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CAPITAL STRUCTURE AND COST OF CAPITAL OF MULTINATIONAL FAST GROWING CONSUMER GOODS COMPANIES IN NIGERIA

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ABSTRACT:

This study examined the capital structure and cost of capital of multinational fast-moving consumer goods (FMCGs) companies in Nigeria. The six multinational fast-moving consumer goods (FMCGs) companies listed on the Nigerian Stock Exchange for a period of 10 years (from 2011-2020) was selected. Secondary method of data collection was adopted; data was sourced from the audited financial statements of the companies. This study applied the ex post facto research design. The study was anchored on agency theory and pecking order theory and data was analyzed using ordinary least square regression and descriptive statistics. The results showed that total debt to total asset ratio and long term debt to total assets ratio has a downward negative effect on the weighted average cost of capital (WACC), total debt to capital employed ratio has a positive significant effect on WACC and long term debt to shareholders' equity ratio has a positive insignificant effect on the WACC of the multinational FMCGs. The study concludes that the mix of equity capital and debt capital in the capital structure could have both positive and negative effect depending on the nature and source of debt capital and the financial leverage of the multinational FMCGs and recommends that the companies should strive towards the alignment of interests between shareholders and agents to reduce agency costs. The companies should also pursue an optimal capital structure by concentrating on capital types that have a lesser impact on the cost of capital.

1. INTRODUCTION

The determination of a suitable capital structure is a crucial decision for any organization and this decision is vital, not only because of the need to maximize the wealth of shareholders or increase the market value of companies, but also because of the impact of such a decision on the company's

ability to cope with the competitive environment through good financial performance. Capital structure is the mix or proportion of debt and equity that a company uses in its operation to enhance financial performance (Modigliani and Miller, 1958). It involves how a company finances its business operations with a mix of long-term sources of fund by the firm. It is the sources of long term financing employed by a firm to fund its assets and finance its operations. Capital structure refers to the firm's financial framework which consists of the debt and equity used to finance the firm (Ong & Teh, 2011). Companies are usually faced with the challenge of choosing among the sources of finance to fund its operations. The debt and equity composition of a firm is determined by the financing policies of a company's management. Some businesses' capital structures grow as a result of financial decisions made by financial management. Companies with a poorly designed capital structure have a tough time raising funding to finance their operations. (Otekunrin et al., 2019). A second issue faced by companies is the optimality of its capital structure. The optimal capital structure of a company is the best mix of equity and debt financing that maximizes the market value of the company and also minimizes the firm's cost of capital. As a result, capital structure has a significant impact on a company's cost of capital, profitability, and overall value.

Cost of capital is the cost that arises from the various financing sources which is the debt capital and equity capital. It is the weighted average cost of capital. When a company wants to raise money to finance its operations, there are inherent costs attached to the financing sources. The cost of capital is the rate of return that a firm must earn on the projects in which it invests to maintain the market value of its stock. It can also be thought of as the rate of return required by the market suppliers of capital to attract their funds to the firm. A relationship between capital structure and cost of capital was asserted by Allen (1983) who postulated two important questions relating to the financial decision regarding creation of wealth for shareholders: how the company should allocate its income (whether it should be paid out as dividends or held as retained earnings) and how should the company finance its investment. An optimal capital structure reduces a company's cost of capital while increasing its value and wealth. Numerous studies have been carried out in the area of capital structure but most of these studies relates to firm's value and performance be it financial performance or efficiency. Varied findings and conclusions exist from these studies. This research work aims to examine the effect of capital structure of a firm on the cost of capital in the context of multinational fast moving consumer goods companies in Nigeria.

1.1 Objectives of the Study

The main objective of this study is to analyse the effect of capital structure on cost of capital of multinational fast-moving consumer goods (FMCGs) listed on the Nigerian Stock Exchange (NSE). The specific objectives are:

1. To ascertain the effect of total debt to total asset ratio on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.
2. To assess the extent to which total debt to capital employed ratio affects the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.
3. To evaluate the extent to which long term debt to total asset ratio affects the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.
4. To determine the extent to which long term debt to shareholders' equity ratio affects the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.

1.2 Hypotheses

i. Ho: Total debt to total assets ratio has no significant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.

ii. Ho: Total debt to capital employed ratio does not significantly affect the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.

iii. Ho: Long term debt to total assets ratio does not significantly affect the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.

iv. Ho: Long term debt to shareholders' equity ratio has no significant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Capital Structure

Capital Structure is the makeup of a firm's capitalization that it represents the mix of different sources of long-term funds in the total capitalization of the company. (C. W. Gerstenberg, cited in Jadhav 2017). Capital structure refers to the firm's financial framework which consists of the debt and equity used to finance the firm. Capital structure is a mixture of a company's debts (long-term and short-term), common equity and preferred equity (Ong & Teh, 2011). Capital Structure refers to the composition of capital that is the mix of sources from which the long-term funds required by a business are raised.

Capital structure is the permanent financing of the firm, represented primarily by long term debt, preferred stock and common equity but excluding all short-term credit. The capital structure is represented by financial leverage ratios such as total debt to total asset ratio, total debt to shareholders' equity ratio, total debt to capital employed, long-term debt to total asset ratio, long-term debt to shareholders' equity ratio, and long-term debt to capital employed ratio.

2.1.2 Cost of Capital

The rate of return required by providers of equity capital is called the cost of equity. The rate of return required by providers of debt capital is called the cost of debt. Cost of capital is the weighted average cost of equity and debt. It is the rate of return which a company is required to offer to offer to its providers of capital in order to attract their funds which will be used in financing the company's operations. It is the rate of return that a firm has to make in order to maintain the value of the business. The cost of capital is known as weighted average cost of capital (WACC).

It is simply the rate of return that the funds used should produce to justify their use within the firm in light of the wealth maximization objective (Pandey, 1999). It is the minimum return that a firm must earn on its investment for the market value of the firm to remains unchanged (Khan and Jain, 2014). The cost of a funding technique, on the one hand, and the existing financial structure, on the other hand, influence the decision. As a result, it's critical to choose an optimal capital structure that corresponds to the lowest cost of capital in order to maximize the company's value and, implicitly, its performance.

2.2 Theoretical Review

2.2.1 Agency Theory

This theory was postulated by Jensen and Meckling (1976) describes the agency relationship as a contract in which the principal(s) hire another person (the agent) to provide a service on their behalf while delegating some decision-making authority to the agent. If both parties to the connection are utility maximizers, there's a good chance the agent won't always behave in the principal's best interests. The fundamental assumptions of this theory are: agents are self-interested, agents have constrained rationality and goals and risk-taking inclinations differ from those of principals. Due to the conflicting interests of the shareholders and the agents, "agency problem" arises. The agency problem is frequently depicted in the relationship between shareholders and management as shareholder principals pursuing value maximization while management agents want self-

aggrandizement; the consumption of value to establish their own empires (Jenkins, Ambrosini, & Collier 2016).

2.2.2 Pecking Order Theory

Donaldson's (1961) pecking order theory of capital structure which was popularized by Myers and Majluf (1984) is one of the most influential theories of corporate leverage. It goes against the premise of businesses having a unique mix of debt and equity financing to lower their cost of capital. According to the theory, when a company is looking to finance long-term investments, it has a well-defined order of preference for the types of financing it utilizes. It states that a company's first priority should be to use internal money (i.e., retained earnings), then debt, and last external equity. They suggested that as businesses become more prosperous, they will borrow less since they will have enough internal funds to complete their investment ambitions. They went on to say that when internal finance is insufficient, a company should seek outside funding, ideally through bank borrowings or corporate bonds. After exhausting all other options, including internal and bank borrowing as well as corporate bonds, the final and least favoured option is to raise new stock capital.

Retained earnings are favoured since they have essentially no cost, but if external resources are utilized for financing, such as the issuance of additional shares, the expenses might be very expensive. The pecking order idea is the result of information gaps between insiders and outsiders in a company (Rahaman, Zulfiquar and Mustafa, 2007).

2.3 Empirical Review

Vitriya and Marciano (2020) conducted a study on multinationality, capital structure, and cost of capital of 590 non-financial firm listed on Indonesia Stock Exchange of which 249 were multinational and 341 were domestic firms. Panel data and multiple linear regression was used as an analytical model. According to the findings, Indonesia multinational enterprises have lower costs of capital, equity, and debt than domestic firms in Indonesia. the study discovered that capital structure is negatively connected to cost of capital. this indicates that multinational firms in Indonesia use more debt than domestic firms in Indonesia, lowering the cost of debt after tax and thus the cost of capital.

Rahman and Khan (2020) researched on the Effect of Capital Structure on Firm's Cost of Capital: A Comparative Study between Listed MNCs and Domestic Companies in Bangladesh with the use of

stratified and quota sampling techniques. They found that, for every 5% change in weight of debt, WACC changes by approximately 2% and 2.5% in opposite direction in case of domestic companies and MNCs respectively. MNC's WACC is more responsive than domestic companies for a change in debt for each 5% increase in debt. They came to a conclusion that as MNCs' debt proportion is very low so they can increase debt in capital structure to reduce cost of capital. Besides financial leverage, both types of companies can decrease WACC by taking necessary measures to maximize market price of share.

Oskooee (2019) conducted a research on capital expenditures structure (CES), cost of capital and shareholders' wealth on 186 companies listed in Tehran stock exchange, Iran using systematic sampling for a 5-year period. They used the partial least squares regression approach of structural equation modeling and discovered that there is a significant positive link between the CES and total shareholder wealth, but that some components of the CES are unrelated to total shareholder wealth. They also discovered a significant inverse link between capital cost and shareholder wealth.

Nicodemus and Wamugo (2017) examined the effect of capital structure on the cost of capital of forty-one firms listed on the Nairobi securities exchange, Kenya. Secondary Data for the year 2010 to 2014 was collected from the NSE handbook. Descriptive research design was used and Pearson correlation and panel regression was used to analyze the data. They found out that there was significant and positive relationship between asset ratio, total equity to debt ratio, total long term debt to total asset ratio and total short term debt to total asset ratio and cost of capital of the firms. This implied that an increase in these ratios led to an increase in the cost of capital.

Luçi and Lleshaj (2016) conducted a research to assess the capital structure and cost of capital for large businesses in Albania that have a 100% Albanian ownership. They analysed 50 companies from 2013 to 2014 using multivariate regression and financial formulas. The results of the research showed that the Albanian companies do not have an optimal capital structure. They also discovered that the concept of diversification of capital structure was not practical among the companies.

Porwal, Jain, and Gupta (2012) studied financial leverage and its impact on cost of capital and capital structure of 20 companies from two sectors in India- infrastructure and information technology. Microsoft Excel, CAPM and coefficient of correlation and regression were used in the analysis. Cost of financing as well as cost of debt is negatively correlated with financial leverage while cost of equity is positively correlated. They also concluded that since debt forms major part of

capital structure of Infrastructure firms, correlation between overall cost of capital and Leverage also turned out negative. This holds the theoretical concept true which says that as leverage increases, weighted average cost of capital reduces during initial period.

3. MATERIAL AND METHOD

The ex post facto research design was adopted in this study. Secondary data, precisely the audited annual reports of multinational FMCGs listed on the Nigerian Exchange Group for 2011 to 2020 were used. Information from the financial statements were obtained for the following variables: total debt (TD), total assets (TA), capital employed (CE), long term debt (LTD) and shareholders' equity. The population was six multinational FMCGs and the entire six were sampled using purposive sampling technique. The formulated hypothesis were analyzed using ordinary least square regression analytical technique.

3.1 Model Specifications

$WACC_{it} = \beta_o + \beta_1 TDTA_{it} + ę$ ---------- I

$WACC_{it} = \beta_o + \beta_2 TDCE_{it} + ę$ ---------- II

$WACC_{it} = \beta_o + \beta_3 LTDTA_{it} + ę$ ---------- III

$WACC_{it} = \beta_o + \beta_4 LTDSE_{it} + ę$ ---------- IV

Where,

WACC = Weighted average cost of capital

TDTA = Total debt to total assets

TDCE = Total debt to capital employed

LTDTA = Long term debt to total assets

LTDSE = Long term debt to shareholders' equity

ę = the error term

β_o= the intercept

$\beta_1 - \beta_4$ = the independent variable coefficients (the coefficients of the regression equation)

$_i$= is the cross section of firms used

$_t$ = is year (time series)

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Test of Hypotheses

Table 1: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.935[a]	.875	.774	.0127318

a. Predictors: (Constant), LTD_SE, TD_CE, LTD_TA, TD_TA
Source: SPSS Version 22 Analyses Output

Table 2: ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.006	4	.001	8.726	.018[b]
	Residual	.001	5	.000		
	Total	.006	9			

a. Dependent Variable: WACC

b. Predictors: (Constant), LTD_SE, TD_CE, LTD_TA, TD_TA
Source: SPSS Version 22 Analyses Output

Table 3: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	.514	.278		1.851	.123
	TD_TA	-1.763	.865	-3.849	-2.038	.097
	TD_CE	.429	.164	3.826	2.614	.047
	LTD_TA	-.003	.002	-.384	-1.081	.329
	LTD_SE	.342	.187	1.267	1.826	.127

a. Dependent Variable: WACC
Source: SPSS Version 22 Analyses Output

Table 4: Residuals Statistics[a]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	.028355	.118849	.051930	.0250731	10
Residual	-.0111334	.0219542	.0000000	.0094898	10
Std. Predicted Value	-.940	2.669	.000	1.000	10
Std. Residual	-.874	1.724	.000	.745	10

a. Dependent Variable: WACC
Source: SPSS Version 22 Analyses Output

4.2 Test of Hypotheses

4.2.1 Hypothesis One

Ho1: Total debt to total assets ratio has no significant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.

According to Table 1 which shows the result of the effect of total debt to total assets ratio on WACC, the coefficient of TD/TA is β1= -3.849 (t = -2.038, p-value = 0.097). The coefficient value shows that there is a downward negative relationship between TD/TA and WACC which indicates that an increase in TD/TA ratio will result in a decrease of WACC. However, the result reveals that the p-value in the test is greater than 0.05. Therefore, this negative effect is not statistically significant.

Seeing that the p-value (0.097) is greater than 0.05, the null hypothesis is therefore accepted while the alternate hypothesis is rejected. Therefore, total debt to total asset ratio has no significant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria at 5% level of significance (t = -2.038, p-value > 0.05).

4.2.2 Hypothesis Two

Ho: Total debt to capital employed ratio does not significantly affect the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.

According to Table 1 which shows the result of the effect of total debt to capital employed ratio on WACC, the coefficient of TD/CE is β2 = 3.826 (t = 2.614, p-value = 0.047). The coefficient value shows that there is a positive relationship between TD/CE and WACC which indicates that an increase in TD/CE ratio will result in an increase of WACC. The result reveals that the p-value in the test is less than 0.05. Therefore, this positive effect is statistically significant.

Seeing that the p-value (0.047) is less than 0.05, the null hypothesis is therefore rejected while the alternate hypothesis is accepted. Therefore, total debt to capital employed ratio has significant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria at 5% level of significance (t = 2.614, p-value < 0.05).

4.2.3 Hypothesis Three

Ho: Long term debt to total assets ratio does not significantly affect the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.

According to Table 1 which shows the result of the effect of Long term debt to total assets ratio on WACC, the coefficient of LTD/TA is β3 = -0.384 (t = -1.081, p-value = 0.329). The coefficient value shows that there is a downward negative relationship between TD/CE and WACC which

indicates that an increase in LTD/TA ratio will result in a decrease of WACC. However, the result reveals that the p-value in the test is greater than 0.05. Therefore, this negative effect is not statistically significant.

Seeing that the p-value (0.329) is greater than 0.05, the null hypothesis is therefore accepted while the alternate hypothesis is rejected. Therefore, long term debt to total assets ratio has no significant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria at 5% level of significance (t = -1.081, p-value > 0.05).

4.2.4 Hypothesis Four

Ho: Long term debt to shareholders' equity ratio has no significant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria.

According to Table 1 which shows the result of the effect of long term debt to shareholders' equity ratio on WACC, the coefficient of LTD/SE is β4= 1.267 (t = 1.826, p-value = 0.127). The coefficient value shows that there is a positive relationship between LTD/SE and WACC which indicates that an increase in LTD/SE ratio will result in an increase of WACC. However, the result reveals that the p-value in the test is greater than 0.05. Therefore, this positive effect is not statistically significant.

Seeing that the p-value (0.097) is greater than 0.05, the null hypothesis is therefore accepted while the alternate hypothesis is rejected. Therefore, long term debt to shareholders' equity ratio has no significant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria at 5% level of significance (t = 1.826, p-value > 0.05).

CONCLUSION AND RECOMMENDATIONS

Based on the results of these findings, this study concluded that total debt to total assets ratio is negative and does not have statistical significant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria. Thus, the study accepts the null hypothesis and rejects the alternate hypothesis. Similarly, long term debt to total assets ratio have an insignificant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria. Thus, the study accepts the null hypothesis and rejects the alternate hypothesis. The long-term debt to shareholders' equity ratio is positive and has an insignificant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria. Thus, the study accepts the null hypothesis and rejects the alternate hypothesis. The total debt to capital employed ratio has a significant effect on the weighted average cost of capital of selected listed multinational FMCGs in Nigeria. Thus, the study rejects the null hypothesis and accepts the alternate hypothesis. This

corroborates the findings of Rahman & Khan (2020). These differences in results could be due to the different sources of debt capital. The mix of capital in the capital structure could have both positive and negative effect depending on the nature and source of debt capital and the financial leverage of the companies.

Based on the conclusion, this study therefore recommends the following:

The study recommends that the multinational fast-moving consumer goods should consider the use more of debt capital on a reasonable level as the interests on debt is tax deductible. This could help reduce the cost of capital from its financing sources and maximize the overall value of the firm. The Multinational FMCG companies should also pursue optimal capital structure by concentrating on capital types that have a lesser impact on the cost of capital.

Due to the constant challenge of companies trying to achieve optimal capital structure, the study recommends that the shareholders and agents should constantly work towards the alignment of interests to reduce agency costs which is a very essential in financing decision which contributes to the value maximization of a company. This can be achieved through increasing incentives for the agents such as higher commissions and stock options (ownership of company shares). Stock option in particular will help the agents be part of the company and strive towards the maximization of the company's value.

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