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## Article

# Thin capitalisation, effective tax rate and performance of multinational companies in Nigeria

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Original Research Article

## **Thin Capitalisation, Effective Tax Rate and Performance of Multinational Companies in Nigeria**

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### **Abstract**

*How a company is capitalised determines the size of the earnings it reports for tax purposes. Multinational Companies (MNCs) usually can structure their financing arrangements to take advantage of tax laws to enjoy tax benefits. However, some MNCs are folding up their operations while others are relocating to other countries. To this end, this study investigated the thin capitalisation and performance of MNCs in Nigeria. The study adopted the ex post facto research design and obtained relevant data from financial statements of sampled MNCs for the period 2014 to 2018. The study deployed descriptive, correlation and regression analyses as data analytical techniques. The findings indicated that thin capitalisation, interest expenses rate, effective tax rate, and capital intensity have a positive but insignificant association with MNCs financial performance. The study further revealed that managerial efficiency has a negative but insignificant association with financial performance. The study concludes that thin capitalisation practices enhance the financial performance of multinational companies in Nigeria and recommends that tax authorities initiate tax reforms aimed at reducing the statutory corporate tax rate.*

**Keywords:** Thin Capitalisation, Multinational Companies, International Taxation, Effective Tax Rate, Corporate Performance.

**JEL Classification Code:** F38, F44, H25, H25, L25

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## 1. Introduction

The principal objective of financial management is to seek the continuous growth of a company so that its shareholders' wealth is maximised. The financial performance, which is part of corporate wealth maximisation goals, can be affected by taxation as it represents a cost to the company. Given this, financial managers have been concerned about finding a means to mitigate tax burdens. Since taxes paid or payable by companies impact the company's cost structure, profitability, and liquidity, managers employ all legitimate opportunities available in tax laws to increase after-tax profits and improve their liquidity position.

A company's capital structure typically consists of a mixture of debt and equity. How a corporation is capitalised will largely determine the size of earnings it reports for tax purposes. Tax laws usually permit a deduction for interest paid on debt capital before taxable income; hence the higher the level of debt in a company, and thus the amount of interest it pays, the lower will be its taxable profit. For this reason, thin capitalisation is often considered a more tax-efficient method of finance.

Thin capitalisation refers to the condition where a firm is financed through a comparatively higher amount of debt in relation to equity. Thinly capitalised companies are also described as highly leveraged or highly geared firms.

Multinational Companies (MNCs) usually can structure their financing arrangements to take advantage of inter and intracompany transfers, transfer pricing, movement of intellectual property rights, and exchange of loans between related companies. Apart from establishing a tax-efficient blend of debt and equity in borrowing countries, MNCs can also influence the tax treatment of the lender that receives the interest. For instance, arrangements may be put in place to allow the interest to be received in a country that either does not tax the interest income or which taxes such income at a lower rate (Akabom & Ejebu, 2018; Merlo & Wamser, 2014; OECD, 2014; Nwaobia & Jayeoba, 2016).

MNCs' additional incentives to use debt instead of equity financing are concerned with the deployment of internal (related-party) debt as a profit-shifting instrument by injecting equity financing into a foreign associate in a low tax jurisdiction. This affiliate then offers loans to associated entities within the MNC in countries having higher tax rates. The implication is low tax revenue for these countries and higher tax savings for the MNCs due to the deductibility of interest expenses (Fagbeme, Olaniyi & Ogudipe, 2019).

Tax planning efforts by corporations (including MNCs) have brought about revenue losses to developing countries like Nigeria. In 2018, the Federal Inland Revenue Service reported that companies' income tax contributed only 24 per cent of

the overall tax revenue generated for the year (Fowler, 2018). Oladipo and Ogochukwu (2018) further assert that a low tax-to-GDP ratio is a common phenomenon in Nigeria, with a tax-to-GDP ratio constantly hovering around 6 per cent. Apart from being a veritable source of revenue to the government, corporate taxation also serves as an instrument of fiscal policies. However, as much as the government desires to exploit corporate tax as a source of revenue to the government, there are also other important aspects, such as the consequence of corporate taxation on the attractiveness of foreign investments. Even though taxes are used to implement macroeconomic policies, it is also vital in corporate strategic decision making by financial managers. According to Akabom and Ejebu (2018), despite the absence of thin capitalisation, which enables companies in Nigeria to benefit from excessive use of debt as tax avoidance techniques, MNCs are folding up their operations while some are relocating to other countries. MNCs operations in a developing country like Nigeria benefit the economy in so many ways. They create employment, provide the expertise needed in the production and distribution of goods and services, and fetch foreign exchange earnings through foreign direct investments.

Against this backdrop, this study seeks to investigate the effects of thin capitalisation on the performance of MNCs in Nigeria. This paper adds to the extant literature on corporate taxation and the international tax system. Firstly, this paper contributes to this field of investigation by the sample adopted. To the best of our knowledge, the literature related to the study of corporation tax which uses listed MNCs on the Nigeria Stock Exchange, is scarce. The majority of the studies about tax planning and tax

avoidance schemes are primarily based on local (national) firms. Secondly, by considering a more recent period than other studies and including four key variables such as leverage (thin capitalisation), effective tax rate, actual interest rate, and capital intensity in one study, observe how these variables can affect the financial performance of MNCs. These determinants are also a consequence of managers' decisions hence our third contribution results from the introduction of managerial efficiency as a control variable in explaining the financial performance of MNCs.

The remaining parts of the paper are organised as follows: section two provides the review of related literature and hypothesis development. Section three details the empirical method adopted for the study and includes the design and data, theoretical framework and model specification, and measurement of the variables. Section four presents the data analysis and discussion of findings, while the last section concludes the study.

## **2. Literature Review and Hypotheses Development**

### **Thin Capitalisation**

Thin capitalisation is defined as a circumstance where an organisation has more debt than equity in its capital structure. A company is operating with thin capitalisation if the size of the paid-up capital is considered small or low compared with its debt capital or the size of its operation (Ibiloye, 2013). The rationale for thin capitalisation is reducing taxable earnings through the deductibility of interest on a loan. This can further be achieved in circumstances in which an MNC finances its associates by lending instead of share capital.

Countries and tax jurisdictions enforce anti-thin capitalisation rules that determine the maximum amount of debt or limit the amount of debt interest deductible. Two methods could be applied to achieve the first approach. These are the ratio method – a pre-determined ratio of debt to equity or the arm's length method – where the transaction would be deemed as obtainable if it were an independent party. The second approach, which involves limiting interest on debt capital, is also known as the earnings stripping approach. This is enforced through a proportion of interest paid to operate income as applicable in countries like Germany and Italy (OECD, 2012; Gbonjubola, 2013; Sheih, Ou & Wang, 2014).

### **International Tax Laws**

International tax laws are rules and procedures that apply to taxing income-earning activities in two or more countries. International tax laws are observed in international tax agreements and Inland Revenue laws that consider the control as regards the taxation on foreign income of residents, a domestic income of non-residents and cross-border transactions.

Asen (2019) argues that there is no such thing as international tax law since there is no international tax court or administrative body with the sole responsibility of managing global tax issues. Arnold and McIntyre (2002) opine that international tax is a component of different countries' legal provisions that deal with various aspects of cross-border transactions. Arnold and McIntyre further assert that only the local tax laws of a sovereign state are enforceable within a country and emphasised that taxes are not international.

In a bid to promote trade and economic co-integration, international originations such as Organization for Economic Co-operation and Development (OECD), United Nations(UN), Economic Community for West African States (ECOWAS), and the European Union (EU) have advocated for the removal of barriers to international trade as a result of tax issues among member nations. One of the primary objectives of this initiative is to ensure that MNCs operating in developing countries fulfil their tax obligations within the legal tax requirement and reduce the tendency of profit-shifting ((Asen, 2019; OECD, 2014; PriceWaterhouseCoopers, 2017).

### **Corporate Performance**

Corporate performance is defined as a composite evaluation of how efficient a firm accomplishes its utmost objectives, usually financial, market and shareholder performance. Performance can be evaluated using some financial and nonfinancial indicators to show to what extent an organisation has been able to achieve set objectives taking into consideration the resources deployed for that purpose (Enekwe, Agu & Eziedo, 2014). Several measures such as net after-tax income, returns on equity (ROE), return on assets (ROA) can be used to measure financial performance. Corporate performance could also be measured in terms of annual turnover, a percentage share in the industry, the share of the domestic market, the price of shares, and positive employee performance (Fagbeme, Olaniyi & Ogudipe, 2019; Ongore & Kusa, 2013; Okafor, Ikechukwu & Adebimpe, 2010).

Prior studies have commonly adopted return on equity (ROE) for measuring financial performance (Enekwe, Agu & Eziedo, 2014; Ongore & Kusa, 2013; Okafor,

Ikechukwu & Adebimpe, 2010; EY Global Financial Services Institute, 2015). Consequently, this study adopted ROE as a proxy for corporate financial performance.

### **Multinational Companies**

A multinational corporation (MNC), also referred to as a multinational enterprise or a transnational corporation, carries out the production of goods or services in at least one country other than its home country. According to Brian (2013), a company can be described as an MNC if it obtains 25 per cent or more of its income outside of its home country.

The wave of globalisation has spurred MNCs to operate across different countries of the world freely. Spero and Hart (1999) explain that MNCs consist of a parent firm and a collection of subsidiaries located in various nations with a shared pool of managerial, financial, and technical resources. They posit that the parent company manages the group through a coordinated global strategy. To achieve the group's long term objective, the parent company coordinates procurement, production, marketing, distribution, finance, and research, activities. Aside the large size of MNCs, they are also reputed to have an advantage in terms of economy of scale by spreading R&D and advertising costs on their global turnover. They also utilise global procurement advantage over suppliers, while maximising their technological and managerial expertise globally with optimum costs (Azikiwe, 2015; Brian, 2013).

### **Thin Capitalisation and MNC Performance**

The level of debt in the capital mix of a company is a crucial managerial decision

since it affects the shareholders' return and risk. On the one hand, debt or loan as a finance source is considered cheaper than equity because the debt option improves dividend payable to shareholders. Apart from the dilution of earnings, there is also the question of ownership and control associated with the issue of shares (Aziz & Abbas, 2019; Gomis & Khatiwada, 2016; Iqbal & Usman, 2018). On the other hand, there is a problem of an increased cost of capital, reduction in firm value, and bankruptcy cost due to financial distress associated with high financial leverage. The general assumption on the link between financial leverage and financial distress or failure is that highly geared firms have a higher degree of risks because of the potential of default in effecting payment of interest expense leading to bankruptcy or liquidation.

There are divergent results on leverage and financial performance. While Aziz and Abbas (2019), in a study of Pakistani companies, revealed significant and a positive effect on performance, Nwude, Itiri, Agbadua and Udeh (2016) reported a non-significant positive effect of high leverage on ROA and ROE. Akabom and Ejabu (2018) reported that thin capitalisation as an income stripping technique affects financial performance but not significantly. Studies such as (Iqbal & Usman, 2018; Enekwe, Agu & Eziedo, 2014; Fagbeme, Olaniyi & Ogudipe, 2019) reported that high leverage negatively influences the corporate performance of firms. Based on this, we hypothesise a positive association between thinly capitalised MNCs and corporate performance.

### **Interest Expense Rate and MNC Performance**

Interest expense is the cost of debt capital. The total interest expense paid or payable is a function of the principal sum received from lenders, creditors or debenture holders. Odalo (2016) states that debt capital is fixed interest capital; hence, the interest payable on the loan is of paramount concern to managers. For multinational firms, prevailing interest rates may not apply since there are lending and borrowing arrangements between the parent and subsidiary companies capable of influencing the firm's results for the accounting period. Odalo (2016) and Enekwe, Agu and Eziedo (2014), in separate studies, reported that interest rate and interest cover respectively have a moderate effect on the financial performance of companies. Ngumo (2012) found that interest rate has a positive link with financial performance but added that the cost of mortgage bankruptcy risks makes borrowing unattractive to managers. However, Akabom and Ejabu (2018) argue that interest rates influence the stock market performance and prices of securities that are essentially determined by a corporation's net earnings. For example, a hike in the macroeconomic interest rate compels lenders to increase their rates to compensate for risks. Therefore, from the foregoing, we hypothesised that a negative relationship exists between interest expense rate and corporate performance of MNCs.

### **Effective Tax Rate and MNC Performance**

The company income tax rate is of great concern to corporate managers because it is a major determinant of what country to invest. The company income tax rate of 30% in Nigeria is considered high when compared with the 25.32% average of

OECD countries (Ezugwu & Akubu, 2014). Studies such as (Salaudeen, 2017; Jacob & Spengel, 1999; Nicodeme, 2001) have argued that the applicable tax rate in making investment decisions should be the effective tax rate rather than the statutory tax rate. The effective tax rate for a company is the average rate at which its pre-tax incomes are taxed. Because of this, the Security and Exchange Commission in the US makes it a mandatory requirement for the effective tax rate to be disclosed in annual reports of listed companies.

Wang, Campbell and Johnson (2014) stated that companies with a higher effective tax rate are likely to experience lesser financial performance since the volume of tax paid negatively impacts firms' earnings. Ezugwu and Akubu (2014) in another study revealed that profitability has a direct positive link with corporate tax rate and recommended that, the Nigeria statutory tax rate be reduced below the OECD average to forestall the negative economic effects of high company income tax on the long-run. Sebastian (2012) in a study to determine the rate at which listed companies in Romania effectively pay tax, found declining ETRs during the study period. Amaniampong, Kumi and Kumi (2018) also found that an increase in corporate income tax of 1% leads to a decline in profitability by 118%. Their result is in tandem with Lazăr & Istrate (2018), which indicated that the effective tax rate negatively affects financial performance measured by ROA. Following the above, we, therefore, assume in this study that an effective tax rate does not positively affect corporate performance.

### **Capital Intensity and MNC Performance**

Investment decisions such as acquisition or disposal of non-current assets (fixed assets) along with a firm's financing decisions

constitute factors that can influence tax payable and by extension financial performance. Capital intensity is the amount of non-current assets or Plant Properties and Equipment (PPE) at the company's disposal in production activities. Tax authorities allow a deduction of depreciation, amortisation or capital allowances before charging taxes on earnings. Capital intensive firms take advantage of these allowances by exploring the right investment mode to improve the quality of production and after-tax profit. Richardson and Lanis (2007) posit that corporate managers can use the flexibility in depreciation methods to gain a maximum tax advantage by either accelerating or deferring investment/capital allowance or depreciation/amortisation expenses. Richardson and Lanis further stated that companies could exploit investments in Research and Development (R & R&D), which contribute to lower actual tax rates and improve profit after tax.

Lee (2010) investigated the curve-like effect of capital intensity and a firm's performance and showed that capital intensity has a curve-like impact on the firm's financial performance. The study indicated that if the ratio of capital intensity rises, company performance will fall. Also, Shaheen and Malik (2012) stated that capital intensity's losses might reduce profits at lower levels of capital intensity. After a certain level of capital intensity, the increase of capital intensity will increase the firm's performance. However, Fagbeme, Olaniyi and Ogudipe (2019), in their study, demonstrated that capital intensity and the lease option have no significant impact on the financial performance of MNCs. From the foregoing, we hypothesise that higher capital intensity will have a positive relationship with financial performance.

### **Managerial Efficiency and MNC Performance**

Managerial efficiency is an important variable that can determine the performance of a company. The ability of management to identify business potentials, exploit business and investment opportunities, and exploit tax loopholes has become imperative since all resources of the business – machine, man, material and money - require efficient and effective management to produce the desired results.

According to Ongore and Kusa (2013), managerial efficiency refers to a manager's leadership style, enabling him to achieve corporate goals through the judicious utilisation of scarce resources. It also relates to the relationship between managers and subordinates in business management. Efficiency is often calculated in terms of comparing actual results achieved to the resources deployed. Managerial performance can be measured through management appraisal systems, organisational discipline, staff quality, control mechanisms, etc. However, to capture the ability of management to optimise the use of resources, some financial ratios – asset growth rate, sales growth, operating profit to total income ratio – have also been adopted as proxies for management efficiency. A critical financial ratio that has been used in the literature (Ongore & Kusa, 2013; Noualli, Abaoub & Ochi, 2015) to measure managerial efficiency is the operating cost to total asset ratio. In this regard, the efficient utilisation of corporate resources is expected to lead to cost minimisation and wealth maximization. Managerial quality thus influences the level of operating costs which in turn affects profitability.

Prior studies such as Ongore and Kusa (2013), Noualli, Abaoub and Ochi (2015), and Fagbeme, Olaniyi and Ogudipe (2019) have shown evidence that managerial efficiency positively influences the profitability of the firm. Given this scenario, this study hypothesises that managerial efficiency has a positive relationship with the financial performance of MNCs:

### **3. Methodology**

#### **Design and Data**

The study adopts an *ex-post facto* research design as archival data were used. The population of the study comprises of all multinational companies listed on the Nigeria Stock Exchange. However, 10 nonfinancial MNCs consisting of Unilever, UAC, Cadbury, Guinness, Dangote, Nestle, Seven-Up, PZ, Glaxo SmithKline and Julius Berger were selected for the period 2014 to 2018 making a total of 50 year-end observations. Data collected were subjected to analysis through descriptive statistics, correlation and linear regression analysis. The objectives of adopting these measures were to examine how the mean outcomes deviate from each other and establish the existence or otherwise of relationships between variables.

#### **Theoretical Framework and Model Specification**

The study is anchored on Tax Planning and Stakeholders' Theories. Firstly, the Tax Planning Theory is considered suitable for the study because it explores the derivable benefits resulting from a company's tax planning activities. The theory as propounded by Hoffman (1961) argues that managers pursue liquidity and profitability maximisation by taking advantage of tax laws to reduce taxable income. The theory is

based on the assumption that corporate tax liability is a function of taxable income as against accounting income. Therefore, managers with profound knowledge of a country's tax laws benefit from tax savings by exploiting loopholes in tax laws. Studies such as Kawor and Kportorgbi (2014) and Ogundajo and Onakoya (2016), using the tax planning theory, highlighted that tax planning activity positively affect corporate financial performance.

Secondly, the stakeholder theory applies to this study for the fact that it explores the nexus of a contract between management and shareholders on one hand and management, shareholders, lenders, and government on the other hand. The theory goes beyond the principal (owners) and management (agents) connection to incorporate other interest groups. From the stakeholders' perspective, it is not enough to cater only to the shareholders' interests as other stakeholders such as the government, creditors, and lenders are keeping an eye on the activities of the managers. Going concern and survival of business organisations depends on the success of managers in utilising the business's resources in producing optimum results. It also follows that managers can only survive when managing the business better than someone else (Pandey, 2010). Therefore, the bottom line is that the shareholders' wealth is maximised in the long run when all the firm's stakeholders, including shareholders, managers, creditors, lenders, the government, are satisfied. Shareholders will be satisfied if taxes do not reduce earnings distributable as dividends; the government is pleased when correct taxes are paid while management, lenders, and other stakeholders are satisfied if these taxes do not negatively affect the firm's liquidity and overall financial performance.

Consequently, a model that captures the influence of thin capitalisation, loan interest expense, effective tax rate, capital intensity and managerial efficiency on MNC performance in Nigeria was developed for the study. The basis of selecting these variables is the conflicting findings of their effect as tax planning measures on companies' financial performance of which this study was to confirm or disprove.

The model is expressed as follows:

$$\text{MNCPEF}_{it} = \beta_0 + \beta_1 \text{THNCAP}_{it} + \beta_2 \text{INTEXP}_{it} + \beta_3 \text{EFFTAX}_{it} + \beta_4 \text{CAPINT}_{it} + \beta_5 \text{MANEFF}_{it} + \varepsilon_{it}$$

Where MNCPEF: MNC Performance; THNCAP: Thin Capitalisation; INTEXP: Interest Expense Rate; EFFTAX: Effective Tax Rate; CAPINT: Capital Intensity and MANEFF: Managerial Efficiency.  $\beta_1$ -  $\beta_5$  are Regression Parameters, and  $\varepsilon$  is the error term;  $i$  represent sampled companies while  $t$  is the time dimension.

## Measurement of Variables

### Dependent Variable

The dependent variable for the study is after-tax financial performance. It is proxied by Return on Equity (ROE), measured by profit after tax scaled by total shareholders' equity.

### Independent Variables

The THNCAP variable tests for thin capitalisation and is proxied by financial leverage. It is measured as a ratio of the firm's total long term debt to shareholders' equity.

The study also examines the effective interest expense rate (INTEXP) on loans obtained as it affects financial performance. It is measured as a ratio of interest expenses paid to the total debt of the company.

EFFTAX stands for effective tax rate and measures the actual tax paid relative to pre-tax profits.

CAPINT stands for the capital intensity that measures the level of an MNC's investment in non-current assets. It is calculated as Plant, Properties and Equipment (PPE) scaled by total assets.

### Control Variable

An important variable that can be used as a control is managerial efficiency. This is because corporations with superior management teams are believed to utilise resources hence maximise performance. Thus, MANEFF stands for managerial efficiency in this study and is measured as operating costs scaled by total assets.

## 4. Estimation Results and Discussion of Findings

**Table 1: Descriptive Statistics of the Variables**

	<b>MNCPEF</b>	<b>THNCAP</b>	<b>INTEXP</b>	<b>EFFTAX</b>	<b>CAPINT</b>	<b>MANEFF</b>
Mean	0.238760	0.207820	0.162060	0.232660	0.423840	0.168116
Maximum	1.378000	0.766000	0.455000	0.384000	0.975000	0.793000
Minimum	-0.128000	0.000000	0.000000	0.001000	0.021000	0.032000
Std. Dev.	0.297086	0.182099	0.109629	0.086529	0.206686	0.121997
Observations	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>	<b>50</b>

*Source: Analysis of financial statements*

KEY: MNCPEF – Performance; THNCAP – Leverage; INTEXP – Interest Expense Rate; EFFTAX – Effective Tax Rate; CAPINT – Capital Intensity; MANEFF – Managerial Efficiency.

Table 1 shows the mean, minimum, maximum and standard deviation scores of the variables. Performance (ROE) is observed with a mean of 0.2387 with maximum and minimum values of 1.378 and -0.128, respectively. The standard deviation of 0.2970 indicates ~~that there is~~ considerable dispersion in reported return on equity among the sampled firms. The descriptive statistics also show a mean of 0.2078 for THNCAP, indicating an average of 20.78% of leverage for sampled firms. The maximum value is 76.60%, while the minimum is 0.00. The minimum value implies that there are MNCs with no long term debts for the period under review. The standard deviation of 0.1821 is low from the mean and indicates that there is not much variation in the leverage level of the sampled MNCs.

Further, the statistics also show the average interest expense rate and the effective tax

rate of 0.1620 and 0.2326. The maximum values are 0.4550 and 0.3840, respectively, while the minimum values are 0.00 and 0.001 respectively for interest expense and effective tax rates. The standard deviations for both constructs are also low, indicating no significant difference in actual interest and effective tax rates paid by the MNCs. Capital Intensity has a mean of 0.4238. The maximum and minimum values are 0.9750 and 0.021, respectively, with a standard deviation of 0.2066. The standard deviation shows considerable dispersion in investment in Plant, Property and Equipment among the sampled firms.

Finally, the control variable of managerial efficiency has a mean value of 0.1681. The statistics also indicate maximum and minimum values of 0.7930 and 0.0320, respectively. The standard deviation of 0.1219 further depicts no significant variations in the distribution.

**Table 2: Correlation Analysis**

	<b>MNCPE</b>	<b>THNCAP</b>	<b>INTEXP</b>	<b>EFFTAX</b>	<b>CAPINT</b>	<b>MANEFF</b>
MNCPE	1.000000					
THNCAP	-0.041210	1.000000				
INTEXP	0.014717	0.212009	1.000000			
EFFTAX	0.140412	-0.250530	0.343159	1.000000		
CAPINT	0.023050	0.268252	0.281410	0.157067	1.000000	
MANEFF	-0.187590	0.296843	0.196675	-0.164248	0.128022	1.000000

*Source: Analysis of financial statements*

KEY: MNCPEF – Performance; THNCAP – Leverage; INTEXP – Interest Expense Rate; EFFTAX – Effective Tax Rate; CAPINT – Capital Intensity; MANEFF – Managerial Efficiency.

A correlation matrix is adopted to check the relationship between the dependent and independent variables on one part and

among the independent and control variables.

The statistics shows that MNCPEF has a positive relationship with INTEXP ( $r=0.1471$ ), EFFTAX ( $r=0.1404$ ) and CAPINT ( $r=0.0230$ ) but a negative relationship with THNCAP ( $r=-0.0412$ ) and MANEFF ( $r=-0.1875$ ). The correlation also shows that THNCAP has a positive relationship with INTEXP ( $r=0.2120$ ), CAPINT ( $r=0.2682$ ) and MANEFF ( $r=0.2968$ ). However, THNCAP has a negative association with EFFTAX ( $r=-0.2505$ ).

Further, INTEXP is observed to have a positive relationship with EFFTAX ( $r=0.3431$ ), CAPINT ( $r=0.2814$ ) as well as a with MANEFF ( $r=0.1966$ ). The matrix also shows that EFFTAX has a positive relationship with CAPINT ( $r=0.1570$ ) and a negative relationship with MANEFF ( $r=-0.1642$ ). Finally, CAPINT is observed to have a positive correlation with MANEFF ( $r=0.1280$ ).

The correlation matrix was further used to test the problem of multicollinearity. According to Neter, Wasserman and Kutner (1998) and Weisberg (2005), a simple correlation between variables is not unsafe unless  $r > 0.80$ . Consistent with this, it is observed that none of the variables shows significant high correlations with another.

### Regression Results

The regression results of the panel data estimation are reported in Table 3. The study used three estimators of panel data, pooled OLS, random effects and fixed effects, to assess the dynamics of change with short time series and thereby control for the effect of the unobserved heterogeneity in the dataset. The Hausman test was further conducted to validate the appropriate method in estimating the model, which gave a chi-square statistics value of 3.151,  $p=0.6767$  ( $p>0.05$ ). Thus, the random effect was used in estimating the model.

**Table 3: Linear Least Square Regression Results**

POOLED OLS		PANEL OLS ( RANDOM EFFECTS)		PANEL OLS (FIXED EFFECTS)	
VARIABLE	COEFFICIENT	PROB.	PROB	COEFFICIENT	PROB.
C	0.211293	0.0013	0.367055	0.0694	0.507903
THNCAP	0.085614	0.0208	0.51105	0.8576	-0.076664
INTEXP	0.012866	0.8016	0.34950	0.4216	-0.569987
EFFTAX	0.440275	0.8121	0.293991	0.5806	0.235249
CAPINT	0.051395	0.9428	0.26084	0.2920	0.453888
MANEFF	-0.434585	0.2213	-0.23863	0.5144	-0.138091
		0.0551			
		0.6673			
		0.5621			
		0.1215			
		0.0038			
		0.7189			
R <sup>2</sup>	0.050215		0.064923	0.501380	
ADJ R <sup>2</sup>	0.034062		0.041335	0.301932	
F-Stat	3.108731		0.610994	2.513839	
P(f-stat)	0.009449		0.691905	0.013569	
D.W	1.070104		1.310899		
<b>Hausman test</b>		<b>3.151319</b>	<b>0.6767</b>		

The results of the data analysed are discussed thus:

THNCAP is found to have a positive but insignificant association with performance (ROE) at 5% significant level ( $\beta_1 THNCAP_{it} = 0.5110$ ,  $Prob. = 0.8576$ ). The result met our *priori expectations and is consistent with prior studies* (Nwude, Itiri, Agbadua & Udeh, 2016; Akakom & Ejabu, 2018). However, this result is not in tandem (Iqbal & Usman, 2018; Enekwe, Agu & Eziedo, 2014; Fagbeme, Olaniyi & Ogudipe, 2019). The result implies that the level of debt positively influences the after-tax profit of a firm but is not a major determinant of its financial performance.

Further, the coefficient of the variable INTEXP is observed to be positive but not significant ( $\beta_2 INTEXP_{it} = 0.3495$ ,  $Prob. = 0.4216$ ). This indicates that the loan interest expense does not significantly influence the financial performance of MNCs. The result did not meet our *a priori* expectation though is consistent with previous studies such as (Odalo, 2016; Enekwe, Agu & Eziedo, 2014) that find no significant positive association between interest expense rate and ROA and ROE. This finding implies that debt interest payment may help reduce tax burden but does not significantly impact the level of returns on equity of MNCs.

The regression result on EFFTAX variable shows a positive association but not statistically significant at 5% ( $\beta_3 EFFTAX_{it} = 0.2939$ ,  $Prob. = 0.5806$ ). The result also indicates a  $Prob(0.5806 > 0.05)$  which gives enough evidence to accept the hypothesis of no significant relationship between effective tax rate and financial performance. This position meets our *apriori* expectation and agrees with Amaniampong, Kumi and Kumi (2018).

However, Lazăr & Istrate (2018) found that an effective tax rate ~~has a negative effect on~~ financial performance measured by ROA.

Concerning CAPINT, the result shows a positive but no significant association with financial performance ( $\beta_5 CAPINT_{it} = 0.2608$ ,  $Prob. = 0.2920$ ). This implies that the level of investment in PPE may not be a significant determinant of the financial performance of MNCs in Nigeria. This did not meet our *a priori* expectations. Consistent with previous studies (Lee, 2010; Shaheen & Malik, 2012) we expected a significant positive association based on the fact that depreciation and capital allowances will reduce taxable income.

MANEFFF is observed to have a negative relationship with respect to the control variable but not statistically significant at 5% ( $\beta_6 MANEFFF_{it} = -0.2386$ ,  $Prob. = 0.5144$ ). This, therefore, implies that managerial efficiency has an inverse relationship with level financial performance. This result did not meet our *a priori* expectation, and the position is not supported by prior studies such as Ongore and Kusa (2013), Noualli, Abaoub and Ochi (2015), and Fagbeme, Olaniyi and Ogudipe (2019).

## 5. Conclusion and Recommendations

The study investigated thin capitalisation and performance of MNCs in Nigeria. The study adopted the ex post facto research design and used content analysis of corporate financial statements to obtain relevant data from sampled MNCs from 2014 to 2018. The study further deployed some descriptive, correlation and regression analyses to evaluate how the mean outcomes deviate from each other and establish the level of association between variables. The analysis indicated that thin capitalisation, interest expenses rate,

effective tax rate, and capital intensity positively but insignificant associations with financial performance. The study's findings further revealed that managerial efficiency has a negative but insignificant association with financial performance. The study concludes that thin capitalisation practices enhance the financial performance of multinational companies in Nigeria.

In line with the findings of this study, the following recommendations are proffered:

1. The relevant tax authorities should initiate tax reforms aimed at reducing the statutory tax rate.
2. Multinational companies should exploit the accruing benefits in capital allowances and depreciation by investing in PPEs to enjoy reduced tax expenses.
3. Managers of MNCs should engage in tax planning activities that will reduce the effective tax rate, actual interest expense rate and improve overall financial performance.

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