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Corporate Capital Structure and Firm's Market Value in Nigeria

Lambe Isaac
Bingham University, Karu, Nasarawa State. Nigeria
E-Mail: talk2ice@yahoo.com

Abstract

The financing decision preference of firms is perhaps the most researched topic area in finance in the past decades following the seminal article of Modigliani and Miller (1958) which raised the issue of relationship between a firm's choice of finance and its value. After the Modigliani-Miller (1958 and 1963) paradigms on firms' capital structure and their market values, there have been considerable debates, both theoretically and in empirical researches on the nature of relationship that exists between a firm's choice of capital structure and its market value. Most especially, major debates have centred on whether there is an optimal capital structure for an individual firm or whether the proportion of debt usage is relevant to the individual firm's value. This study therefore seeks to identify and appraise the impact, capital mix, role of debt capital and the factors that influence a firm's choice of capital and the overall effect of firm's market value in Nigeria.

In the course of this study; both primary and secondary sources of data were relied upon. The primary data were obtained through the use of a well structured questionnaire, while the secondary data were obtained from the fact book and periodic publications of the Nigerian Stock Exchange, as well as the annual financial statements of the sampled firms. The result indicated that the market value of a firm is positively significantly influenced by its choice of capital structure (financial leverage). Consequently the theory of a firm's optimal capital structure is justified on the ground that it has an empirical significant positive impact on the firm's market value. The study recommends that Quoted firms in Nigeria are encouraged to make maximizing of their market values the major focus when deciding their choice of capital structure and firms in Nigeria should strive to optimize their capital structure by an appropriate mix of debt-equity capital; for an optimal capital structure is the debt-equity mix that best maximize firms' market values.

Keywords: Capital structure, Market Value, Financing decision, Quoted firms, Nigerian Stock Exchange

Foreign fund, Challenge

1. Introduction

Apparently, a firm's financing decision deals with the strategic financial issues of the firm in achieving its financial objectives such as; how the firm should raise and manage its capital, what investments the firm should make, what portion of profits should be returned to shareholders in the form of dividends, and whether it makes sense to merge with or acquire another firm. The financing decision preference of firms is perhaps the most researched topic area in finance in the past decades following the seminal article of Modigliani and Miller (1958) which raised the issue of relationship between a firm's choice of finance and its value.

After the Modigliani-Miller (1958 and 1963) paradigms on firms' capital structure and their market values, there have been considerable debates, both theoretically and in empirical researches on the nature of relationship that exists between a firm's choice of capital structure and its market value. Most especially, major debates have centred on whether there is an optimal capital structure for an individual firm or whether the proportion of debt usage is relevant to the individual firm's value (Baxter, 1967).

In their first proposition under the perfect capital market assumption, Modigliani and Miller (1958) argued that the firm's value is independent of its choice of capital structure when there are no bankrupt costs, taxes, and capital markets are frictionless. But after due consideration on the insertion of corporate taxes, Modigliani and Miller (1963) reargued by way of amending their previous proposition, that when there are corporate taxes then interest payments are tax deductible, and that 100 percent debt financing is optimal. That is, the firm's value increases as debts increases.

Although, there have been substantial research efforts devoted by different scholars in determining what seems to be an optimal capital structure for firms, yet there is no universally accepted theory throughout the literatures explaining the debt-equity choice of firms. But in the last decades, several theories have emerged explaining firms' capital structure and the resultant effects on their market values. Among these theories include the pecking order theory by Donaldson, (1961), the capital structure relevance theory by Modigliani and Miller (1963), the agency costs theory, the capital signaling theory and the trade-off theory (Bokpin and Isshaq, 2008).

The trade-off theory of corporate financing is built around the concept of target capital structure that balances

various costs and benefits of debt and equity (Modigliani and Miller, 1963; Bradley *et al*., 1984; DeAngelo and Masulis, 1980; Barclay and Smith, 1999; Myers, 1984; Hovakimian *et al*., 2004). The pecking order theory on the other hand conceives the capital choice decision as one of making a scale of preference. The first source is internally generated funds, then debt and then equity depending on the funds requirements and other factors (Donaldson, 1961; Myers and Majluf, 1984).

In Nigeria, financial constraints have been a major factor affecting corporate firms' performance in Nigeria. According to Salawu and Agboola (2008), the move towards a free market, coupled with the widening and deepening of various financial markets has provided the basis for the corporate sectors to optimally determine their capital structure. Mainly, the corporate sector is characterized by a large number of firms operating in a largely deregulated and increasingly competitive environment. Since 1987, financial liberalization has changed the operating environment of firms, by giving more flexibility to the Nigerian financial managers in choosing their firms' capital structure.

According to Guha-Khasnobis and Kar (2006), over-dependence on public sector financial intermediation largely hindered the growth of both equity and debt markets for corporate financing in most developing countries. However, significant structural changes in the Nigerian capital market have been experienced since the 2005 capital base restructuring in the banking industry. Particularly in the equity market, Nigerian firms' flexibility in choosing their capital structure optimally has been enhanced. But despite such changes, the corporate debt market in Nigeria, as in many other developing countries, has not developed sufficiently. The issue of finance has been identified as an immediate reason for business failure and lack of growth of most quoted firms in Nigeria (Salawu, 2007). According to Pandey (2005), whenever a firm makes an investment decision, it is at the same time making a financing decision also. Hence, this established how imperative the theory of capital structure is to an enterprise's financing policy.

Alfred (2007) suggested that a firm's capital structure implies the proportion of debt and equity in the total capital structure of the firm. Pandey (1999) differentiated between capital structure and financial structure by affirming that the various means used to raise funds represent the firm's financial structure, while the capital structure represents the proportionate relationship between long-term debt and equity capital. Therefore, a firm's capital structure simply refers to the combination of long-term debt and equity financing. However, whether or not an optimal capital structure exists is one of the most important and complex issues in corporate finance.

Corporate finance as an area of research in developing countries has not been given serious attention. Although the capital structure issue has received substantial attention in developed countries, it has remained neglected in the developing countries. The reasons for this neglect according to Bhaduri (2002) revealed that until recently, developing economics have placed little importance to the role of firms in economic development, as well as the corporate sectors in many developing countries faced several constraints on their choices regarding sources of funds, and that access to equity markets was either regulated, or limited due to the underdeveloped stock market.

Consequently in Nigeria, determining the actual effect a firm's capital structure has on its market value has been a major challenge among researchers. Particularly, specifying what capital mix seems to optimize firms' values has been a difficult puzzle to unravel. There have been a limited number of studies in Nigeria that have examined the firm's choice of capital structure and its market value, but only a few of the findings ever expressed that a firm's choice of capital structure could be influenced by the impact it has on its market value. According to Pandey (2005), the capital structure decision of a firm is a significant managerial decision; it influences the shareholders return and risk, and subsequently affects the market value of the firm.

Thus, considering the environmental factors confronting firms in Nigeria; the weak economic system, the level of corruption, the unstable tax system, the underdeveloped stock market and other constraining factors, an appropriate and strategic capital structure becomes imperative, not only because it affects shareholders returns and risk, but also, because of the impact such a vital decision has on an organization's market value, as well as the firm's ability to deal with its competitive environment and to survive through the times of economic distresses and instability.

Hence, the relationship between a firm's choice of capital structure and its market value should be critically examined and analyzed in order to ensure a well structured and an efficient capital mix for firms in Nigeria that helps maximize their market values.

2. Literature Review

The term capital structure according to Kennon (2010) refers to the percentage of capital (money) at work in a business by type. That is, there are two forms of capital: equity capital and debt capital. Each has its own benefits

and drawbacks and a substantial part of wise corporate stewardship and management is attempting to find the perfect capital structure in terms of risk and reward payoff for shareholders. Alfred (2007) stated that a firm's capital structure implies the proportion of debt and equity in the total capital structure of the firm. Pandey (1999) differentiated between capital structure and financial structure of a firm by affirming that the various means used to raise funds represent the firm's financial structure, while the capital structure represents the proportionate relationship between long-term debt and equity. The capital structure of a firm as discussed by Inanga and Ajayi (1999) does not include short-term credit, but means the composite of a firm's long-term funds obtained from various sources. Therefore, a firm's capital structure is described as the capital mix of both equity and debt capital in financing its assets. However, whether or not an optimal capital structure exists is one of the most important and complex issues in corporate finance.

Generally, firms face a complex menu of choices when making financing decisions. Managers have to decide whether to finance investment projects with retained earnings, outside equity, or one of many possible types of debt. Prior researches related to the choice of financing have focused mostly on the broad choice between debt and equity; for example, theories based on optimal leverage ratios, asymmetric information, and market timing. However, firms most often use debt rather than equity to finance projects. Bolton and Scharfstein (1996) observed that from 1946 to 1987, 85 percent of total U.S. external financing was raised through debt offerings as compared to only 7 percent through equity offerings.

It is imperative to note that the theory of capital structure is closely related to the firm's cost of capital and that the primary objective of capital structure decisions is to maximize the market value of the firm through an appropriate mix of long-term sources of funds. By this capital mix, called the optimal capital structure, the firm's overall cost of capital will be minimized. However, it still remains an unraveled argument whether an optimal capital structure truly exists for individual firms or not. The arguments focus on whether a firm can, in reality, affect its valuation and its cost of capital by varying the mixture of the funds used (Besley and Brigham, 2000, p. 458; Ross *et al*., 2002, p. 390). Harris and Raviv (1991) argued that the evaluation of the capital structure of companies is imperative because, not only does it affect a firm's market value but that it also affects its real decisions about employment, production, and investment.

2.1 Components of a Firm's Capital Structure

The various components of a firm's capital structure according to Inanga and Ajayi (1999) may be classified into equity capital, preference capital and long-term loan (debt) capital.

2.1.1 Equity Capital

Pandey (1999) defined equity capital as including share-capital, share premium, reserves and surpluses (retained earnings). Typically, equity capital consists of two types which include: contributed capital, which is the money that was originally invested in the business in exchange for shares of stock or ownership and retained earnings, which represents profits from past years that have been kept by the company and used to strengthen the balance sheet or fund growth, acquisitions, or expansion. The cost of equity capital of a firm using the dividend growth basis can be expressed as:

$$K_e = do\ (1 + g)/P_e + g \qquad (1)$$

Where: K_e equals the cost of equity capital; *do*, the current dividend per share; P_e, the Ex-dividend market price per share and *g*, the expected constant annual growth rate in earnings and dividend per share.

2.1.2 Preference Capital

The preference share capital is a hybrid in that it combines the features of debentures and those of equity shares except the benefits. Its cost can be expressed as:

$$K_p = P_{div}/Po \qquad (2)$$

Where: K_p equals the cost of preference share; P_{div}, the expected preference dividend and *Po*, the issue price of preference shares.

2.1.3 Debt Capital

The debt capital in a firm's capital structure refers to the long-term bonds the firm use in financing its investment decisions because the firm has years, if not decades, to come up with the principal, while paying interest only in the meantime. The cost of debt capital in the capital structure depends on the health of the firm's balance sheet. This can be expressed as:

$K_d = Int/Bo$ (3)

Where: K_d equals the before-tax cost of debt; *Int*, the interest element and *Bo*, the issue price of bond (debt). The after-tax cost of debt capital will be: $K_d (1-T)$. Where: T is corporate tax rate.

2.2 Theoretical Framework

Although, there have been substantial research efforts devoted by different scholars in determining what seems to be an optimal capital structure for firms, yet there is no universally accepted theory throughout the literatures explaining the debt-equity choice of firms. But in the last decades, several theories have emerged explaining firms' capital structure and the resultant effects on their market values. Among these theories include the Capital structure relevance theory, pecking order theory, the free cash flow theory, the agency cost theory and the trade-off theory (Bokpin and Isshaq, 2008).

2.2.1 Capital Structure Irrelevance and Relevance Theory

These theories as propounded by Modigliani and Miller (1958 and 1963) state that under perfect capital market conditions, a firm's value depends on its operating profitability rather than its capital structure, that is, value irrelevant (Modigliani and Miller, 1963). But, in their tax-corrected paper, Modigliani and Miller (1963) showed that when corporate tax laws permit the deductibility of interest payments, the market value of a firm is an increasing function of leverage. With corporate income tax rate τ_c, and ρ on an after tax basis, the equilibrium market value of levered firm is given by:

$V_L = \bar{X}(1-\tau_c)/\rho + \tau_c D_L$ (4)

Where, $\bar{X}$ equals expected earnings before interest and taxes, $\bar{X}(1-\tau_c)/\rho = V_u$, value of the firm if all-equity-financed, and $\tau_c D_L$ is the present value of the interest tax-shield, the tax advantage of debt. Given $\bar{X}$, V_L increases with the leverage, because interest is a tax-exempt expense. But while this theory successfully introduced the potential effects of corporate taxes into the capital structure theory, it only leads to an extreme corner effect as the firm's value is maximised when 100 percent debt finance is used (Mollik, 2008). Though in reality, it is impracticable, probably because of the uncertainty of interest tax-savings, and the existence of personal taxes (Miller, 1977) and non-debt tax shields (DeAngelo and Masulis, 1980) putting limit to this limitless tax advantage to debt.

Leland (1994) demonstrated a standard trade-off model, that at the optimal capital structure, marginal bankruptcy costs associated with firm's debt are equated with marginal tax benefits. The static tradeoff theory was the original retort to the theory of capital structure relevance. Based on the argument of Modigliani and Miller (1963) on the tax shield effect of debt capital, firms target optimal capital structure based on tax advantages and financial distress disadvantages. Firms are thought to strive toward their target and can signal their future prospects by changing their capital structure since adding more debt increases firms' values through the market's perception of higher tax shields or lower bankruptcy costs. But optimal capital structure at a 100 percent debt financing are clearly incompatible with observed capital structures, so their findings initiated a considerable research effort to identify costs of debt financing that would offset the corporate tax advantage.

Following this theory, it is apparent that a significant relationship exists between a firm's choice of capital structure and its market value. Though in reality, 100 percent debt financing is impracticable and it only leads to an extreme corner effect. Since the development of this theory, extensions have been provided by different researchers. Baxter (1967), in his research work on individual and small company liquidations, found bankruptcy costs to be of sufficient magnitude to warrant their consideration. Warner (1977), in his own dimension considered the bankruptcy of large public limited companies and found that direct bankruptcy costs were insignificant. But Altman (1984), in his findings stated that the combined direct and indirect costs make the bankruptcy cost significant. But Myers (1984), while acknowledging the existence of bankruptcy costs, cast doubts about the magnitude of these costs.

2.2.2 Capital Structure and the Pecking Order Theory

The pecking order theory of capital structure as introduced by Donaldson (1961) is among the most influential theories of corporate leverage. It goes contrary to the idea of firms having a unique combination of debt and equity finance, which minimize their cost of capital. The theory suggests that when a firm is looking to finance its long-term investments, it has a well-defined order of preference with respect to the sources of finance it uses. It states that a firm's first preference should be the utilization of internal funds (i.e. retained earnings), followed by debt and then external equity. He argued that the more profitable firms become, the lesser they borrow because they would have sufficient internal finance to undertake their investment projects. He further argued that it is when the internal finance is inadequate that a firm should source for external finance and most preferably

bank borrowings or corporate bonds. And after exhausting both internal and bank borrowing and corporate bonds, the final and least preferred source of finance is to issue new equity capital.

According to Myers (1984), due to adverse selection, firms prefer internal to external finance. When outside funds are necessary, firms prefer debt to equity because of lower information costs associated with debt issues. These ideas were refined into a key testable prediction by Shyam-Sunder and Myers (1999), that the financing deficit should normally be matched dollar-for-dollar by a change in corporate debt. As a result, if firms follow the pecking order, then in a regression of net debt issues on the financing deficit, a slope coefficient of one is observed. Fama and French (2002) tested some qualitative predictions of the pecking order theory as against the qualitative predictions of the tradeoff model. In their findings, they suggested that more profitable firms are less levered and it is consistent with the pecking order. And also, those firms with greater investment opportunities are less levered as predicted by the tradeoff theory.

This theory as postulated by Donaldson (1961) is in sharp contrast to the capital structure relevance theory postulated by Modigliani and Miller (1963). It does not support the idea of a firm's choice of capital structure affecting its market value. Rather, it suggests that a firm should follow a well-defined order of financing its investments regardless of the effect on the firm's value.

2.2.3 Capital Structure and the Static Trade-off Theory

The static trade-off theory of capital structure (also referred to as the tax based theory) states that optimal capital structure is obtained where the net tax advantage of debt financing balances leverage related costs such as financial distress and bankruptcy, holding firm's assets and investment decisions constant (Baxter, 1967 and Altman, 1984). In view of this theory, issuing equity means moving away from the optimum and should therefore be considered bad news. According to Myers (1984), firms adopting this theory could be regarded as setting a target debt-to-value ratio with a gradual attempt to achieve it. However, he suggested that managers will be reluctant to issue equity if they feel it is undervalued in the market. The consequence is that investors perceive equity issues to only occur if equity is either fairly priced or overpriced. As a result investors tend to react negatively to an equity issue and management is reluctant to issue equity.

Myers and Majluf (1984) assumed that firms' managers have superior information about the true value of the firms and that managers will therefore time a new equity issue if the market price exceeds their own assessment of the stock value, that is, if the stocks are overvalued by the market. Since investors are aware of the existence of the information asymmetry they will interpret the announcement of an equity issue as a signal that the listed stocks are overvalued, which subsequently will cause a negative price reaction. The literature on static trade-off theory has been voluminous and a number of questions have been asked as to whether or not expected increase tax-shield benefits from employing debt finance may offset the financial distress cost such as; cash flow volatility, possible bankruptcy cost in the event of default, competitive threat if strained for cash. Based on this theory, optimum leverage is determined by balancing the corporate tax saving advantage of debt against the deadweight costs of bankruptcy (DeAngelo and Masulis, 1980; Bradley, Jarrell and Kim, 1984; Barclay and Smith, 1999; and Myers, 1984). But, others have questioned it.

This theory of capital structure supports the idea of a firm having a unique capital mix in order to maximize its market value taking into consideration both the bankruptcy costs and tax-shield advantage of debt capital. It predicts a positive relationship between a firm's choice of capital structure and its market value. Miller (1977) argued that the tax savings seem large and certain while the bankruptcy cost seems to be negligible, implying that many firms should be more highly levered than they really are. Myers (1984) argued that if this theory were key force, then the tax variables should provide an important insight about optimum capital structure decision. The static-order-hypothesis theory also predicts that more profitable firms should carry more debt since they have more profits that need to be protected from taxation. But others criticized this prediction, such as Myers (1984), Titman and Wesels (1988) and Fama and French (2002). The tradeoff theory predicts that larger and more mature firms use more debt in their capital structure than equity.

2.2.4 Capital Structure and the Agency Cost Theory

The agency cost theory of capital structure as propounded by Jensen and Meckling (1976) states that an optimal capital structure will be determined by minimizing the costs arising from conflicts between the parties involved. They argued that agency costs play an important role in financing decisions due to the conflict that may exist between shareholders and debt holders. And that when companies are approaching financial distress, shareholders can encourage management to take decisions, which in effect, expropriate funds from debt holders to equity holders.

The general result of these extensions is that the combination of leverage related costs (such as bankruptcy and agency costs) and a tax advantage of debt produces an optimal capital structure at less than a 100 percent debt financing as the tax advantage is traded off against the likelihood of incurring the costs. But Parrino and Weisbach (1999) empirically estimated that the agency costs of debt are too small to offset the tax benefits. However, debt moderates the manager-shareholder conflict and reduces the agency costs of equity by raising the manager's share of ownership in the firm. Also, debt can reduce agency costs of equity by reducing the amount of free cash available to managers to engage in the pursuits since debt commits the firm to pay out cash (Jensen, 1986).

The agency cost theory of capital structure as well supports the idea of a firm having an optimal capital structure by its choice of capital mix. Thus, relating that a firm's choice of capital structure is vital in maximizing its value as supported by the static trade off theory. It suggests that an optimal capital structure will be determined by minimizing the costs arising from conflicts between the parties involved. The formation of capital structure does not necessarily control the agency cost, for the agency cost of debt comprises of a problem of excessive dividends, issuance of senior ranking debt, asset substitution and underinvestment (Smith and Warner, 1979), which measure the possibility of bankruptcy and restructuring the debt and cost of monitoring debt covenant. Agency theory predicts that growth firm should have less debt, thus indicating a possible relationship between the choice of capital structure of a firm and its market value.

2.3 Factors impacting on a firm's market value other than its capital structure

There are, apparently, many other factors that influence a firm's market value other than its choice of capital structure in the real world. Prior researches have shown that other factors have significant relationship with firms' market values. This study mainly examined the relationship existing between the choice of capital structure of a firm and its market value. But other factors that as well influence firms' market values include: Growth potential or future investment opportunity (Myers, 1984; Titman and Wessels, 1988; Harris and Raviv, 1991); Dividend Policy (Miller and Modigliani, 1961; Gordon, 1967); the size of a firm (Gordon, 1962); the kind of risk a firm is exposed to as well have some influence on its market valuation.

2.4 Conceptual Model

Apparently, firms' operations are being financed through different sources, ranging from fixed income securities, debts and preferred stocks, to variable income securities. Corporate capital structure is the firm's combination of different securities involving an option between risks and expected returns. The essential argument in the capital structure decision is how to strike a balance between risk and return to attain optimum capital structure. Even though the existence of an optimum capital structure has not been accepted by all; but there are a lot of empirical evidences and propositions that posited the existence of optimum capital structure (Wippen, 1966: 615 and Ozkan, 2001: 175). Based on the various concepts associated with corporate capital structure, this study developed a model as depicted in figure 1.

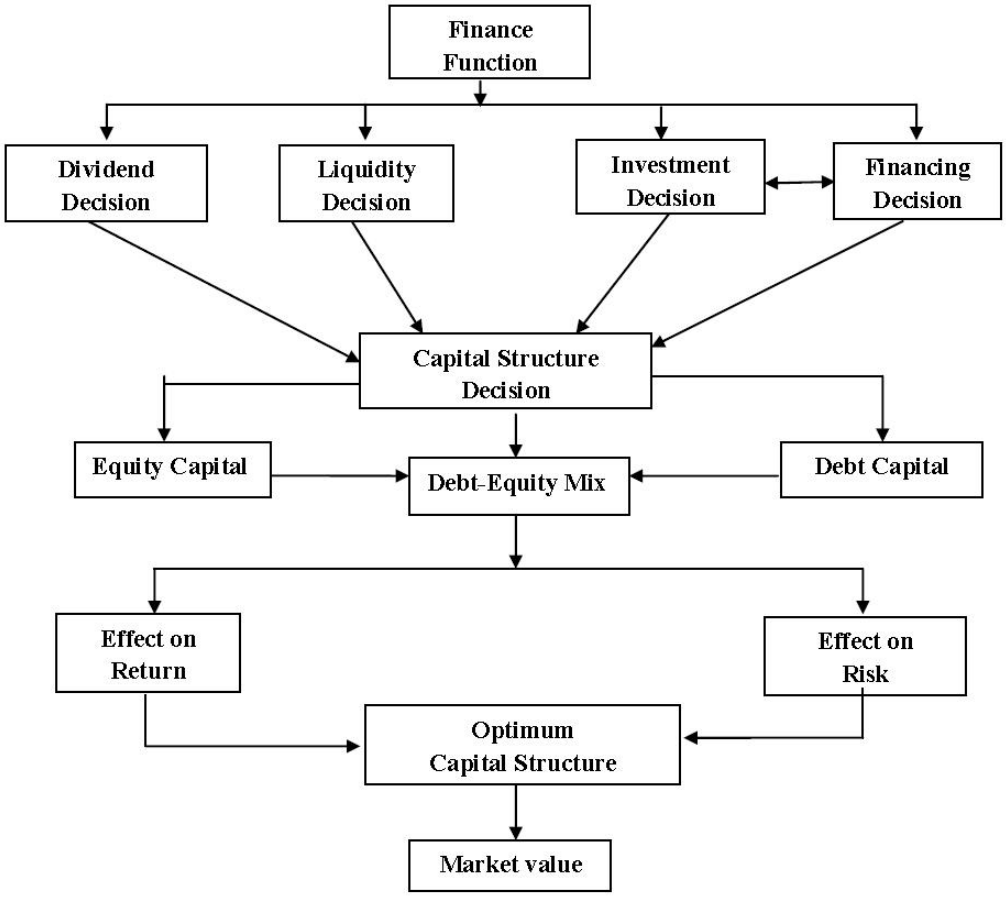

Figure 1: A firm's financing decision process.(Researcher, 2014)

From figure 1 above, a firm's finance function consists of four (4) major decisions which include: the dividend decision, the liquidity decision, the investment decision and the financing decision. A firm makes these decisions simultaneously and continually in the normal course of its business operations. Though they do not have to occur in the sequence, but are interrelated with one another. When a firm is making one of the decisions, it is at the same time making another decision.

From the figure, the dividend decision consists of decisions on how best the firm should maintain an optimal dividend policy, what amount of profit should be retained and what amount should be distributed as dividend to the shareholders. In doing these, the firm should have in place a good liquidity policy in order to maintain a smooth running of the firm's operations. The firm should ensure that it has the liquid resources to meet its obligations as at and when due, and to be able to pay its shareholders their dividend.

The financing and investing decisions of a firm are interrelated and interdependent to one another in the sense that, whenever the firm is making the financing decision, it is at the same time making an investment decision. It has to strike a balance between its financing decisions in order to best maximize its returns from its investments; not having too much finance idle, as well as not to be under financed.

After proper evaluation and analysis of its investment decision, the firm then decides on its capital structure to best finance its investment decisions. As seen in figure 2.1 above, a firm's capital structure could either be all equity financed (i.e. 100% equity capital), or all debt financed (i.e. 100% debt capital), or could be an appropriate mix of both equity capital and debt capital (i.e. X% equity capital and Y% debt capital).

In determining the optimal capital structure of a firm, the firm has to properly evaluate the likely effects of such a decision on both its risk and return; that is, how the firm can maximize its returns and at the same time minimizing its risks. It is by these evaluations that the firm is able to strike a balance between its risks and return in order to arrive at an optimal capital structure which maximizes its market value. It should be noted that a firm's choice of capital structure is geared towards maximizing its returns and minimizing its risks in order to attain an optimal market value as seen in figure 1.

3. Methodology

By means of a survey research design, this study examined the relationship that seems to exist between a firm's choice of capital structure and its market value, as well as examined the determinants of a firm's choice of capital structure in Nigeria. The choice of this design was due to the fact that the researcher perceived it appropriate because of its lack of control without any manipulation of sample subjects. Thus, for the secondary data, the population consisted of 186 non-financial firms listed on the Nigerian Stock Exchange (NSE) within the period of 2005 to 2009 financial years. While for the primary data used, the population of the study consisted of 900 subjects drawn from six different strata. Out of the population for the secondary data, a sample size of 90 firms was selected using the stratified and convenient sampling techniques. This was achieved by dividing the population into six (6) strata out of which fifteen (15) subjects were selected from each stratum by way of a convenient sampling technique. The adoption of these sampling techniques was based on data availability.

For the primary data, a sample of 150 respondents was determined as the sample size by way of a stratified sampling technique and simple random sampling technique. This was achieved by dividing the population into six (6) strata and an unequal number of subjects were selected randomly from each stratum to arrive at the sample size. The adoption of these sampling techniques was based on the criteria set by the researcher. The criteria set by the researcher include the experience of the respondents, their knowledge on the issue involved and their analytical ability. The primary data were obtained through the use of a well structured questionnaire, while the secondary data were obtained from the annual financial statements of the sampled firms, from the Nigerian Stock Exchange fact books for the respective years (2005 to 2009), and from the periodic publications of the Nigerian Stock Exchange.

A total of one hundred and fifty (150) copies of the questionnaire were distributed and one hundred and twenty seven (127) copies of the questionnaire were returned representing 84.67% of the total copies distributed. While for the secondary data, data used for this study were obtained directly from the Nigerian Stock Exchange fact books for the respective period (2005-2009), from the annual reports of the sampled firms and from the periodic publications of the Nigerian Stock Exchange.

Table 3.1 shows the distribution of respondents.

S/N	Group of Respondents	Copies Distributed	Copies Retrieved	Percentage (%)
1	Accounting/Finance lecturers	10	10	**100%**
2	Shareholders/debenture holders	10	7	**70%**
3	Financial Analysts	10	8	**80%**
4	Accountants/Finance managers	40	38	**95%**
5	Accounting/Finance Postgraduate students	40	32	**80%**
6	Chartered Stockbrokers	40	32	**80%**
	Total	**150**	**127**	**84.67%**

Source: Administered questionnaire, (2014)

The above table helped the researcher in gathering the appropriate information needed for the study.

4. Result And Discussions

The analyses and interpretation of data obtained from both primary and secondary sources are brought under review so as to answer the pertinent questions and test relevant hypotheses stated earlier in chapter one of this study.

The first question under review sought to examine what the general patterns are in the capital structure of quoted firms in Nigeria.

In order to address the above issue question, the annual financial reports of ninety (90) quoted firms were observed for five year period and an average was arrived at. Table 4:4 shows the result of the observation below:

Table 4.1: The general pattern in the capital structure of quoted firms in Nigeria

Capital structure		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Equity only	20	22.22	22.22	22.22
	Debt only	0	0	0	22.22
	Debt and Equity	70	77.78	77.78	100
	Total	**90**	**100.0**	**100.0**	

Source: The Nigerian Stock Exchange Fact book, (2010)

From Table 4.4, 20 firms representing 22.22% of the sample size make use of equity capital only in their capital structure, no firm make use of debt capital only in their capital structure, while 70 firms representing 77.78% make use of both debt and equity capitals in their capital structures. This implies that the general pattern in the capital structure of quoted firms in Nigeria is a combination of both debt and equity capitals.

In addition to the analysis of the secondary data, three (3) questionnaire items were put forward to the respondents. Below are the responses obtained.

Table 4.3: Sources of funds of quoted firms in Nigeria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	62	48.8	48.8	48.8
	Agreed	55	43.3	43.3	92.1
	Undecided	6	4.7	4.7	96.9
	Disagreed	3	2.4	2.4	99.2
	Strongly Disagreed	1	.8	.8	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2014)

From Table 4.3, 117 respondents representing 92.1% of the respondents were in agreement that quoted firms in Nigeria are majorly financed through the use of short-term capitals, long-term capitals and retained earnings, but 4 respondents representing 3.2% of the respondents did not agree, while 6 respondents representing 4.7% of the respondents were undecided. This implies that quoted firms in Nigeria are majorly financed through the use of short-term capitals, long-term capitals and retained earnings agreeing to their pattern of capital structure as in Table 4.1.

Table 4.4: Characteristics of quoted firms' capital structures in Nigeria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	26	20.5	20.5	20.5
	Agreed	42	33.1	33.1	53.5
	Undecided	15	11.8	11.8	65.4
	Disagreed	39	30.7	30.7	96.1
	Strongly Disagreed	5	3.9	3.9	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2014)

From Table 4.4, 68 respondents representing 53.5% of the respondents were of the opinion that the capital structures of quoted firms in Nigeria are characterized as lopsided (i.e. majorly equity capital), but 44 respondents representing 34.7% of the respondents did not agree, while 15 respondents representing 11.8% of the respondents were undecided. This implies that the capital structures of quoted firms in Nigeria are characterized as lopsided.

Another issue brought under review were the factors affecting a firm's choice of capital structure and the effect on the market value in Nigeria.

In other to address the above issue, 8 questionnaire items were put forward to the respondents. Below are the responses obtained.

Table 4.5: Availability and benefits as determinants of a firm's source of funds

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	41	32.3	32.3	32.3
	Agreed	67	52.8	52.8	85.0
	Undecided	11	8.7	8.7	93.7
	Disagreed	6	4.7	4.7	98.4
	Strongly Disagreed	2	1.6	1.6	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2014)

From Table 4.5, 108 respondents representing 85% of the respondents were of the opinion that a firm's sources of finance are dependent on the availability of the required funds and benefits associated with a particular source, but 8 respondents representing 6.3% of the respondents did not agree, while 11 respondents representing 8.7% of the respondents were undecided. This implies that a firm's sources of finance are dependent on the availability of the required funds and benefits associated with a particular source.

Table 4.6: Profitability as a determinant of a firm's choice of capital structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	10	7.9	7.9	7.9
	Agreed	39	30.7	30.7	38.6
	Undecided	19	15.0	15.0	53.5
	Disagreed	44	34.6	34.6	88.2
	Strongly Disagreed	15	11.8	11.8	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2014)

From Table 4.6, 49 respondents representing 38.6% of the respondents were of the opinion that unprofitable firms in Nigeria majorly utilize more of debt capital in their capital structure than profitable firms, but 59 respondents representing 46.4% of the respondents opposed the assertion, while 19 respondents representing 15% of the respondents were undecided. This implies that profitability does not affect a firm's choice of capital structure.

Table 4.7: Risk as a determinant for debt utilization in the capital structure of quoted firms

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	41	32.3	32.3	32.3
	Agreed	47	37.0	37.0	69.3
	Undecided	13	10.2	10.2	79.5
	Disagreed	17	13.4	13.4	92.9
	Strongly Disagreed	9	7.1	7.1	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2014)

From Table 4.7, 88 respondents representing 69.3% of the respondents are in conformity that debt capital is cheaper and more advantageous than equity capital, but of a higher risk than equity, but 26 respondents representing 20.5% of the respondents did not agree, while 13 respondents representing 10.2% of the respondents were undecided. This implies that the cost of capital and risk also influence a firm's choice of capital structure.

Table 4.8: Risk as a determinant for equity capital preference over debt capital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	29	22.8	22.8	22.8
	Agreed	63	49.6	49.6	72.4
	Undecided	19	15.0	15.0	87.4
	Disagreed	14	11.0	11.0	98.4
	Strongly Disagreed	2	1.6	1.6	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2014)

From Table 4.8, 92 respondents representing 72.4% of the respondents were of the opinion that quoted firms in Nigeria prefer to utilize retained earnings and equity capital rather than debt capital because of the risks involved in the utilization of debt capital in the capital structure, but 16 respondents representing 12.6% of the respondents did not agree, while 19 respondents representing 15% of the respondents were undecided. This implies that risks associate with debt capital affect its utilization in the capital structure of quoted firms.

Table 4.9: Personnel as a determinant of a firm's choice of capital structure in Nigeria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	13	10.2	10.2	10.2
	Agreed	45	35.4	35.4	45.7
	Undecided	20	15.7	15.7	61.4
	Disagreed	37	29.1	29.1	90.6
	Strongly Disagreed	12	9.4	9.4	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2011)

From Table 4.9, 58 respondents representing 45.7% of the respondents were of the opinion that the capital

structures of firms in Nigeria are not properly structured due to unqualified personnel managing the finance function of the firms, but 49 respondents representing 38.6% of the respondents did not agree to the claim, while 20 respondents representing 15.7% of the respondents were undecided. This implies that unqualified personnel managing the finance function of a firm affect the firm's choice of capital structure.

Table 4.10: Management as a determinant for optimal capital structure in a firm

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	41	32.3	32.3	32.3
	Agreed	73	57.5	57.5	89.8
	Undecided	7	5.5	5.5	95.3
	Disagreed	5	3.9	3.9	99.2
	Strongly Disagreed	1	.8	.8	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2014)

From Table 4.10, 114 respondents representing 89.8% of the respondents affirmed that an optimal capital structure could be attained by the Nigerian firms if qualified and professional personnel are put in place to manage their finance function**,** but 6 respondents representing 4.7% of the respondents disagreed, while 7 respondents representing 5.5% of the respondents were undecided. This implies that, when qualified and professional personnel are put in place to manage a firm's finance function, an optimal capital structure can be attained.

Table 4.11: Level of development of the Nigerian stock market as a challenge for an effective and efficient capital structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	17	13.4	13.4	13.4
	Agreed	41	32.3	32.3	45.7
	Undecided	17	13.4	13.4	59.1
	Disagreed	46	36.2	36.2	95.3
	Strongly Disagreed	6	4.7	4.7	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2014)

From Table 4.11, 58 respondents representing 45.7% of the respondents agreed that the underdeveloped nature of the Nigerian stock market is one of the major challenges facing firms in Nigeria in planning and determining an effective and efficient capital structure, but 52 respondents representing 40.9% of the respondents did not agree, while 17 respondents representing 13.4% of the respondents were undecided. This implies that the underdeveloped nature of the Nigerian stock market is also a factor affecting a firm's choice of capital structure.

Table 4.12: Irrelevance of shareholders' opinion in deciding a firm's capital structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	12	9.4	9.4	9.4
	Agreed	12	9.4	9.4	18.9
	Undecided	14	11.0	11.0	29.9
	Disagreed	50	39.4	39.4	69.3
	Strongly Disagreed	39	30.7	30.7	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2014)

From Table 4.12, 24 respondents representing 18.9% of the respondents agreed that shareholders' opinions are irrelevant in deciding a firm's choice of capital structure**,** but 89 respondents representing 70.1% of the respondents did not agree, while 14 respondents representing 11% of the respondents were undecided. This implies that shareholders' opinions are relevant in deciding a firm's choice of capital structure.

Table 4.13: A firm's size as a determinant of its choice of capital structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	61	48.0	48.0	48.0
	Agreed	48	37.8	37.8	85.8
	Undecided	11	8.7	8.7	94.5
	Disagreed	6	4.7	4.7	99.2
	Strongly Disagreed	1	.8	.8	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2014)

From Table 4.13, 109 respondents representing 85.8% of the respondents agreed that a firm's size affect its choice of capital structure, but 7 respondents representing 5.5% of the respondents did not agree, while 11 respondents representing 8.7% of the respondents were undecided. This implies that a firm's size affect its choice of capital structure.

Discussion of findings

Based on the research question which seeks to determine the general pattern in the capital structure of quoted firms in Nigeria, it was discovered that the combination of both equity and debt capital constitute the general pattern in the capital structure of firms listed on the Nigerian stock exchange (see Table 4.1). But the proportion of debt to equity is minimal as compared with firms in the U.S. with more of their capitals from debt issue (Bolton and Scharfstein, 1996), thereby making the capital structure of firms in Nigeria lopsided (i.e. more of equity to debt). However, there is not yet an ideal mix of debt-equity capital that constitutes an optimal capital structure for individual firms. Also, it was discovered that quoted firms in Nigeria are majorly financed through the use of short-term capitals, long-term capitals and retained earnings (see Table 4.3).

In an attempt to appraise the research question which seeks to determine the factors impacting a firm's choice of capital structure, it was discovered that the availability and benefits of a particular source of capital could influence a firm's choice of capital structure (see Table 4.5). Also, it was discovered that profitability, costs of capital, risks, shareholders opinions, the level of development of the Nigerian stock market, firms' sizes and quality of personnel managing the finance function of firms in Nigeria are some of the factors influencing the choice of capital structure of quoted firms in Nigeria.

In an attempt to further appraise the research question which sought to identify the factors affecting a firm's choice of capital structure and the relationship that seems to exist between corporate capital structures and

corporate market values in Nigeria, it was discovered that a firm's market value is positively significantly influenced by its choice of capital structure. The analysis showed that there is a significant relationship between corporate capital structure and corporate market values in Nigeria. Also, other factors other than corporate capital structure that impact firms' market values in Nigeria were identified. These factors include: the weight of debt in the capital structure (total debt), firms' sizes, their profitability and shareholders' funds are some of the factors impacting firms' market values in Nigeria.

Finally, in an attempt to answer the question which seeks to determine the impact of a firm's size on its choice of capital structure, it was discovered that a firm's size influences its choice of capital structure.

5. Conclusion and Recommendation

In general, the market value of a firm is positively significantly influenced by its choice of capital structure (financial leverage). More specifically, there is a significant positive effect of long-term financial leverage on the market value of a firm as suggested by other research studies as in Modigliani and Miller, 1963 and Mollik, 2008 among others, but in sharp contrast to the pecking order theory as propounded by Donaldson (1961), which assumes a firm's capital structure as irrelevant to its market value and that a firm's choice of capital structure should follow a well defined order, starting with internal funds, then debt and finally equity capital. However the findings of this study suggest that financial policy or corporate leverage matters in a firm's market valuation. Thus, the theory of a firm's optimal capital structure is justified on the ground that it has an empirical significant positive impact on the firm's market value. Furthermore, it is obvious that a firm's choice of capital structure is significantly influenced by its size, profitability, costs of capital, associated risks, shareholders opinions, level of development of the Nigerian stock market, and the quality of personnel managing the finance function of firms in Nigeria.

Consequently, based on the research findings of this study, the following recommendations are hereby made. Quoted firms in Nigeria are encouraged to make maximizing of their market values the major focus when deciding their choice of capital structure since there is a positive significant relationship existing between their capital structure choice and their market values as revealed by the findings of this study. Also, firms in Nigeria should strive to optimize their capital structure by an appropriate mix of debt-equity capital; for an optimal capital structure is the debt-equity mix that best maximize firms' market values. They should always strike a balance between their choice of capital structures and the resultant effects on shareholders risks and returns, and the cost of capital.

Also, Professional and qualified personnel should be entrusted with the financing decision of firms in Nigeria since an optimal capital structure is a must for firms in Nigeria if they must compete effectively and survive in times of financial and economic distresses, and attaining an optimal capital structure requires an effective and strategic planning.

Furthermore, when deciding on the choice of capital mix of a firm, the size of the firm should be given keen consideration since a firm's size is one of the factors impacting its choice of capital structure in Nigeria. Also, shareholders opinions should be sought in order to seek their consent on either to issue new equity shares which will in turn lead to dilution of control, or to raise more debts which will increase the risk of the firm.

In addition, the key players of the Nigerian stock exchange market should always strive for continuous improvement of the efficiency of the stock market since it is the major platform upon which quoted firms raise their required funds, and its level of development impacts on firms' choice of capital structures, which in the long run affect their market values.

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