

Capital Structure Determinants in the Nigerian Banking Industry: Financial Managers' Perspectives

¹H.T. Iwarere and ²G.T. Akinleye

¹Department of Accounting, University of Ado-Ekiti, Ado-Ekiti, Nigeria

²Department of Accounting, Adekunle Ajasin University, Akungba Akoko, Nigeria

Abstract: This study examines the factors considered in choosing appropriate amount of equity and debt capital in Nigeria banking industry using data gathered through a survey conducted. The results identifies that credit rating, volatility of earnings, cash flow, financial distress, transaction costs and financial flexibility are the important factors in choosing appropriate amount of debt for bank. The results equally identifies factors responsible for making equity issues to be how to fund a major expansion, factors influencing banks capital structure, ownership structure and management control like growth opportunity, profitability, issuing cost, tax economics associated with debt financing per share. It is recommended that banks should adopt an appropriate mix source of fund, reduce debt issue, invest in more liquid assets through the reduction of tangible assets.

Key words: Structure determinants, financial managers, Nigerian banking, credit rating, factors responsible debt financing, Nigeria

INTRODUCTION

There is no doubt that the banking sector plays a significant role in the economy of Nigeria. Banks should choose and adjust their strategic mix of securities in order to maximize the value of the firm and ensure that their operations are not either highly geared or too lowly geared in order to achieve optimum capital structure. Thus, the determination of appropriate capital requirement and sources of raising funds are highly important. This is because, finance represents the heart of all businesses. Lack of adequate capital has always been identified as the major causes of business failure. In Nigeria, banking industry is regulated by the Central Bank of Nigeria. At present (2009), minimum capital requirement for Commercial bank that intends to be in operation is #25 Billion. In order to raise capital, banks need to mix both debt and equity strategically for the purpose of achieving an optimum capital structure.

In Nigeria, banks have not lived up to expectation of achieving optimum capital structure. If this is not achieved, it is at the peril of both the providers of capital and the firm itself.

This study therefore focuses on how Nigerian banks can choose appropriate mix of debt and equity capital in order to achieve optimum capital structure. This is achieved by looking at the factors that determine capital structure in order to protect interest of providers of capital

ensure payment of dividend, enable bank to use gearing benefit in optimising return on investment and to enhance the firm's ability to raise new fund.

Theoretical framework: Capital structure is concerned with the manner in which a firm finances its business through mixture of equity and debt capital. In their path breaking study of 1958, Nobel Laureates Merton Miller and Franco Modigliani provided the formal proof of their famous M and M irrelevance proposition. They demonstrated that there would be arbitrage opportunities in perfect capital markets if the value of a firm depends on how it is financed. Two of their assumptions are that investors and firms can borrow at the prevailing interest rate and investors can also introduce homemade leverage. While the M and M capital structure irrelevance theory clearly rests on unrealistic assumptions, it can serve as a starting point to search for factors that influence corporate leverage policies. Alleviating these assumptions, the two most prominent theories of capital structure are the trade off theory and the pecking order theory.

The trade off theory: If capital structure definition and readjustment do matter, it follows then that such decisions are not random as implied by Modigliani and Miller (1958) and that decision makers at the firm level may arguably adopt a policy model to guide their choices. Kraus and Litzenberger (1973) and Scott and Martin (1975)

among others explain that firms choose their mix of debt and equity financing by trading off expected costs and benefits of debt financing. The theory describes a firm's optimal capital structure as the mix of financing that equates the marginal costs and benefits of debt financing. A major empirical prediction of the trade off theory is that debt ratios will tend to be meaning reverting as firms use external capital markets to keep themselves at or close to their optimum debt levels. Trade off theories however, leave undetermined its underlying economic framework and unsolved the identification and measurement of costs and benefits. Among the benefits included in the trade off equation are the tax advantages of debt financing and the benefits associated with the control of free cash flow.

Pecking order theory: Myers and Majluf (1984) suggest that the capital structure can help to mitigate the inefficiencies in a firm's investment programme that are caused by information asymmetries; they show that managers use private information to issue risky securities when they are overpriced. This results in an interaction between investment and financing decisions. Because market participants cannot separate information about new project from information about whether the firm is under or overvalued, market participants will misprice equity. If firms are required to finance new project by issuing equity, under pricing may be so severe that new investors capture more than the net present value of the new project which would result in a net loss to existing shareholders. Even, a positive net present value project will be rejected, leading to yet another investment problem. The information costs associated with debt and equity issues has led to Myers (2001) to argue that a firm's capital structure reflects the accumulation of past financial requirements. There is a pecking order of corporate financing such that:

- Firms prefer internal finance
- If internal is not sufficient and firms require external finance, they issue the cheapest security first. In this case, they start with debt then possibly hybrid securities such as convertible bonds and issue equity only as a last resort

In contrast to the trade off theory, there is no well-defined target leverage ratio in the pecking order theory. There are two kinds of equity, internal and external. One is at the top of the pecking order and one at the bottom. Hence, as argued by Baker and Wurgler (2002), a firm's leverage ratio thus reflects its past cumulative requirement for external finance. Most

importantly, the pecking order theory can explain why most profitable firms tend to borrow less; they simply do not need external funds. Less profitable firms issue debt because they do not have sufficient internal funds and because debt has lower floatation and information cost compared to equity. Debt is the first source of external finance on the pecking order. Equity is issued only as a last resort when the debt capacity is fully exhausted. Tax benefits of debt are a second order effect. The debt ratio changes when there is an imbalance between internal funds and real investment opportunities.

Measures of leverage: Surprisingly, there is no clear out definition of leverage in the academic literature. The specific choice depends on the objective of the analysis. Rajan and Zingales (1995) apply four alternative definitions of leverage. Because their approach is one of the cleanest in the literature, we adopt their framework.

The first and broadest definition of leverage ratio is the ratio of total (non-equity) liabilities to total assets, denoted as LVLTA. This can be viewed as a proxy of what is left for shareholder in case of liquidation. However, this measure does not provide good indication of whether the firm is at risk of default in the near future. In addition, since total liabilities also include items like accounts payable which are used for transaction purposes rather than for financing, it is likely to overstate the amount of leverage. In addition, provisions and reserves such as pension liabilities, potentially affect this measure of leverage.

A second definition of leverage is the ratio of debt (both short term and long term) to total assets denoted as LVDTA. This measure of leverage only covers debt in a narrower sense (i.e., interest bearing debt) and excludes provisions. However, it fails to incorporate the fact that there are some assets which are offset by specific non-debt liabilities. For example, an increase in gross amount of trade credit is reflected in a reduction in this measure of leverage because the level of accounts payable may differ across industries. Rajan and Zingales (1995) suggested using a measure of leverage unaffected by the gross level of trade credit.

A third definition of leverage is the ratio of debt to net assets which is total assets less accounts payable and other current liabilities. This measure of leverage is denoted as LVDNA and is unaffected by non-interest bearing debt and working capital management. However, it is influenced by factors that has nothing to do with financing; for example, assets held against pension liabilities may decrease this measure of leverage. In Switzerland, this should not be important because pension liabilities need not be expensed in the balance

sheet. In contrast to most other continental European countries, pension money is managed in separated entities.

The fourth and final definition of leverage is the ratio of total debt to capital which is defined as total debt plus equity denoted as LVDC. This measure of leverage looks at the capital employed and thus best represents effect of past financing decisions it most directly relates to the agency problems associated with debt as suggested by Jensen and Meckling (1976) and Myers (2001).

An additional issue is whether leverage should be computed as the ratio of the book value to the market value of equity. Again, the correct choice is not easy. Fama (1965, 1970) argue that most of the theoretical predictions apply to book leverage. He suggested that book ratios better reflect management's target debt ratios. The market value of equity is dependent on a number of factors that are out of direct control for the firm. Therefore, using market values may not reflect the underlying alterations within the firm. In fact, corporate treasures often explicitly claim to use book ratios to avoid distortions in their financial planning caused by the volatility of market prices. A similar rationale is often heard from rating agencies. From a more pragmatic point of view, market value of debt is not readily available.

A final adjustment for cash balances seems particularly important because many firms hold substantial cash and short-term investment. This needs not be inefficient but may rather be interpreted as slack in the context of Myers (2001) and Myers and Lambrecht (2007) which can be used to invest in positive net present value projects that come along without approaching capital market.

Alternatively, firm could use the funds and immediately repay debt or repurchase its own stock. Following Rajan and Zingales (1995) cash balances was interpret as excess liquidity and compute adjusted leverage ratios by subtracting cash and cash equivalents from both the numerator and the denominator of the ratios introduced earlier.

Determinants of capital structure policy: The more conspicuous theoretical and empirically motivated capital structure determinants are related to:

- Lack of neutrality in the taxation regime with respect to financing costs and cash flow distributions to claim holders
- Principal-agent conflicts of interest and governance
- Differently informed contraction of parties
- Behaviour on product input markets

Under specific circumstances, the differential tax treatment of equity and debt securities tends to generate an incentive for a preference for debt financing. Thus, if effective tax rates are exogenous and common at the firm and the individuals levels, firm will tend to resort to the most tax-advantage source of financing. Firm behaviour in this respect should be closely related to the idiosyncratic characteristics of tax regime. The main hypotheses in this heading are:

- The tax advantage of borrowing costs (Modigliani and Miller, 1963)
- Investors income taxation
- Non debt tax shields such as depreciation, provisions and tax carryovers (De Angelo and Masulis, 1980)

In 1963, Modigliani and Miller modified their 1958 study by waiving the presumption of taxless economy and deriving a corner solution for the firm's optimal capital structure problem which leads to an unambiguous almost infinite debt to equity ratio. The kernel of M-M's reasoning is that by making interest expense tax deductible, government is subsidizing firms that finance their operation and projects by issuing debt securities. Therefore, *ceteris paribus*, firms would try to maximize their share of the government subsidy when choosing their capital structure. Thus, when income tax deductibility of interest payments at the firm level is present, market value of the firm is an increasing function of its financial leverage. Therefore, the value of the firm is maximized with all debt capital structure.

Principal agent problems create potential conflicts over the appropriation of private control rents, the manifestation of divergences over property rights and the propensity for opportunistic behaviour. In a homogenous expectation economy, it would be possible *ex ante* to write incentive contracts to induce agents to and to act in the principal best interest.

As argued by Jensen and Meckling (1976), firm's capital structure choice affects concernedly managerial and providers of capital incentives. Not surprisingly, most conspicuous agency problems relating to firm's financing structure are though associated with incentives stemming from (incomplete) contractual arrangements among shareholders and managers and shareholders and debtholders.

These problems induce adverse welfare effects. In these instances, the principal will attempt to limit the extent of the misalignment over objective functions by contracting the disputes over agent's incentives to engage in potentially wealth harmful activities. Such appropriate binding incentives for the agent are costly and therefore, make the principal to incur transaction

costs of different nature. Whenever the access to complete and perfect information is restricted and costly, parties in a binding contractual arrangement are to be unevenly informed. This asymmetry of information creates an incentive for the superiorly informed party to behave opportunistically either by hiding its true characteristics (adverse selection) or hiding its post-contractual actions (moral hazard). Ultimately, imperfect and perfect costly information fosters, uncertainty and therefore creates incentive for opportunistic behaviour.

Imperfect, incomplete and costly information about the quality (cash flow riskiness) of borrowers investment projects create an asymmetric information problem between borrowers and lenders. Consequently, adverse selection leads in an unevenly informed capital market to a gap between the costs of external financing (lemons premium). In the presence of incentive problems and costly monitoring of managerial actions, rational expectations suppliers of external financing require a higher return to compensate them for:

- Monitoring costs
- Moral hazard costs associated with managerial discretion over resource allocation

Whenever a firm has private information about its prospects, its security may be mispriced. In this framework, firm's insiders may convey information to uninformed market participants through discretionary external financing decisions to signal their true characteristics reduce the informational gap and therefore minimize adverse selection costs.

According to Harris and Raviv (1991) and Lane (2009), a firm's financing structure may affect its incentive to produce and invest. Therefore, it may determine strategic interactions between the firm's capital structure choice and the behaviour vis-à-vis its customers, suppliers and competitors. Since the use of debt financing can convey some economic profits, firms with less plastic asset could have higher financial leverage than firms with more plastic asset.

Firms that enter in a long-term contractual relationship with their customers, create an implicit expectation of sustained flow of supply non-trivial switching costs. A firm providing such type of goods or services may incur in a demand decline for their products if it leverages up its capital structures and such behaviour is perceived by customers as potentially harmful for the firm's likelihood of bankruptcy. *Ceteris paribus*, it should expect that such firms would carry less debt than producers of non-durable goods (Hovakimian *et al.*, 2001). Firms with larger investment in reputation to guarantee product quality will employ lower financial leverage. By

implication, an increase in the incentive for equity holders to depreciate quality as a consequence of higher leverage is likely to cause a decline in the value of reputation. Therefore, it should expect firms with larger reputation capital to use lower level of debt financing.

Capital structure in the banking firm: Banks are simultaneously firms, financial intermediaries and regulated entities. The nature of incentives induced by regulatory jurisdiction determines a unique interaction between a bank's capital base and its behaviour.

Given the mandatory requirement for banks capital, standard banking firms are involved in both voluntary and involuntary capital structure decisions. Voluntary capital structure decisions are taken in the very same setting as non-financial firms and arguably under the same determinants that are hypothesized in the capital structure theory for those firms. Inventory capital structure decisions are enforced by compliance prescriptions dictated by violations of the mandatory regime of capital adequacy requirements issued by regulators. Although, recognizing their importance and interaction, the focus of this study is confined to the voluntary capital structured decisions.

Empirical review: According to Harris and Raviv (1991), the consensus is that leverage increases with fixed assets, non debt tax shield, investment opportunities and firm size and decreases with volatility, advertising expenditure, the probability of bankruptcy, profitability and uniqueness of the product.

Tangibility: Previous empirical studies by Hovakimian *et al.* (2001), Rajan and Zingales (1995) and Fama (1965, 1970) advocated that the tangibility of asset represents the effect of the collateral value of assets of the firm's gearing level.

Jensen and Meckling (1976) and Myers (2001) argue that stockholders of levered firm are prone to over invest which gives rise to the classical shareholder-bondholder conflict. However, if debt can be secured against assets, creditors have an improved guarantee of repayment and the recovery rate is higher, i.e., assets retain more value in liquidation. Hence, the trade off theory predicts a positive relationship between measures of leverage and the proportion of tangible assets.

Hart (1987) argue that the agency costs of managers consuming more than the optimal level of prerequisites is higher for firms with lower level of assets that can be used as collateral. Managers of highly levered firms will be less able to consume excessive prerequisites, since bondholders more closely monitor such firms. The

monitoring costs are generally higher for firms with less collateral assets. Firms with less collateral assets might thus voluntarily choose higher debt levels to limit consumption of prerequisites. This implies a negative relationship between tangibility of assets and leverage.

Size of a firm: The effect of size on leverage is ambiguous on the one hand, Baker and Wurgler (2002) document that bankruptcy costs are relatively higher for smaller firms. However, the true situation is that larger firms tend to be more diversified. Accordingly, the trade off theory predicts an inverse relationship between size and the probability of bankruptcy that is a positive relationship between size and leverage. If diversification goes along with more stable cash flows, this prediction is also consistent with the free cash flow theory by Jensen and Meckling (1976). This notion implies that size has a positive impact on the supply of debt.

On the other hand, size can be regarded as a proxy for information asymmetry between firm insiders and the capital market. Large firms are more closely observed by analyst and should be more capable of issuing information, more sensitive to equity and have lower debt. Accordingly, the pecking order theory of the capital structure predicts a negative relationship between leverage and size with larger firms exhibiting increasing preference for equity relative to debt.

Following Hovakimian *et al.* (2001) the measure of size is the natural logarithm of net sales. The logarithmic transformation accounts for the conjecture that small firms are particularly affected by a size effect. Alternatively, one could use the natural logarithm of total assets. However, it think that net sales is a better proxy for size because many firms attempt to keep their reported size of assets as small as possible, e.g., by using lease contracts.

Growth opportunities: De Angelo and Masulis (1980), Jensen and Meckling (1976) and Myers (2001) argue that when a firm issues debt, managers have an incentive to engage in asset substitution and transfer wealth away from bondholders to shareholders. It is generally acknowledged that the associated agency costs are higher for firms with substantial growth opportunities. Thus, the trade off model predicts that firms with more investment opportunities have less leverage because they have stronger incentives to avoid under investment and asset substitution that can arise from stockholder, bondholder agency conflicts. This prediction is strengthened by Jensen and Meckling's (1976) free cash flow theory which predicts that firms with more investment opportunities have less need for the disciplining effect of debt payment to control free cash flows.

Fama (1991) explain how the predictions for book leverage carry over to market leverage. The trade off theory predicts a negative relationship between leverage and investment opportunities. Since the market value grows at least in proportion with investment outlays, the relationship between growth opportunities and market leverage is also negative.

Previous empirical results are mixed. For example, Hovakimian *et al.* (2001) find a negative relationship while Rajan and Zingales (1995) report a positive relationship between leverage and growth. In fact, the simple version of the pecking order theory supports the later result. Debt typically grows when investment exceeds retained earnings and falls when investment is less than retained earnings. Thus, given profitability, book leverage is predicted to be higher for firms with more investment opportunities. However, in a more complex view of the model, firms are concerned with future as well as current financing costs. Balancing current and future costs, it is possible that firms with large expected growth opportunities maintain low risk debt capacity to avoid financing future investment with new equity offerings or foregoing the investment. Therefore, the more complex version of the pecking order theory predicts that firms with large expected investments have less current leverage.

The measure of opportunities growth is the ratio of growth opportunities, the ratio of book to market equity. Simple cash flow valuation models suggest that this is a forward-looking measure. Another possibility would be to use research and development expenditures. Hovakimian *et al.* (2001) use past growth rates of total assets. However, we think this should not be so because historical growth is not necessarily linked to future growth.

Profitability: In the trade-off theory, agency costs, taxes and bankruptcy costs push more profitable firm towards higher book leverage. First, expected bankruptcy costs decline when profitability increases, second, the deductibility of corporate interest payment induces more profitable firms to finance with debt. Finally, in the agency models of Jensen and Meckling (1976) higher leverage helps to control agency problems by forcing managers to pay out more of the firm's excess cash. The strong commitment to pay out a large fraction of their pre-interest earnings to debt payment suggests a positive relationship between book leverage and profitability. This notion is also consistent with the signalling hypothesis by Barclay *et al.* (1995) where higher levels of debt can be used by managers to single an optimistic future for the firm. In sharp contrast in the pecking order model, higher earnings should result in less book leverage. Firms prefer raising capital, first from retained earnings, second from

debt and third from issuing new equity. This behaviour is due to the costs associated with new equity issues in the presence of information asymmetries. Debt typically grows when investment exceeds retained earnings and fall when investment is less than retained earnings. Accordingly, the pecking order model predicts a negative relationship between book leverage and profitability.

An important question is whether these predictions for book leverage carry over to market leverage. As put forth above, the trade off theory predicts that leverage increases with profitability since the market value also increases with profitability, this positive relations does not necessarily apply for market leverage. In contrast, the pecking order theory predicts that firms with a lot of profits and few investments have little debt. Since the market value increases with profitability, the negative relationship between book leverage and profitability also holds for market leverage.

Again, the empirical evidence is mixed. For example, Rajan and Zingales (1995) report a negative relationship between leverage and profitability (supporting the pecking order theory) while Jensen and Meckling (1976) find a positive one (supporting the trade-off theory). Following Hovakimian *et al.* (2001) two different measures of profitability was use. The first measure of profitability is the ratio of operating income over total assets (ROA), the second one is the ratio of operating income over sales (GMN). Former definition as return on assets is preferred and to the latter as gross margin.

Volatility: Myers (2001) presented that under investment problem increases with the volatility of the firm's cash flow. The issues are particularly noteworthy, first, De Angelo and Masulis (1980) is of the view that for firms which have variability in their earnings, investors will have little ability to accurately forecast future earnings based on publicly available information. The market will see the firm as a lemon and demand a premium to provide debt. Second to lower the chance of issuing new risky equity or being unable to realize profitable investments when cash flows are low, firm with more volatile cash flows tend to keep low leverage. Accordingly, the pecking order model predicts negative relationship between leverage and the volatility of the firm's cash flows.

The trade off model allows for the same prediction but the reasoning is slightly different. More volatile cash flows increase the probability of default, implying a negative relationship between leverage and volatility of cash flows.

The trade off model allows for the same prediction but the reasoning is slightly different. More volatile cash flows increase the probability of default, implying a negative relationship between leverage and volatility of cash flows.

Following Bradley *et al.* (1984) in the empirical analysis, volatility is measured as the standard empirical deviation of the first difference in annual earnings, scaled by the average value of the firm's total asset overtime (VOLA).

Non-debt tax shield: Firms will exploit the tax deductibility of interest to reduce their tax bill. Therefore, firms with other tax shields such as depreciation deductions will have less need to exploit the debt tax shield. Barclay *et al.* (1995) argues that if a firm in this position issues excessive debt, it may become tax-exhausted in the sense that it is unable to use all its potential tax shields. In other words, debt is crowded out and the incentive to use debt financing diminishes as non-debt tax shield increase. Accordingly, in the framework of the trade off theory, one hypothesizes a negative relationship between leverage and non-debt tax shields.

In contrast, Scott and Martin (1975) argue that firms with substantial non-debt tax shields should also have considerable collateral assets which can be used to secure debt.

It has been argued above that secured debt is less risky than unsecured debt. Therefore, from a theoretical point of view, one could also argue for a positive relationship between leverage and non-debt shield.

Uniqueness and industry classification: In a theoretical model, Hovakimian *et al.* (2001) shows that a firm's capital structure should depend on the uniqueness of its product. If a firm offers unique products or services, its consumers may find it difficult to find alternatives in case of liquidation and hence, the cost of bankruptcy increases. Accordingly, the trade-off theory predicts a negative relationship between book leverage and uniqueness.

Harris and Raviv (1991) report that a firm's industrial classification is an important determinant of leverage. Reviewing previous empirical results, these are in broad agreement show that drugs, instrument, electronics and food have consistently low leverage while study, textile mill products, steel, airlines and cement have consistently high leverage. An overall assessment of capital structure empirical literature seems to indicate:

- An ambiguous validation of extent theories
- The presence of inconsistencies and contradictions between stylized facts and theoretical predictions
- That empirical results appear strongly dependent of samples and research methods

MATERIALS AND METHODS

The target population of this study is financial managers of 25 banks incorporated in Nigeria. The survey was administered through randomly selected financial managers of the banks in South Western Nigeria-Ondo State, Oyo State, Ekiti State, Osun State, Ogun State and Lagos State. The research instrument consists specifically of structured questions used for data collection.

Based on the problems identified as well as the questions focus upon the hypothesis that guide this research work is:

H₀: There is no significant relationship between capital structure of banks and their determinants.

H₁: There is significant relationship between capital structure of banks and their determinants.

In testing the hypothesis, 12 factors were listed as likely determinants of capital structure. A non-parametric test of association based on one sample, χ^2 -test was employed to test the differences in the opinion of respondents on each of the possible determinants of capital structure. Among the 12 factors listed, 7 factors were tested. They are growth opportunities, profitability, tangibility, issuing cost, 6 out of the seven 7 factors were significant difference in the opinion of respondents with respect to 6 out of the 7 factors proposed. The factors were growth opportunity, profitability, issuing cost tax economies associated with debt financing, risk and cost of financial distress and insolvency, earnings per share. The probabilities associated with Chi-square value for each of the factors is ($p < 0.05$). In addition, data collected were also analyzed through table presentation and mean scores.

RESULTS AND DISCUSSION

The questionnaires were directed to financial managers. The mean scores of each factor used are: The results show that:

- Credit rating is considered as an important factor in choosing appropriate amount of debts for banks. The outcome gives a mean score of 4.55 (Table 1)
- Personal income tax cost is least important factor that investors face when they reserve interest income
- Matching the maturity of debt with the life of asset is the most important factor affecting banks choice between short and long term debt. This has a mean score of 4.55

- Expecting rating to improve so as to borrow through short term is the least important factor. This has a mean score of 2.64 (Table 2)
- Regarding factors responsible for making equity issue, we found out that the most important factor is to fund a major expansion. This has a mean score of 4.28 (Table 3) while the least important factor is to reduce leverage if market conditions are right. This has a mean score of 3.04
- Growth opportunity is a variable that has greatest influence on capital structure of banks. It has a mean score of 4.5 while the non-debt tax shield has the weakest influence with a mean score of 2.83 (Table 4)
- Ownership structure and management control is the most important factor influencing banks capital structure with a mean score of 4.64 while tax economies associated with debt financing and issuing cost are seen to have the weakest influence on banks capital structure with mean scores of 3.48 and 3.22, respectively

To test this hypothesis, 12 factors were listed as likely determinants of capital structure. Respondents were to state their degree of agreement of disagreement with each statement. A non-parametric test of association based on one sample, Chi-square test was employed to test the differences in the opinion of respondents on each of the possible determinants of capital structure. Among

Table 1: Factors considered in choosing appropriate amount of debt

Factors	Mean score
Tax advantage of interest deductibility	3.73
Potential cost of bankrupt or near bankrupt financial distress	3.96
Debt levels of other firms in one industry	3.36
Industry credit rating	4.55
Transaction costs and fees for issuing debt	2.82
Personal tax cost that investors face when they reserve interest income	2.82
Financial flexibility	3.95
Volatility of earnings and cash flow	4.50

Table 2: Factors affecting banks choice between short and long term debt

Factors	Mean score
Issue short term when waiting for long-term market interest rate to decline	3.64
Matching the maturity of debt with life of asset	4.55
Borrowing short term so that returns from new project can be captured by shareholders	2.95
Expect rating to improve so as to borrow through short-term	2.64
Borrowing short term reduces chance that banks will want to take on risky projects	3.60

Table 3: Factors responsible for making equity issue

Factors	Mean score
To find a major expansion	4.28
To make an acquisition	3.74
To reduce leverage	3.17
To reduce leverage if market conditions are right	3.04

Table 4: Variables influencing capital structure in banks

Variables	Mean score
Company size	4.12
Profitability	4.32
Tangibility	3.72
Growth opportunity	4.50
Non-debt tax shields	2.83
Uniqueness of the firm	3.67

Table 5: Chi square distribution showing determinants of capital structure of banks

Determinates	Chi-square	df	p-value
Growth opportunity	7.760	2	0.021
Profitability	19.640	3	0.000
Tangibility	6.000	3	0.112
Issuing cost	10.913	4	0.012
Tax economies associated with debt financing	10.800	4	0.029
Risk/cost of financial distress and insolvency	17.600	4	0.001
Earnings per share	14.400	4	0.006

the 12 factors listed, 7 factors were tested. They are growth opportunities, profitability, tangibility, issuing cost, tax economies associated with debt financing, risk/cost of financial distress and earnings per share. About 6 out of the 7 factors were significant difference in the opinion of respondents with respect to 6 out of the 7 factors proposed. The factors were growth opportunity, profitability, issuing cost tax economies associated with debt financing, risk and cost of financial distress and insolvency, earnings per share. The probabilities associated with Chi-square value for each of the factors is small ($p < 0.05$) (Table 5).

The study revealed that short term financing is cheap, liquid and easily repayable; medium term financing bridges the gap between long and short term and long term financing is relevant for planning; getting benefits of low interest rate and long-term repayment period.

Study also shows that factors affecting bank's choice between short and long term debt in their order of importance are matching the maturity of debt with the life of asset, issuing short term when waiting for long term market interest rates to decline, borrowing short term reduces the chance that banks will want to take on risky projects, borrowing short term so that returns from new projects can be captured by shareholders and expect rating to improve so as to borrow for short term.

From the study, the factors responsible for making equity issues in their order of importance are how to fund a major expansion, source for funds and reduce leverage if market conditions permits. The observation is that most banks make debt issue when the need arises. The Study shows that variables that have great influence on the capital structure of banks are growth opportunity, profitability, company's size, tangibility, uniqueness of the firm and non-debt tax shields. Finally, the study

discovered that the following factors influence the bank's capital structure in their order of importance. Ownership structure and management control, growth opportunity, profitability, size of the firm, uniqueness of the firm and its reputation, risk and cost of financial distress, earnings per share, tangibility, tax economies associated with debt financing, issuing cost, dividend policy, covenant in debt financing contract.

CONCLUSION

In this study the factors determining capital structure of banks in Nigeria are widely known to be both endogenous and exogenous. Given the pivotal roles banks play in the nation's economy, it is expected that banks should choose and adjust their strategic mix of securities in other to maximize the value of the firm. This ensures that banks are not too highly geared neither are they too lowly geared, i.e., optimal capital structure. Notwithstanding the foregoing, high profitability can be realised subject to effective utilisation of funds acquired.

RECOMMENDATIONS

In the light of the above findings, the following recommendations are hereby made:

- Banks should adopt the mix source of financing such as internal and external sources. The internal source should be retained earnings while the external source should be equity
- Banks should reduce their debt issue and if possible, should not make any debt issue at all. The reason for this is that debt issue is too expensive in Nigeria. This is because of high market value of equity shares when compared with the nominal share prices. Whether or not profit is made, the fixed interest rates on debts will be paid
- As a result of the reduction in debt issue, banks should reduce some of its categories of tangible assets that involve non-value added costs and invest some in liquid assets
- Banks should effectively and efficiently utilise the available funds

REFERENCES

- Baker, M. and J. Wurgler, 2002. Market timing and capital structure. *J. Finance*, 57: 1-32.
- Barclay, M.J., C.W. Smith and L. Ross, 1995. The determinants of corporate leverage and dividend policies. *J. Applied Corp. Finance*, 7: 4-19.

- Bradley, M., G.A. Jarrell and E.H. Kim, 1984. On the existence of optimal capital structure: Theory and evidence. *J. Finance*, 39: 857-878.
- De Angelo, H. and R.W. Masulis, 1980. Optimal capital structure under corporate and personal taxation. *J. Fin. Econ.*, 8: 3-30.
- Fama, E., 1991. Efficient capital markets: II. *J. Finance*, 46: 1575-1617.
- Fama, E.F., 1965. The behaviour of stock market prices. *J. Bus.*, 38: 34-105.
- Fama, E.F., 1970. Efficient capital markets: A review of theory and empirical work. *J. Finance*, 25: 383-417.
- Harris, M. and A. Raviv, 1991. The theory of capital structure. *J. Fin.*, 46: 297-355.
- Hart, O.D., 1987. Capital Structure as a Control Mechanism in Corporations. Department of Economics, Massachusetts Institute of Technology, Cambridge, USA., pp: 15.
- Hovakimian, A., T. Opler and S. Titman, 2001. The Debt-Equity Choice. *J. Fin. Quant. Anal.*, 36: 1-24.
- Jensen, M.C. and W.H. Meckling, 1976. Theory of firm: Management behaviour, agency costs and ownership structure. *J. Fin. Econ.*, 3: 305-360.
- Kraus, A. and R.H. Litzenberger, 1973. A state-preference model of optimal financial leverage. *J. Finance*, 28: 911-922.
- Lane, D., 2009. The cost of capital, corporation finance and theory of investment: A refinement. *Applied Econ. Lett.*, 16: 1017-1019.
- Modigliani, F. and M.H. Miller, 1958. The cost of capital, corporation finance and the theory of investment. *Am. Econ. Rev.*, 48: 261-297.
- Modigliani, F. and M.H. Miller, 1963. Corporate income taxes and the cost of capital: A correction. *Am. Econ. Rev.*, 53: 433-443.
- Myers, S.C. and B.M. Lambrecht, 2007. A theory of takeovers and disinvestments. *J. Finance*, 62: 809-845.
- Myers, S.C. and N.S. Majluf, 1984. Corporate financing and investment decision when firms have information that investors do not have. *J. Fin. Econ.*, 13: 187-221.
- Myers, S.C., 2001. Capital Structure. *J. Econ. Perspectives*, 15: 81-102.
- Rajan, R. and L. Zingales 1995. What do we know about capital structure some evidence from international data. *J. Fin.*, 50: 1421-1460.
- Scott, D.F. and J.D. Martin, 1975. Industry influence on financial structure. *Fin. Manage.*, 4: 67-73.