M.H. (1988). The Modigliani-Miller Propositions After Thirty Years. *Journal of Economic Perspectives*, 2(4), 99-120.
- Modigliani, F. & Miller, M. (1958). The cost of capital, corporation finance, and the theory of investment. *American economic Review*, 48, 261-197.
- Modigliani, F. & Miller, M. (1963). Corporate income taxes and the cost of capital: A correction. *American economic Review*, June, 33-443.
- Modugu, P.K. (2013). Capital Structure Decision: An Overview. *Journal of Finance and Bank Management*, 1(1), pp. 14-27.
- Myers, S.C. (2001). Capital Structure. *The Journal of Economic Perspectives*. 15(2), 81-102. https://doi.org/10.1257/jep.15.2.81
- Myers, S. C. & Majluf, N. S. (1984). Corporate financing and investment decisions when firms have information those investors do not have. *Journal of Financial Economics*, *13*, 187-221. https://doi.org/10.1016/0304-405X(84)90023-0
- Myers, S. C. (1984). The capital structure puzzle. *The journal of finance*, *39*(3), 574-592. https://doi.org/10.1111/j.1540-6261.1984.tb03646.x
- Myers, S. C. (1977). The capital structure puzzle Determinants of corporate borrowing. *Journal of Financial Economics*, 5(2), 147-175.
- Pandey, I. M. (2005). *Financial management*. (09 ed., pp. 1-10). New Delhi: VIKAS Publishing House.
- Roberts, M. R. & Sufi, A. (2009). Control Rights and Capital Structure: An Empirical



Investigation. *Journal of Finance*, 64(4), *1657-1695*. https://doi.org/10.1111/j.1540-6261.2009.01476.

- Shah. A. and Hijazi. T. (2004). The Determinants of Capital Structure of Stock Exchangelisted Non-financial Firms in Pakistan. The Pakistan Development Review, 43(4), 605–618. https://doi.org/10.30541/v43i4IIpp.605-618
- Shyam-Sunder, L. & Myers, S.C. (1999). Testing Static Tradeoff Against Pecking-Order Models of Capital Structure. *Journal of Financial Economics*, 51(2), 219-244. https://doi.org/10.1016/S0304-405X(98)00051-8
- Sibilkov, V. (2009). Asset liquidity and capital structure. *Journal of Financial and Quantitative Analysis*, 44(5):1173–1196
- Titman, S. & Wessels, R. (1988). The Determinants of Capital Structure Choice. *The Journal* of Finance, 43(1), 1-19. https://doi.org/10.1111/j.1540-6261.1988.tb02585.x
- Walker, E.W. and Baughn, W.H. (1967). Financial Management—An Analytical Approach, 14. 2nd ed., Richard D. Irwin, Inc., Homewood, Illinois, , p. 97.
- Wright, S. (2004). Measures of Stock Market Value and Returns for the U.S. Nonfinancial Corporate Sector, 1900-2002. *Review of Income and Wealth*, *50*(4), 561-584. https://doi.org/10.1111/j.0034-6586.2004.00140.x
- Zietlow. J., Hankin. J. A, Seidner. A. (2007) Financial Management for Nonprofit Organizations: Policies and Practices, *Wiley Nonprofit Law, Finance and Management Series.* 109, 59 – 62. Retrieved from https://www.amazon.com