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# Firms' characteristics and market value of listed manufacturing companies in Nigeria

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## Abstract

This study was conducted to determine the influence of firms' specific characteristics on the market value of listed manufacturing companies in Nigeria. This was anchored on the fact that firms' specific characteristics usually reveal the efforts of managers in the performance of entities. The *ex-post facto* research design was adopted because the study was quantitative and required secondary data. The population of this study was fifty-six (56) manufacturing companies from four (4) sub-sectors- consumer goods, industrial goods, oil and gas and healthcare sub-sectors listed on the floor of Nigerian stock market as at 31<sup>st</sup> December, 2020. Forty-two (42) listed manufacturing entities were sampled for the study based on availability of data. Panel data were collected from the financial statements of the manufacturing companies sampled for the study. The variables of this study were Market Value (MV) and firms' specific characteristics. The dependent variable was firm's value measured by Tobin's Q and the independent variables, the firms' specific characteristics were Liquidity (LQ) and Operating Efficiency (OE). Inflation rate (IFR) was used as a control variable. Data were analyzed using descriptive statistics and multiple linear regression statistical tools. The fixed effect regression approach was employed in the study. From the analyses, it was revealed that LQ and OE had positive and significant influence on MV of listed manufacturing companies in Nigeria. In line with the findings, it was concluded that firms' specific factors had significant influence on the value of listed manufacturing companies in Nigeria. It was recommended that total assets of listed manufacturing companies in Nigeria should be acquired in accordance with the revenue generated over the years to raise the operative efficiency of the managers.

**Keywords:** Firms' characteristics, market value, listed manufacturing companies in Nigeria, and panel regression approach

## 1. Introduction

Manufacturing sector accounts for a significant share of every developing country's economy, Nigeria most especially. The benefits of providing employment, as well as essential products to consumers or buyers of Nigeria is made possible through continuous existence of the manufacturing entities (According to Onuoha (2012) <sup>[27]</sup>. The continuous existence of these companies depends on how well the companies' value are improved and the growth in shareholders wealth. The capability to improve the value of companies is usually the responsibility of management of the entities. For these reasons, decisions are undertaken to attain the targets set. The various decisions often taken by management of companies is aimed at proper financial management and prudent resource application.

In the literature of finance and accounting, it has been ascertained by scholars that the objectives of financial management are profit and wealth maximization (Simona & Veronika, 2020) <sup>[36]</sup>. Profit maximization is the attainment of growth in profitability of a firm over years, while wealth maximization is simply an improvement in shareholders' value for the funds invested. To ascertain the extent to which profitability and shareholders' wealth are maximised, financial analyses of the entities' performance are of paramount importance. The ideas of financial analysis are embedded in financial accounting.

Both growth in profitability and shareholders wealth is made possible when the value of companies improves continuously and significantly (Simona & Veronika, 2020) <sup>[36]</sup>. This indicates that the success of stakeholders of entities depends on the level of growth in value. It is always the growth in value of companies that keep the operation of the entities in perpetuity. It can be noted that the going concern status of firms solely anchored on the level of value generated by such entities.

Value of entities, on the other hand, depends on the characteristics of companies of which some are reported on the financial statements published by management of firms and others are found in an economic system of a country (Sucuahi & Cambarihan, 2016) <sup>[37]</sup>. Those that are reported on the financial statements of companies are regarded as firms' specific characteristics (internal factors) and could be influenced by the policies and decision of managers of firms. Firms' specific attributes are referred to as factors that are within the control of management of entities (Mohammed, 2017) <sup>[22]</sup>. These specific characteristics include profitability, firm size, leverage, liquidity, operating efficiency, revenue growth and asset growth.

Value of companies could be described as the level of growth achieved from the influence exerted by the internal attributes of entities and those that are not influenced by the policies of management (Ayako & Wamalwa, 2015) <sup>[5]</sup>. In the computation of value of companies, some of the variables are extracted from statement of financial position of companies. Value of entities are usually computed using a model known as Tobin's Q and average of stock price of which the most recognised technique for measuring value is Tobin's Q (Sandoval, 2018) <sup>[34]</sup>. When certain factors of an entity increase in particular period of time, it is expected that value should also increase (Carini, Comincioli, Poddi & Vergalli, 2017) <sup>[7]</sup>. This is owing to the fact that higher improvement of factors like size and profitability could raise the value of companies in an accounting period.

Every management of listed manufacturing companies in Nigeria is always concerned about value maximization and as well as shareholders' wealth (Hirdinis, 2019) <sup>[15]</sup>. In order to raise the value of an entity, the key specific attributes must always be effectively managed. In other to maximize the wealth of a shareholders, profit must be maximized also (Ani & Odo, 2019) <sup>[2]</sup>. In as much as the determinants of profitability are examined, in the same vein, determinants of other variables such as value of companies can also be ascertained (Harsha, Nikitha, Madhura & Girish, 2018) <sup>[13]</sup>. In this regard, for there to be any improvement in value, other variable(s) must exert positive influence. It is on this note that the researchers are interested in examining the level of this influence of firms' specific attributes on market value of listed manufacturing companies in Nigeria.

Growth in market value of entities is very fundamental to both managers and shareholders of the companies. This is because it guarantees the survival of firms and improvement in shareholders' wealth. Improvement in value of companies is connected to how well firm's specific characteristics reported on financial statements of companies have been managed. This is because firms' specific attributes (internal factors) are within the control of management of companies. Several studies conducted both locally and internationally have shown the relevance of firms' characteristics on financial performance in different companies and sectors. From the findings of the previous studies, certain factors have been recommended to entities for the purpose of improving profitability. Thus, in respect to value of entities in Nigeria, especially, listed manufacturing companies, previous studies have not examined some key specific factors like liquidity and operating efficiency that could influence the value of companies in Nigeria.

Previous studies carried out in Nigeria have examined the influence of firms' specific characteristics on firm value in various sectors. However, operating efficiency was not

captured as a proxy of firm characteristics in spite of the influence that has been established in the literature between operating efficiency and value of firms by other inferential studies conducted outside Nigeria (Bhullar, 2017; Luthfiah & Suherman, 2018) <sup>[6, 20]</sup>. Some of the reasons for not including operating efficiency as a firm's specific attribute is because some scholars are of the opinion that other attributes are drawn from operating capacity of an entity and the inclusion of operating efficiency as an internal attribute is irrelevant. On this note, investigating operating efficiency in relation to market value alongside other internal factors have become necessary because it could possibly explain the link between how well the management had utilized the firms' resources in generating corporate wealth and improve the market value of a firm.

The studies conducted in Nigeria as well as in this area of interest were done in the period before the adoption of International Financial Reporting Standards (IFRSs). The present study only considers the period after the adoption of IFRSs by quoted companies in Nigeria of which manufacturing entities are not excluded. From the various standards of IFRSs, it has been observed that the reporting techniques of various accounting attributes have been adjusted. The inclusion of other variables such as liquidity and operating efficiency will help to proffer direction on how to improve the value of listed manufacturing companies in Nigeria. It is on this premise that the study is considered essential as an attempt to fill the gap in the literature by taking Tobin's Q as a measure of market value. The main objective of the study was to determine the influence of firms' specific characteristics on market value of listed manufacturing companies in Nigeria. The specific objectives of the study were to:

- i. Determine the influence of liquidity on market value of listed manufacturing companies in Nigeria.
- ii. ascertain the influence of operating efficiency on market value of listed manufacturing companies in Nigeria.

## 2. Review of Related Literature

### 2.1 Conceptual Review

#### 2.1.1 Market Value

Value of an entity could either be in form of book value or market value. Market value, as a concept, cut across many disciplines. This is because it is found in various field of study (Simona & Veronika, 2020) <sup>[36]</sup>. In pure science, there are different meaning of market value; in management science, there are diverse meaning of market value and in social science, there are also different views of market value (Suresh & Sengottaiyan, 2015) <sup>[38]</sup>. The focus of this study is on management views of market value of which accounting is one of the sub-fields of interest of management science.

According to Purwohandoko (2017) <sup>[30]</sup>, the market value of any entity is very crucial to the various stakeholders of the company. This is because of the fact that the two goals of financial management are profit maximization and wealth maximization. Both profit maximization and wealth maximization are two drivers that warrant the growth of market value of any company. This is to say that when there is any improvement in profitability of a company, the value of such company is certain to be improved as well. Improvement in shareholder's wealth is a determinant of firm value of any company (Sucuahi & Cambarihan, 2016) <sup>[37]</sup>. This is because shareholder's wealth encompasses the

market value of shares of any company. When there is an increase in market price of shares, market value is often influenced positively. The desire of shareholders to raise their wealth usually affect the growth of companies in terms of their value (Luthfiah & Suherman, 2018) <sup>[20]</sup>. The wealth of shareholders and companies are usually reflected in the stock price of the entities, investment decision, mode of financing the assets of the firms and as well as the techniques of asset management.

Stock price of any quoted company is a determinant of market value of the entity for the fact that if the share price improves, the total market value of equity must be improved as well (Pedro & Visabeira, 2014) <sup>[29]</sup>. Growth in share price of any company is the main determinant of shareholders' wealth because when the level of stock price improves, capital gain derivable is certain to be improved as well. A company with higher investment opportunity also has the tendency to raise its market value. This is because higher investment opportunity with adequate returns yielded can influence the stock price of the company positively and thus, attracts more investors to the company. When more investors are attracted to take part of operational activities of a particular company, such company's value must be improved in terms of the various factors of values which includes revenue growth, asset growth, earning per share growth, increase in market price of shares and among others (Hidayat *et al.*, 2019) <sup>[14]</sup>. So, investment decision of a company could influence the market value of the entity.

According to Awan, Lodhi & Hussain (2018) <sup>[4]</sup>, mode of financing assets of companies usually affects firm value. This is because the capital that is involved in financing those assets are broadly classified into two according to Modigliani & Miller (1963) <sup>[21]</sup> as debt and equity capital. In the view of Modigliani & Miller (1963) <sup>[21]</sup>, when debt capital is accumulated more than equity capital, there must be available investment opportunity of which the returns from such investment are higher than the cost of the funds (debt capital). For debt capital to influence market value positively, two things must be taken into consideration, and they are first, the total debt in the capital structure of a company must not be highly geared (proportionally greater the equity capital) and second, the interests of the debt, also regarded as finance costs, should be moderately low to allow for higher benefits of utilizing the debt capital in financing of assets. Asset management is another way of raising the market value of any firm (Ayako & Wamalwa, 2015) <sup>[5]</sup>. In accounting perspective, the main components or classification of assets are non-current asset and current assets.

In accumulation of assets, it is often expected that the proportion of non-current assets should be higher than that of current assets because of the trade-of relationship that exists between current assets and financial performance measured in terms of profitability (Grace, Ann & Onodugo, 2016) <sup>[12]</sup>. Also, accumulating more of non-current assets usually help to influence the revenue of a company positively because of the direct relationship between revenue and non-current assets. So, the obligation of financial manager in assets management is mainly on the composition of the total assets which has to do with accumulation of non-current assets than current assets.

Thus, firm characteristics could influence the value of companies either positively or negatively. This is because all the factors that constitute firm specific attributes do not

have the same direction of influence on value. Value could be defined as the sum of the actual market value of shares of companies over a period (Shuaibu, Ali & Amin, 2019) <sup>[35]</sup>. The general objective or goal of a company is to raise the market value. Improvement in market value usually represent the prosperity of the owners who are the equity shareholders. The improvement in market value of a company is of focus to the investors. This simply means that the prosperity level of the investors is usually derivable from the standpoint of improvement in firm value. Also, firm value implies performance indicator to a manager of company. From the investor's perspective, firm value is associated with increase in stock price and as well as other attributes captured on the financial statement of companies (Harsha *et al.*, 2018) <sup>[13]</sup>.

Tobin's Q is a model that was propounded by a financial expert and statistician regarded as James Tobin in 1966. James Tobin formulated a model for calculating firm value in finance and this is why the formula regarded as Tobin's Q was name after the author. Before the formulation of the model and according to James Tobin, there was no reliable formula in finance for estimating the market value of companies (Pandey, 2010; Sucuahi & Cambarihan, 2016) <sup>[28, 37]</sup>. This gave him the impetus to formulate a model known as Tobin's Q. According to the formula (model), firm value is calculated as market value of equity plus market value of debts divided by market value of assets.

The computation of Tobin's Q based on the market value of accounting attributes presented on financial statements of companies is possible when data on all the attributes such as market value of debt, market value of equity and market value of assets are available. For the fact that market value of debt and assets are usually difficult to ascertain, Tobin's Q model has been modified to calculate firm value as market value of equity plus book value of debt divided by book value of assets. This is because the market price of equity shares can easily be ascertained. Mathematically, it could be represented as:  $Tobin's\ Q = \frac{MVE + BVD}{BVA}$ , where MVE=Market Value of Equity, BVD=Book Value of Debt and BVA=Book Value of Assets.

According to the author (James Tobin), it has been stated that the higher the Tobin's Q, the greater the value of a company and vice-versa (Suresh & Sengottaiyan, 2015) <sup>[38]</sup>. Tobin's Q has been recognised as an idle model for the computation of value of companies. This is because in the computation of Tobin's Q all elements of statements of financial position are considered which are equity debts and assets. The model also pointed out clearly that both debts and equity are connected to assets of a company. In other word, assets of a company are being financed by both debt and equity. In the present study, Tobin's Q was the proxy for market value of quoted manufacturing companies in Nigeria because of the reasons stated above.

### 2.1.2 Firms' Characteristics

Firms' characteristics also known as firms' attributes, are factors that exist within and outside the operation of entities (Efuntade & Akinola, 2020; Jeroh, 2020) <sup>[11, 18]</sup>. It could also be said to be those variables that usually affect the operations of entities directly or indirectly. From the definition given, it is clear that firms' attributes are broadly classified into two categories, and they are factors that affect the operation of entities directly or simply, those factors that operate within companies and those factors that exist



outside the operations of entities.

Those factors that affect the operations of companies directly are referred to as firms' specific characteristics or internal factors and those that exist outside the operations of companies are referred to as external factors (Shuaibu *et al.*, 2019) <sup>[35]</sup>. Firms' specific factors are those attributes that are usually presented on the financial statements or disclosed in published annual reports of entities. Firms' specific factors can also be referred to as those components of financial statements that are required by regulatory authorities to present and disclose on companies' annual reports to assist the various stakeholders to make useful decision (Hirdinis, 2019) <sup>[15]</sup>. On the other hand, the external factors are those variables or attributes that exist outside the operation of companies but within the economic environment in which the entities operate or located (Muraina, 2018) <sup>[23]</sup>. For the fact that the concentration is on the firms' specific attributes, the review was done on the internal factors more than the external factors as discussed below:

#### a. Liquidity

Liquidity has to do with the strength of a company to respond to its matured obligations or commitments in a shorter period which is known to be within one accounting period (Grace *et al.*, 2016) <sup>[12]</sup>. The accounting attribute that defines the strength of a company to settle its short-term maturing obligation is current asset. As the name indicates, current assets are assets that are easily converted into cash within one accounting period and they include inventories, account receivable and cash and cash equivalent (Okoro, 2016) <sup>[26]</sup>. According to Sagosanya (2011) <sup>[33]</sup>, the components of current assets define the liquidity position of an entity. This simply means that when inventories, account receivable and total cash has larger amount as compared to the components of current liabilities, the liquidity position of the company will be larger and when the magnitude of the accounting data has lower value as compared to the components of current liabilities, the liquidity position of the company will be lower. Soundness in liquidity position of a company is described by the potency of the components of current assets to be easily converted into cash within a shorter period for the purpose of addressing the short-term obligations that might arise which requires the payment of cash.

Inventories are described as the stocks of goods that are not sold in an accounting period but expected to be sold in another accounting period (Okoro, 2016) <sup>[26]</sup>. It is current assets item because it could be converted into cash at any given period when a customer purchases the inventory. Account receivable is described as portion of sales revenue whose cash is not recovered immediately as the exchange occurs (Ani & Odo, 2019) <sup>[2]</sup>. It is also described goods sold on credit to customers in which cash is expected in future especially within one accounting period. Cash is described as cash in hand, cash in the bank and other marketable financial instruments that are traded on the floor of money markets (Purwohandoko, 2017) <sup>[30]</sup>. When inventories and account receivable could not be recovered very easily, the liquidity position of such company is usually affected negatively. Appropriate assessment is required in granting of credit to customers for the purpose reducing the risk of bad and doubtful debt (Suresh & Sengottaiyan, 2015) <sup>[38]</sup>. The market size for products should always be assessed through the effective use of marketing tools for the purpose

of reducing bulk of inventories that might not be demanded by customers.

The position of current liabilities is also essential when looking at liquidity position of a company. This simply means that for optimal liquidity position to be achieved, current liabilities of a company need not to be too high (Reschiwati, Syahdina & Handayani, 2019) <sup>[32]</sup>. Current liabilities are described as present obligations of a company to which outflows of cash is expected to be made within one account period (Grace *et al.*, 2016) <sup>[12]</sup>. The magnitude of components for current liabilities are critical determinants of the position of current liabilities. The components of current liabilities include trade payables, income tax payable, bank overdraft, short-term loans and other outstanding. There are certain ratios used to assess the short-term solvency of a company also regarded as the liquidity position of a company. These are current, quick and cash ratios (Carini *et al.*, 2017) <sup>[7]</sup>. Current ratio is described as total current assets divided by current liabilities in an accounting period and the higher the ratio, the better the liquidity position of a company (Nwakaego, Ikechukwu & Dorathy, 2014) <sup>[25]</sup>.

However, current ratio should not be too high as this might affect the strength of a company to realise more profits. Quick ratio is described as the current assets less inventory and divided by current liabilities and the higher the ratio, the better the liquidity position of a company (Efuntade & Akinola, 2020) <sup>[11]</sup>. This simply means that when the ratio is less than one, the current liability of the company is greater than current asset and as such, the liquidity status of the company is inefficient. Cash ratio is described as the total cash and cash equivalent of a company divided by current liabilities and the ratio indicates the highly liquid position of a company in responding to short-term maturing obligations (Rabiu, 2019) <sup>[31]</sup>.

Cash ratio needs not to be too high but when the ratio is too lower, it means that the potency of the company to respond to maturing obligations or commitments in short-term is lower and this in turn could impact negatively on the profitability of the entity (Carini *et al.*, 2017) <sup>[7]</sup>. It is vital that a company has enough quick assets to meet its accounts payable, interest expense and other bills when they fall due (Okoro, 2016) <sup>[26]</sup>. Cash ratio is another liquidity ratio that is recognised by accountants and researchers to be more ideal in measuring the capability of a firm in responding to its short-term obligations due compared with current ratio and quick ratio (Grace *et al.*, 2016; Rabiu, 2019) <sup>[12, 31]</sup>. It is a short-term solvency ratio that often reveal the relationship between cash position of an entity and its total current liabilities for an accounting period.

#### b. Operating Efficiency

Efficiency is required from managers because they are expected to act in accordance with the interest of the shareholders (Harsha *et al.*, 2018) <sup>[13]</sup>. Managers are often regarded as the agent of the principals who are also known as the shareholders of an entity because decisions about the operations conducted are taken by them on behalf of the shareholders (Bhullar (2017) <sup>[6]</sup>. Efficiency is associated with the possibility of utilising resources and maximising benefits from the given resources. When managers are regarded as efficient individuals, it means that assets are effectively utilised to generate more revenue in an accounting period (Grace, Ann & Onodugo, 2016) <sup>[12]</sup>. Operating efficiency cuts across different aspects of

organization and it is replicated in different accounting data presented on financial statements of companies. This simply means that the outcomes of efficiency are usually captured on other elements of financial statements reported by entities.

Operating efficiency is defined as the strength of managers or directors to acquire, accumulate assets and utilise them effectively and judiciously to generate more revenue to influence upon profitability and other performance indicators in accordance with the interest of the shareholders in an accounting period (Harsha *et al.*, 2018) <sup>[13]</sup>. Operating efficiency is often computed as total revenue divided by total assets of entities in an accounting period. It shows the level to which assets are used to generate revenue in different accounting period. When the ratio is higher, managers of the entity are described as efficient individuals and when the ratio is lower, the managers are described as inefficient individuals who could not formulate policies and strategies to transform the growth of the organization (Suresh & Sengottaiyan, 2015) <sup>[38]</sup>. Operating efficiency has the tendency of influencing the value of companies positively when it is properly strategized by managers of entities. Researchers that have conducted studies in this area did not see the importance of operating efficiency on value of companies and this is why it was not considered critical in most studies already carried especially in Nigeria. This is why it is considered as one of the firms' characteristics in this study.

### c. Inflation

Inflation is a critical economic issue that affects every aspect of organization, income of individuals and that of the government in a country. Inflation is regarded as macroeconomic issues that needs to be resolved based on the economic policies formulated in a country. This simply means that the effort or law makers and other economic agents is to ensure that lower rate of inflation is achieved in an economy. Inflation has been understood to be the general rise in price of goods and services in a country. This simply means that for a price increase to be called inflation, it must be persistent or continuous and must affect the various aspects of the sectors in the economy (Ahuja, 2016) <sup>[1]</sup>. According to Muraina (2018) <sup>[23]</sup>, inflation is usually measured based on consumer price index (CPI) and the rate is published by recognized institutions in a country like central bank of Nigeria (CBN) in the case of Nigeria. High inflation is the reason that calls for the issuance of monetary policy and fiscal policy in Nigeria in the years back. The essence of these economic instruments has always been meant to stabilize the economic activities or situation of Nigeria.

The level of inflation in an economy normally affects the productivity of an organization negatively as cost of production is high. Also, the remuneration given to employees are affected in real value or based on the purchasing power of the income. Inflation rate is an external attribute that is believed to affect profitability of entities and other accounting data reported on financial statements. According to Pandey (2010) <sup>[28]</sup>, inflation rate is an attribute that could not be influenced by managers in organizations but could only be influenced by the interaction of economic activities in a country. In this case, only the government in a country is responsible for the changes in inflation rate in any year or period. The accounting data presented on financial

statements of entities are usually affected negatively by the rate of inflation. For this reason, there is a need to include inflation rate in a linear regression model as a variable that could influence both the dependent and the independent variables (Ahuja, 2016; Muraina, 2018) <sup>[1, 23]</sup>. The inclusion of inflation rate in a model where the concern of the researcher is not on the area of interest is always aimed at reducing spuriousness in the empirical results.

## 2.2 Theoretical Review

### 2.2.1 Stewardship Theory

The theory was formulated and made known by Donaldson & Davis (1991) <sup>[10]</sup>. It states that managers are seen as stewards to shareholders or principals in an organization. This simply means that the interests of the shareholders are considered prime in every decision taken by managers. Transparency and accountability are the attributes require of managers at any given time for them to be called good stewards. Based on the theory, a steward is seen as one who intentionally wish to perform extremely higher than expected or beyond the targets given. It is associated with the procedures in which managers in an organization could be motivated effectively to perform in accordance with the interests of the shareholders who are the real owners of quoted entities (Modigliani & Miller, 1963) <sup>[21]</sup>. Higher expectation is usually placed on managers for them to raise value of companies through the formulation of sound policies. The motivation for performing beyond expectation by managers is drawn from the incentives and rewards placed in the organization. thus, challenging tasks are usually performed by managers who wish to be known in future for credible results transparently achieved (Jensen & Meckling, 1976) <sup>[17]</sup>.

Stewardship theory is critically based on the behaviour of managers in organization to gain recognition. This simply means that when a manager is not an individual that wish to actualize his/her dream, challenging tasks might not be embarked by such person in an organization to affect the overall growth of such entity (Donaldson & Davis, 1991) <sup>[10]</sup>. In performing extremely in organization by managers, the theory maintains that the conflict of interest of managers should be reduced to zero level for the purpose of focusing more on the interests of shareholders. As the conflict of interest for the managers is reduced to zero level, bias action is reduced where business activities are transparently conducted to achieve meaningful results on the long run. A manager who wishes to perform extremely in an organization must always ensure that the key attributes of the organization are essentially influenced positively by his/her action (Purwohandoko, 2017) <sup>[30]</sup>. This simply means that honesty must be found in every action of the managers in organizations. Also, the interests of the managers should be in accordance with the interests of the shareholders which simply means that the overall interests of the shareholders should be satisfied first before that of the managers (Jensen & Meckling, 1976) <sup>[17]</sup>.

Stewardship theory is more concerned with the collective or combined effort of managers in organization rather than the performance of individual manager because activities are conducted in routine phase where individual managers contribute their best. The poor performance in profit is attributed to not just one manager but the entire team of managers or directors in organization. in the formulation of strategies and policies, collective efforts are made by

individual directors or managers and so also the outcome of the result is always attributed to the group of the managers. When the outcome is positive, the entire team of managers is praised for effective and judicious action in the organization based on the level of their skills and not for an individual and when the results are not impressive, the entire team of managers is blamed. The improvement in market value of companies is attributed to entire team of managers in organization.

Thus, firm attributes and market value of entities is related to stewardship theory for the fact that the internal attributes are expected to be influenced by the action of the managers to raise the market value of the entities. improvement in market value of companies is like raising the wealth of shareholders and when the activities of companies are transparently conducted by the managers to raise the market value, it means that the interest of the shareholders are effectively considered in every decision in the organization (Donaldson, 1991) <sup>[10]</sup>. Operating efficiency and liquidity are described as the action of managers in organization. In other words, it could be said that when operating efficiency is high, the interest of shareholders is maximised for realization of adequate wealth. Also, when sound liquidity position is maintained in an organization, other accounting attributes such as profitability could be influenced positively and as such, it could also be described as a situation whereby the interest of the owners is maximized (Shuaibu *et al.*, 2019) <sup>[35]</sup>. For the fact that the variables of firm's characteristics used in this study are directly linked to the stewardship functions performed by managers in organizations on behalf of the shareholders, this theory is adopted in the study.

### 2.3 Empirical Review

Bhullar (2017) <sup>[6]</sup> investigated the influence of operating efficiency on firm value of both consumer goods sector and pharmaceutical sector in India. The intention of the researcher was to assess the contribution of operating efficiency on firm value of these two sectors chosen by the researcher for the study. Thirty (30) Indian companies were selected for the study with the period the of 2005 to 2015. They key variables of the study were operating efficiency being the predictor and the firm value being the dependent variable. For the fact that panel data was used for the study, the analytical methods were both descriptive statistics and panel regression approach. The overall analysis conducted indicated that operating efficiency exerted negative and significant influence on firm value for the two sectors. Based on the empirical results, it was concluded that operating efficiency is an essential determinant of firm value of entities.

Mohammed (2017) <sup>[22]</sup> empirically investigated the impact of internal factors on firm value of quoted healthcare entities in Nigeria. The intention of the researcher was to empirically investigate the influence of the internal attributes influenced by policies of managers in the quoted healthcare entities in India. The data obtained for the study covered the period of 2008 to 2015 and for the fact that the researcher could not retrieve the annual reports of the entire entities, convenient sampling approach was adopted. Firm value was measured by two critical attributes regarded as share price and the model of Tobin's Q where the internal attributes considered in the study were company size, liquidity and leverage. The nature of the data collected

called for the adoption of panel regression approach to establish the influence of the predictors on the dependent variables. The outcome of the analysis indicated that both liquidity and leverage has negative and substantial influence on firm value while company size exerted positive and significant influence. It was concluded that more assets should be acquired by the companies to raise more value.

Awan *et al.* (2018) <sup>[4]</sup> conducted a study to assess the determinant of firm value for chemical industries in Pakistan. The key objective of the study was meant to analyse the internal factors that influence firm value in the industries. The attributes selected as the determinants were return on assets (ROA), earnings per share (EPS), leverage, company size and net working capital. Stock price was used as the measurement of firm value in the study and the nature of the data used in the study was panel data obtained across companies between the period of 2008 to 2016. The data were analysed by descriptive statistics and multiple linear regression approach precisely, using panel regression approach. Based on the analysis, it was observed that company size, return on assets and leverage had no significant influence on firm value while net working capital and earnings per share exerted positive and significant influence on firm value where leverage had negative influence on firm value, company size and ROA had positive impact on firm value.

Ceriwati & Endri (2018) <sup>[8]</sup> assessed the determinants of firm value of listed cigarette companies in Indonesia stock market. The purpose of the study was to assess the extent to which profitability, liquidity, capital structure and market share had affected company value. Four entities were sampled for the study from the period of 2012 to 2016. Relevant data were collected in line with the key variables of this study using secondary data approach. The essential data collected were analysed by descriptive statistics and pool panel regression technique. Based on the analysis, it was observed that profitability and capital structure had positive and material influence on company value of the entities studied while liquidity exerted negative and inconsequential influence on company value. Market share was found to exert positive but irrelevant influence on company value. In accordance with the empirical results, it was recommended that managers of the entities should take advantage of the capital structure to improve upon the market share of the entity for the purpose of realising more value for the shareholders.

Hidayat *et al.* (2019) <sup>[14]</sup> investigated the influence of specific attributes of on firm value of companies in Indonesian emerging market. The focus of the study was to assess the influence of specific variables such as liquidity, debt policy and investment on firm value of the entities chosen for the study. Relevant data were collected in accordance with the respective variables of the study with analytical tool regarded as descriptive statistics and multiple linear regression approach. From the analysis, it was observed that all the predictors of debt quality, liquidity and investment exerted positive and substantial influence on firm value when the independent variables were combined. Individually, it was observed that only liquidity and debt policy had positive and consequential influence on firm value of the entities studied while investment had positive and insignificant influence on firm value.

Ifada, Faisal, Ghozali and Udin (2019) <sup>[16]</sup> assessed the influence of company attributes on firm value of quoted



companies on Jakarta Islamic Index. The intention of the researchers was to empirically examine the extent to which dividend policy, ownership concentration and capital structure had influenced firm value of the entities selected for the study. Fifty-six entities quoted on the index were sampled for the study and data were collected from the annual reports of the entities published for several years. Data were analysed using descriptive statistics and linear regression approach. From the analysis, it was observed that capital structure and dividend policy exerted positive and significant influence on firm value while ownership concentration had negative and substantial influence on firm value of the companies selected for the study.

Reschiwati *et al.* (2019)<sup>[32]</sup>, conducted a study to assess the influence of firm's specific attributes on firm value in Indonesian stock exchange. The purpose of the study was to critically examine the influence of profitability, liquidity and company size on firm value of the selected entities studied. The study was conducted to cover the period of 2014 to 2018 and relevant data in accordance with the variables on interest were extracted of selected entities whose share were quoted on the stock market. The analysis was done using linear regression and descriptive statistics. Capital structure was the control variable selected for the study. The outcomes of the analysis indicated that all the predictors of profitability, liquidity and company size exerted positive and material influence on firm value of the selected entities studied.

Chabachib, Hersugondo, Ardiana & Pamungkas (2020)<sup>[9]</sup> conducted a study to investigate the influence of company characteristics on firm value. The purpose of the study was to examine critically the influence of the internal attributes on the value of consumer goods companies whose shares were quoted on Indonesian stock market. The internal attributes considered in the study were capital structure measured by debt-to-equity ratio, company size measured by logarithm of total assets and liquidity measured by current ratio. Profitability measured by return on equity was used as the control variable of the study. One hundred and twenty-eight entities were sampled for the study and relevant data in accordance with the variables of the study were collected from the published financial statements of the entities from the period of 2014 to 2018. The sourced data were analysed by both descriptive statistics and panel linear regression approach based on the nature of the data collected. The analysis showed that company size and liquidity exerted positive and substantial influence on firm value of the entities studied. It was found that capital structure exerted adverse and inconsequential influence on firm value as company size had a positive and significant influence on firm value of the quoted companies studied. From the empirical findings, it was recommended that the size of the assets should be improved by the company to maximise the value of the company as well as increasing the wealth of the shareholders.

Nguyen & Bui (2020)<sup>[24]</sup> conducted a study to examine the determinant of firm value in Vietnam. The intention of the researchers was to examine the influence of key specific factors on firm value of entities studied. The period considered for the study ranged from 2014 to 2018 and data were collected from the annual reports of the sampled entities. Firm size, capital structure, earnings per share, profitability and liquidity were the specific factors considered in the study. Data were analysed using fixed effect regression model. Tangibility was selected as the

control variable in the models used in the study. From the analysis, it was observed that profitability, liquidity, capital structure had positive and consequential influence on firm value of the entities studied while firm size and earnings per share exerted positive and insignificant influence on firm value. Based on the analysis, it was recommended that adequate attention should be exercised in the formulation of policies so as to raise the internal attributes in the company to influence upon the firm value measured by market-to-book value ratio positively and significantly.

### 3. Methodology

The *ex-post facto* research design technique was employed in this study because the study required secondary data obtainable from financial statements of the sampled manufacturing companies in Nigeria (Ary, Jacobs & Sorensen, 2010)<sup>[3]</sup>. The adoption of this research design enabled the researchers to examine the influence of firms' characteristics and value of listed manufacturing companies in Nigeria.

The population of the study was made up of the listed consumer goods companies, the listed industrial goods companies, quoted oil and gas firms and the listed healthcare entities in Nigeria. The listed consumer goods companies, industrial goods companies, oil and gas and healthcare entities in Nigeria as at 31<sup>st</sup> December, 2020 were twenty (20), thirteen (13), twelve (12) and eleven (11) respectively and made up the listed manufacturing companies on the floor of the Nigerian Stock Exchange (NSE) considered by the researchers in this present study. In this case, the population of this study was fifty-six (56) listed manufacturing companies in Nigeria.

The sample size of this study was drawn from the total population of fifty-six (56) listed manufacturing companies in Nigeria on the floor of NSE. Forty-two (42) listed manufacturing companies were drawn and sampled for the study from the four sectors considered in the present study. According to Kothari & Garg (2014)<sup>[19]</sup> fifty percent (50%) of population chosen as sample size is adequate to represent the entire population in an empirical study.

The listed manufacturing companies included in the sample size were those with available data for the relevant variables of the study for the period chosen by the researchers presented on financial statements as single entities in International Financial Reporting Standards (IFRSs) formats published by management of the entities. The distribution of the sub-sectors included as sample size were fifteen (15), eleven (11), eight (8) and eight (8) for listed consumer goods companies, industrial goods entities, oil and gas companies and healthcare entities respectively.

In drawing the sample size, only those companies with well-presented financial statements as single entities and up to date available data were considered appropriate as samples for the study (Ary *et al.*, 2010)<sup>[3]</sup>. The data for the study were obtained from the financial statements of the listed manufacturing companies in Nigeria. The sourced data collected from the annual reports of listed manufacturing companies were the ones obtained from their financial statements published based on the variables of the present study. The type of data used were panel data obtained from the year 2013 to 2019. The choice of the period was to capture only the published financial statements of listed manufacturing companies in Nigeria presented in IFRSs requirements. The essential variables of this study were presented in Table 1.

**Table 1:** Variable Description

S/N	Variable	Abbr.	Measurement	Apriori Expectation
i.	Market Value	MV	Market value of equity plus book value of debts divided by total assets of listed manufacturing companies in Nigeria (Ceriawati & Endri, 2018) <sup>[8]</sup> .	
ii.	Liquidity	LQ	Total current assets divided by current liabilities of listed manufacturing entities in Nigeria (Ceriawati & Endri, 2018) <sup>[8]</sup> .	Positive
iii.	Operating Efficiency	OE	Total sales revenue divided by total assets of quoted manufacturing entities in Nigeria (Bhullar, 2017) <sup>[6]</sup> .	Positive
iv.	Inflation Rate	IFR	Annual Rate Published (Ahuja, 2016) <sup>[1]</sup> .	Negative

Source: Researchers' Compilation (2023)

The adapted empirical models were stated appropriately in line with the variables in each of the objectives of the study:

$$MV_{ij} = \beta_0 + \beta_1 LQ_{ij} + \beta_2 IFR_{ij} + e_t \tag{Equation (3.1)}$$

$$MV_{ij} = \beta_0 + \beta_1 OE_{ij} + \beta_2 IFR_{ij} + e_t \tag{Equation (3.2)}$$

The models in equation 3.1 to 3.2 were formulated to test the individual influence of firms' characteristics on market value of listed manufacturing companies in Nigeria.

The data for the study were analysed by the help of descriptive statistics and linear regression technique. The descriptive statistics was meant to examine the nature and limit of all the variables used in the study including the control variable of inflation rate (IFR). The linear regression model was employed in the study solely to establish the influence of the independent variables of liquidity and operating efficiency on market value of the entities studied. The relevant regression statistical tool used to resolve the econometric issues were correlation matrix, variance inflation factor (VIF) and Durbin-Watson statistics. For the test of the hypothesis, p-value, t-statistics, F-statistics, R<sup>2</sup> and adjusted R<sup>2</sup> were used. The regression approach employed in the study was panel regression and the fixed effect approach was employed because of the correlated Hausman test which suggested that the fixed effect was suitable. The level of significance employed in the study for the regression analysis and test of hypothesis was 5%.

#### 4. Data Analysis and Discussion

##### 4.1 Data Presentation

##### 4.1.1 Descriptive Statistics

The descriptive statistics of the data collected for this study was to enable the researchers to evaluate the nature of the dataset for each of the variables of interest. These were computed and presented in Table 2:

**Table 2:** Descriptive Statistics

Statistics	MV	LQ	OE	IFR
Mean	40.8328	1.37324	1.05776	0.11857
Median	6.47700	1.16300	0.82100	0.11400
Maximum	877.412	22.3720	14.3310	0.18600
Minimum	-14.2480	0.04500	0.00000	0.08000
Std. Dev.	124.685	1.53668	1.19836	0.03660
Skewness	4.94708	9.81732	6.22866	0.66101
Kurtosis	28.9822	128.795	60.6470	2.16796
Jarque-Bera	8985.74	188439	40435.9	28.3655
Probability	0.00000	0.00000	0.00000	0.00000
Sum	11392.3	383.135	295.116	33.0800
Sum Sq. Dev.	4321879	656.465	399.228	0.37239
Observations	293	293	293	293

Source: Researchers' Computation (2023)

From Table 2, Market Value (MV) had mean of 40.833.

This indicated that the average of MV was 40.833. The median of MV indicated the middle dataset was 6.477. The maximum of MV indicated the highest data of manufacturing companies as 877.412. The minimum of MV showed that the lowest data was -14.248. The standard deviation of MV indicated that the fluctuations from mean during the period of study for listed manufacturing companies in Nigeria was 124.685 and was high. The skewness of 4.947 indicated that the distribution of MV was positively skewed during the period of study. The kurtosis of 28.982 showed that the distribution for MV of listed manufacturing companies in Nigeria during the period of study was highly above normal curve. The Jarque-Bera statistics of 8985.74 compared with its probability value (p-value) of 0.0000 indicated that the dataset of MV was not normally distributed. The observations of two hundred and ninety-three (293) was obtained from multiplication of the number of listed manufacturing entities studied and the number of years considered in this study for MV.

From Table 2, Liquidity (LQ) had mean of 1.3732. This indicated that the average of LQ was 1.3732. The median of LQ indicated the middle dataset was 1.1630. The maximum of LQ indicated the highest data of manufacturing companies as 22.372. The minimum of LQ showed that the lowest data was 0.0450. The standard deviation of LQ indicated that the fluctuations from mean during the period of study for listed manufacturing companies in Nigeria was 1.5367 and was high. The skewness of 9.8173 indicated that the distribution of LQ was positively skewed during the period of study. The kurtosis of 128.795 showed that the distribution for LQ of listed manufacturing companies in Nigeria during the period of study was highly above normal curve. The Jarque-Bera statistics of 188439 compared with its probability value (p-value) of 0.0000 indicated that the dataset of LQ was not normally distributed. The observations of two hundred and ninety-three (293) was obtained from multiplication of the number of listed manufacturing entities studied and the number of years considered in this study for LQ.

From Table 2, Operating Efficiency (OE) had mean of 1.0578. This indicated that the average of OE was 1.0578. The median of OE indicated the middle dataset was 0.8210. The maximum of OE indicated the highest data of manufacturing companies as 14.331. The minimum of OE showed that the lowest data was 0.000. The standard deviation of OE indicated that the fluctuations from mean during the period of study for listed manufacturing companies in Nigeria was 1.1984 and was high. The skewness of 6.2287 indicated that the distribution of OE was positively skewed during the period of study. The kurtosis of 60.647 showed that the distribution for OE of listed manufacturing companies in Nigeria during the period of study was highly above normal curve. The Jarque-Bera statistics of 40435.9 compared with its probability value (p-value) of 0.0000 indicated that the dataset of OE was not



normally distributed. The observations of two hundred and ninety-three (293) was obtained from multiplication of the number of listed manufacturing entities studied and the number of years considered in this study for OE.

From Table 2, Inflation Rate (IFR) had mean of 0.1186. This indicated that the average for IFR during the period of this study was 0.1186. The median of IFR indicated the middle dataset during the period of study as 0.1140. The maximum of IFR indicated the highest data as 0.1860. The minimum of IFR showed that the lowest data during the period of study was 0.080. The standard deviation of IFR indicated that the fluctuations from mean during the period of study was 0.0366 and was high. The skewness of 0.6610 indicated that the distribution of IFR was positively skewed during the period of study. The kurtosis of 2.1680 showed that the distribution for IFR during the period of study was below normal curve. The Jarque-Bera statistics of 28.366 compared with its probability value (p-value) of 0.0000 indicated that the dataset of IFR was not normally distributed. The observations of two hundred and ninety-three (293) was obtained from multiplication of the number of listed manufacturing entities studied and the number of years considered in this study for IFR.

**4.1.2 Test of Multicollinearity**

The multicollinearity between the predictors (independent variables) were tested by the researchers using Variance

Inflation Factor (VIF). The results computed were presented in Table 3.

**Table 3:** Test of Multicollinearity

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
LQ	23.41637	2.026829	1.125096
OE	35.07111	1.826067	1.024777
IFR	37907.33	11.91518	1.033180
C	4625.493	94.45416	NA

Source: Researchers' Computation (2023)

From the results presented in Table 3, it was discovered that all the predictors had Centered VIF of less than ten (10). This indicated that the independent variables, including the control variable of IFR, had no problem of multicollinearity. In other word, it could be interpreted that the influence of individual independent variables on Market Value (MV) of listed manufacturing companies in Nigeria was not the same with another independent variable in the model.

**4.1.3 Correlation Analysis**

The correlation matrix for all the variables of this study were computed by the researchers to examine the coefficient of relationship among the factors. The results were presented in Table 4.

**Table 4:** Correlation Matrix

Correlation	IFR	LQ	OE	MV
IFR	1.00000			
LQ	0.110206	1.00000		
OE	-0.068929	-0.025825	1.00000	
MV	-0.008439	0.280166	0.30188	1.00000
Probability	IFR	LQ	OE	MV
IFR	-----			
LQ	0.0660	-----		
OE	0.2512	0.6676	-----	
MV	0.8884	0.0166	0.0062	-----

Source: Researchers' Computation (2023)

From Table 4, the relationship between an independent variable and another independent variable was less than 60% (0.6). This indicated that there was no sign of multicollinearity existing among the pairs of independent variables as presented on Table 4. The relationship between LQ and MV was 28.02% (0.2802), the relationship between OE and MV was 30.19% (0.3019) and the relationship between IFR and MV was -0.844% (-0.00844).

**4.1.4 Test of Hypotheses**

Under this sub-section, individual hypotheses were tested

from the outputs of analyses done by the researchers using appropriate statistical tools. The Hausman Test conducted on the data with probability value of 0.0157 (p<0.05) revealed that the fixed effect regression technique was suitable in this study.

**4.1.4.1 Hypothesis One**

The fixed effect regression results were computed by the researchers and presented in Table 5.

**Table 5:** Fixed Effect Regression Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	42.40028	4.941669	8.580153	0.0000
LQ	0.573126	0.151040	3.794531	0.0020
IFR	-27.06539	39.39145	-0.687088	0.4927
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.965667			
Adjusted R-squared	0.959738			
F-statistic	162.8735	Durbin-Watson stat		2.0041
Prob(F-statistic)	0.000000			

Dependent Variable=MV

Source: Researchers' Computation (2023)

From Table 5, Liquidity (LQ) had a positive and significant influence on Market Value (MV) of listed manufacturing companies in Nigeria. This was because the t-statistic and p-value indicated that LQ was significant on MV (t-stat.>1.966 and p-value<0.05). The LQ was in compliance with the *a priori* expectation stated by the researchers. A percentage increase in LQ brought about increase in MV of listed manufacturing companies in Nigeria. Inflation Rate (IFR) had a negative and insignificant influence on MV of listed manufacturing companies in Nigeria. The constant value of N42.40 showed the level of MV as LQ and IFR were held constant and was significant (t-stat.>1.966 and p-value<0.05). The Durbin-Watson (DW) statistic of 2.004

showed that there was no first order autocorrelation in the model.

R<sup>2</sup> indicated that 96.57% variation in MV was caused by the influence of LQ and IFR and Adjusted R<sup>2</sup> indicated that 95.97% variation in MV was attributed to the influence of LQ in the model. The F-statistic of 162.87 (prob.<0.05) indicated that R<sup>2</sup> and Adjusted R<sup>2</sup> were significant in explaining the model.

#### 4.1.4.2 Hypothesis Two

The fixed effect regression results were computed by the researchers and presented in Table 6.

**Table 6:** Fixed Effect Regression Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	40.24677	5.388835	7.468548	0.0000
OE	2.003645	0.709913	2.822381	0.0093
IFR	-20.04315	39.20657	-0.511219	0.6097
<b>Effects Specification</b>				
<b>Cross-section fixed (dummy variables)</b>				
R-squared	0.965802			
Adjusted R-squared	0.959896			
F-statistic	163.5379	Durbin-Watson stat		2.0106
Prob(F-statistic)	0.000000			

Dependent Variable=MV

Source: Researchers' Computation (2023)

From Table 6, Operating Efficiency (OE) had a positive and significant influence on Market Value (MV) of listed manufacturing companies in Nigeria. This was because the t-statistic and p-value indicated that OE was significant on MV (t-stat.>1.966 and p-value<0.05). The OE was in compliance with the *a priori* expectation stated by the researchers. A percentage increase in OE brought about increase in MV of listed manufacturing companies in Nigeria. Inflation Rate (IFR) had a negative and insignificant influence on MV of listed manufacturing companies in Nigeria. The constant value of N40.247 showed the level of MV as OE and IFR were held constant and was significant (t-stat.>1.966 and p-value<0.05). The Durbin-Watson (DW) statistic of 2.011 showed that there was no first order autocorrelation in the model.

R<sup>2</sup> indicated that 96.58% variation in MV was caused by the influence of OE and IFR and Adjusted R<sup>2</sup> indicated that 95.99% variation in MV was attributed to the influence of OE in the model. The F-statistic of 163.538 (prob.<0.05) indicated that R<sup>2</sup> and Adjusted R<sup>2</sup> were significant in explaining the model.

## 4.2 Discussion of the Findings

From Table 6, Liquidity (LQ) had a positive and significant influence on market value of listed manufacturing companies in Nigeria. This indicated that a percentage increase in current asset-to-current liability ratio resulted to inconsequential and negative influence on market value of listed manufacturing companies in Nigeria. The result of the analysis in respect to LQ was in compliance with the *a priori* expectation stated by the researchers of this study. When current asset-to-current liability ratio of an entity is high, it could be said that the liquid assets of such company are tied down. In other word, liquidity of an entity, in terms of current assets less current liabilities, is not expected to be high as idle funds do not generate any returns.

On the other hand, when current asset-to-current liability ratio is low in an entity, it could be asserted that inadequate liquid funds are maintained by the managers of such companies. Managers of companies are usually targeting optimal level of liquidity that could influence the market value and as well as other performance indicators of their firms. To achieve this, there is a need to always conduct liquidity analysis by computing short-term solvency ratios. Scholars have viewed that the level of liquidity of any company must be high. For instance, when current ratio is used as a proxy of liquidity, it should be greater than one at least. This is because the level of such ratio could help an entity to settle any maturing obligation that falls due.

Also, the ratio of liquidity need not to be too high. This could be observed from the descriptive statistics of this study where liquidity ratio for the listed manufacturing companies in Nigeria studied was greater than one but less than two. Thus, the positive and significant influence of liquidity on market value of quoted manufacturing companies in Nigeria could be attributed to the fact that the current ratio used as a measurement for liquidity in this study for listed manufacturing companies in Nigeria in average was in between this range. It could be stated vividly that liquidity of these entities was moderately kept low and effectively managed to influence on market value of the entities positively and as well as shareholders' wealth. The present study was not in line with Mohammed (2017) [22] who empirically studied the impact of firm characteristics on firm value of listed healthcare firms in Nigeria. It was not in line with Ceriawati & Endri (2018) [8] who examined the determinants of firm value: A case study of cigarette companies listed on the Indonesia Stock Exchange (ISE).

From Table 6, Operating Efficiency (OE) had a positive and significant influence on market value of listed manufacturing companies in Nigeria. This indicated that a percentage increase in operating Efficiency (OE) resulted to

a significant improvement in market value of listed manufacturing companies in Nigeria. The result of the analysis in respect to OE was in compliance with the *apriori* expectation stated by the researchers. Operating Efficiency has to do with the competency of managers in an entity. When managers of companies are capable of formulating and implementing strategies that can drive the operational activities of their entities, the market values are certain to improve. On the other hand, when managers of entities are unable to formulate and implement strategies that are ideal, the market values can be influenced negatively.

Operating Efficiency is concerned with the ability of a manager to use his/her intellect in managing the various attributes of accounting reported on financial statements. These include utilization of assets for adequate revenue yield, liquidity management, leverage management and so on. In managing of assets, managers often that the composition of assets is made up of a greater proportion being attributed to non-current assets. Also, managers of entities often ensure that the accumulation of assets is in line with revenue generated and as well as profitability growth. By so doing, the outcome is to influence market value of the companies positively.

Operating Efficiency ensures excessive non-currents are reduced to acceptable level. This is because the accumulation of larger non-current assets might not affect revenue generated positively in an accounting period of time. When this occurs, it is expected that managers of firms should carry out evaluation on the composition of non-current assets or total assets to separate irrelevant component for efficient operation. In this study, the positive and significant influence of Operating Efficiency (OE) on market value of listed manufacturing companies in Nigeria could be attributed to the fact that assets of these entities had been effectively managed and utilized by managers of the firms. This study was not in line with the study of Bhullar (2017) <sup>[6]</sup> who conducted a study on empirical analysis of operating efficiency and firm value: A study of fast-moving consumer goods sector and pharmaceutical sector in India.

## 5. Conclusion and Recommendations

The study was conducted to ascertain the influence of firms' specific characteristics on market value of listed manufacturing companies in Nigeria. Data for the core variables were obtained and analysed using descriptive statistics and multiple linear regression. The individual variables of firms' specific factors were Liquidity (LQ) and Operating Efficiency (OE). Inflation rate (IFR) was chosen by the researchers as control variable to reduce the spuriousness of the empirical results in individual model. From the analyses done by the researchers, it was concluded that firms' specific characteristics had a significant influence on market value of listed manufacturing companies in Nigeria.

From the result of the analyses and in line with the independent variables of this study, the following recommendations were suggested:

- a. The liquidity position of the listed manufacturing companies in Nigeria should be improved by ensuring that cash component is raised more than other elements.
- b. Total assets of the listed manufacturing companies in Nigeria should be acquired in accordance with the revenue generated over the years to raise the operative efficiency of the managers.

Because of the scope of this study, the researchers could not cover the entire gap in the literature. For this reason, the following suggestions were made for the conduct of other studies:

- a. Firms' characteristics and market value of listed manufacturing companies in Nigeria should be studied by other researchers by considering both internal and external factors.
- b. Firms' specific characteristics and market value of listed manufacturing companies in Nigeria should be investigated by other researchers with the use of other proxies for market value.

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