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Theoretical Review of Determinants of Financial Structure of Firms in Nigeria

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Abstract

This paper examines the determinants of capital structure decisions of manufacturing firms in an emerging economy like Nigeria. The capital structure of a firm consists of a particular combination of debt and equity issues to relieve potential pressures on its long-term financing. This paper examined information of manufacturing sector in Nigeria with the aim of discovering major determinants of its financial structure and also highlighted issues such as financial distress, bankruptcy threats, solvency problem, risk of default due to unstable economic and political situations as possible dangers that may plague firms whose capital structure may lean towards debt financing.
Keywords: Capital structure, Determinants factors, Debts to equity, Manufacturing firms.

1. Introduction

Financial structure is the mix of the long-term sources of funds used by the firm. It involves how a company finances its operations in terms of debt and Equity combination with four (4) basic elements namely; ordinary shares, preference shares, debenture and retained earnings. Generally, a firm can go for different levels/mixes of debts, equity or other financial arrangement. It can combine bonds, lease financing, bank loans or many other options with equity in an overall attempt to boost the market value of the firm. Both theoretical and empirical capital structure studies have generated many results that attempt to explain the determinants of financial structure. As a result of these studies, some broad categories of financial structure determinants have emerged. Titman and Wessels (1988), and Harris and Raviv (1991), however, point out that the choice of suitable explanatory variables is potentially contentious.

The corporate sector in Nigeria 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 the firm's capital structure (Salawu &Agboola, 2008).

It is clear that financial structure is an important management decision as it greatly influences the owner's equity return, the owners' risks as well as the market value of the shares. In other words, how a firm is financed is very important not just to the managers of a firm but also to fund providers. This is because if a wrong mix of finance is employed, the performance and survival of the business enterprise may be seriously affected. However, firms financing decisions involve a wide range of policy issues which may be outside the direct control of a firm's management. At the macro level, they have implications for capital market development, interest rate and security price determination, and regulation while at the micro level; such decisions affect financial structure, corporate governance and company development (Green, Murinde and Suppakitjarak, 2002). It is therefore incumbent on

management of a company to determine an appropriate financial structure which will ensure that their business continues as a going concern.

2. Manufacturing Firms in Nigeria

The manufacturing sector of any economy is involved in the conversion of raw materials into finished consumer goods or producer or intermediate goods. Also, manufacturing creates avenues for employment, helps to boost agriculture, helps to diversify the economy, and serves as a viable means of foreign exchange earnings for the country. In addition, the sector also helps to minimize the risk of overdependence on foreign trade or imported goods. Manufacturing firms remains one of the most powerful engines for economic growth. It acts as a catalyst to transform the economic structure of countries. The potential benefits from the manufacturing sector are even greater today particularly for emerging economies. With rapid technological change, sweeping liberalization and the increased defragmentation and internationalization of production, it has become the main means for developing countries to benefit from globalization and bridge the income gap with the industrialized world. These potential benefits justify the importance of promoting manufacturing in the developing countries of which Nigeria is one.

According to the Bureau of Public Enterprise (BPE) (2006) activities in the Nigerian industrial and manufacturing sector can be classified into four groups thus, *Multinational, National, Regional and Local*. However, the Manufacturers Association of Nigeria has categorized its industries into *Large, Medium and Small Scales* in line with the National Council of Industries (NCI) classification. According to Manufacturers Association of Nigeria (MAN) and Standard Organization of Nigeria (SON), classification of manufacturing sectors, the following products sect oral groups exist in Nigeria: Food, Beverages & Tobacco; Chemical and Pharmaceuticals; Domestic and Industrial Plastic and Rubber; Basic Metal, Iron and Steel and Fabricated Metal Products; Pulp, Paper & Paper Products, Printing & Publishing; Electrical & Electronics; Textile, Wearing Apparel, Carpet, Leather & Footwear; Wood and Wood Products Including Furniture; Non-Metallic Mineral Products; Motor Vehicle & Miscellaneous Assembly.

3. Review of Related Literature

The term financial structure refers to the percentage of capital (money) at work in a business by type. It is a mix of a company's long-term debt, specific short-term debt, common equity and preferred equity and it simply describes how a firm finances its overall operations and growth by using different sources of funds;

Financial structures have mostly been derived from data in developed economies that have many institutional similarities. Since different countries have different institutional arrangements, mainly with respect to tax and bankruptcy codes, existing market for corporate control, and the roles of banks and securities markets, it might prove inadequate to infer that what occurs in the developed economies or what determines their capital structure can be used to explain what is obtainable in the developing countries like Nigeria. In addition, there are differences in social and cultural issues and in the levels of economic development thus the need to examine differently the determinants of capital structure for firms in developing economies (Salawu &Agboola, 2008)..

These differences underline the importance of an examination of the basic determinants of financial structure for firms operating in a developing environment. As a result of numerous studies, some broad categories of financial structure determinants were identified as factors that may likely influence the leverage decision of a firm; Titman and Wessels (1988), Booth et al., 2001, Harris and Raviv (1991) Rajan and Zingales (1995), Bevan and Danbolt (2002) and Abor (2008) to mention few of them.

4. Determinants of Capital Structure

In this section, we examine some of the determinants of capital structure that have been identified by existing theories and empirical studies. Among these factors are namely: age of the firm, size of the firm, asset tangibility, profitability, growth, volatility, tax, liquidity and ownership

structure. The above mentioned point ware discuss as follows:

Age of the firm: The age of the firm connotes a standard measure of reputation in financial structure models. As a firm continues longer in business, it establishes itself as an ongoing business and therefore increases its capacity to take on more debt; hence age is positively related to debt. Before granting a loan, banks tend to evaluate the credit worthiness of entrepreneurs as these are generally believed to pin high hopes on very risky projects promising high profitability.

Firm size: Size has been viewed as a determinant of a firm's capital structure. Larger firms are usually more diversified and have more stable cash flow. So the probability of bankruptcy is smaller for large firms compared with smaller ones. Furthermore, many studies suggest that large firms prefer to issue long-term debt while small firms choose short-term debt to finance their projects. And because of the advantage of economies of scale and bargaining power with creditors, large firms bear lower costs in issuing debt and equity compared with small firms Michaela's et al. (1999)**.**

Asset tangibility: The firm's asset structure plays an important role in determining its capital structure. Since the tangible assets can be used as collateral in external borrowing, the presence of a large fraction of tangible assets of a firm help to get bank loans at a lower interest rate and it also helps to reduce the risk the lender suffering from the agency cost of debt. Since the debts can be secured by the collateralization of tangible assets, the firm's opportunity to engage in asset substitution is reduced by the presence of a large fraction of secured debts. Hence, a firm with a large fraction of tangible assets is expected to have more debt. We define tangibility as the book value of property, plants and equipment -total net (PPENT) scaled by total assets.

Profitability: Theoretical predictions yield no consistent conclusions for the correlation between profitability and leverage. Trade-off models argue that profitable firms have greater needs to shield income from corporate tax and should borrow more than less profitable firms. While pecking order theory suggests inverse relationship between profitability and the level of debt. Firms are assumed to prefer internal financing to external financing in a pecking order framework. This preference leads firms to use retained earnings first as investment funds and move to external financing only when retained earnings are insufficient. When facing the choice between bonds and equity, firms will prefer debt issue to equity issue. In this case, profitable firms are expected to have less debt.

Firm growth: Theoretical studies generally suggest that there is a negative relationship between growth opportunities and leverage. Growth is likely to place a greater demand on internally generated funds and push the firm into borrowing (Hall et al., 2004). According to Marsh (1982), firms with high growth will capture relatively higher debt ratios. In the case of small firms with more concentrated ownership, it is expected that high growth firms will require more external financing and should display higher leverage (Heshmati, 2001).

Volatility of earnings: Volatility or business risk is a proxy for the probability of financial distress and it is generally expected to be inversely correlated with leverage. Several measures of volatility have been used in empirical studies. Firms with high volatility in earnings face a higher risk that earnings level drops below the debt service commitment. This may force firms to arrange funds at high cost to pay the debt or go to bankruptcy in an extreme case.

Liquidity: As suggested by pecking-order theory, firms prefer internal financing to external financing. Therefore, firms are likely to create liquid reserves from retained earnings. If liquid assets are sufficient to finance the investments, firms will have no need to raise external funds. Hence, liquidity is expected to be negatively related to leverage. Then, current ratio (calculated as current assets over current liabilities) as a proxy of liquidity.

Taxation: Numerous empirical studies have explored the impact of taxation on corporate financing decisions in the major industrial countries. The changes in the marginal tax rate for any firm should affect financing decisions. When already exhausted (with loss carry forwards) or with a high probability of facing a zero tax rate, a firm with high tax shield is less likely to finance with debt. The reason is that tax shields lower the effective marginal tax rate on interest deduction. Graham (1999) concluded that in general, taxes do affect corporate financial decisions, but the magnitude of the effect is mostly "not large".

Managerial ownership: Managerial insiders (officers and directors) have a somewhat different perspective since many of them have large portions of their personal wealth invested in the firm argue, managerial insiders should be more sensitive to the bankruptcy risk that debt financing induces and more inclined to minimize this risk by using less than the shareholder wealth maximizing amount of debt in the firm's financial structure.

Now we summarize the firm-level determinants of capital structure, definitions and theoretical predicted signs in Table 1.1

Table-1.1. Summaries of determinants of capital structure, definitions and theoretical predicted signs.

Proxy (Abbreviation)	Definitions	Theoretical Predicted Signs
Tangibility (TANG)	Book value of plants and equipment-total net (PPENT) scaled by total assets.	+
Tax (TAX)	Effective tax rate	+/-
Size (SIZE)	Natural logarithm of total sales	+
Profitability (ROA)	Earnings before interest and tax divided	+/-
Growth opportunities (MTB)	Market value of assets over book value of assets	-
Volatility (VOL)	Standard deviation of ROA	-
Liquidity (LIQ)	Current assets divided by current liabilities	-

Note: "+" means that leverage increases with the factor "-"means that leverage decreases with the factor. "+/-" means that both positive and negative relations between leverage and the factor are possible.

5. Consequences of Financial Laverage

Although there are two basic component of capital available to manufacturing firms in Nigeria, there is the danger of over dependent on one particularly external debt. Where financial leverage is not properly utilized and where the going concern of financial structure composed of external debt, their inability to pay back as at when due may be hindered by factors such as financial distress, bankruptcy threat, risk of default, solvency problem etc. This suggests that management must strive to determine the best mix of debt and equity that will maximize the returns of the firm because it is only at that point that the wealth of shareholders will be maximized.

6. Conclusion

It is clear that financial structure is an important management decision as it greatly influences the owner's equity return, the owners' risks as well as the market value of the shares. It is therefore incumbent on management of a company to develop an appropriate financial structure. In doing this, all factors that are relevant to the company's financial decision should be properly analyzed and balanced.

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