

Moderating Effect of Capital Structure Substitution on Debt – Equity Mix and Financial Performance of Listed Manufacturing Firms in Nigeria

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Abstract:- The Research objective of the discourse examined Capital Structure Substitution effect on the financial performance of various listed manufacturing firms in Nigeria. The period of study covered the timeframe of 2007 to 2021 with sample of twenty firms out of the population of fifty-nine listed manufacturing firms. This paper used earnings per share of the selected manufacturing firms to measure the financial performance. The research equally used capital structure substitution to measure the moderating effect of capital structure on financial performance. The study utilized secondary data retrieved from NSE fact book and Nigerian Exchange Group as well as yearly financial statements of the listed manufacturing firms. The research design used for the study was ex-post facto approach and the data was analyzed using multiple regression, descriptive statistics and co-integration test. Results revealed from the study showed that Long Term Debt to Total Equity proved a negative and significant influence on manufacturing industries financial performance. Results also showed that Long Term Debt to Market Value indicated positive as well as significant influence on industry performance, and Capital Structure Substitution has positive moderating intervening effect on financial performance. The findings of the study were statistically robust and significant. The study revealed that the independent variables proxied by Long Term Leverage Debt to Equity (LTDTE), Long Term Debt to Market Value (LTD MV) and Long Term Debt to Total Assets (LTD TA) and that Capital Structure Substitution (CSS) contributes to enhanced financial performance and capitals structure substitution has a significant (CSS) contribution to enhanced financial performance. Other findings proved that the capital structure variables affect earnings per share but on selected proxies. As a result of this, the study concluded that capital structure substitution has a significant moderating effect on financial performance of listed manufacturing firms in Nigeria. Therefore, the paper recommended that since the best optimal structure is achieved when earnings per share is maximized, firms should incorporate capital structure substitution in their business decisions. This could be achieved by encouraging listed manufacturing firms to repurchase shares, and issue debt to the level where earnings per share (EPS) will be maximized.

Keywords:- Capital Structure, Financial Performance, Capital Structure Substitution, Earnings per share, Return on Equity.

I. INTRODUCTION

Every business needs fund to perform/execute its operational activities. However, in an epoch of globalization, industrialization, increasing businesses, production and consumption activities; capital structure and financial performance plays a vital role in the maximization of shareholders value. More so with continual acceleration of competition among listed firms, the ingenuity of domestic firms continuing is reliant on their capability to reduce costs, operate efficiently and achieve an optimal capital structure. (Eriki and Osagie, 2017). Invariably, the worrisome issues challenging businesses in Nigeria has to do with the combination of debt with equity- mix needed to fund their firms (Imeokparia&Faleye, 2021).

A lot of emperical literature reveals inconclusive findings on the association between capital structure and performance of firms. (Chechet&Olayiwola, 2014; Nyor&Yunusa, 2016; Maduka, Eze and Gbabofo, 2017; Umobun&Ayebaneng, 2019; Uremadu& Onyekachi, 2019; Ahmed and Bhuyan, 2020; Olaniyi et al., 2022; Shaqqour&Harb, 2022; Olusola et al., 2022; Habibniya et al., 2022). Furthermore, the inability of listed manufacturing firms in Nigeria to enlarge the firm value, minimize the overall cost of capital; maintain optimal capital structure that leads to the lowest minimal weighted average cost have given rise to the problems of this study.

Cost of capital involves those costs that need to be reduced drastically to facilitate efficient business activities (Ross, 2003). The domain of the study is the manufacturing sector in Nigeria since it is the driver for growth in any virile economy. It comprises interest paid on loans and debts and tax paid on dividends. Scholars do believe that the higher long term liabilities, the higher interest but the cheaper the tax paid. Also, the higher the value of equity capital on organization has, the higher the cost of taxation paid. This is why firms go for long term debt rather than equity capital (Adesina, Nwidiobie& Adesina, 2015). Decisions that involves the most optimal choice of financing sources remains the most difficult financial decision. Hence, the major problem of this study lies on the fact that the highly unsettled Nigerian economy coupled with the matters raised above have caused economic

exertion on the financial ability of firms to perform efficiently; succinctly leading to the problem of capital mix among listed firms. For this purpose therefore, the broad objective of the study seeks to assess the moderating effect of capital structure substitution (CSS) on debt-equity mix and financial performance of listed manufacturing firms in Nigeria. To this end, the following hypothesis is formulated in null form:

Ho: capital structure substitution has no significant moderating effect on debt-equity mix and financial performance of listed manufacturing firms in Nigeria.

The study therefore is important since the aim of the study is to bridge the gap using capital structure substitution (CSS) as a moderating variable. The study apart from introduction constitutes literature review, methodology and other sections like; discussion of findings, conclusion and recommendations.

II. LITERATURE REVIEW

A. Conceptual Issues

Capital structure is one of the crucial areas of decision making in corporate finance or strategic financial management that can affect the major operations of a firm. Capital structure is the way an organization generates its assets through mix of equity, debt and other securities. Capital structure explains the ratio of long term liabilities to equity. It involves the proportion of funds in terms of long term debts and equity employed in controlling the activities and management of a firm (Maduka, 2017). This helps to prevent an organization from mismanagement of excess free cash flow. Nevertheless experts believe that there is a need for a trade-off in order to obtain optimal capital structure. Scholars do believe that while firms have an excess of cash, they should invest or return it to shareholders (ACCAFq, 2016).

Capital structure however has been described as relative to financial structure by certain authors including short term debt to equity or asset as a component of capital structure (Nirajini& Priya, 2013 and Akinyomi, 2013). They defined capital structure as a technique applied where a firm is financed by a composite variety of debt equity and other securities and tool to identify how companies choose their capital structure. Capital structure serves as one critical factor in promoting and enhancing financial performance and growth in manufacturing firms. However, the sustainability of every firm relies heavily on the ability and success of its corporate finance function. However, for the purpose of this current study; the term capital structure agrees with the mix of long term capital and equity with the understanding that one way to mitigate/reduce cost of capital is to fund a company's capital by maintaining the most favourable mix of leverage debt and shareholders' equity (Maduka, 2017 and Ahmed & Bhuyan, 2020). Capital structure therefore increases value through the present value of tax savings from the use of debt or leverage. So firms should use 100% of debt to maximize their value.

Financial performance deals with the estimation or calculation of how healthy a company can utilize its resources or assets from its fundamental state of operations to create income. Financial performance therefore involves generation of funds and long-term debt and equity. In literature, scholars do employ various measurements of financial performance both accounting based measures and market based measures such as Return on Asset, Net earnings Margin, Return on shareholders Equity, TobinsQ amongst others. The study adopts earnings per shares as a dependent variable and CSS as a moderating variable. Earnings per share is a measure utilized to determine the equity holders portion of a firms profit. IAS33 strictly points out how to compute both basic earnings per share and diluted earnings per share. Earnings per Share is calculated as Net profit after tax to number of ordinary shares issued (Natasha et al., 2017).

B. Empirical Review

Nwankwojike, Nnadi and Iyidiobi (2017) examined the effect of debt policies on profitability of selected medium size entities in Nigeria. The research objective assessed short term debt, long term debt and total debt on profitability indicators in selected medium size entities in Nigeria. The study covered a period of five (5) years (2011 – 2015). The research design employed was ex-postfacto and the researchers utilize SPSS 20 to analyze the study. The sample of the study was Five (5) sampled medium sized listed companies in the alternative securities market for emerging businesses (ASEM) of the Nigeria Stock Exchange. The selected samples were arrived at using judgmental sampling techniques. The study adopted linear regression analysis to determine the effect of profitability indicators like return on asset and net profit margin on independent variables comprising short-term debt, long-term debt and total debt. The findings of the study indicated that there was a negative and insignificant influence between the variables at 5% level of significance.

Egbuonu (2017) also analyzed the effect of long term and short term debt on performance of over-valued firms on Nigerian Stock Exchange. The study employed ex-post facto research design. The dependent variables used were return on asset (RETOA) and return on equity (RTOE) while the explanatory variables were long term debt to total assets (LTDTA) and short term debts to total assets (STDTA). The study employed multiple regression for analysis. The findings of the study showed that financing structure have positive effect on both RETOA and RTOE but not statistically significant on performance of the overvalued companies in Nigeria.

Additionally, Inyiama (2017) in his study also assessed how financial leverage indices affected performance of agricultural firms quoted in Nigeria. The study employed a sample of three agricultural firms in the Nigerian Stock Exchange from 2004 – 2014. The study used a secondary source to gather data. The dependent variable for the study was return on assets while the independent variable was financial leverage proxy by debt ratio (DR), equity ratio (ER) and debt to equity ratio (DER). The study utilized multiple regression analysis and descriptive statistics was

also employed in presentation and analysis of data. Results of findings revealed that debt ratio, equity ratio and debt equity ratio have no significant effect on return on assets of the quoted agricultural firms in Nigeria. This showed that financial leverage had no significant effect on the performance of the sampled quoted agricultural companies.

Furthermore, Ishaku, Abba, Muktar and Abdulkarim (2020) examined capital structure and its effect on dividend policy of conglomerate firms listed in Nigeria. The study used ex-post facto research design and employed secondary data sourced from audited financial statements. The study covered a period of eight (8) years span from 2012 – 2019. The study used robust GLS regression analysis for the data. Results showed that debt to equity ratio did have a negative but significant association with dividend payout ratio, debt to asset ratio did also have a negative and significant effect on dividend payout of listed conglomerate firms in Nigeria, firm size and age revealed a positive and insignificant relationship with dividend payout ratio. Also, Major (2018) analyzed relationship between financial structure and financial performance of Consumer goods firms listed in Nigeria. The study covered the period of fifteen (15) years span from 2001 to 2016. The study population used was twenty-one (21) companies listed in the stock market. The study used pecking order theory as an underpinning theory. The study employed ex-post facto research design and also adopted panel ordinary least square (OLS) regression technique to test the data. The findings of the study revealed a significant relationship between financial structure and return on assets (ROA), return on equity (ROE) and earnings per shares (EPS) of the firm.

In addition, Arikekpar (2020) conducted a research study on capital structure and firm performance based on empirical analysis of listed manufacturing firms in Nigeria. The population and sample of the study consists of five (5) manufacturing firms listed on the Nigerian Stock Exchange. The study covered a period of five years from 2014 – 2018. The study adopted fixed effect regression model to test the significant impact of capital structure on firm's performance. The proxies of the dependent variable were return on assets (ROA) return on equity (ROE) and earnings per share (EPS) representing firm performance; while the indicators for the independent variable were equity ratio and debt ratio representing capital structure. The findings of the study showed that capital structure indicated positive significant effect on financial performance of selected companies in Nigeria. The period of the study here which was five (5) years cannot explain the long-term effect among the dependent and independent variables.

Umobong and Ayebanengiyefa (2019) evaluated the composition of capital structure on financial performance of food and beverage firms using secondary data sources. The study employed leverage composition, short term debt to total asset, long term debt to total asset. Furthermore, debt equity ratios were regressed against market performance proxies. The dependent variables and proxies of market performance include earnings yield, price/earnings ratio and Tobin Q. The study adopted the use of Hausman test for selection of the fitted model. The study findings revealed a

significant positive association between debt equity ratio and earnings yield, the study found a significant positive relationship between short term debt to total asset ratio and Tobin's Q. In addition, long term debt to total asset was found significantly positively related with Tobin's Q and earnings yield. The study also showed a significantly negative relationship between short term and price earnings ratio; as well between short term debt equity ratio and price earnings ratio. The study observed that a movement in capital structure composition from financial structure short term debt to total assets to long term debt to total asset did affect Tobin's Q positively on the other hand a shift from long term debt to total asset to short term debt to total assets helped to equally maintain a positive effect on Tobin's Q. However, a shift from total debt to total asset to long term debt to total asset revealed a significant positive effect on Tobin's Q and a positive insignificant effect on earnings yield. The study observed and found it would be more rewarding for firms to improve their earnings yield by shifting to more of long term debt in its capital structure since it showed higher influence on Tobin's Q.

Again, Chechet and Olaiyiwola (2014) from the standpoint of agency cost examined capital structure on profitability of quoted firms in Nigeria. The population of the study was two hundred and forty five firms listed on the Nigerian Stock Exchange (NSE). The sample of the study used was seventy (70). The study covered a period of ten years (2000 – 2009). The study employed panel data for analysis using fixed-effects, random-effects, Hausman and chi-square estimations. The study utilized as proxies for the independent variable, capital structure. The proxies were debt ratio and EQY and profitability (PROF) was used as the only dependent variable. The findings of the study revealed that DR was negatively and significantly related with PROF while EQY was directly significantly related to profitability.

In another study, Habibniya et al (2022) also examined capital structure and its impact on profitability using panel data evidence from United States telecom industry. The study covered a period of nine years (2012 – 2020) in the USA. The study adopted secondary data source of data collection. The study also employed un-balanced cross-sectional data consisting of 421 firm year observations for 72 firms. Additionally, other statistical tools employed were pooled panel, regression, univariate regression, correlation and descriptive statistics for analysis. The study tested the impact of capital structure (total liabilities to total assets (TLTAs) and total equity to total assets (TETAs) on return on assets (ROA); the proxy for profitability. The study found that the ratio of TLTAs had a significant consequence on return on assets while, TETAs had a significant but negative impact on ROA. Also both TLTAs and TETAs had no impact on return on equity. The study further observed an abnormally high total debt to total assets ratio in telecom firms in United States of America (USA). This research findings may not be applicable to Nigeria as a developing nation.

Olaniyi et al (2022) carried out study and examined capital structure and firm performance of listed manufacturing firms in Nigerian Stock Exchange. The study assessed the link between total debt and financial performance of listed manufacturing firms in Nigeria and between equity and financial performance of listed firms. The study applied ex-post facto research design to examine variable relationships. The study covered a period of sixteen years (2005 – 2020). The study employed both descriptive and inferential statistics, like Pearson correlation and panel regression was employed for data analysis. The findings of the study showed that return on equity, equity capital had a maximum effect on the performance of firms in Nigeria. In addition, the study revealed that long term debt had a positive significant effect on financial performance of manufacturing firms in Nigeria. The study found that total debt to equity had no effect on stock market performance and short term debt positively and insignificantly affects performance. The study failed to mention the best way to achieve optimal capital structure in order to ensure improved performance which is the basis of the current study.

C. Theoretical Review

Various theories developed by various scholars and authors typically explain capital structure. Consequently, the goal of the theories that underpin this study is to evaluate how capital structure affects financial performance. They include the traditional theory, Modigliani and Miller theory (M & M), trade off theory, pecking order theory, agency cost theory and capital structure substitution theory. However, this study builds on the agency theory by (Berle & Means; 1932) Jensen and Meckling (1976) and capital structure substitution theory by (Bennett Donnelly, 1993). (Rjwmsi, 2014). Thus, agency theory and capital structure substitution theory are the theories that explain this study.

The agency cost theory: - this theory was postulated by Beale in 1932. He asserted that as the difference between ownership and control of large firms rises, it leads to a reduction on investment in firms. The agency cost theory argues that there are myriads of conflict between the interest of equity holders and executive managers of firms. The managers are the executives who are agents that manage these firms for the owners (the shareholders). Generally; there are divergent or conflicting interests between both. While the owners are interested on the returns from their investment, managers concentrates on good reward, increased pay or remuneration, increased allowances, superannuation schemes amongst others. The interaction between conflict stakeholders known as the principal and the executives known as agent or managers serves as the foundation for the agency theory.

In order to keep an eye therefore on these executives, it is assured that rising debt levels use to motive them to make profitable investment in order to pay off their debts. Jensen and Meckling (1976) mention the importance of agency cost of equity in the financing of a firm. They mentioned that it extends from the separation between ownership and control of firms in which managers prioritize their personal interests over the overall objectives of their

organization. Hence, trade-off theory is an off-setting situation, since the benefit cancels out the cost of debt (Addae, Nyarko Baasi, & Hughes (2013) and Kavila, 2015).

Capital structure substitution theory: CSS explains how public businesses profitability, stock price, and capital structure are related to one another Rjwmsi (2014). It is known as the “balancing” theory of capital structure. This is in agreement with the study conducted by Bennett and Donnelly (1993). Their study found that asset structure, and firm size, do affect capital structure in the manner suggested by the balancing theory of capital structure. The tradeoff theory of capital structure explains how much debt finance and equity finance a company chooses by weighing their advantages and disadvantages in relation to cost and benefit. Since the trade-off and pecking order has been criticized by scholars for their weaknesses, the equilibrium condition is the main description of the balancing theory. The substitutions effect is expressed mathematically as $OD/ON = c(it)$.

Where $D =$ Corporate debt $n =$ no' of shares $x =$ time at the represents small debt. Which leads to a larger debt (D) the negative sign indicates reduction of number of shares. Rjwmsi (2014) in capital structure substitution believes that pricing as it has to do with equilibrium mix between debt and equity is not an outcome of balancing that occurs as a result of shareholders demand and supply processes, rather earnings per share (EPS) changes when one share with price (P) is repurchased and one bond with face value P is issued. According to the author, the capital substitution theory has the potential to close the gap established by other theories. Invariably, CSS emphasizes maximization of earnings per share.

III. METHODOLOGY

The research design adopted for the study was ex-post facto research design. This is because the data was obtained from the published annual reports. They used to be historical and as such the research has no influence to manipulate the data. The population of the study was 157 listed firms on the Nigerian Exchange Group, comprising; industrial firms, consumer firms, and oil and gas firms. The sample size of the study was 20 listed firms, using purposive sampling. The period of study was 15 years (2007 – 2021). The statistical tools used was panel least square regression analysis, run on E-view 12.1 version. Thus, the researcher employed the model used by Baron and Kenny (1986), Onalapo and Kajola (2010) and Luper and Kwanum (2012) with little modifications to suit the analysis of the study. The analysis was carried out within a panel data estimation method. Panel data estimation helps to control individual specific impacts or effects usually unobservable which may be correlated in analyzing the relationship between and effects on dependent and independent variables. In this study, the effect between the dependent on independent variables are determined by multiple regression model. Eview 12.1 was the statistical package used to perform all the analysis. Hence, multiple regression model was used to determine the effect of capital structure substitution on the financial performance of listed manufacturing firms in Nigeria. The multiple regression

model used to empirically test the hypotheses were formulated as follows:

$LTDTA_{it}$ = Long term debt to total assets of firm in year_t

$LTDTE_{it}$ = Long term debt to total equity in year_t

$LTDMV_{it}$ = Long term debt to market value,

CSS_{it} = Capital Structure Substitution

e_{it} = Error term

B_o = Intercept

Model I $EPS_{it} = B_o + b_1LTDTA_{it} + b_2LTDTE_{it} + b_3LTDMV_{it} + b_4CSS_{it} + e_{it}$

Where EPS_{it} = Earnings per share measure of financial performance in year t

B_{1it} B_{4it} are explained on stated above

Model II $CSS_{it} = B_o + LTDTA_{it} + LTDTE_{it} + LTDMV_{it} + EPS_{it} + e_{it}$

Where CSS_{it} = moderating/intervening variable which is capital structure substitution in year t

$LTDTA_{it}$, $LTDTE_{it}$ and $LTDMV_{it}$ are stated above. (Baron and Kennys, 1986). The following table represents variable definition and measurement.

Table 1: Variable, proxies and measurement

Variable	Proxies	Measurement
Capital structure (Independent variables)	i. Long term debt to total assets ii. Long term debt to equity iii. Long term debt to market value iv. Capital structure substitution	$LTDTA$ long term/total assets ¹ Long term debt/shareholders fund ² $LTDTA$ long term debt/market value output ³ CSS summation of long term debt to book value of shares and earnings per share ⁴ 1'2'3 & 4 (Maduka, 2017)
Financial performance (dependent variables)	i. Earnings per share (EPS)	Net income divided by total number of ordinary shares (Arokekpar, 2020)

Source: Compiled by the researcher, (2022)

Indicators of financial performance used in this study were return on equity (ROE) and earnings per share (EPS). The predictors were long term debt to total asset, long term

debt to market value and capital structure substitution (CSS) as a moderating variable.

IV. REGRESSION RESULTS AND DISCUSSION

This section presents the descriptive statistics, and summary of the regression results of three models used in the study.

Table 1: Descriptive Statistics

Variables	Min	Max	Mean	Std. Dev.	Skewness	Kurtosis	Obs
EpS_{it}	-15.24	16.357	2.4135	3.8229	0.38954	7.8954	300
$LTDTE_{it}$	0	35.44	1.124	3.887	6.3527	51.405	300
$LTDTA_{it}$	0	88.86	3.5483	15.1845	4.7180	25.252	300
$LTDMV_{it}$	0	80.58	6.1386	13.3213	3.7252	17.864	300
CSS_{it}	-15.24	88.3	10.267	15.854	2.6530	10.8513	300

The table I above shows the minimum and maximum values of earnings per share (EPS) as -15.24 and 16.357. This implies that firms with higher EPS perform higher with leverage than those with lower EPS. The table reveals that the average EPS has a remarkable growth of 2.41%.

Average earnings per share in listed firms during the period of study is 2.4135 with standard deviation of 3.8229. For $LTDTE$, $LTDTA$ and $LTDMV$; $LTDTE$ shows there is no wide dispersion while $LTDTA$ and $LTDMV$ indicate a wide dispersion from the mean.

Table 2: Jarque Bera Normality Test with CSS

Variables	Coefficient	Std error	Zstat	Prob
Constant	0.1068	0.01283	8.3232	0.0000
$LTDTA$	0.00103	0.000733	1.40273	0.1607
$LTDTE$	-0.005760	0.002892	-1.9918	0.0464
$LTDMV$	-0.001038	0.000825	-1.258571	0.2082
CSS	0.002208	0.000744	2.968660	0.0020

Table 2 indicates therefore that data normality test performed against the null hypothesis shows that the data

are normally distributed. The sample test statistics is always a positive number and explains a normal distribution.

Table 3: Result of ADF unit root test for stationarity

Method	ADF 1 statistic	P-value	Lag	Order of integration	Remarks
Level Liu	-16.8422	0.000	1	1(1)	Stationary
Brentang T Stat	1.73776	0.9589	1	1(1)	Stationary
Im, Pesaran and Shun E. Stat	-2.62642	0.0043	1	1(1)	Stationary
ADF fisher	88.8838	0.0000	1	1(1)	Stationary
Chi square	186.173	0.0000	1	1(1)	Stationary

The result reported in table 3 above shows clearly the differencing of the variables, all the variables were confirmed to be stationary. Since all the variables are stationary 5% value, we can conclude that all the data are stationary.

A. Co-integration test

The co-integration approach has widely been used to establish long run relationship among certain variables. Johanson co-integration test is used in this study to estimate the long relationship between the variables.

Model 1: Table 4 result of Co-integration

Variables	Trace statistics	p-value	Max statistics
LTDTA	217.50	0.0000	195.20
LTDTE	222.00	0.0000	185.60
LTD MV	149.70	0.0000	139.40
CSS	167.20	0.0000	140.20

B. Dependent variable: EPS

Model 2: Table 5 Result of Co-integration Test

Variables	Trace statistics	p-value	Max statistics
LTDTA	269.2	0.0000	244.6
LTDTE	279.10	0.0000	272.8
LTD MV	164.10	0.0000	153.5
CSS	167.20	0.0000	140.2

C. Dependent variable: CSS

The result from the tables above for trace and maximum Eigen value tests respectively indicate the existence of long run equilibrium, relationship between the dependent and independent variables. These results interpreted mean that

the multiple regression models are not spurious and the conclusions on them are valid based on the present financial and economic circumstances. The long-run estimate are positively and highly statistically significant.

Table 6: Auto-Regression results

Variables	Regression results
	f-Stat 12.73
CSS	Re squared 0.489073
EPS	R squared 0.38088

The result of auto vector regression shows that EPS has a significant relationship at R² of 38.09% and adjusted R² of 33.43%. This shows that it has more than 30% relationship between EPS and other explanatory variables.

The result reported in auto regression showed that the R² is 48.908% and adjusted R² is 45.066%. This clearly explained that the relationship among the intervening variables and other independent variables are strong at 45%.

Table 7: Panel Regression Result

Variables	Coefficient	Robust Std. error	T – Stat	P – value
LTDTE	-214655	0.061978	-3.463431	0.0007
LTDTA	0.002775	0.019432	0.142817	0.8866
LTD MV	-0.09696	0.020301	-0.477593	0.6336
CSS	-0.07240	0.017608	4.131104	0.0001
CONS	1.948217	0.0264028	7.378835	0.0000

D. Dependent variable: EPS

Regression Statistics	
R ² -	0.582
Adjusted R ² -	0.526
F – Stat	10.46
P – Value of F Stat	0.00000
Durbin Watson	1.750549

Table 8: Panel Least Squares for model III. Fixed Effects

Variable	Coefficient	P-Value
C	2.679449	0.0404
LTDTA	0.070454	0.3985
LTDTE	1.524387	0.0000
LTDMV	0.405803	0.0000
EPS	1.340156	0.0001

E. Dependent variable: CSS

Regression Statistics	
R ²	0.6528
Adjusted R ²	0.5933
F – Stat	9.299
Durbin Watson	1.338

The R2 square statistics of 65% shows that the independent variables accounts for about 65% variation on capital structure substitution variable represented by CSS. The value of the constant 2.679449 shows clearly that the value of CSS if all explanatory variables are 0. The study also shows that capital structure substitution affects earnings per share.

V. SUMMARY OF FINDINGS

The tables above shows the regression results used to verify the effect of capital structure substitution on financial performance and the linkage between LTDTA, LTDTE, LTDMV, CSS and dependent variables EPS. The error correction coefficient estimated at -0.214655 (0.0000) LTDTE: -0.02775 (0.0000) was highly significant for LTDMV and for EPS 1.948 (0.0000) was highly significant and implied a high adjustment to equilibrium through capital structure substitution (CSS). There was no evidence of serial – correlation and the model was well specified. Also diagnostics tests for heteroscedasticity and normality of the residuals did not find any significant evidence of departures. Model II showed a % better regression relationship of 65%.

Consequently, the alternate hypothesis is accepted using long term debt to total equity, long term debt to market value and capital structure substitution with EPS. This shows that there is a significant relationship between capital structure variables and financial performance. The analysis of the variable also reveals that capital structure substitution has significant moderating intervening effect on financial performance. The findings of this work are consistent with the Sang and Heng (2011), Arikerpar, 2020 and Olaniyi et al., 2022 who found an association or relationship between ROE and LTD. Also Sang and Heng found a positive relationship between ROC and DEMV and EPS and LDC.

VI. CONCLUSION

The study has indicated that CSS enhances firms financial performance and this has supported existing literature. The study concludes that EPS is positively related with capital structure variable but on selected proxies. This is consistent with the findings of (Hossain and Ngoyan, 2016).

The inclusion of capital structure substitution as moderating variable has enhanced the interpretation between capital structure and financial performance which was positively and negatively related financial performance and explanatory variable significant especially between LTDTE and CSS with EPS. Hence, the adoption of capital structure substitution is a good step toward ensuring optimal capital structure to the level where earnings per share is maximized.

VII. RECOMMENDATIONS

Based on the findings of this study, the following recommendations are proffered:

- Long term debt finance is mostly used by manufacturing firms, thus policies that would encourage this sector especially growing manufacturing firms to accumulate large tangible asset, ensure growth and enhance financial performance should be adopted. This could be done through effective tax rebates, exemptions and so on; that will encourage listed manufacturing firms to go for long term debts.
- Listed manufacturing firms must consider an optimal capital structure. This includes 100% LTDTA and LTDTE. This is the best debt/equity ratio for the firm that will minimize the cost of financing the company's operations. It will also enhance financial performance and re-organizations chances of bankruptcy and liquidation.

- Industries should be encouraged to repurchases shares and issue debts to the level where they will be maximized. This will not only create optimality but ensure improved financial performance.
- Since the best optimal structure is achieved when earnings per share is maximized, firm should incorporate the use of Capital Structure Substitution (CSS) in their business decision making. This will improve money transmission mechanism, stock market valuation, dividend and so on.
- Finally, the Nigerian exchange group should make available models that could incorporate others for money transaction and dividend valuation. This could be done by liaising with the central bank by making sure that debt book values and current market values of debt for each firm available for share repurchases and bond buy back as in developed nations.

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