Perceived Relationship between Corporate Capital Structure and Firm Value in Nigeria

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Abstract

This study examined the empirical effects of corporate capital structure (financial leverage) on the market value of a selection of firms listed on the Nigerian Stock Exchange. Both primary and secondary data were obtained for analysis employing both descriptive and inferential statistics for analysis. A sample size of 150 respondents and 90 firms were selected for both primary data and secondary data respectively. Descriptive statistics was used to analyse the primary data, while Chi-Square was used to draw inference of perceived relationship between capital structure and firm value. The results of the study suggested that a positively significant relationship exists between a firm's choice of capital structure and its market value in Nigeria. The study suggested that listed firms in Nigeria should strategically plan and manage their capital structure in order to maximize their market values.

Keywords: Capital structure, market value, Nigeria, debt, equity.

1. Introduction

1.1 Background to the Study

After the Modigliani-Miller (1958 and 1963) paradigms on firms' capital structure and their market values, there have been considerable debates, both in theoretical and empirical researches on the nature of relationship that exists between a firm's choice of capital structure and its market value. 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).   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 literature 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. 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).

In Nigeria, financial constraints have been a major factor affecting corporate firms' performance. 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. 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 in relation to firm value, is one of the most important and complex issues in corporate finance.

1.2   Statement of the Problem

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) was, 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 markets. 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 has 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.

1.3   Aim and Objectives of the Study

Primarily, the study aims at investigating the nature of relationship that seems to exist between a firm's choice of capital structure and its market value in Nigeria. The objectives of the study include:
    i.   identifying the general pattern in the capital structures of quoted firms in Nigeria; and
    ii.   examining the relationship that exists between corporate capital structures and corporate market values in Nigeria.

1.4   Significance of the Study

The study contributes to the existing body of knowledge, as well as make up for the paucity of scholarly papers in Nigeria on firms' capital structure and their market values. Also, the findings of this study will aid an effective and efficient financing decision of firms in Nigeria. Consultants and financial analysts will find the study helpful in their financial and advisory services to failing and distressed companies.

1.5   Research Questions

The following research questions were formulated to guide the study:

    i.   What is the general pattern in the capital structure of quoted firms in Nigeria?
    ii.   To what extent do corporate capital structures affect corporate market values in Nigeria?

1.6   Research Hypotheses

The following null hypothesis was formulated for:
H1:   There is no significant relationship between corporate capital structure and corporate market values in Nigeria.

1.7   Scope and Limitation of the Study

The scope of this study was limited to only firms listed on the Nigerian Stock Exchange within the financial year period of 2005 to 2009 respectively, as well as restricted to the targeted population within Lagos state. This is perceived necessary in order to keep the study within controllable level.   This study, however, was limited by a number of factors among which were financial constraint, limited research papers on related study in Nigeria and reticence exhibited by some respondents. Nevertheless, the aforementioned limitations did not hinder the study from achieving its objectives as they were managed as much as possible.

2.0   Literature Review

2.1   Definition of Capital Structure and its Components

The term capital structure according to Kennon (2010) refers to the percentage of capital (money) at work in a business by type. 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.

2.1.1 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.

2.1.1.1 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:

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

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.

2.1.1.2 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:

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

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

2.1.1.3 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:

$$K_d = Int/Bo \qquad\qquad (3)$$

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

Several theories have emerged to explain firms' capital structures and their 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:

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

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).

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. Following this theory, it is apparent that a significant relationship exists between a firm's choice of capital structure and its market value.

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. retain 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, that firms with greater investment opportunities are less levered as predicted by the tradeoff theory.

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).

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.

3.   Methodology

3.1   Research Design

By means of a survey research design, this study examined the relationship that exists between a firm's choice of capital structure and its market value in Nigeria. The choice of this design was due to the fact that the researchers perceived it as being appropriate because of their lack of control over the responses and inability to manipulate sample subjects.

3.2   Population of the Study

For the secondary data used for this study, the population consisted of 186 non-financial firms listed on the Nigerian Stock Exchange (NSE) within the period of 2005 to 2009 financial years. For the primary data used, the population of the study consisted of all accounting and finance lecturers, chartered accountants and financial managers, financial analysts, accounting and finance postgraduate students, shareholders and debenture holders and chartered stock brokers within Lagos, Nigeria.

3.3   Sample and Sampling Techniques

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. The primary data used for this study were collected from a sample of 150 respondents using 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 researchers which include the experience of the respondents, their knowledge on the issue involved and their analytical ability.

3.4   Research Instrument for Data Collection

The primary data were obtained from a primary source through the use of a structured questionnaire.

The reason for this instrument is that the questionnaire is the most widely used instrument for data collection and because it is a quick means of obtaining the view of the respondents on a wide range of subjects.

3.5.1   Validity of Research Instrument

To enhance the validity of the research instrument used, a draft copy of the instrument was given to two holders of doctoral degree in accounting and two chartered accountants whose constructive criticisms were taken into consideration to ensure that the questionnaire contained all the relevant dimensions of the study.

3.5.2   Reliability of Research Instrument

Towards assuring the reliability of the instrument, a test and retest method was used. Attempt was made to include relevant measures in order to certify the reliability of the research instrument used for data collection. The aim was to find out how consistent the instrument would be in collecting the required data for analysis. The results of reliability analysis showed a Cronbach Alpha of 0.892 for items relating to the general pattern of capital structure and 0.868 for the perception of the extent to which capital structure affects firm value in Nigeria. The psychometric tests suggest the presence of reasonable level of reliability.

3.6   Administration of Research Instrument

One hundred and fifty (150) copies of the questionnaire were distributed by the researcher with the help of two (2) research assistants to the respondents directly. One hundred and twenty seven (127) copies of the questionnaire were returned representing 84.67% of the total copies distributed, while twenty three (23) copies were not returned due to time constraint representing 15.33% of the total copies distributed. The secondary data were obtained directly from the 2005-2009 annual reports of the sampled firms. Table 1 shows the distribution of respondents.

3.7   Statistical Tools/Analytical Procedures

For the purpose of analysis, this study adopted both the descriptive and inferential statistics in the analysis of data. Primary data were analysed using the simple percentage, frequency distribution and Pearson Chi-Square tool with the aid of the Statistical Package for Social Sciences, (SPSS) Version 17.0.

4.   Analysis and Interpretation of Data

4.1   Presentation of Demographic Data

Table 2 shows that out of the 127 respondents. Ninety-two respondents representing 72.4% were males, while the remaining 35 respondents representing 27.6% were females. This shows that the male respondents were more than the female respondents. Table 3 shows that 57 respondents (or 44.9% of the respondents) had between 1-5 years working experience in their respective fields, 23 respondents representing 18.1% had working experience of 6–10 years, Sixteen or 12.6% of the respondents had experience of between 11-15 years, 8 respondents (6.3%) possessed between 16-20 years of working experience, while the remaining 23 representing 18.1% of the respondents had working experience of above 20 years in their respective fields. Table 3, therefore, reveals that majority of the respondents had between 1-5 years of working experience.

Table 4 shows that 5 respondents (3.9%) possessed an SSCE certificate, 84 respondents representing 66.1% of the total possessed BSc./HND or equivalent qualification, 37 (29.1%) of the respondents possessed an MSc. degree as their highest academic qualification and 1 respondent representing 0.8% of the respondents possessed a PhD degree. This implies that majority of the respondents were BSc/HND degree holders, meaning that the population sample is a group of learned and experienced in the subject investigated.

4.2   Presentation and analysis of data according to research questions

4.2.1   Analysis of data to answer research question 1

Research question one: What is the general pattern in the capital structure of quoted firms in Nigeria?
In order to answer the above question, the annual financial reports of ninety (90) quoted firms were for a five-year period were analysed and a pattern emerged. Table 4:4 shows the result of the observation.
From Table 5, 20 firms representing 22.22% of the sample size made use of equity capital only in their capital structure, no firm made use of debt capital only in their capital structure, while 70 firms representing 77.78% used both debt and equity capitals in their capital structures. This suggests 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 contained in Table 5, three (3) questionnaire items were also put forward to the respondents. The responses obtained are captured in Table 6. [From Table 6, 124 respondents representing 97.6% of the total agreed that a firm's capital structure decision is one of the most vital decisions in the firm, but 1 respondent representing (0.8%) did not agree, while 2 respondents representing 1.6% of the total were undecided. This implies that the capital structure decision of a firm is one of the most vital decisions in the firm. From Table 7, 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 total did not agree, while 6 respondents (4.7%) were undecided. This shows 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 shown in Table 5. In Table 8, 68 respondents (53.5%) 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 11.8% of the respondents (15) were undecided. This suggests that the capital structures of quoted firms in Nigeria are characterized as lopsided.

4.2.3 Analysis of data to answer research question two

Research question two states thus: To what extent do corporate capital structures affect corporate market values in Nigeria?

Five questionnaire items were put forward to the respondents. The results are shown in Tables 9-13. From Table 9, 64 respondents representing 50.4% of the total affirmed that a firm's market value is directly related to its choice of capital structure, but 44 or 34.6% of the respondents disagreed, while 19 respondents (15%) were undecided. This suggests that, there is a significant relationship between a firm's market value and its choice of capital structure. In Table 10, 100 respondents representing 78.7% of the total affirmed that maximizing a firm's market value should be the major focus when deciding its choice of capital structure, but 17 respondents (13.4%) disagreed, while 10 or 7.9% of the respondents were undecided. This implies that, when deciding a firm's choice of capital structure, maximizing its market value should be its major focus since there is a significant relationship existing between them.

It is observed from Table 11 that 31 respondents representing 24.4% of the total affirmed that firms with debt in their capital structure tend to have high market values than firms with only equity capital, but 49 respondents (38.6% of the total) disagreed, while 47 respondents (37%) were undecided. This indicates that the utilization of debt capital in the capital structure of a firm does not make it have higher market value than a firm without debt capital in its capital structure. From Table 12, 92 respondents representing 72.4% of the total affirmed that it is only by an appropriate capital mix of debt and equity capital can a firm maximize its market value, but 23 respondents representing (18.2%) disagreed, while 12 respondents representing 9.4% were undecided. This implies that firms can only maximize their market values by an appropriate capital mix of debt and equity capital.

4.2.4.1 Test of Hypothesis

In addition, the research hypothesis was also tested in order to provide corroborative and inferential evidence to answer the research question.

H1:   There is no significant relationship between corporate capital structure and corporate market values in Nigeria.

In Table 13, the Pearson Chi-square test shows a p-value of 0.005, i.e. p-value < 0.05. The null hypothesis was, therefore, rejected at 95% confidence level and the alternative hypothesis was retained. It was concluded that there is a significant relationship between corporate capital structure and corporate market value in Nigeria.

5.   *Summary, Conclusions and Recommendations*
5.1   Summary

A firm's financing decision is pivotal and strategic in achieving its financial objectives. It involves decisions such as; how a 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. However, different research findings have been discussed by different researchers with both conformity and contradictions alike, there is yet no ideal capital structure choice for firms to maximize their market values.

This study provides an empirical analysis of corporate capital structure by examining its effects on the market values of a selection of firms listed on the Nigerian stock exchange (NSE). Although the study did not limit its scope to capital structure alone, it also examined other possible factors that could impact a firm's market value as well. In addition, factors that influence the choice of a firm's capital structure were also investigated in the study. In other to achieve the objectives of the study, a survey research design was adopted and both primary and secondary data were used for analysis. Primary data were gotten through the use of a well structured questionnaire which was administered to the target population chosen for the study, while the secondary data were obtained from the annual financial statements of the selected firms, from the Nigerian Stock Exchange fact books for the respective periods (2005-2009), and from the periodic publications of the Nigerian Stock Exchange.

For data analyses, this study adopted the descriptive statistics and inferential statistics in analyzing both the primary and secondary data respectively. Primary data were analysed with the use of the simple percentage distribution method, while the secondary data were analysed using the simple linear regression method to estimate the regression models developed in the course of the study. The regression analysis revealed that corporate capital structure has a significant impact on the market values of firms listed on the Nigerian Stock Exchange, as well as their sizes, profitability, total debts and shareholders' funds have significant impacts on their market values. Also, the regression analysis revealed that a firm's choice of capital structure could be significantly influenced by its profitability, net asset and total debt.

5.2 Conclusion

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.

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. 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. 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 4.4). 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 as shown in 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 4.6).

The study also discovered from the study that, in Nigeria, a firm's market value is positively significantly influenced by its choice of capital structure.

5.4 Recommendations

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 charged 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.

5.5　　Suggestions for further studies

The robustness of this study could be improved upon. Also, the results of the study are specific to the non-financial firms listed on the Nigeria Stock Exchange, as the sample excludes financial firms due to the peculiarity of their operations and capital structure. The of sample size used in this study is 66 firms and for five-year study period.   Therefore, generalizing the results for all firms (other than the sampled firms) becomes limited due to the nature of empirical model used.

Table 1:　QUESTIONNAIRE DISTRIBUTION

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, (2011)

Table 2: Distribution of respondents according to gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	35	27.6	27.6	27.6
	Male	92	72.4	72.4	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2011)

Table 3: Distribution of respondents according to work experience

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1-5 years	57	44.9	44.9	44.9
	6-10 years	23	18.1	18.1	63.0
	11-15 years	16	12.6	12.6	75.6
	16-20 years	8	6.3	6.3	81.9
	Above 20 years	23	18.1	18.1	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2011)

Table 4:　　　Distribution of respondents according to educational qualification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	SSCE	5	3.9	3.9	3.9
	Bsc/Hnd	84	66.1	66.1	70.1
	Msc	37	29.1	29.1	99.2
	PhD	1	.8	.8	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2011)

Table 5: 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)

Table 6: Importance of a firm's capital structure decision

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	81	63.8	63.8	63.8
	Agreed	43	33.9	33.9	97.6
	Undecided	2	1.6	1.6	99.2
	Disagreed	1	.8	.8	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2011)

Table 7: 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, (2011)

Table 8: 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, (2011)

Table 9:   **A firm's market value is directly related to its choice of capital structure**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	17	13.4	13.4	13.4
	Agreed	47	37.0	37.0	50.4
	Undecided	19	15.0	15.0	65.4
	Disagreed	38	29.9	29.9	95.3
	Strongly Disagreed	6	4.7	4.7	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2011)

Table 10: Maximizing a firm's market value as the main focus when deciding its choice of capital structure

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	33	26.0	26.0	26.0
	Agreed	67	52.8	52.8	78.7
	Undecided	10	7.9	7.9	86.6
	Disagreed	17	13.4	13.4	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2011)

Table 11: Firms with debt in their capital structure tend to have high market value than firms with only equity capital

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	10	7.9	7.9	7.9
	Agreed	21	16.5	16.5	24.4
	Undecided	47	37.0	37.0	61.4
	Disagreed	41	32.3	32.3	93.7
	Strongly Disagreed	8	6.3	6.3	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2011)

Table 12: Debt-equity mix as a determinant for maximizing firms' market values in Nigeria

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly Agreed	37	29.1	29.1	29.1
	Agreed	55	43.3	43.3	72.4
	Undecided	12	9.4	9.4	81.9
	Disagreed	17	13.4	13.4	95.3
	Strongly Disagreed	6	4.7	4.7	100.0
	Total	**127**	**100.0**	**100.0**	

Source: Administered questionnaire, (2011)

Table 13: Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	34.246	16	.005
Likelihood Ratio	37.710	16	.002
Linear-by-Linear Association	12.277	1	.000
N of Valid Cases	127		

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APPENDIX I :

Sampled Companies in the Study

1	7-up Bottling Co. Plc.
2	AG Leventis Plc.
3	Academy Press Plc.
4	Afprint Nig. Plc.
5	African Paints (Nig.) Plc.
6	African Petroleum Plc.
7	Afrik Pharmaceutical Plc.
8	Airline Services and Logistics
9	Aluminium Ext. Ind. Plc.
10	Ashaka Cement Plc.
11	Associated Bus Co. Ltd.
12	Avon Crowncaps & Cont. Ltd.
13	BOC Gases Plc.
14	Benue Cement Co. Ltd.
15	Beta Glass Co. Ltd.
16	Big Treat Plc.
17	Cadbury Nig. Plc.
18	Capital Hotel Plc.
19	Cement Co. of Northern Nig. Plc.
20	Chellarams Plc.
21	Chevron Oil Nig. Plc.
22	Conoil Plc.
23	Costain (WA) Plc.
24	Courteville Investment Plc.
25	Dunlop Nig. Plc.
26	Ellah Lakes Plc.
27	Eterna Oil & Gas Plc.
28	E-transzact Int. Plc.
29	Fidson Healthcare Plc.
30	First Aluminium Nig. Plc.
31	Flour Mills Nig. Plc.
32	FTN Coco Processing Plc.
33	Glaxo Smithkline Plc

Sampled Companies in the Study

34	Japaul Oil & Marine Services Plc.
35	John Holt Plc.
36	Lafarge Cement WAPCO Nig. Plc.
37	May & Baker Nig. Plc.
38	Morrison Indust. Plc.
39	National Salt Co. Plc.
40	Neimeth Inter. Pharm. Plc.
41	Nestle Nig. Plc.
42	Nigerian-German Chem. Plc.
43	Nigerian Aviation Handling Co. Plc.
44	Nig. Bag Manufacturing Co. Plc.
45	Nigerian Ropes Plc.
46	Oando Plc.
47	Okomu Oil Palm Plc.
48	Omatek Ventures Plc.
49	PS Mandrides & Co. Plc.
50	Premier Paints Plc.
51	Presco Plc.
52	Roads Nig. Plc.
53	SCOA Nig. Plc.
54	Starcomms Plc.
55	Studio Press Nigeria Plc.
56	Tantalizers Plc.
57	Total Plc.
58	Tourist Co. of Nig. Plc.
59	Tripple Gee &b Co. Plc.
60	UACN Property Dev. Co. Plc.
61	Unilever Nigeria Plc.
62	Union Venture Plc.
63	United African Co. of Nig. Plc.
64	United Nigeria Textile Plc.
65	UTC Nigeria Plc.
66	Vitafoam Nig. Plc.