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Tax Planning Strategies and Liquidity of Manufacturing Companies Quoted in Nigeria

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ABSTRACT: Liquidity appears to be the life blood of every commercial enterprise but are often difficult to actualize due to high costs and high Effective Tax Rates (ETR). In order to manage the effects of taxes on the liquidity of firms, strategies are employed to plan the taxes. This research work focused on effect of Tax Planning Strategies on liquidity of manufacturing firms in Nigeria. *Ex-post facto* research design was adopted for the study. The main objective of the study was to examine the effect of Tax Planning Strategies on liquidity of Manufacturing Companies Quoted in Nigeria. The population of the Study comprised of 52 manufacturing companies quoted on the Nigeria Stock Exchange as at 17th December, 2018 with 46 as the sample size calculated using Taro Yamani's formula. Data were collected from the audited annual reports of the sampled companies for a period of 10 years (2008 – 2017). The validity and reliability were based on the statutory audit 'of the financial statements. Descriptive and inferential statistics were used to analyze the data. The result revealed that there is no significant effect of TP on Current Ratio (CR) of Manufacturing Companies Quoted in Nigeria. This is evidenced by the results of the test, $Adj.R^2 = -0.050824$ and $F\text{-Statistics} = 9.192516$ and $P\text{-value}$ of 0.000006. The Study concluded that tax planning strategies have both negative and positive effects on liquidity of Manufacturing Companies Quoted in Nigeria. The study recommended that Tax Managers and Finance Officers should reduce thin capitalization and Capital Intensity to balance the source of income of manufacturing firms, while Research and Development costs should be properly managed to increase their contributions to liquidity. Professional Tax Practitioners should also be consulted for maximum benefit from tax planning.

Keywords: Capital Intensity, Effective Tax Rate, Liquidity, Tax Planning Strategies, Tax Practitioners, Thin capitalization, and Research and development costs.

I. INTRODUCTION

1.1 Background

In as much as profitability is the main purpose of business enterprises, without liquidity, it will be difficult to continue business operations on daily basis. The study [9] stated that what is to be emphasized as it affects firms is that they can survive for a long time without making profits but will easily collapse in the face of critical cash payment that cannot be deferred and therefore means that direct cash flows are more important than profit or investment returns. Organizations are constantly faced with pressures on their liquidity and corporate taxation tends to add to this pressure. A major problem facing the development of manufacturing industries that is hindering their development is that of the problem of excessive taxation in the form of high tax rate, double and multiple taxation and these may affect negatively the liquidity of manufacturing firms [41]. [20] stated that taxes that are paid by companies impact heavily on the firms' cost structure and liquidity which results in organizations taking reasonable steps to mitigate their tax costs.

Taxpayers do often explore various means of decreasing tax payable reason adduced to tax injustice in the country [26]. The overall effect of all these, is the increase in effective tax rate, sometimes over and above the statutory tax rate and may affect the liquidity of the firm [20]. Taxpayers whether individual or corporate have been exposed to multiple levies or fees of tax of the same title but in various forms and this has increased evasion and avoidance as such payment either consume deep to the profit of the company or affect adversely, the distributable income of the taxpayer [26]. It therefore becomes expedient for firms especially those in the manufacturing sector to embark on tax planning so that the net effect of their tax payments to government would not impact heavily on their liquidity. This can be done by taking full advantage of the manufacturing industry concessions or relieves available [10].

As a cost minimization tool, tax planning is becoming an inevitable tool in the hands of finance managers in corporate organizations and it can be very successful when the right strategies are properly applied.

Tax planning principle proclaimed that corporations have every right to make financial planning to avoid or reduce their tax liability as long as what they do is not forbidden by authorities or law [44]. In taking steps to mitigate their tax costs, the companies employ tax planning strategies to explore opportunities within the ambits of the tax laws to increase their after-tax earnings and improve liquidity position. [8]posited that, Tax planning strategies are mostly lawful, but some might fall into a gray area in legal terms, or even employ illegal tactics of blatant tax evasion such as understatement of taxable income or overstatement of deductions.

Hoffmann (1961) in [22]opined that taxation, mostly are based on business or accounting concepts, and thus a firm can modify such activities towards the attainment of reduction in tax liability thus increase their liquidity.[43]stated that profit can provide power for a business's sustainable development but that financial management is needed to achieve the desired liquidity which encompasses an assessment of the future development capability of companies and an improvement of firms' financial performance and firms' long-term sustainable development capability. High tax rates, unfavorable tax policies, inefficient and effective tax administration system, multiplicity of taxes, non-refund of excess tax paid and non-issuance of tax credit are some of the issues emanating from the taxation system of Nigeria that threaten the liquidity of manufacturing firms in Nigeria coupled with other costs from the operations of the firms. This study is therefore designed to research on how Tax Planning Strategies employed by Manufacturing Companies Quoted in Nigeria can enhance liquidity of the firms.

1.2 Statement of the Research Problem

Corporate tax in Nigeria takes close to one-third of pretax earnings and when other tax levies are included in the tax costs, the total tax obligation is reasonably high making tax obligation of corporate organizations a crucial matter to be looked into [3]. Tax planning, just like any other business management activity, has the aim of contributing to the improvement of the economic and financial performance of firms thereby helping to maximize return to owner's investment [35]. Reduction in tax liability should lead to reduction in the Effective Tax Rate (ETR) of such firms which on its own is an advantage to the firms in increasing their liquidity as well as profitability if properly managed.

Thin capitalization which is otherwise known as high gearing has been said to be tax savings friendly. [31], found that lower ETRs are significantly related to highly leveraged companies and greater investment. While Research and Development investments lead firms to generate innovations that increase firm's profits [6]. Companies benefit in at least two ways from Research and Development, that is, innovations which lead to high quality products and cost effective production processes and tax exemptions. Capital intensity according to [37] is the amount of investment made by business on their fixed assets and a positive relationship exists between capital intensity and firm value. This is as a result of increase in the product quality occasioned by good quality fixed assets. The expenses incurred in the procurement of Fixed Assets are recovered through Capital Allowances and are tax deductible expenses. This strategy when employed especially by manufacturing firms ought to lead to liquidity of any firm.

Following all the above mentioned issues and more, this research work is designed to focus on finding out how Tax Planning Strategies can be utilized to bring about liquidity of firms in the manufacturing sector especially those that are quoted on the Nigerian Stock Exchange between 2008 and 2017.

1.3 Objective of the Study

Establish the impact of Tax Planning Strategies and liquidity of Manufacturing Companies Quoted in Nigeria; and

1.4 Research Hypotheses

H_{01} : There is no significant effect of Tax Planning Strategies on liquidity of Companies Quoted in Nigeria.

II. LITERATURE

2.1 Conceptual Review

2.1.1 Tax Planning

[14]defined TP as any action that must be taken by a business entity to inflate taxable income or reported earnings in a given period before tax loss expires. [29]opined TP as the process of arranging one's affairs in order to defer, reduce or even eliminate the amount of tax payable to the government. Another definition holds that TP include not only strategies aimed at minimization of tax liability, but also considers the cash flow effect on the business in terms of when it is most advantageous for a business to settle tax liability without incurring any penalty [7]. Tax planning principle proclaimed that corporations have every right to make financial planning to avoid or reduce their tax liability as long as what they do is not forbidden by authorities or law and that tax avoidance does not infringe criminal law [42].

[8]posited that, Tax planning strategies are mostly lawful, but some might fall into a gray area in legal terms, or even employ illegal tactics of blatant tax evasion such as understatement of taxable income or overstatement of deductions. Corporate Tax Planning has existed throughout history and will likely continue for

as long as corporations are subject to tax depending upon whether corporations perceive that the benefits of such practices exceed their costs [12]. [20] stated that many sections of the Nigerian Company Income Tax Act (CITA) contains various provisions and incentives that give the tax managers of firms the freedom to reduce the tax liabilities of their firms through the application of relevant incentive provisions for corporate tax payers based on the enabling tax laws such as CITA and other auxiliary provisions. These provisions made by the law could be in the form of tax exemption, tax holidays or tax reliefs.

2.1.2 Thin Capitalization

Thin Capitalization refers to the situation in which a company is financed through a relatively high level of debt compared to equity. Thinly capitalized companies are sometimes referred to as 'highly leveraged' or 'highly geared'. [18] stated that the OECD identifies intragroup financial transactions as one of the main strategies used by MNCs to save taxes. In particular, there is a great deal of evidence that MNCs thinly capitalize foreign entities operating in high-tax countries by excessively using debt financing there. The positive benefit of high leverage is the corporate tax shield as the interest paid on borrowed fund is a tax deductible expense which implies that the greater the debt of a firm, the more interest it pays and the lesser the tax payable [2].

So, thin capitalization is important especially as it relates to tax planning, because it has significant impact on the amount of profit a firm reports for tax purposes. The study [4] opined that the positive benefit of debt financing is corporate tax shield which such companies stand to enjoy because interest paid on debt is a tax deductible expenses which lessens the tax payable. Nigerian tax rule allows the deduction interest paid or payable in arriving at the profit before tax. It then becomes the higher the level of debts that a firm has, the higher the interest to be paid which will lead to lower taxable profit. This in reduces the corporate tax burden of the firm but on the other hand, dividend distribution tax is payable by the firms on their after-tax profits.

"Company's choice for a financing solution is influenced by their policy regarding the cost generated by the typology of the funding source, i.e. own sources and borrowed sources. Whatever the option for the funding source typology is, the company will incur a cost represented by dividends, in case of financing from own sources, or interest, if they chose borrowed ones. In this respect, the management's decision on the typology of the funding source will need to consider the tax issues and the impact on the financial position and financial performance of the company" [28]. Thin capitalization for the purpose of this study, is measured using the solvency ratio which is measured as: (Total Debt/Total Assets). This solvency ratio was employed in measuring the firm's leverage by [40]. Solvency ratio is used to show the relationship between a firm's total debt and total assets. It helps to show the impact of debt on firm's performance [40].

Thin Capitalization Policy

Thin Capitalization policy generally encompasses all the measures put in place with the intention to restrict tax deductibility of debt not minding whether they are of internal or external origin or if the base threshold is on a debt-to-equity ratio or earnings measure that is relative to it [32]. Nigeria current has no thin capitalization rules or policy. However, interest charged between related parties is expected to reflect arm's-length transactions of which related-party interest considered to be excessive is disallowed by the tax authority [25].

2.1.5 Capital Intensity

Capital Intensity is seen as the level of a company's investment in fixed assets and by implication the level of capital assets related incentives a company can enjoy and it has been found to be a good tax planning point and this is because allowances and incentives based on capital intensity can be enjoyed by the firms [23][21]. Firms with high capital intensity or high proportion of tangible fixed assets to total assets tend to reduce their tax burden through an allowable basic depreciation deduction. These allowances tend to have positive impact on liquidity and operating capacity. Capital intensity is the amount of money invested in order to get one Naira output and the more the capital applied to produce that same unit, the more capital intense the firm is said to be. Capital Intensity is measured as non-current assets divided by total assets [33]. It is presented thus:

$$CIY = (NCA/TA)$$

Where:

CIY = Capital Intensity

NCA = Non-Current Assets

TA = Total Asset.

2.1.6 Research and Development Cost

The term Research and Development cost' (R&D) cost is another aspect related to firms' investment decisions which contribute to lower Effective Tax Rates and there are many fiscal incentives through multiple jurisdictions that promote the investment in R&D thus aiding R&D programs to be conditional on tax rates and incentives [11]. Firms in the manufacturing sector are expected to engage in research and development for the improvement of their processes and products. The expenses on Input-related R&D are allowed thereby creating tax incentives that decrease the price of R&D inputs faced by firms, which makes it more attractive to engage in R&D while output-related R&D tax incentives increase the returns from innovative products that are protected by IPR [39].

Companies engaged in Research and Development activities for commercialization in Nigeria, are given 10% Investment Tax Credit (ITC) on their qualifying capital expenditure. ITC is an allowance and incentive given, in addition to capital allowance. The purpose is to encourage asset reconstruction and replacement as well as plant expansion. The credit given is 10% of the cost of the asset, deductible from tax liabilities within a maximum of 10 years (sect.28, Companies Income Tax Act, Cap 60, LFN 2004; [21]. In order to take into consideration the effect of investment tax shield associated to R&D cost, R&D cost is defined as R&D expense divided by total sales [30]. This is given as: $R\&D = (\text{total R\&D expenses} / \text{Total Sales})$. Where there is no R&D expenses value in a year, zero will be taken as the value.

2.1.7 Current Ratio

The study [5] stated that liquidity refers to a firm's ability to fulfill its day to day financial obligations or debt that must immediately be paid with the current assets. It is also the degree to which an asset or security can be quickly purchased or sold on the market without affecting the asset's price [36]. Liquidity is corporation to short-term obligations and it can be measured with the help of various liquidity ratios i.e. current ratio, quick ratio and case ratio. Maintaining adequate liquidity is an important objective just as that of making profits because, increasing profits at the expense of liquidity can bring serious problems to the organization and therefore poses the need for an organization to strategically strike a balance between liquidity and profitability [16].

Studies done by [38] show that companies that have more investments in liquid assets show a better performance since they are able to meet their cash needs more easily thereby reducing their overall exposure to liquidity risks. Tax expense is a significant cost to organizations as it affects their cash flow and working capital. As a result of this, organizations all over the world adopt tax planning strategies that will help to minimize their tax liability without adversely affecting the overall financial liquidity of the firm [20]. Current ratio is used as a proxy for liquidity similar to [15] and it is calculated as current assets divided by current liabilities. It shows a firm's capability to meet its current obligations. That is,

$$CR = CA/CL$$

Where: CR = Current Ratio

CA = Current Assets

CL = Current Liabilities.

2.2 Theoretical Review

2.2.1 Hoffman's Tax Planning Theory

Hoffman's Tax Planning Theory was propounded by Hoffmann in 1961. The theory posits that taxation, mostly are based on business or accounting concepts, thus a firm can modify such activities towards the attainment of reduction in tax liability. Hoffmann identified some ambiguity and loopholes in tax laws due to unclear intentions of the legislators and concluded that successful tax schemes work with the legal concepts and precise wording of the statute and complying with these concepts very precisely as it relates to individual firm tends to be advantageous to firms in form of tax savings [22]. Furthermore, Hoffman while trying to elaborate the theory of tax planning activities, introduced principles and concepts of tax planning that are mostly applicable to tax practitioners.

This theory is the main theory upon which this research work was based. It is a theory for tax planning and is therefore relevant to this research work. Hoffman highlighted four important points of tax planning. They are: Firstly, in the case of properly handled, tax planning is not a simple process. Secondly, much gain will be obtained if the if the process of tax planning is conducted as a formalized procedure. Thirdly, many tax planners do not practice tax planning to the greatest possible advantage and finally, tax planning could benefit many tax payers but few are aware of its advantage [1]. The theory further highlighted that tax planning may not be sustained for a long term if the tax planning activities are not flexible in the sense of a continuity of the strategies which further consolidates its relevance to this study.

2.2.2 Faculty (Ability – To – Pay) Theory

Ability-to-pay theory was propounded by Adam Smith in 1776. This approach is based on the idea that the burden of taxation should be spread in such a way as to give rise to an equality of sacrifice among the tax

paying community. The theory opines that the subject of every state ought to contribute towards the support of the government as nearly as possible in proportion to their respective abilities. This implies that payment of taxes should be on the basis of one's ability to pay and the sacrifice should be even for everybody. In principle, the Ability-To-Pay approach would tend to satisfy vertical equality in that people in different situations should be treated differently and it would require a progressive system of taxation. If the tax system is to provide for both types of equity, items such as gifts and inheritances should logically be included in the tax base.

A taxation theory is often linked to the tax liability and state activities; and tax liability should be apportioned on the basis of comparative ability to pay of the taxpayers; providing that payment is a necessity but it also should be based on the ability of the tax payer [24]. Because equity is concerned with the fair distribution of the tax burden, it is also important to consider the incidence of a tax, since the person on whom the tax is levied, is not always the same as the effective incidence, that is, the person who actually bears the burden of the tax [13]. The Ability-to-pay theory is relevant to this study as tax planning activities are often embarked upon by tax payers when the taxes they pay or the tax rates are high and or when they feel that they do not have the ability to pay the proposed tax. Tax planning also comes to be when the tax payers feel that the sacrifices they are making is more than what other tax payers are making. Once the tax payer is made to pay a tax that is higher than what he can afford, tax planning will be his next alternative in order to ensure the liquidity of the business.

2.3 Empirical Review

2.3.1 Tax Planning and Current Ratio

A study on the impact of corporate tax avoidance on firms' financial performance was carried. And Structural Equation Modeling (SEM) was employed to analyze the data and the result show that there is a significant negative direct relationship between tax avoidance and market value. However, the study also finds significant positive indirect relationships between tax avoidance and market value as it has stimulated firms' growth and increase in liquidity as the additional after-tax cash arising from tax avoidance has helped expand the firm's market value. The results imply that tax avoidance can be a value-adding activity to firms [45]. From their study, it has been revealed that tax planning though having a negative effect on firm value, can indirectly affect it positively by making extra cash available which enhances liquidity.[7] empirically investigated the relationship between tax planning and corporate governance in Nigerian Banks having a study population of the twenty-one (21) recapitalized banks covering a period of 5 years from 2007 to 2011. Regression analysis and Pearson Product Moment Co-efficient of Correlation were employed to analyze the data and findings revealed that tax planning has a positive significant impact on corporate governance in Nigerian Banks and that tax savings (benefits from tax planning) do not significantly outweigh tax planning cost in Nigerian Banks. This study helped to bring to the lime light that tax planning through tax savings increases liquidity of a firm.

[34] in their work examined the impact of corporate governance on tax planning of non-financial companies quoted in Nigeria between 2004 and 2014. 50 out of 151 firms were selected which covered about 10 sectors. The data was analyzed using Generalized Method of Moments. Findings showed that there is a significant positive relationship between Effective Tax Rates and firm value (TobinQ). All the variables such as leverage, Liquidity, Net Working Capital, Growth opportunities and capital intensity were found to have a positive and significant relationship with the firm value. Suggesting that tax planning practices when properly applied, will lead to higher liquidity and firm value.[20] embarked on a study to empirically examine the effect of tax planning strategies on firms' liquidity. The study employed 154 firm-year observations and regression analysis was used to test the hypothesis and the results revealed that tax planning strategies of Capital Intensity, Thin Capitalization, and Lease Option exert negative effects on firms' liquidity while tax planning strategies of Industry and firm size have positive effects on firms' liquidity. [10] from their studies which employed panel data methodology covering ten listed manufacturing firms in Ghana over seven years found that liquidity showed a negative relationship with firm performance which is caused by increase their current asset especially the case where the increase is as a result of increasing trade receivables. Sales revenue is increased, tax obligation increases and this ultimately puts pressure on the entity's cash flow.

2.4 Justification for the Study

Theories and studies available show the relationship between tax planning and firm liquidity and firm performance. [17] worked on the effects of tax incentives on firm performance having evidence from Uganda, while [19] researched on tax planning and financial performance of small scale enterprises in Kenya. [20] worked on Tax Planning and Firm Value: Empirical evidence from Nigerian Consumer Goods Industrial Sector. [34] carried out a granger causality test between corporate tax planning and firm value of non-financial companies quoted in Nigeria among others. These researchers tend to establish the determinants of Effective Tax Rates examining various variables such as firm size, leverage, investment in assets, inventory intensity, corporate governance style, firm location etc. This study on the other hand was designed to focus on how tax planning activities or strategies employed by manufacturing firms would influence not just their financial performance, but the liquidity of the firms.

III. METHODOLOGY

3.1 Population and Sample Size

The population for this study was the 52 Manufacturing Companies Quoted in Nigeria as at 17th December, 2018, for a period of 10 years (2008-2017). Forty six (46) companies were selected out of the 52 manufacturing companies listed on the Nigeria Stock Exchange as at 17th December, 2018. Stratified random sampling technique was employed to select forty six companies from the various sectors of manufacturing companies. The sample size of this study was calculated using the Taro Yamane formula which was postulated by Yamane in 1973. $n = N/1+N(e)^2$. The statistical tool for this study was Multiple Regression Model. This was used to predict the value of the variables with the aid of E-views 7. The adjusted R^2 was used as a measure of explanatory power of the various variables and it was the proportion of the total variation in the dependent variable that was explained by the variation in the independent variable. The data was a panel data and the multiple regression formula was: $CR = \beta_0 + \beta_1TCN_{it} + \beta_2CIY_{it} + \beta_3R\&D_{it} + u_{it}$.

3.2 Mathematical Model

To evaluate

$Y = f(X)$

Y = Dependent variable (Liquidity) (LQY)

X = Independent variable (Tax Planning Strategies) (TPS)

X and Y are broken down as follows:

$Y = (y_1)$

$X = (x_1, x_2, x_3)$

Where y_1 = Current Ratio (CR)

and x_1 = Thin Capitalization (TCN)

x_2 = Capital Intensity (CIY)

x_3 = Research and Development Cost (R&D)

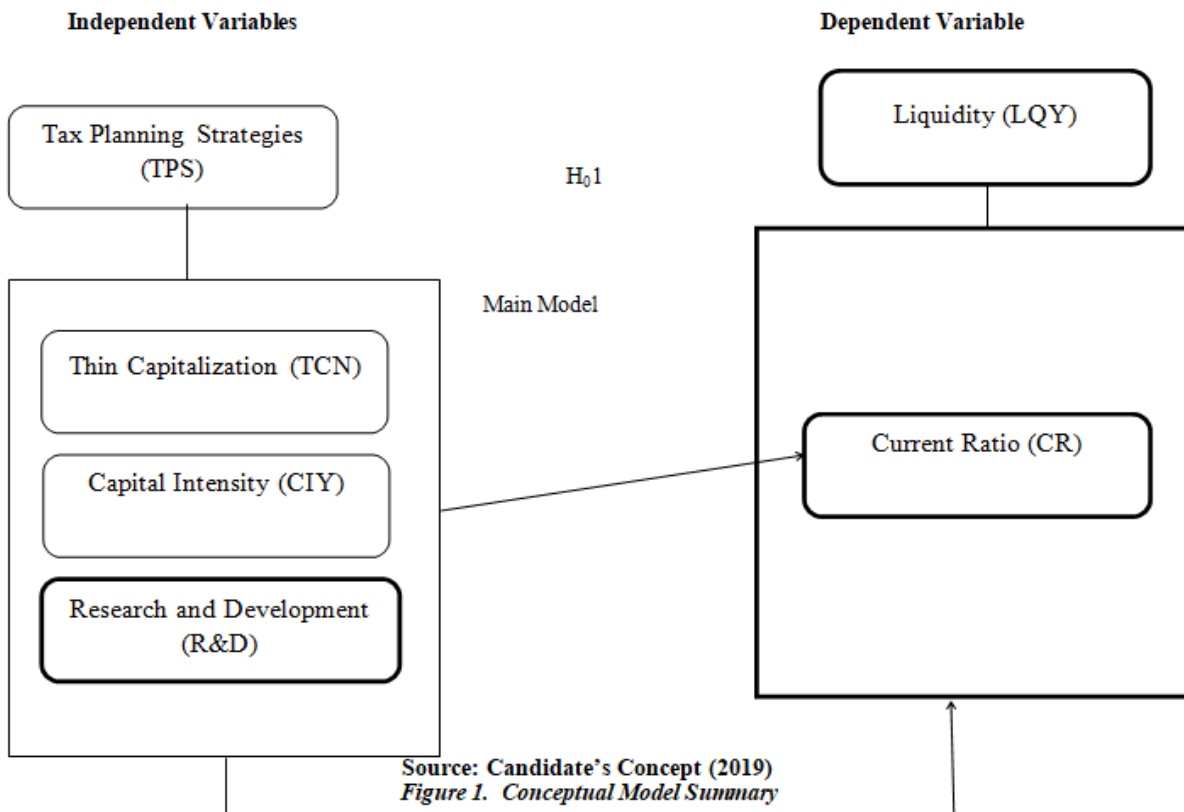
These will result to an expanded functional model of:

$CR = f(TCN, CIY, R\&D)$ ----- Function 1

Which is expressed as:

$CR = \beta_0 + \beta_1TCN_{it} + \beta_2CIY_{it} + \beta_3R\&D_{it} + u_{it}$.

3.3 Researcher’s Conceptual Model



IV. RESULTS AND DISCUSSION OF FINDINGS

4.1 Descriptive Analysis

This section of the analysis provides an overview on the data set while attempt is also made to describe the main attributes of the data. The descriptive analysis of the panel data obtained is done through numerical representation shown on Table 4.1. The numerical representation shows the mean, maximum, minimum, and standard deviation of Current Ratio (CR), Thin Capitalization (TCN), Capital Intensity (CIY) and Research and Development Cost (R&D).

Table 1: Descriptive statistics

	CR	TCN	CIY	RD
Mean	1.182880	0.835315	0.552013	0.165222
Median	1.099924	0.559817	0.550825	0.000000
Maximum	7.788380	17.97722	2.618771	16.89080
Minimum	0.000000	0.000000	0.000000	0.000000
Std. Dev.	0.942383	1.802557	0.278083	1.371217
Observations	460	460	460	460

Source: Researcher's Study, 2019

Interpretation

Table 1 shows the summary statistics of all the variables obtained from the sampled listed companies for the period under study. The maximum values of Liquidity measure of Current Ratio (CR) is 7.788380. CR has a mean value of 1.182880 and standard deviation of 0.942383. In this regard, there is a small presence of volatility to the tune of 0.942383 in CR. This is further seen and confirmed from the difference and distance between the minimum value (0.00000) and maximum (7.788380). This depicts that some sampled companies for the sampled period had varied level of Current ratio amongst themselves. While some companies in some years were seen to have no addition of current assets or current liabilities as shown from the minimum value of 0, some companies in some years are seen to have improved their current assets in settlement of short-term obligations (current liabilities) with maximum value higher than the value of 1.

Lastly, TCN, CIY and RD show mean values of 0.835315, 0.552013 and 0.165222 respectively, and standard deviation values of 1.802557, 0.278083 and 1.371217 respectively. This depicts a lower dispersion of all measures of Tax Planning Strategies from their mean values. These suggest a lower variation and volatility in the measures of Tax Planning Strategies. This is further confirmed from the difference and distance between their minimum values (0.00000, 0.00000 and 0.00000 respectively) and maximum values (17.97722, 2.618771 and 16.89080 respectively) as shown in table 1. This depicts that some sampled companies for the sampled period had varied level of thin capitalization, capital intensity and research and development cost amongst themselves. However, the direction and extent of relationship among these variables cannot be determined from the numerical representation. As such, the regression analysis in the next section shows the extent and direction of this relationship in line with the stipulated objectives of the study.

4.2 Testing of Hypotheses

Research Hypothesis 1 (H_{01}): There is no significant effect of Tax Planning Strategies on the Current Ratio of Companies Quoted in Nigeria.

Table 2. Regression Analysis for the Model

Variable	Coefficient	Std Error	t-Stat.	Prob.
C	1.458067	0.096631	15.08909	0.0000*
TCN	-0.098866	0.024230	-4.080364	0.0001*
CIY	-0.356272	0.158277	-2.250932	0.0249*
RD	0.024595	0.031504	0.780704	0.4354
R-squared	0.057028			
Adjusted R-squared	0.050824			
F-Statistics	9.192516			
Prob(F-Stat)	0.000006*			
Diagnostic Tests	Statistics	Probability		
Hausman Test	3.098419	0.3767		
Breusch-Pagan LH Serial Correlation Test	79.81603	0.0000*		
Heteroskedasticity: Breusch-Pagan LH	0.394295	0.7572		
Normality test: Jarque-Bera	7128.404	0.00000*		

Dependent Variable: Current Ratio (CR); Obs.: 460. C = Constant, TCN = Thin Capitalization, CIY = Capital Intensity and R&D = Research and Development Cost. *significant at 5%

Source: Researcher's Study, 2019

Interpretation of Diagnostic Test

The result of the hausman test showed a probability value of 0.3767 which is greater than 5% level of significance hence, the null hypothesis of the hausman specification test cannot be rejected by the study. As such, the model was estimated using random effect estimation technique. The *p-value* of the F-statistics for the Breusch-Pagan LH Serial Correlation Test of 0.0000 less than the 5% level of significance shows that the null hypothesis that there is no presence of serial correlation is rejected. Also, the Heteroskedasticity Test shows a *p-value* of 0.7572 greater than the 5% level of significance; as such, the null hypothesis that there is no heteroskedasticity is accepted. Also, the JarqueBera statistics indicated that the model is not normally distributed as its *p-value* is less than 5% the level of significance for the study.

Model

CR = f (TCN, CIY, R&D)

$$CR = \beta_0 + \beta_1 TCN_{it} + \beta_2 CIY_{it} + \beta_3 R\&D_{it} + u_{it}$$

$$CR = 1.458067 - 0.098866TCN_{it} - 0.356272CIY_{it} + 0.024595R\&D_{it} + u_{it}$$

Interpretation

The result of the regression analysis on Table 4.3 shows that tax planning strategies measured by Thin capitalization (TCN) and Capital intensity (CIY) have negative significant effect on liquidity measured by Current ratio (CR) while Research and Development cost (RD) has a positive insignificant effect on CR. This is indicated by the signs of the coefficients, that is $\beta_1 = -0.098866 < 0$; $\beta_2 = -0.356272 < 0$; $\beta_3 = +0.024595 > 0$. TCN and CIY are inconsistent with the *a priori* expectation while R&D is consistent with *a priori* expectation, as it was expected that measures of tax planning strategies of TCN, CIY and R&D respectively will have positive effects on CR if they are properly managed. However, the probability of the individual t-statistics stood at 0.0001, 0.0249, and 0.4354 for TCN, CIY and RD respectively, which shows that TCN and CIY have significant effect on CR while RD has an insignificant relationship on CR at 5% level of significance acceptable in this study.

The regression estimates of the model showed that tax planning strategies measured by Thin capitalization (TCN) and Capital intensity (CIY) have negative and significant effect on liquidity measured by Current ratio (CR) while Research and Development cost (RD) has a positive insignificant effect on CR. This is indicated by the signs of the coefficients, that is $\beta_1 = -0.098866 < 0$; $\beta_2 = -0.356272 < 0$; $\beta_3 = +0.024595 > 0$. This is consistent with the probability of the individual t-statistics which stood at 0.0001, 0.0249, and 0.4354 for TCN, CIY and RD respectively, which shows that TCN and CIY have significant effect on CR while RD has an insignificant relationship on CR at 5% level of significance acceptable in this study. The independence of tax planning strategies is responsible for 5% variations in current ratio while the remaining 95% is explained by other factors that can impact on the dependent variable outside the model. There is a significant effect of Tax Planning on Current ratio of Manufacturing Companies Quoted in Nigeria. Therefore, the findings support the studies conducted by [45], [20] and [34] by stating that there is a significant effect of tax planning strategies on current ratio (liquidity). Conversely, the findings did not align with the study conducted by [7] by stating that there is no effect tax planning strategies on current ratio.

4.4 Implication of Findings

The findings of this study have implications for the diverse users of accounting information, standard setters, investors, regulators, policy makers, professionals, scholars and the general public. These implications are outlined as follows:

Manufacturing companies: The implication of these findings to them is that tax planning strategies especially thin capitalization and capital intensity should be reduced or given a proper management to increase current ratio (liquidity) thereby leading to improved performance. This implies that companies should have a balanced financing method and reduce the amount spent on non-current assets to increase performance and liquidity

Investors: These findings imply that investors should consider tax planning strategies adopted by the companies to improve liquidity.

Government and tax authorities: They can adopt these findings from the research to give rules on tax planning strategies to be given to companies to increase liquidity and also ensure compliance to allow for economic growth and encouragement of new businesses to start in any sector since it is an advantage in adopting tax planning strategies.

Regulators and Standard setters: The implication to regulators is that they have to ensure that companies complain with tax laws to avoid fines and penalties and also ensure that standards are set on tax planning strategies and directives given on the principles to enable companies make effective decisions.

Further researchers: The implication of the study to them is that the findings will serve as a contribution to knowledge and also serve as an avenue for them to carry out research using other variables and factors that affects liquidity and encourage tax planning strategies in both developing and developed countries.

5. Conclusion and Recommendation

5.1 Conclusion

The study examined the effect of tax planning strategies on the Liquidity of manufacturing companies that are quoted on the Nigerian Stock Exchange. The regression estimates show that Thin Capitalization and Capital Intensity showed negative effects on liquidity while Research and Development cost showed a positive effect thereon. Thus this research concludes that tax planning strategies have both negative and positive significant effects on the liquidity of manufacturing firms quoted on the Nigerian Stock Exchange, especially as it affects the years that were reviewed.

5.2 Recommendations

The following recommendations are made based on the findings and conclusion of this study:

1. Thin capitalization as a finance source should be reduced by Tax Managers and Finance Officers to balance the source of income of a manufacturing firm and it should be properly managed with the help of tax experts to be able to maximize its benefit as a tax planning tool in order to increase its contribution to the liquidity.
2. Capital intensity should properly managed by Tax Managers and Finance Officers to harness its tax planning benefits to the firm since manufacturing firms make use of Non-Current Assets (NCA) as much as possible. Tax experts should be engaged to manage the acquisition and disposal of NCA in order to maximize its benefit as a tax planning tool in order to increase its contribution to the liquidity of manufacturing firms in Nigeria.
3. Research and Development should be Tax Managers and Finance Officers increased and properly managed to increase its contribution to the liquidity of manufacturing firms.

5.3 Contribution to Knowledge

This study made the following contributions to knowledge:

Concept: The study was on tax planning strategies and liquidity of manufacturing companies that are listed on the Nigerian Stock Exchange. The overall result showed that there is no significant relationship between tax planning strategies and liquidity of Manufacturing firms Quoted in Nigeria but the Research and Development as a tax planning tool in particular has been discovered to be beneficial to liquidity of manufacturing firms and as such should be enhanced for maximum benefit.

Theory: The study discovered that tax planning strategies are still been employed by firms to modify as many activities as possible within the ambits of the tax laws so as to reduce their tax liabilities and to benefit the owners and part-owners of the business irrespective of the tax rate. Supporting that Hoffman's tax planning theory is still quite relevant.

Literature: The findings of the study brings to the limelight that Research and Development as a tax planning tool can affect positively the liquidity of quoted manufacturing firms in Nigeria when properly managed and contributes to enhance existing literatures on this particular school of thought. It should also serve as a reference point to other scholars and researchers.

Empirics: This work contributes to existing findings and empirics that except for Research and Development, tax planning strategies have no significant effect on liquidity of manufacturing firms in Nigeria and that these strategies should be reconsidered.

Policies: In the course of this work, it was observed that Nigeria does not have a policy on thin capitalization and contributes that a thin capitalization policy that will be friendly to the manufacturing company should be considered and flexible enough to benefit the manufacturing firms in Nigeria

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