ASSESSING THE IMPACT OF ASSET TANGIBILITY ON CAPITAL STRUCTURE: CHOICE FOR LISTED FIRMS IN NIGERIA

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Abstract

This paper seeks to examine determinates of corporate financing pattern for listed firms on the Nigeria stock exchange. Several studies have been conducted on financing patterns and capital structures in western countries with very little studies carried out on developing nation. The main objective of this paper is to investigate if observed trend of financing patterns in western countries is applicable within the Nigeria context. The theoretical contributions of trade-off, agency and pecking order theories were examined in assessing impact of asset tangibility on financing patterns for listed Nigerian firms. Results shows that Nigerian firms do not follow observed patterns observed in western countries. In analysing firm leverage, Nigeria firms were found to have a positive non-statistical significant correlation between asset tangibility and leverage.

Key words

Capital Structure; Trade-off Theory; Agency Cost Theory; Pecking Order Theory; Corporate Financing Strategy; Nigeria Stock Exchange.

INTRODUCTION

The discussion on how firms raise capital with regards to instruments used to finance investment decisions have generated a lot of academic debate amongst scholars of finance in recent past, with scholar's examining plausible reasons why listed firms raise capital through primary listing, secondary listing or issuing debt using different combinations of instruments such as ordinary equity, debt and hybrid securities which includes; preference shares, convertible and warrant debt.

In the past four decade, much of the research on capital structure by scholars have advanced theoretical models to explain the capital structure patterns for firms and also to provide empirical evidence concerning whether the theoretical models have

explanatory power when applied in real business world. Examining reasons behind the preference of firms choosing their financing patterns, Modigliani and Miller's (1958, 1963) contribution on the irrelevance of capital structure and tax shield advantage sets the stage upon which several capital structure theories have been developed.

Empirically, several studies have been conducted to investigate the relevance of capital structure in explaining firms financing behavior, amongst this, the static trade-off theory, agency cost and pecking order model appears to come across strongly.

Aim: To examine the impact of asset tangibility on the choice of capital structure for listed Nigeria firms in influencing their corporate financing strategy and performance analysis.

Objectives

1.   To determine whether the main theories of capital structure (trade-off, agency and pecking order theories) explains financing behavior for listed firms in Nigeria.

2.   To examine the impact of asset tangibility on the choice of capital structure for listed firms in Nigeria.

THEORITICAL FRAMEWORK

For over four decades, literature on corporate finance has profound different theories to identify and explain determinants factor for a firms financing policy and capital structure. These theories span across various aspects of the firm explaining how firms choose their capital structure.

In corporate finance, the academic contribution of Modigliani and Miller (1958, 1963), provided possible explanation on how financing decisions (debt-equity mix) informs the firm's capital structure. Modigliani and Miller (1958) in their seminar paper examined the relationship between the firm financing choice and its value. Modigliani and Miller in their paper explored the relevance of taxation in determining the firm's financing behavior which they stated given a world devoid of taxation, the firm's value will be independent of its debt-equity mix. The theory holds that the firm's market value is calculated by the risk associated with the underlying assets of the firm and also on the earning capacity of the firm. The contribution on capital structure irrelevance and the tax shield advantage by Modigliani and Miller (1958, 1963) paved the way for the development of alternative theories and series of empirical research initiatives on capital structure.

The alternative theories include the trade-off theory, the pecking order/asymmetric information theory and agency cost theory. All these theories have been subjected to extensive empirical testing in the context of developed countries, particularly the United States (US), however not much research has been done with respect to

developing countries. Some of the reasons that account for this are clear; many developing countries initially opted for a state-sponsored route to development, with a relatively insignificant role assigned to the private corporate sector (Prasad, 2001).

Theoretical Contribution Static of the Trade-off Theory

The trade-off model predicts that the trade-off between the benefits of debt financing (e.g., the tax deductibility of interest and reduced agency costs through the monitoring role of debt) and debt-related costs (e.g., bankruptcy costs and agency costs of debt) creates an optimal capital structure towards which firms move over time (Myers, 1977). In essence, the static trade-off theory predicts that more profitable firms should have more debt since they have more profits that could be shielded from taxes without incurring an undue cost of bankruptcy. However, empirical evidence presents a contrary view (Myers, 1984; Titman & Wessels, 1988; Fama & French, 2002).

Myers (1997) and Jensen (1986) also examined the impact of corporate income tax on the capital structure and suggested that firm's optimal capital structure is related to cost and benefits associated with debt and equity financing. Myers (1984), suggest that the trade-off between the tax advantage of debt and cost of financial distress is expected to yield the optimal level of debt that maximizes the value of the firm

Ngugi (2008) submits that there are benefits and cost associated with the use of debt as against equity, thus the firm will only choose an optimal capital structure that trades off between the tax advantages of debt against bankruptcy cost. This benefit was later extended to cover benefits and costs associated with the use of debt in mitigating the conflicts among agent groups associated firm i.e. managers, equity-holders and debt-holders (Jensen & Meckling, 1976; Jensen, 1986).

Several studies have been conducted on developed and a few on developing countries to examine capital structure theories. Booth et al, (2001) carried out studies in ten (Malaysia, Zimbabwe, Mexico, Brazil, Turkey, Jordan, India, Pakistan, Thailand, and Korea) developing countries to assess whether capital structure theories are applicable across developing countries with different institutional structures. Booth et al, (2001) use three measure of debt ratio; total debt ratio, long-term book debt ratio, and long-term market debt ratio with average tax rate, assets tangibility, business risk, size, profitability, and the market to book ratio as explanatory variables.

The study showed that the more profitable the firm, the lower the debt ratio, regardless of how the debt ratio was defined. It also showed that the more the tangible assets, the higher the long-term debt ratio but the smaller the total debt

ratio. Booth *et al*. (2001) conclude that the debt ratio in developing countries seemed to be affected in the same way by the same types of variables that were significant in developed countries. However, they pointed out that the long-term debt ratios of those countries are considerably lower than those of developed countries.

To test the relevance of the static trade-off theory in the Nigeria context these alternative hypothesis have been derived:

H1:   *There is a positive relationship between leverage ratios and asset tangibility.*

Theoretical Contribution of Agency Cost Theory

The theory examined the conflict of interest that arises between shareholders, managers and debt holders. In this case, the shareholders and debt holders are referred to as the principal while the managers are regarded as the agent acting on behalf of the principal. The need to ensure that agent act in the best interest of the principal to avoid conflict was examined in the contributions of Ross (1973), Shavel (1979), Fama (1980, 1990), Arrow (1985) and Jensen & Meckling (1992). They all debate that conflict arises if the firm issues equity, the proportion of owners-manager's interest within the firm minifies, this invariably encourages the owner-managers to engage in activities that might not be beneficial in the long run because of the reduced equity stake.

Jensen and Meckling (1976) examined the question of asset substitution that arises when share holders decides to seize wealth from debt-holders by investing in riskier projects which if successful offers high returns benefits to owners-mangers solely but with a high possibility of failure. The switching from a safer to a more risky investment portends potential conflict that may arise between shareholders and debt holders.

Myers (1977) identified firms in financial difficulties to have incentive to sacrifice low positive net present value (NPV) projects whose benefits accrue mainly to debt-holders. This results in under-investment by the firm. He then postulates that the greater the investment opportunity in a firm, the greater is the potential conflict of interest between shareholders and debt-holders.

Jensen and Meckling (1976) identified two major types of conflict: agency cost that arise from conflict of interest between managers and shareholders and agency costs that arise as a result of the conflicts of interest between shareholders and debt holders. They reasoned that the firm is presented with two options to raise capital i.e. issue equity or debt. They argued that conflicts arise between managers and shareholders when managers hold less than 100% of the residual claim, this will lead to managers pursuing activities that will not help in maximizing the value of the firm. They then suggested that managers should be allowed to own a larger equity portion, these they stated will help engender better commitment towards enhancing the value of the firm by managers.

Gillan and Starks (2000) noted that the separation between ownership and control is not the only factor that gives rise to the agency problems, the diffuse nature of corporate ownership may motivate the agency problem, where no incentive exists for small shareholders to bear the cost of monitoring the management behaviour. Um (2001), contends that given that the firm keeps its level of tangible assets low, the management of the firm is presented with the opportunity of choosing a high level of debt to mitigate equity agency cost while the firm size may then be used as a proxy for debt agency costs arising from conflicts between managers and shareholders. He thus established a positive relationship between debt and tangibility.

To assess the relevance of agency theory within the Nigeria context these alternative hypotheses have been derived:

H2:   *There is a positive relationship between leverage ratios and asset tangibility.*

Theoretical contribution of Pecking Order Theory

Pecking order theory predicts that due to the information asymmetry between the firm (mangers/insiders) and outside investors regarding the real value of both current operations and future income stream and prospects, external capital (debt and equity) will always be relatively costly compared to internal capital (retained earnings). Pecking order theory therefore suggests that firms should finance their investment in the order of internal funds, debt and equity (Myers, 1984; Myers & Majluf, 1984).

Two main literature approaches have been advanced that examined the impact of information asymmetry on firm's capital structure. The contribution of Myers and Majluf (1984) and Myers (1984) posits that capital structure is designed to mitigate inefficiencies in the firm's investment decisions that are caused by information asymmetry, by following a pecking order in their investment decisions. In the second approach, Ross (1977), and Leland & Pyle (1977) assert that firm's capital structure choice is used as a means to signal to outside investors the information held by insiders.

Myers (1984), Myers & Majluf (1984), argue that managers use private information to issue risky securities when they are overpriced. Investors are aware of this asymmetric information problem, and the prices of risky securities fall when new issues are announced. Managers anticipate the price declines, and may forego profitable investments if they must be financed with risky securities. Managers must therefore follow a pecking order in issuing securities of the firm to avoid this type of distortions. Given this view, Myers was able to demonstrate that given asymmetry

of information between investors and firm insiders, firm equity may be underpriced by the market and this will result in new equity being under-priced.

Similarly, Myers (2001) explained that the equity issues occur only when debt is costly, i.e. at a dangerously high debt ratio where managers and investors foresee costs of financial distress. Myers demonstrates that equity issues are spurned by investors if debt is available on fair terms, and in equilibrium only debt is issued. He then argues that debt has the prior claim on assets and earnings, while equity is the residual claim. In the context of pecking order theory, firms should issue equity when they experience high stock's valuation for two reasons: firstly, the asymmetric information costs to the firm are expected to be low when shares are overvalued, secondly, these firms are expected to have higher growth opportunities which induce them to finance their financing needs with equity in order to maintain their borrowing capacity for the future (see, Titman & Wessels, 1988 and Rajan & Zingles, 1995).

Mayer (1990) examined the source of industry finance in eight developed countries. His study reveals a number of stylised facts regarding corporate financing behaviour, which support the existence of financing hierarchies. He finds:

  o   Retentions are the dominant source of financing in all countries;

  o   The average firm in any of these countries does not raise substantial amounts of financing from securities markets in the form of short-term securities, bonds, or equity;

  o   Small and medium size firms are considerably more reliant on external finance than large firms; and

  o   The majority of external financing comes from bank loans in all countries.

Mayer found evidence that bank loans are the primary source of external finance for firms in developed countries. He interprets his findings as showing that banks perform a central function in eliminating asymmetric information in financial markets by playing a vital role in collecting and processing information that markets are unable to do or only do so at high cost.

A survey carried out by Beattie et al, (2006) on 831 finance directors in industrial and commercial UK listed firms shows that 60% of responding directors follow financing hierarchy. Internally generated funds were found to be the most preferred, and use debts only when internally generated funds are found to be deficient. Their findings also reveal that UK companies tend to adopt pecking order approach when information and transaction costs are found to be significantly large.

Using panel data technique Ngugi (2008) analyzed 22 listed firms on Nairobi stock exchange to determine the relevance of pecking order theory on listed firms. Ngugi (2008) submits that information asymmetries, non-debt tax shields and local capital

market infrastructure accounts for firms financing behavior, hence the pecking order model with an adjustment process cannot be rejected. In his analogy internal financing deficit was used as a variable to identify internal financing gap that triggers the use of debt. His result shows a significant relationship between internal financing gap and debt financing.

To assess the relevance of the theory on listed firms in Nigeria we these alternative hypothesis has been derived:

H3: There is a negative relationship between leverage ratios and asset tangibility.

METHOD OF ANALYSIS

This study makes use of econometric approach in estimating the relationship between capital structure theories (the static trade-off theory, agency cost theory and the pecking order model) and financing choice of listed Nigeria firms from 1997 to 2007. From the three main theories examined, the static Trade-off theory and Agency Cost theory postulates that there is a positive relationship between the leverage ratio of a firm and its asset tangibility, while the Pecking Order theory postulates a negative relationship between leverage ratio and asset tangibility.

H1: There is a positive relationship between leverage ratios and asset tangibility[1].

H2: There is a negative relationship between leverage ratios and asset tangibility[2].

Table 1 presents summary of the prediction trade-off, agency and pecking order theories.

TABLE 1. SUMMARY OF THE PREDICTION TRADE-OFF, AGENCY AND PECKING ORDER THEORIES

Determinants	Trade-off theory	Agency theory	Pecking order theory
Asset Tangibility	+	+	-

[4]The positive relationship is tested within the context of trade-off theory and agency cost theory.

[5]The negative relationship is tested within the context of pecking order theory.

To test the hypothesis the relationships between the level of debt (leverage) and explanatory variable asset tangibility is examined using the ordinary least square regression.

For the purpose of this study, asset tangibility is measured as fixed assets (FA) divided by total assets (TA). This can be represented as   Asset Tangibility = FA/TA

The research will analyse data samples of 216 listed firms on the Nigeria stock exchange from 1997 to 2007 using secondary data sources mainly from OSIRIS which contains financial information data on 62,000 listed and major unlisted/delisted

companies worldwide and African Financial Markets. Data set used for the purpose of this research work were obtained from both

balance sheet and income statements of selected firms and by averaging these data over the ten years period of analysis the researcher was able to smoothen the leverage and explanatory variables. The criteria used for selecting chosen companies were the availability of relevant information in the financial statements of each firm in the sample for the time period of 10 years (1997-2007).

In this view, the final sample set consists of a 47 firms spanning across all the major sectors on the stock exchange. This accounts for about 22 percent of the relevant population of listed firms on the exchange, however given the wide spread of observed firms across various sectors listed on the stock exchange, research sample can be viewed to be a good representative of firms listed on the stock exchange as it all classified sectors on the stock exchange was captured. Given the focal point of the research are listed firms on the Nigeria stock exchange, all non-publicly quoted firms were excluded from the research.

The proposed relationship for this study is depicted by these models;

MODEL 1

$Tot = \alpha + \beta 1nXn + E_t$

Where:
Tot = Trade-off theory is the dependent variable.
 Xn = Asset tangibility of the firm is the Independent variables
α = Intercepts
E_t = Random Error

MODEL 2

$Ag = \alpha + \beta 1nXn + E_t$

Where:
Ag = Agency theory is the dependent variable.
Xn = Asset tangibility of the firm is the Independent variables
α = Intercepts
E_t = Random Error

MODEL 3

$Po = \alpha + \beta 1nXn + E_t$

Where:
 Po = Pecking Order theory is the dependent variable.
 Xn = Asset tangibility of the firm is the Independent variables

α = Intercepts

E_t = Random Error

Dependent Variable

This is the measure of the firms' performance. The proxy used to denote these within the context of Tot, Ag and Po in the assessment of capital structure theories is leverage (L_i). Leverage can be defined as the amount of debt in the capital structure of the firm. There exists a choice of approach to use in computing leverage i.e. the book leverage and market leverage. Elkamhi et al, (2010) identified reasons to support the use of book and market leverage. They reasoned that book leverage supports assets in place while market leverage in addition supports growth opportunities.

Graham and Harvey (2001) acknowledged that managers tend to track book leverage more closely than market leverage. This they attributed to ability of managers to control the extent of book leverage by the issuance and retirement of debt or issuance and repurchasing of equity. They opined that this may not be visible with market leverage which depends on volatile market prices beyond manager's control (Titman & Wessels 1998). Ngugi (2008) however suggest that there is no significant difference between book and market leverage. For the purpose of this study due to the limitation of the availability of data, the use of book leverage is adopted. Taking the lead from Bevan and Danbolt (2002) who analyzed leverage from the perspective of long term and short term debt, the researcher computes leverage as the ratio of total debt to total assets and short-term debt to total assets. Long-term debt to total assets was excluded by the researcher as a measure of leverage due to non-availability of complete data.

Where:
TDA = Total debt to total assets
STDA = Short time debt to total assets

Independent Variable

These are the explanatory variables which are viewed as factors influencing corporate performance:

Assets Tangibility: The tangibility of assets is characterized by the effect of the collateral values of assets on the firm's leverage level. The underlying argument behind the use of tangible assets as collateral for debt is the higher liquidation value of these assets in the event of financial distress or bankruptcy (Rajan & Zingales, 1995). In analysing the capital structure of the firm empirical studies have shown that there is a positive relationship between tangibility and leverage of the firm. It is

expected that the implied risk of lending to the firm with a high level of tangible asset is low when compared to firms with less tangible assets. In this context it is assumed that lender will demand a low risk premium for lending to the firm with high tangible assets.

According to Jensen & Meckling (1976) and Myers (1977) shareholders of levered firms tend to have an incentive to invest sub-optimally in order to expropriate wealth from the firm's bondholders and these gives rise to conflict between shareholders and debt-holders. In this study, asset tangibility is measured as fixed assets (FA) divided by total assets (TA). Table 2 presents summary measurement of variables.

TABLE 2. DESCRIPTIVE MEASUREMENT OF VARIABLES

Variables	Measurement
Dependent Variable	
Overall Leverage (LEV)	Total debt to total assets (TD/TA)
Short-term Leverage (SLEV)	Short time debt to total assets (STD/TA)
Independent Variable	
Assets Tangibility	Fixed assets divided by total assets (FA/TA).

Beta Coefficients: This variable is used to examine the strength of relationship between the dependent variable (leverage) and the independent variable (asset tangibility). The relationship between the dependent and independent variable was measured using the book value of leverage.

Sig: These represent t-test level of significance. When the value of "Sig" is below 0.01, 0.05 and 0.1 it implies that at 99%, 95% and 90% confidence intervals respectively the relationship between relevant independent variables i.e. size, is a good proxies that explains the leverage ratio for the firms been considered. Hence we cannot accept the null hypothesis. While when the value obtained is above 0.01, 0.05 and 0.1 we cannot reject the null hypothesis at 99%, 95% and 90% confidence interval, which infers that the relationship between variables occurred coincidentally.

RESULTS AND DISCUSSION

The use of t-test statistic was employed by the researcher to determine if the results of the analysis are truly relevant or if they occurred due to coincidence. The relationship between output of the dependent and independent variable was measured by standardized coefficient (Beta).

Tables 3, 4, 5 and 6 below presents the output of the regression analysis.

TABLE 3. SPSS OUTPUT - REGRESSION WITH INTERACTION COEFFICIENT

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	-0.183	2.377		-0.077	0.939
	FA/TA	0.442	0.712	0.111	0.622	0.540

Dependent Variable: Total debt (total debt to total assets)
Independent Variable: Asset Tangibility (FA/TA)

TABLE 4. SPSS OUTPUT - MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.577(a)	0.333	0.256	1.3054124

Predictors: (Constant), FATA,

TABLE 5. SPSS OUTPUT - REGRESSION WITH INTERACTION COEFFICIENT

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta	B	Std. Error
1	(Constant)	-0.183	2.120		-0.086	0.932
	FA/TA	0.292	0.635	0.084	0.460	0.649

Dependent Variable: Short-term debt (Short-term debt to total assets)
Independent Variable: Asset Tangibility (FA/TA)

TABLE 6. SPSS OUTPUT - MODEL SUMMARY

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.561(a)	0.315	0.236	1.1642648

Predictors: (Constant), FATA,

Definition of Key Variables used in Analysis

Beta Coefficients: This variable is used to examine the strength of relationship between the dependent variable (leverage) and independent variables (asset tangibility). The relationship between the dependent and independent variable was measured using the book value of leverage.

Adjusted R-Square: Table 6 is used to give computed R-square more honest/fair value (where r-squared reflects the explanatory power of independent variable in predicting the dependent variable). For analysis the use of adjusted R-squared was

adopted because the linear model being explained constitutes a sample of listed firms on the Nigeria stock exchange. This makes the use of R-squared more relevant.

T-test Statistic: The use of t-test statistic was employed by the researcher to determine if the results of the analysis are truly relevant or if they occurred due to coincidence.

Sig: These represent t-test level of significance. When the value of "Sig" is below 0.01, 0.05 and 0.1 it implies that at 99%, 95% and 90% confidence intervals respectively the relationship between the independent variable i.e. asset tangibility is a good proxy that explains the leverage ratio for the firms been considered. Hence we cannot accept the null hypothesis. While when the value obtained is above 0.01, 0.05 and 0.1 we cannot reject the null hypothesis at 99%, 95% and 90% confidence interval, which infers that the relationship between variables occurred coincidentally.

ESTIMATION AND TESTING OF RESULTS

Influence of Asset Tangibility on Leverage of Firms

Empirical research findings by Rajan & Zingales (1995), Titman & Wessels (1988) on developed countries reveal a positive relationship between leverage and asset tangibility under the trade-off theory. They argued that companies with high level of tangible assets are less prone to default risk. The negative relationship between leverage ratio and asset tangibility reported by Booth et al, (2001) on ten developing countries, however negates these assertion.

Reviewing the contribution of the agency cost theory to understanding the pattern of capital structures by firms as influenced in their approach to debt issue, Jensen and Meckling (1976) identified conflicting interest between equity holders and debt holders who are regarded as principals in the firm and managers who act as agent on behalf of the principal. Harris & Raviv (1991), and Stulz (1990) provides evidence to support the argument that managers are less prone to use debt financing, because the use of debt tend to put them under pressure to deviate from firm's value maximisation objective. This preposition was supported by Fama (1980) who argued that a higher level of leverage is less attractive to managers because it tends to impose a higher risk to them (managers) than public investors. Jensen and Meckling (1976) addressed the incentive problems that could arise due to the separation between ownership and control and suggested that the use of secured debt could help in reducing the cost of debt. A positive relationship was therefore established between leverage ratio of the firm and asset tangibility.

Regression analysis result shows an asset tangibility value of 0.111 and 0.084 for leverage (total debt and short-term debt) respectively. This implies that a 1 unit change in asset tangibility will result in 0.111 and 0.084 increase in leverage (total debt and short-term debt) level for the firms. Given that observed Sig value 0.540

and 0.649 for total debt and short-term debt respectively is greater than 0.1, 0.05 and 0.01, we cannot reject the null (H0), that the regression coefficient = 0. i.e. the null hypothesis is not statistically different from zero at 99%, 95% and 90% level of confidence.

The observed positive relationship is not statistically significant. The double digit inflation rate in Nigeria economy does not only make borrowing expensive but also makes it easy for the value of asset of firms to be easily eroded. This can be a pointer to the non-statistical significance of asset for the observed firms

Decision: CANNOT reject H0, which implies there is no positive relationship between leverage ratios and asset tangibility.

Research finding of Rajan and Zingales (1995) under the pecking order theory suggests a negative relationship between leverage and asset tangibility this trend was attributed to the negative influence of information asymmetric on the firms value. Values obtained from regression result shows a Beta value of 0.111 and 0.084 for total debt and short-term debt and a Sig value of 0.540 and 0.649. This infers that a 1 unit increase in size will lead to 0.111 and 0.084 increase in total debt and short-term debt respectively. There is no evidence to support that there exist a negative relationship between asset tangibility and leverage for examined listed firms on the Nigeria stock exchange as obtained results shows a positive relationship that is not statistically significant.

At 99%, 95% and 90% level of confidence we cannot reject the null hypothesis signifying that listed Nigeria firms do not follow the same pattern observed in western countries under the pecking order theory. Part of the reason that can be cited to be responsible for this trend is the heavy dependence of Nigerian firms on Bank loan as a means of raising funds and banks tend to place high preference on asset of the firm for debt financing due to bankruptcy eventualities. In this context, Nigerian firms are expected to have a positive correlation between asset tangibility and leverage ratio. This conforms to Mayer's (1990) preposition that bank loans are the primary source of external finance for firms in developed countries thereby banks helps to eliminate asymmetric information in financial markets by playing a vital role in collecting and processing information that markets are unable to do or only do so at high cost.

Decision: CANNOT reject H0 i.e. there is no observed negative correlation between leverage ratio and asset tangibility for listed Nigerian firms.

CONCLUSION

This study examines the determinants of capital structure decisions for listed firms on the Nigeria stock exchange. Previous research work have focused mainly on

western countries, the objective of the research work is to examine the applicability of postulated capital structure theory (trade-off, agency and pecking order theory) in western countries to observed trend on listed firms in Nigeria. The research discussed how the capital structure decisions of firms are influenced, with focus on a sample of 47 out of 216 listed firms on the Nigerian stock exchange. The use of short-term and total debt was adapted as a proxy for determining leverage. We analyse the impact of firm's asset tangibility on choice of capital structure for observed listed firms.

The following major deduction can be inferred from obtained results. Observing the influence of asset tangibility on firm's leverage, a non-statistical significant positive relationship was observed under the agency and trade-off theory. Observed results findings of Jensen and Meckling (1976), Rajan and Zingales (1995), Titman and Wessels (1988) of western countries, however, negates findings by showing a significant positive relationship between asset tangibility and leverage under the trade-off and agency theory. Also Rajan and Zingales (1995) found a negative relationship between leverage and asset tangibility of firms in western countries under the pecking order theory, findings for listed Nigeria firms however shows a non-statistical positive correlation between leverage and asset tangibility for listed Nigerian firms. It can be stated that results observed from listed Nigeria firms negates postulated results in the western countries.

RECOMMENDATIONS

This study generally provided a number of insights which could form the basis of further research on Nigerian firms.

1) Carrying out a market leverage analysis to make comparison with book leverage will be useful in testing the robustness of observed results.

2) It will be useful to investigate correlation between observed dependent and independent variable by conducting studies based on interviews, questionnaire surveys and case studies.

3) The use of alternative methodology should be adopted i.e. panel data technique to take into account time variance observed in the result.

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