

Application of Capital Structure in Creating Value for the Growth of Firms in Nigeria.

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ABSTRACT

The challenges before corporate organization are stemmed beyond the need to maximize profit through continues increase in capital financing of an organization and investment generation but to equally face the challenge of the ongoing global social insecurity that is presently reflected across the various facets of the nation's economy. In the light of the above a study of the application of capital structure in creating value for the growth of firms in Nigeria was undertaken primarily to examine how the use of an effective capital structure and the concept of value creation in an organization can stimulate growth of the firm. Questionnaire method of data collection was applied and the responses therein were evaluated using inferential statistical tools of Chi Square and Correlation Coefficient. The result revealed that judicious use of capital financing are significant in creating value for the growth and survival of the firms and that a predictive model for determining the degree of relationship between capital structure and value creation can be evolved. The study finally recommended among others that stakeholders in business operation should endeavor to provide adequate security through collaborative processes and partnership as part of their social responsibility in order to guaranty safety of their investment in the short run and corporate value enhancement in the long run.

Key Words: Capital Structure, Valuation, Growth, Cost of Capital, Questionnaire, Enabling Environment.

1.1 INTRODUCTION

Capital Structure is a significant managerial decision as it influences the shareholder's return and risk. The market value of the shares is affected by the capital structure decision. A financing decision of an organization may affect its debt equity mix which has implication for the shareholders' earnings and risk which in turn will affect the cost of capital and the market value of the organization. This is known as wealth maximization.

The wealth maximization requires that the shareholders funds rose by issuing shares or by obtaining earnings which are utilized such that organization earns a return on them equal to the returns expected by shareholders. If the organization fails to earn expected rate, the market value of the share will fall and the shareholders' wealth will be reduced. Similarly, funds raised by issuing debt and preference capital will reduced the market value per share.

The ability of management to obtain and use funds effectively is a key to the success or failure of the organization. It therefore requires planning which according to Appleby (1991) is essential for the long term survival of any business enterprise as it helps to determine the most profitable way to allocate limited resources among competing ends. Thus planning aids an optimum financial mix which does not only ensure corporate survival but a systematic, orderly, rational and logical grouping for efficiency. Apart from the provision of financial benefits, capital structure enhances interesting job processes and meaningful works that are meant to give the stakeholders of the corporate organization a reasonable degree of satisfaction from what they give. The environment is not static; continuity is achieved only through some degree of adaptability to environmental changes in terms of technology and new ideas; which is achieved through the proper mix of capital finance. Organizations are therefore able to increase their social responsibility to the environment in which they operate through income retained from optimum mix of capital.

Again, raising of funds to finance the firm's investment is an important function of the financial manager but in practice it is observed that financial managers use different combinations of debt and equity, which form the firm capital structure. The financial manager should therefore develop an appropriate capital structure which is most advantageous to the company. This can be done only when all those factors which are relevant to the company's capital structure, are properly analyzed and balanced.

1.1.2 CAPITAL STRUCTURE AND INVESTMENT DECISION MAKING

As far as capital structure is concerned, investment decision is its main objective. Therefore the relationship between capital structure and investment decision cannot be overlooked because capital structure has a far reaching implication for investment decision makers of organizations. As capital structure deals with the mix of long term sources of fund and equity, the ratio of which the equity is going to be will be an investment decision to be taken by a firm. The efficient allocation of capital is the most important finance function in modern times, this involve decision to commit the firm's fund to the long – term assets. Such decisions are of considerable importance to the firm since they tend to determine its value and size by influencing its growth, profitability and risk. Therefore a proper investment decision should be taken by a firm to enhance an optimum capital structure that will maximize the owner's wealth. "Through bitter experience, business have learned that excessive debt can be disastrous and that careful analysis is essential. Pattern or ranges of capital structure have evolved in different industries based on previous results and projected expectations" (Obsborn 1965: 125).

By definition, investment decisions are long run decisions where consumption and investment alternatives balanced over time in the hope that investment now will generate extra returns in the future. That is the whole idea of investment is based upon the principle of sacrifice today for gains in the future.

Regardless of their classification all investment methods have the same common approach; in each case we must decide whether the benefits we get from the initial investment are sufficient to justify the initial capital outlay. Investment decision however, affects the firm's value; since the capital structure that determines the value of the firm is enhanced through investment decisions (Mott 1982). The firm's value will increase if investments are profitable and add to the shareholders' wealth. Thus investment should be evaluated on the basis of a criterion, which is compatible with the objective of the shareholders' wealth maximization hence we talk of optimum capital structure.

The investment decision concerning the type of capital structure targeted for a firm has to be planned at the time a company is promoted. The initial capital structure should be designed very carefully. The management of the company should set a target capital structure and the subsequent financing decision should be made with a view to achieve the targeted capital structure.

The company needs fund to finance its activities continuously. Every time when the funds have to be procured, the financial manager weighs the pros and cons of various sources of finance and selects the most advantageous source keeping in view of the targeted capital structure. All these analysis and subsequent actions are financial investment decisions. Thus the capital structure decision as part of investment decision is a continuous one and has to be taken whenever a firm needs additional finance for the proper investment decision.

Theoretically, the financial manager should plan an optimum capital structure for his company. In practice however, the determination of an optimum capital structure is a formidable task and one has to go beyond the theory. There are significant variations among industries and among individual companies within an industry in terms of capital structure. Since a number of factors influence the capital structure decision of a company, the judgment of the person making the capital structure decision plays a crucial part. Two similar companies can have different capital structure if the decision makers differ in their judgment of significance of various factors.

A totally theoretical model perhaps cannot adequately handle all those factors which affect the capital structure decision. These factors are highly psychological, complex and qualitative and do not always follow accepted theory, since capital markets are not perfect and the decision has to be taken under imperfect knowledge and risk. However in evolving the right capital structure, Raj (1979:34) stated that "Manager has to judiciously mix three factors:

- i. Reduce the cost of money to the firm;
- ii. Limiting the financial risk; and
- iii. Maintaining the ability of the firm to borrow for future growth and development".

Apparently such pattern of capital structure should be chosen which might minimize cost of capital and maximize value of stocks.

Hence, Johnson (1973) in Pandey (1998:649) asserts that “a sound or appropriate capital structure should have the following features; profitability, solvency, flexibility, capacity and control” but Radhey (1979:128) added the two other features or principles of “Risk and Timing”.

The above mentioned are the general features of an appropriate capital structure. The particular characteristics of a company may reflect some additional specific features.

Having determined the suitable pattern of capital structure for the company, financial manager’s next task in respect of the capital structure is to decide the proportionate mix of different securities in total capitalization. There are no iron clad rules as to what percentage of capitalization should be represented by bonds and what proportion by equity securities. Each company is an individual in the eye of the law. In the light of the company’s peculiar characteristics management should strive for ideal combination of debt and equity which could maximize the owner’s interest. However, in a study of capital structure as a tool for understanding firms financial position a debt equity ratio of between 20-50 percent was established as being optimum for manufacturing company (Abdulmuhyi and Akanet 2008).

1.1.3 THE CONCEPT OF VALUE CREATION IN A FIRM

Valuation is concerned with the determination of the “worth” or “value” of a business enterprise. Numerous technique for valuing a firm are available, some are based on superficial data while others have deep theoretical underpinning. The value of a firm is important not only to its existing and prospective shareholders but also quite useful when a firm is considering acquiring or merging with another firm.

Valuation therefore, is an important factor in the financial manager’s decision making process. Failure to understand the concepts and computational procedures in valuing a security may often preclude sound decisions by the firm’s executives. This fact is immediately evident in the financial officer’s objective of maximizing the value of the firm’s common stock.

In their contribution to the effect of capital structure on valuation and cost of capital, Weston and Brigham (1975:663) contended that:

“One of the great issues in the academic financial literature during the 1960s was capital structure and its effect on the cost of capital. The so-called traditional viewpoint was that an optimal balance between long term debt and equity existed, and at this optimal point share price was maximized and cost of capital minimized. The arguments of the Modigliani and Miler (MM), published in the later 1950s disclaimed the existence of an optimal capital structure: MM employed both a tightly developed argument and some empirical evidence. The debate continued through the 1960s and early 1970s, and it remains an issue today; but not to the degree it had been. In this paper, the authors argue that the modern view on the subject is most appropriately identified as a compromise”.

A firm’s value is dependent on its expected earnings stream and the rate used to discount this stream or the cost of capital; therefore, if capital structure is to affect value, it must do so by operating either on expected earnings or on the cost of capital, or on both. Because interest is tax deductible, leverage generally increases earnings, at least so long as the firm does not use so much leverage that bankruptcy seriously threatens its continued existence. The effect of leverage on the cost of capital is much less clear; indeed this issue had been one of the major controversies in finance for the past fifty years, and perhaps more theoretical and empirical work has been done on this subject than on any other field.

Van Horne and Wachowiz (1989:430) stated, “If the return on a project exceeds what the financial market requires, it is said to earn an excess return. This excess return, as we define it, represents the creation of value. Simply put the project earns more than its economic keep”.

Value creation has several sources but perhaps the most important are industry attractiveness and competitive advantage. These are the things that give rise to positive NPV projects – one that provides expected returns in excess of what the financial market requires. Favorable industry characteristics include positioning in the growth phase of a product cycle, barriers to competitive entry and other protective devices such as patents temporary monopoly power and/or oligopoly pricing where nearly all competitors are profitable. In short, industry

attractiveness has to do with the relative position of an industry in the spectrum of value – creating investment opportunities.

Competitive advantage involves a company's relative position within an industry. The company could be multidivisional, in which case competitive advantage needs to be judged industry by industry. The avenues to competitive advantage are several: cost advantage, marketing and price advantage, perceived quality advantage and superior organizational capability (corporate culture). Competitive advantage is eroded with competition. Relative cost, quality or marketing superiority for example is conspicuous and will be attacked. A successful company is that continually identifies and exploits opportunities for excess returns. Only with a sequence of short run advantages can any overall competitive advantage be sustained.

Thus Van Horne and Wochowiz concluded by stating that "Industry attractiveness and competitive advantage are principal sources of value creation. The more favorable these are, the more likely the company is to have expected returns in excess of what the financial market requires for the risk involved".

1.2 STATEMENT OF THE PROBLEM

The defects of the traditional profit maximization objective of the firm makes most organization not to bother measuring whether it is obtaining commensurate growth to its survival so long it continue not only to break even, but earns profit in excess of its operating cost. This is not only a problem to the firm alone, but unhealthy for the development of the economy as a whole. Therefore, there is the need for firms to ensure steady improvement in their operations by developing appropriate mechanism through value creation.

1.3 RESEARCH OBJECTIVES

The primary objectives of this paper are:

1. To examine how the use of an effective capital structure and the concept of value creation in an organization can stimulate growth of firms.
2. To establish the extent to which a causal relationship between capital structure and value creation can be used as a predictive model for the purpose of generalization.

1.4 JUSTIFICATION OF THE STUDY

Capital financing adequate in amount and of the right type is a condition for the survival and growth of the firm and of the economy as a whole. Therefore, the success of any firm depends largely on the amount of capital it has at its disposal and how effectively these capital resources are managed. It is thus of significant importance particularly at this period of prevailing socio insecurity currently being experienced in Nigeria that businesses discerns policy or criteria aim at monitoring the continuous growth of their firms through value creation.

1.5 STATEMENT OF HYPOTHESES

In line with the research problem and the objective, the following pairs of hypotheses have been formulated for this study.

(i)

Ho Neither Capital Structure nor value creation concepts are significant for the growth and survival of the firms.

Hi both capital structure and value creation are significant concept for the corporate growth and survival of the firms.

(ii)

Ho Formulating a generalized predictive model from the use of capital structure and value creation in an organization is not possible due to the non causal effects between the two concepts.

Hi Formulating a generalized predictive model from the use of capital structure and value creation in an organization is possible due to the present of cause/ effect relationship between the two concepts.

1.6 RESEARCH METHODOLOGY

The research instrument adopted in gathering data is the questionnaire method of data collection. Thirty questionnaires were distributed through non- judgmental sampling method and twenty eight returned and analysis for the test of hypothesis one. In addition 26 questionnaires administered for 26 accountants in order to test the second hypothesis (see appendix for the details of the questionnaire).

The inferential statistics technique of Chi square and Correlation coefficient were applied in testing hypothesis 1 and 2 respectively. The decision rule for the Chi Square hypothesis required accepting a null hypothesis if the table (critical) value is higher than the computed value and vice- versa.

While the interpretative approach to the use of correlation coefficient as categorized by ICAN (paper 15, 2006) is evaluated based on the criteria in table 1:

Table 1: Degree of Relationship of Correlation Coefficient

Coefficient	Relationship
1.0 -- 0.2	Negligible
0.2 – 0.4	Low
0.4 – 0.6	Moderate
0.6 – 0.8	Substantial
0.8 – 1.00	High and very high

1.7 RESULT AND DISCUSSION

The Oxford advanced learner’s dictionary defines the word ‘growth’ as “an increase in size, amount or degree of something” by relating this to business context we mean a positive elevation arising majorly from the firm’s best usage of its human and material resources.

The academic literature have identified investment, profitability, cost of capital, dividend policy among others as key factors upon which growth can be enhanced through capital structure and value creation in an organization. The result of the questionnaire drafted from these variables is now presented for the test of the hypotheses.

Table 2: Observed Frequency for the Test of Hypothesis ‘1’

Variable	Responses to Questions				
	Q20	Q23	Q24	Q25	Q26
Strongly agreed	17	18	13	10	6
Agreed	2	7	7	6	10
Neutral	4	1	2	8	7
Disagreed	4	1	15	3	3
Strongly disagreed	1	1	1	1	2
Total	28	28	28	28	28

Table 2 shows the observed frequency for test of hypothesis ‘1’, the expected frequency was derived using this equation: $E.F.D = \frac{\text{row total} \times \text{column}}{\text{Grand total}}$, the relationship between the observed and the expected frequencies as depicted in Fig. 1 shows a similar trend and deviations in the values between them. The result of the chi- square test for hypothesis ‘1’ at 0.05 level of significance under 16 degree of freedom reveals that the computed value of chi- square of 26.70 is larger than the table (critical) value of 26. 30. Thus, the decision implies rejection of the null hypothesis (Ho) and the acceptance of the alternate hypothesis (Hi). That is, both capital structure and value creation are significant concepts for the growth and survival of firms.

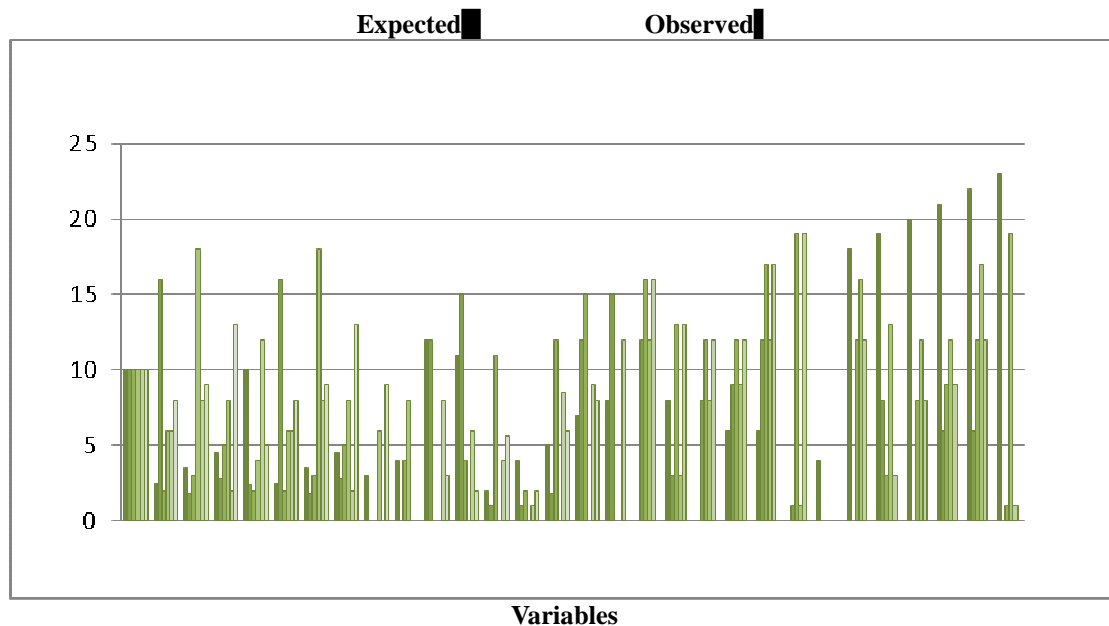


Figure 1: Variation in Frequency Distribution for Hypothesis One.

Table 3: Frequency distribution for test of hypothesis 2.

Variable	capital structure	value creation
Investment	162	94
Profitability	108	95
Dividend policy	90	81
Cost of equity capital	93	84
Tax shield on debt capital interest	76	79

Table 3 represent the result of the responses to part C of the questionnaire administered on 26 accountants working across the various sectors of the Nigerian economy ranging from industries, government ministries and parastatals, non- governmental organizations (NGOs), private firms and banking industries, whom at the same time were PGD students of accounting and finance ABU programme, Federal Polytechnic Bauchi study centre. It is believed that their vast practical experience together with their fresh theoretical underpinning of the concept of the subject matter gives more credence to the result.

From table 3, it can be seen that all the data move almost in direct sympathy, indicating presence of linearity thus we can assert that there is a cause/ effect relationship between capital structure and value creation. We therefore proceed to compute the spearsman rank correlation in order to determine the degree of this relationship on one hand and then calculate its coefficient of determination in so as to show the extent to which its variance can be used as a predictive model:

Table 4: showing calculation of Spearsman’s Rank correlation

Capital Structure (X)	Value Creation (Y)	Rank of X Rx	Rank of Y Ry	Deviation in Ranking Rx – Ry= D	Sum of the Squared of the Deviation $\sum(Rx - Ry)^2 = D^2$
162	94	1	2	-1	1
108	95	2	1	1	1
90	81	4	4	0	0
93	84	3	3	0	0
76	79	5	5	0	0
					2

Applying Spearsman’s rank formula of correlation coefficient (r) = $\frac{1 - \frac{6 \sum D^2}{N(N^2-1)}}{1 - \frac{12}{120}} = 0.9$

Note: N represent number of variables which is 5

$$1 - \frac{6 \times 2}{5(25-1)} = 1 - \frac{12}{120} = 1 - 0.1 = 0.9$$

Decision

With a very high degree of positive correlation at 0.9 it means that a judicious increase in the use of capital structure in an organization will result to 90% increase in value creation of the organization. Similarly, the coefficient of determination (r²) when calculated as 0.9² is 0.81 meaning that factors leading to variation in capital structure is 81% enhanced by value creation while the remaining 19% is due to other factors than value creation which may be attributed to other non- qualitative factors such as favourable government policy e.g tax holiday incentive, and innovative style of the management e.t.c. From the foregoing we can reasonably conclude that a mutual relation exist between capital structure and value creation in an organization and as such can be used as a predictive model thus accepting the alternative hypothesis (Hi) and rejecting the null hypothesis (Ho).

1.8 CONCLUSION

Virtually, no any business operation can thrives without the basic input of capital financing in the right proportion. It is therefore imperative for mangers of business operations to evolve the right financial plan for their firms in order to avoid too extreme evils, both of which have negative impact on the value creative ability of the firm. Inadequate capital financing may result to loss of good will, decline in sales and curtailment of scale of operation which may erode profitability. Equally, excess capital will lead to idle fund, misplacement of priority, abandonment and selection of unattractive investment opportunity, all these are treat to the growth of the firm. It is therefore important to stress the need for a compromise between these two extremes position such that a firm can confidently attain value enhancement capable of projecting its image.

Finally, it is also apparent that this study aligned with the earlier position as provided in the literature that investment, profitability, dividend pay out ratio, cost of equity capital e.t.c. are value drivers and at the same time key factors influencing the need for additional capital requirement of firms. This is due to the higher positive correlation coefficient derived from the use of these factors in measuring the relationship between capital structure and value creation. It is therefore advisable for firms to align their fund requirement with expected value creation each time additional finance is required.

1.9 RECOMMENDATIONS

1. Firms should devise means of sustaining value creation as a platform for their growth and development through the establishment of a department solely charged with the responsibility of managing investment and financing matter.
2. For the value of a firm to be enhanced, management must always aim at least cost of borrowing, minimize inherent risk associated with capital project financing and maintain the firm stability to borrow for future growth and development.
3. That stakeholders in business operation should endeavor to provide adequate security through collaborative processes and partnership as part of their social responsibility in order to guaranty safety of their investment in the short run and corporate value enhancement in the long run.
4. Government should reinvigorates their effort towards the provision of necessary and conducive enabling working environment devoid of hostility and undermining challenges at all times.

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Questionnaire on Application of Capital Structure in Creating Value for the Growth of Firms in Nigeria.

All information supplied will be treated in confident and for academic exercise only.

PART 'A'

1. NAME:
2. SEX:
3. MARITAL STATUS:
4. What is your length of working experience?
5. What is your Rank/ Official Status?(a) MD (b) Director (c) Senior Mgt. Staff (d) Middle Level Mgt. Staff..
6. For how long have you been a management staff?
7. Have you ever worked in other manufacturing company (ies) other than the present one?
8. If Yes, state and list them chronologically and years spent in each of them.

PART 'B'

9. Which of the following are the components of your firm's Capital Structure?
(a) Debt (b) Preference Share (c) Reserves (d) Equity (e) all of the above
10. Which of the combination in (9) above maximizes your firm's profit?
11. Which of the following is the proportion of your Debt/ Equity Capital?
(a) 20- 50 percent (b) Above 50 percent (c) Below 20 percent
12. Which of the combination in (11) above maximizes the shareholder's wealth?
(Tick the correct option) (a) (b) (c)

13. Which of the following factor(s) influence optimality of your Capital Structure?

(a) Planning (b) Efficient Capital Market (c) Flexibility (d) All of the above

14. Which of the following factors affects capital structure decisions of a firm?

(a) Return (b) Flexibility (c) Risk (d) Capacity and Control (e) All of the above

15. How often does your firm make capital structure decision?

(a) Quarterly (b) half yearly (c) Annually (d) as occasions demands (e) none of the above

16. Which of the following drives value in an organization.

(a) Profitability (b) growth (c) cost of equity capital (d) accounting quality (d) all the above.

17. Which of the following do you consider most useful for measuring the firm's performance?

(a) Profitability (b) Investment (c) Capital structure (d) all of the above

Use the multiple options given below to answer questions 18- 29

Strongly agreed (b) Agreed (c) Neutral (d) Disagreed (e) strongly disagree

18. Do you agree that the use of debt financing affect the risk perception of prospective investors?

19. Do you agree that financial advantage influences the return on owner's equity?

20. Do you agree that the size of a firm is influenced by its Capital Structure?

21. Do you agree in the existence of an optimal Capital Structure?

22. Do you agree that the success or failure of a firm depends majorly on the composition of its capital Structure?

23. Do you agree that the firm's capital structure is influenced by its nature of investment?

24. Do you agree that the acceptance of profitable investment project magnifies the value of your firm?

25. Do you agree that investment decision enhances the firm's dividend policy?

26. Do you agree that the firm's cost of capital serves as a hurdle rate for acceptance of any viable investment?

27. Do you agree that your firm estimated the required rate of return in any investment decision?

28. Do you agree that your firm consider other qualitative such as labour unrest, government policy etc. in making a final decision on investment selection?

29. Do you agree that your firm uses ratio for analyzing her financial strengths and weakness?

PART C

Kindly use the following assigned numerals to rate the contribution of these five (5) criteria against the employment of capital structure and value creation in an organization.

Basis	Excellent	Very Good	Good	Fair	Weak
Nominal	5	4	3	2	1
Scale					

CRITERIA

VARIABLES

Capital structure

Value creation

Investment

Profitability

Dividend policy

Cost of Equity capital

Tax shield on Debt

Capital Interest

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