

# Effect of Firm Attributes on Firm Performance: Evidence From Selected African Countries

UZOKA, P.U. and PROF. IFURUEZE, M.S.

Chukwuemeka Odumegwu Ojukwu University, Igbaram

**Abstract:** *This study evaluates the effect of corporate attributes and performance: Evidence from selected African countries. The study formulated seven objectives and hypotheses. The study adopted an ex-post facto design and used panel data collected from the financial reports of industrial firms in selected African countries 2009 and 2018. The study The data were analyzed using ordinary least square regression. However some preliminary analyses such as descriptive statistics, correlation analyses were carried out. The study finds that operating efficiency and leverage policy have positive significant effect on performance. Corporate size, corporate age, and corporate stability have positive but insignificant effect on performance. Assets tangibility and corporate growth have negative insignificant effect on performance of industrial goods.*

**Keywords:** Corporate, Attributes, Performance, Tangibility, Leverage, Growth, Size

## 1.1 Introduction

Corporate organization cannot compete favorably and survive on the long run without having some unique attributes which distinguishes it from others (Hakrabati, 2007). Those unique attributes can influence the policy and decision making process of the firm, give the firm a competitive advantage over others and affect the short and long run performance of the firm. Corporate attributes are internal variables that can influence corporate policy and decision (Shehu, 2009). They are specific variables that enhance the possibility of achieving corporate goal. Shehu, (2009) divided corporate attributes into two basic groups: corporate performance attributes and corporate structural attributes.

Corporate performance attributes includes corporate growth and profitability, while the corporate structural attributes include corporate size, corporate leverage, corporate age and management efficiency. According to Suhaila, Kila, Mahamood and Monsur (2008), corporate attributes distinguishes one firm from another, those attributes includes size, growth, performance and interest coverage ratio, investment opportunity, profitability, risk and tangibility. Others include age, cash flow, dividend policy, leverage, operating expenses and internal governance mechanisms (Abdullahi, 2016). For instance, corporate size as an internal factor of a company has been considered a very important attribute on profitability. This is because the size of corporate organization can to a large extent determines its level of economic activity and the possible economics of scale enjoyed by the firm. Therefore, large companies are more likely to generate lower returns on assets (Driffield, Mahambare & Pal, 2005). The use of leverage in financing operation does provide incentive in form of tax shield which reduces tax liability of the firm thereby increasing the profitability of the firm (Shah, & Khan, 2007). Also, assets tangibility can enhance performance as companies that invest more in tangible assets may borrow at lower cost if the debt is secured with assets. Operating efficiency is viewed as a company unique factor such as management skills, innovation, cost control, and they can be key determinants of the company's performance and stability (Abuzayed & Molyneux, 2009). Corporate age is believed by Ericson and Pakes, (1995) cited in Kabiru, Ibrahim, and Ibrahim (2019) to be key factor that determines the level of experience performance. Older firms are considered to have established standards for most activities and established policy for various aspects of operations. Hence this study was carried out to examine the relationship that exist between corporate attributes and firm performance.

Corporate attributes has been observed as a major internal determinant of performance and long run survival for organization (Mohammed & Usman, 2016). However, those attributes will require to be put into use effectively in other to contribute to the enhancement of the performance of a firm. Thus for the organization to maximize the benefit associated with the unique attributes, the management must develop the technical knowhow, skill and competence required to effectively manage and take advantage of those attributes in order to enjoy the benefit but most times this is lacking.

This study filled gap in knowledge by evaluating the connection between corporate attributes and performance in selected firm in Kenya, South Africa and Nigeria. This study introduced operating efficiency, assets tangibility and firm stability as part of firm attributes that can affect performance. The above constitutes the gap in literature which this study filled. The main objective of this study is to evaluate the effect of corporate attributes on performance of quoted companies in selected African countries.

The paper is structured into four sections. Following the introduction, section two, reviews of related literature. Section three deals with methodology. Section four, result of analysis, conclusion and recommendations.

## 2.0 Review of Related Literature

### 2.1 Corporate Attributes

Dean, Bulent and Christopher (2000) define corporate attributes as the essential determinants of a firm performance success.

Ali and Isa (2018) define corporate attributes as firm characteristics or specific features that distinguish one firm from another. Those corporate attributes distinguishes a corporate organization from others, they includes: the size, leverage, performance, age, firm growth leverage, industry type, geographical location, nature of the business, corporate governance mechanism etc. those characteristics can influence the level of liquidity policy.

This study used: firm size, operating efficiency, assets tangibility, leverage, firm growth, firm age firm stability as corporate attributes.

### 2.1 Operating Efficiency and Performance

Operational efficiency is seen as the extent management uses the company's resources in the achievement of the goals of the firm. The uses of these resources influence the performance of the firms. The measure shows how effective managers are in the use of the resources placed under them. The inefficient use of resources on the other hand can lead to a loss in revenue to the firm. Fleming, Heaney and McCosker (2005) believe that inefficient corporate resources usage can increase agency costs, as managers are not acting in the best interests of the owners. The effective use of corporate resources enhances the ability of the firm in achieving their better performance. The optimal utilization of resources can reduce the operating cost and increase the profitability of firms (Ubesie & Ogbonna, 2013).

Abuzayed and Molyneux, (2009), believe that operating efficiency of managers is the product of firm specific factors such as management skills, innovation, cost control, and market share. Similarly, Mohammed (2108) opine that operational efficiency of manager toward resource usage can plays an important role in improving present and future performance of the firm. In the study of Chen and Yu (2011), it was observed that increased performance of firms due to efficiency in resource usage occurs when the marginal benefits of assets usage are greater than the marginal costs of acquisition of new assets. However, studies on this issue have produced mixed results. *The study hypotheses as follows: H<sub>01</sub>: Operating efficiency size has no significant effect on performance of quoted companies.*

### 2.2 Assets Tangibility and Performance

Assets Tangibility has been refers to as the presence of noncurrent assets own and used in generating revenue for the firm in a given year of assessment. It reveals the extent to which tangible assets are used in the production process (Akinsulire, (2011).

Assets tangibility plays an informational role especially when it's been used as collateral. The lenders can obtain additional information about the borrower from evaluating the quality, quantity and nature of the assets, the assets used as collateral can be used to assess the borrower's repayment prospects. Using tangible assets as collateral allows lenders to sort observationally, equivalent loan applicants through signaling and help attenuate the problems of adverse selection and credit rationing. It also reduces moral hazard by aligning the interests of both lenders and borrowers (Holmstrom & Tirole, 1998). Tangible assets can serve as collateral in secured lending. Therefore, asset tangibility increases the recovery value for lenders in default states and is positively linked to the ease with which borrowers can obtain external financing. Lenders can reduce the cost of borrowing for firms with high level of tangible assets compare to firms with low level of tangible assets. The low cost of borrowing can positively affect the overall cost of operation and reduce the possibility of bankruptcy even in a downturn economy. *The study hypothesis as follows: H<sub>02</sub>. Assets tangibility has no significant effect on performance of quoted companies.*

### 2.3 Corporate Size and Performance

Shaheen and Mlik (2012) corporate size has been described as the quantity, production capability and potential a firm possesses. Company size has been identified as one of the major attributes of company, it determine to a large extent the operating and control structure in the company. The size of company is assumed to influence the level of resources at the company's disposal and give the company the opportunity to take advantage of investment opportunities, hire best hands to run its operation.

Company's size is believed to influence other factors like; company's assets, cash holding, liquidity performance. The study finds that firm size has a positive significant impact on the firm profitability. Similarly, the study of Dogan (2013) on the effect of firm size on profitability has shown that firm size is positively related with profitability. In a similar work on the effect of firm size on performance of Portuguese companies by Serrasqueiro and Nunes (2008) between the period of 1999 and 2003, indicates a positive and significant relationship exist between corporate size and corporate profitability of Portuguese companies. Corporate size is used in this study as independent variable, because the study is on firm attributes and size is among the proxies of corporate attributes. *The study hypothesis as follows: H<sub>03</sub>. Corporate size has no significant effect on performance of quoted companies.*

### 2.4 Corporate Leverage policy and Performance

Upneja and Dalbor, (2001) opine that corporate leverage shows the degree to which a company uses fixed-income securities, such as debt and preferred equity. As the use of high level of financial leverage result to high interest payments. This shows that leverage can be a tool that can affect the performance of firms through the payment of interest which increases the cost of operation. However, high leverage may be beneficial in boom periods; and it may cause serious cash flow problems in recession periods, because there might not be enough sales revenue to cover the interest payment (Tudose, 2012). Leverage will requires

interest which is a fixed cost written off against revenue, a loan allows an organization to generate more profit without a corresponding increase in equity capital which will require increase in dividend payment that cannot be written off against the firms' earnings (Magpayo, 2011). The use of leverage though it carries fixed interest may be beneficial in economic boom periods, and it may cause serious cash flow problems in recession periods, because there might not be enough sales revenue to cover the interest payment (Tudose, 2012). The use of leverage as observed by Ferreira and Villela (2004) can increase the firms' probability of bankruptcy especially in an unstable economy hence firms most often do prefer the use of internally generated fund instead of financing investment with equity. The internal funds are held in form of liquid assets. However, Abruytan (2014) argued contrary believing that highly leveraged firms would keeps low level of cash and cash equivalent (liquid assets) as they prefer taking opportunity of investments using available fund prior taking on equity. *The study hypothesis as follows: H0<sub>4</sub>: Leverage policy has no significant effect on performance of quoted companies.*

## 2.5 Corporate Growth and Performance

According to Sri (2013) corporate growth is the change in the firm total assets, revenue and revenue generating capability. Mai, (2006) believed that a firm has growth opportunity when the firm has high probability to grow. Firms' growth opportunity varies across sectors and the individual firm, this determine their financing decision (Akinsulire, 2011). Hence a firm which is experiencing growth tends to choose the use of equity financing because of its low risk and cost. On the contrary, Mai, (2006) argued that most firms which is currently experiencing low level of growth do prefer to share risk of low growth with investors through the issuance of debt in form of long term payable. Firm growth is not one sided, as growth should cut across all aspect of the firm, however, firm growth is empirically viewed from sales, and assets perspective.

Asset growth is the persistent increase in the total assets, which can be measured by increase in plant and equipment value, and research intensity, may also affect sales growth in a base year or succeeding year, indirectly affecting the development and market value (Safdar, Hazoor, Toheed & Ammara, 2013). Most empirical studies view firm growth from one sided perspective; they empirically viewed growth from sales, and assets perspective. *The study hypothesis: H0<sub>5</sub>: Corporate growth has no significant effect on performance of quoted companies.*

## 2.6 Corporate age and Performance

Corporate Age as the length of incorporation. Ofuan (2016) has argued that since a firm as a legal person, is born through incorporation also experience aging. Older firms specialize and find ways to standardize, coordinate and speed up their production process, as well as to reduce costs and improve quality as they get older, this enhance their performance.

Corporate age is usually associated with experience in operations and management. Older firms tend to have standard for most activities and well established policy for various aspect of operations. Yasuda, (2005) argued that maturity brings stability in growth as firms learn more precisely, maintain standard and operating efficiency. Maja, Ivica and Marijana (2017) examined the relationship between firm Age and firm performance management using firms quoted under the food industry in Croatian. The study found that among the various firm specific factors influencing performance, firm's age has more impact than others. The study finds that firms' age has negative effects on firm's liquidity. Firm's profitability, firm size, and solvency were found to have direct impact on the performance among firms operating in Croatian. *The study hypothesis as follows: H0<sub>6</sub>: Corporate Age has no significant effect on performance of quoted companies.*

## 2.7 Corporate Stability and Performance

Corporate stability is the ability of firms to maintain the level of production and operation in the nearest future. Stability strategy focuses on maintaining its present product and market in other to guarantee future performance and avoid risk. Corporate stability deals with the ability of firm to withstand temporary problem such as a decrease in sales, lack of capital or loss of a key staff or customer. The stability plans of business include the investment in assets with present and future value (Dun & Bradstreets 2011).

According to Dun and Bradstreets (2011) a stable corporate system is capable of efficiently allocating resources, assessing and managing financial risks, maintaining its human capital as much as possible. In stability, the system is built to absorb any adverse shocks primarily through it internal capabilities and developed mechanisms, thereby preventing adverse negative effect of events leading to disruption of the real economy. Dun and Bradstreets (2011) Corporate stability is measured by the logarithm of investment in research and development, human capital and property plant and machinery.

According to Das, Quintyn and Chenard (2004), a stable operating system is capable of efficiently allocating resources, assessing and managing financial risks, maintaining employment levels, retain and increase customer base and achieve financial performance. Geoffrey and Ali (2016) evaluates firm stability and system stability among grocery business in the UK. The study finds that system stability positively impact on the stability grocery business in the UK. A stable firm can focus on the policies that can enhance the profitability of the firms and maintain standard in operation, retain key staff, enhance their possibility of increasing their customer base, withstand the competition. *The study hypothesis as follows: H07: Corporate stability has no significant effect on firm performance of quoted companies.*

### 3.0 Methodology

#### 3.1 Research Design

The study adopted the ex post facto research design and used longitudinal data collected from the annual financial report of the firms. The data collected from industrial goods firms were analysed using regression analysis. The study selected one country from each region of Africa excluding the North Africa region. A country was selected from each region:- Nigeria representing the West Africa region, South Africa representing the southern part of Africa and Kenya representing the East Africa. These countries have the three biggest stock exchanges (in terms of number of quoted companies and market capitalization) in the various regions they were located. The study relies on the Global Sector Classification Standard (GICS) to select the firms used in the study. The study covers the period of 2009 and 2018 and used data collected from industrial goods firms. To avoid data bias the study was limited to ten years. The industrial goods firms from the various countries are: Nigeria stock exchange 11, South Africa 19 and Kenya 10. The study selected 30 industrial goods firms based on availability of data and to ensure equal representation of companies in the three countries. Having equal sample size enable the study carry out comparative analysis. The variables used were Operationalized as follows: **Refer to table 3**

#### 3.2 Model Specification

The study adopted the model of Agnes (2013). The study of Agnes (2013) evaluates the relationship between firm characteristics and firm performance using size, diversification, leverage, liquidity, age and claim experience among life insurance companies in Kenya. The study modified the model to suit the variables used in the study. Agnes (2013) model  $ROA = f(DV, SZ, LQ, AG, CC, FG)$ .

The model was modified to suit the variables selected for this study, as follows:

##### Model 1

$$\text{Tobin } Q = f(\text{OPEF}, \text{ASSTAN}, \text{FSIZE}, \text{LEVEG}, \text{FGRWT}, \text{FAGE}, \text{COSTAB}) \dots\dots\dots 1$$

##### Model 2

$$\text{ROA} = f(\text{OPEF}, \text{ASSTAN}, \text{FSIZE}, \text{LEVEG}, \text{FGRWT}, \text{FAGE}, \text{COSTAB}) \dots\dots\dots 2$$

Equation 1 and 2 is the linear regression model used in testing the null hypotheses formulated.

Where: TobinQ = TOBIN Q, ROA = Return On Assets, OPEF = Operating Efficiency, ASSTAN = Assets Tangibility, FSIZE = Firm Size, LEVEG = Leverage, FGRWT = Firm Growth, FAGE = Firm Age, COSTAB = Corporate Stability,  $C_0$  = Constant; e = Error term;  $i$  = is the cross section of firms used;  $t$  = is years.

### 4.0 Data Analysis, Interpretation and Recommendation

#### 4.1 Data Presentation

The study adopted the ordinary least square regressions analysis to identify the causal effects relationship that exists between corporate attributes and firm performance. The study however conducted some preliminary analysis such as descriptive statistics, correlation analysis to ascertain the normality of the data and check for the presence of multi-collinearity.

##### 4.2.1 Descriptive Statistics

Table 4.1 below, is the descriptive statistics result of the data covering the period of ten years (2009 – 2018) of the quoted companies is used for the study. Refer to Table 4.1

The descriptive statistics result shows that on the average the industrial goods firm used in the study has positive performance on the average within the period under study. The difference between the mean, maximum and minimum value shows that some firm's incurred losses within the period in Kenya, Nigeria and South Africa.

Operating efficiency which shows a mean value of 0.33, maximum value of 1.20 and minimum value of 0.01. This shows that only few some of the management is effective in the utilization of the firm resources while some are not too effective. The result reveals that on the average, industrial goods firms maintain about 46 percent of their assets in physical (non current) assets. Some firm have assets tangibility maximum of 76% and minimum assets tangibility of 23%. The result shows that the average of firm size is 32.62, maximum value of 58.83 and minimum value of 19.01. The large differences between the mean, minimum and maximum value shows that the firms used are not dominated by larger or small firms.

The result of leverage shows that on the average (25%) industrial goods firms maintain a low leverage (below 30%). However, within the period, some firms have high level of leverage of about 64% while some maintain low level of leverage of about 0.03%. This indicates that few firms are financing their operation and investment using debt compare to the use of equity financing. Firm growth has mean value of 0.25, maximum value of 0.55 and minimum value of 0.01. The result shows that some firm achieve high growth rate while some experience low growth rate. The result shows that firm age has mean value of 20years, maximum value of 67years and minimum value of 7years. Firm age has been associated with standard, as old firm is assumed to have formulated operative standard in various area of the firm operation. The result of corporate stability shows mean value of 19.65 among the industrial goods firms. Maximum value of 38.0 shows that some industrial goods invest in assets that can guarantee their stability, while the minimum value of 0.28 shows that some firm invest low on assets that can guarantee their stability.

The Jarque Bera and its probability which test the level of normality of the data shows that Tobin q, return on assets, operating efficiency, asset tangibility, firm size, firm growth, firm age, corporate stability are normally distributed at one percent significant level. While leverage is normally distributed at 5% level.

#### **4.2 Correlation Analysis.**

In examining the association between the variables and check for multi-colinearity, the study employed the spearman rank correlation and the results are presented in table 4.2. Refer to table 4.2

The result shows that firm performance (Tobin q, and return on assets) has positive but weak association with operating efficiency (TOBINQ -0.093 & ROA 0.16), the result shows that operating efficiency is positively associated with performance when measure using return on assets but negatively associated with performance when measure from the market perspective using Tobin q.

Assets tangibility is negatively associated with firm performance (TOBINQ -0.093 & ROA -0.169). This reveals the more firm invest in tangible assets the lesser they tend to perform especially on the short run. Though this result may be accepted under a short run, on the long run, the assets will lead to better performance if effectively utilize in the production process. Firm size (TOBINQ 0.044 & ROA 0.153), and firm growth (TOBINQ 0.037 & ROA 0.054) has positive association with firm performance. Firm age and leverage has weak negative association with TobinQ -0.142 and TobinQ -0.013 respectively. But positive association with return on assets 0.033 and 0.149 for Firm age and leverage respectively. Firm stability (TOBINQ 0.72 & ROA 0.103), has positive association with firm performance (Tobin q and return on assets).

The result shows that increase in firm stability program, can positively lead to better performance. Operating efficiency is positively associated with assets tangibility, (0.285) leverage (0.074), firm size (0.170), firm growth (0.198), and firm stability (0.102) but negative association with firm age. This indicates that the level of operating efficiency can positively lead to asset tangibility, firm size, firm growth, leverage, firm stability.

In checking for the presence of multi-colinearity, the study observed that no two variables were perfectly correlated using the 75% association benchmark. This shows the absent of multi-colinearity among the variables used in the study.

#### **Comparative Analysis of firms in Kenya, Nigeria and South Africa**

In other to ascertain the effect of corporate attributes on firm performance across firms in, Kenya, Nigeria and South Africa, the study carried out country specific analysis. The effect of the selected corporate attributes on firm performance under the two models (Market value and return on assets) in Kenya, Nigeria and South Africa. The summary of the result (probability values) is presented below. Details of the country specific result is provided in the appendix 7-12. Refer to table 4.3

The analysis result reveals that corporate attributes variables affect about 37.6% of market value among industrial goods firms in Kenya, about 46.6% changes the level of market value among industrial goods firms in South Africa and about 34.2% changes the level of market value among industrial goods firms in Nigeria. Under the return on asset model, corporate attributes variables affect about 68.2% of changes in the level of return on asset among industrial goods firms in Kenya, about 44.3% changes in the level of return on asset among industrial goods firms in South Africa and about 41.2% changes the level of return on asset among industrial goods firms in Nigeria. Generally, the result reveals that corporate attributes variable have more effect on performance of industrial goods firms in Kenya than industrial goods firms South Africa and Nigeria.

**Corporate attributes:** The analysis result shows that corporate attributes has more effect on firm performance of firms in Kenya, follow by firm in South Africa than in firms in Nigeria under the return on assets model. On the return on assets model, the result reveals that corporate attributes variables jointly drive about 68.2% of changes the level of return on assets among firms in Kenya, about 37.6% changes the level of return on assets among firms in Nigeria and about 44.3% among firms in South Africa. Under the market value (Tobin q) model, corporate attributes variables jointly drive about 37.6% of changes the level of market value among firms in Kenya, about 34.2% changes in the level of market value among firms in Nigeria and about 46.6% of market value among firms in South Africa. The result reveals that corporate attributes has more effect on firms quoted in Kenya, followed by firms in South Africa than firms in Nigeria.

**Operating efficiency** has significant effect on firm performance proxy by return on assets among industrial goods firms in Kenya but insignificant effect on firms in Nigeria and South Africa. Thus operating efficiency significantly drives the level of return on assets among firms in Kenya, but does not among firms in Nigeria and South Africa. The study finds that Operating efficiency has significant effect on the level of market value among firms in Nigeria but does not among firms in Kenya and South Africa.

**Assets tangibility** has insignificant effect on firm performance proxy by return on assets among industrial goods firms in Kenya and South Africa but has significant effect among industrial goods firms in Nigeria. The result means that Assets tangibility significantly drives the level of return on assets among firms in Nigeria, but does not significantly drives among firms in Kenya and South Africa. The study finds that Assets tangibility has significant effect on the level of market value among firms in Nigeria but does not among firms in Kenya and South Africa. This indicates that assets tangibility drives performance of firms in Nigeria but does not significantly drive the level of firm performance in Kenya and South Africa.

The result shows that **firm size** has significant effect on return on assets and on market value of firms in Kenya. Among firms in South Africa, firm size has insignificant effect on firm performance (return on assets and Tobin q). In Nigeria firm size has significant effect on return on assets but does not have significant effect on Tobin q. Thus, increasing the level of firm size can significantly affect the performance of firms in Nigeria.

**Leverage policy** has significant effect on firm performance proxy by market value (Tobin q) among industrial goods firms in Kenya and Nigeria but has insignificant effect on the market value of firms in South Africa. The study also observed that leverage policy has no significant effect on firm performance of firms in Kenya, Nigeria and South Africa proxy by return on assets. The result means that leverage policy can only significantly affect the performance (market value) of firm in Kenya and Nigeria.

**Firm growth** significantly drives the level of return on assets among firms in Kenya, but does not significantly drives performance among firms in Nigeria and South Africa. The study finds that firm growth does not significantly effect on the level of market value among firms in Nigeria, Kenya and South Africa. This indicates that firm growth only drives performance of firms in Kenya but does not significantly drive the level of firm performance in Nigeria and South Africa.

**Firm age** does not significantly drives the level of return on assets and Market value among firms in Kenya, Nigeria and South Africa. The study finds that firm age does not significantly effect on the level of firm performance among firms in Nigeria, Kenya and South Africa. This indicates that age does not significantly drive the level of firm performance in Kenya, Nigeria and South Africa.

**Firm stability** does not significantly drives the level of performance of (return on assets and market value) among firms in Kenya and Nigeria. It only significantly drives the level of performance on market value but not on return on assets in South Africa. The study finds that firm stability does not significantly effect on the level of firm performance among firms in Nigeria and Kenya. This indicates that stability only drives performance of firm in South Africa but does not significantly drive the level of performance of firms in Kenya, Nigeria.

### 5.3 Recommendations

1. The study finds that operating efficiency has positive and significant effect of performance of industrial goods firms in Kenya, Nigeria and South Africa. The study recommends that management of industrial goods firms in Kenya, Nigeria and South Africa should formulate policy that will be geared toward enhancing their operating efficiency (achieving low operating cost).
2. The study finds that assets tangibility has insignificant effect on the performance of industrial goods firms in Kenya, Nigeria and South Africa. Thus increasing the level of assets will not significantly affect the performance of industrial goods firms. The study recommends that management of industrial goods firm in their drive to enhance their performance should not

- increase the level of their assets at least in the nearest future. Increasing or reducing the level of assets tangibility will not relatively drive the level of their performance.
3. The finding shows that firm size has positive and insignificant effects on firm performance of quoted companies in Kenya, Nigeria and South Africa Stock Exchanges. Since size of firm positively drive performance, though the extent is low for now, increasing the firm size may result in the positive impact significant in driving/affecting the performance of the firm. The study recommends that management of industrial goods firms should consider increasing the size of their firms, this will enable them enjoy the benefit of economic of scale, which can positively impact on their performance.
  4. Leverage has negative significant effect on performance of industrial goods firms in Kenya, Nigeria and South Africa. The advantage of using leverage financing can be wiped off by the threat of bankruptcy especially during economic instability and recession (case of Nigeria and South Africa). The study recommends that management of industrial goods firms should reduce their leverage policy, as serving high leverage may pose challenges to the survival and performance of the firm.
  5. The study finds that firm growth has insignificant effect on performance of industrial goods firms in Kenya, Nigeria and South Africa. Large firms are believed to enjoy the benefit of economic of scale. The pursuit of growth would be needful, however, this may not be added advantage to the firm considering the prevailing economic condition which affect the markets in the countries used in the study. The study recommends that management of industrial goods firms should increase the growth rate of their firms. As the investment in growth enhancing programs may significantly drive the performance of the firm in future.
  6. The result shows that firm age has positive and insignificant effects on the performance of quoted industrial goods firms in Kenya, Nigeria and South Africa. Firm age is usually associated with experience coordinated and speed up operation. Older firms are considered to have established standards for most activities and established policy for various aspects of operations. The study recommends that management of industrial goods firms in Kenya, Nigeria and South Africa should consider their firm age when formulating policy and programs that will be geared toward enhancing their performance.
  7. Corporate stability positively affects performance of quoted industrial goods firms in Kenya, Nigeria and South Africa. The stability of firm reveals the extent a firm withstand temporary decrease in sales or loss of a key staff or customer. Firm stability program/plans involve the investment in assets with present and future value. This study recommends that management of industrial goods firms should invest more in firm stability programs and activities.

## References

- Abdullahi, M. (2016). Firm characteristics, governance mechanisms and financial performance of listed building materials firms in Nigeria. (unpublished)M.Sc Dissertation Submitted to the Department of accounting, Faculty of Administration, Ahmadu Bello University, Zaria Nigeria
- Abruytn, S. & Van, N. (2014). The role of agency in social cultural evolution: Institutional entrepreneurship as a force of structural and cultural change. British Columbia Webers Charismatic Carrier Group.
- Abuzayed, B., & Molyneux, P. (2009). Market value, book value and earnings: Is bank efficiency a missing link? *Managerial Finance*, 35(2), 156–179.
- Agnes K. (2013). Relationship between firm characteristics and financial performance of life insurance companies in Kenya. A research project submitted in partial fulfillment of the requirements for the award of degree in Master of science in finance, university of Nairobi
- Akinsulire, O. (2011). Financial management: *Ceemol Nigeria Limited*, 7th Edition. 54
- Chen, C. & Yu, C. (2011). Managerial ownership, diversification, and firm performance: Evidence from an emerging market. *International business review* 2(3), 44-62.
- Dean, L., Bulent, M. & Christopher, P. (2000). Revisiting firm characteristics, strategy and export performance relationship: A survey of the literature and an investigation of New Zealand small manufacturing firms. *Industrial Marketing Management*, 29(14); 461-4177. 57
- Dietrich, M. (2010). Efficiency and profitability: A panel data analysis of UK manufacturing firms. *Sheffield Economic Research Paper Series*, 1–45.
- Dogan, M. (2013). Does firm size affect firm profitability? Evidence from Turkey. *Journal of Finance and Accounting*, 4(4).
- Dun, N. & Bradstreets, N (2011). Firm characteristics, capital structure and operational performance: A Vietnamese study, in *Proc. the APEA 2011 Conference*, Busan, 2011.
- Ericson, R., & Pakes, A. (1995). Markov- Perfect Industry Dynamics: *The Review of Economic Studies*, *Framework for Empirical Work*, 62(1), 53-82.
- Ferreira, M. A. & Vilele, A. S. (2004). European financial management. 1<sup>st</sup> Edition, Blackwell Publishing Ltd.

- Fleming, G. Heaney & McCosker, R. (2005). Agency costs and ownership structure in Australia. *Pacific-Basin Finance Journal* 13, 29–52.
- Geoffrey and Ali. (2016). Global Financial Stability Report, Washington, DC. International Monetary Fund Publication Services.
- .Hakrabati, G. (2007). Diversification and Performance: A study of Affiliated and Independent Firms. *Journal of Management Studies*, 8 (1) 438-451.
- Holmstrom, B & Tirole, J (1998). Private and public supply of of liquidity. *Journal of Political Economy*, 1; 1-40.
- Kabiru, S., Ibrahim, A., & Ibrahim M. A. (2019). Company attributes and firm value of listed consumer goods companies in Nigeria. *Journal Of Research In Humanities And Social Science*, 7(5), 40-99.
- Magpayo, C. (2011). Effect of working capital management and financial leverage on financial performance of Philippine firms. *College of Business, De La Salle, University, 2401 Taft Avenue 1004 Manila*.
- Mai, M. U. (2006), Analisis Variabel-Variabel yang Mempengaruhi Struktur Modal Pada Perusahaan-Perusahaan LQ-45 di Bursa Efek Jakarta, *Ekonomika*, Hal. 228- 245. PoliteknikNegeri, Bandung.
- Maja, P. & Josipa, V. (2012). Influence of firm size on its business success. *Croatian Operational Research Review*, 3: 213-23.
- Mohammed, G. T. (2018), Impact of firm characteristics on firm value of listed health care firms in Nigeria (Master Thesis Mohammed; Ahmadu Bello University, Zaria). Retrieved from : <https://kubani.abu.edu.ng/spui/bitstream/123456789/9839/1/impact%20firms>.
- Mohammed, A. & Usman, S. (2016). Corporate attributes and share value of listed Pharmaceutical firms in Nigeria. *Journal of Arts, Science & Commerce*, 7, 88-98.
- Nigeria Stock Exchange(NSE), *Fact Book 2013*.
- Ofuan, J, Ilaboya & Izien, F. O. (2016). Firm age, size and profitability dynamic.  
Retrieved from: <https://dx.doi.org/10.5430/bmr.v5n1p29>. *Business And Management Research*, 5,(1).
- Safdar, H., Hazoor, M., Toheed, A. & Ammara I. (2013). Impact of firm’s characteristics on stock value: A case of Non financial listed companies in Pakistan. *Asian Economic and Financial Review*, 3(1):51-61
- Shah, C. & Khan, N (2007). Liquidity Management and Profitability: A Case Study of Listed Manufacturing Companies in Sri Lanka. *International Journal of Technological Exploration and Learning (IJTEL)* 2(4) 2319-2135
- Shaheen, A. & Malik, O. (2012). Corporate attributes and share value of listed Pharmaceutical firms in Nigeria. *Journal of Arts, Science & Commerce*, 7, 88-98.
- Shehu, M. (2009). The impact of firm characteristics on market value of quoted manufacturing firms in Nigeria. (non published) *M.Sc Dissertation Submitted to the Department of accounting, Faculty of Administration, Ahmadu Bello University, Zaria Nigeria*
- Sri, H. (2013). Profitability, growth, opportunity, capital structure and firm value. *Bulletin of Monetary Economic And Banking*, October 2013.
- Suhaila, M., Mahmood, W & Mansor W. (2008). Capital Structure and Firm characteristics: Some evidence from Malaysian companies. [www.mpra.ub.uni.muench](http://www.mpra.ub.uni.muench)
- Tudose, M. (2012). Capital structure and firm performance. *Economy Transdisciplinary cognition*, 15(2); 76-82.
- Ubesie, N. & Ogbonna, C. (2013). Excess resources, assets utilization costs, and mode of entry. *Academy of Management Journal*, 33: 780-800.
- Upneja, A., & Dalbor, M. (2001). An examination of capital structure in the restaurant industry. *International Contemporary Hospitality Management*, 13(2), 54 - 59.



**Table 3.1**

Variables	Measurement / proxy	Authority
Firm performance	Tobin q	Olatunji and tajudeen (2014)
	ROA	Agnes (2013)
Operating efficiency	Operating expenses / sales	Agnes (2013)
Assets tangibility	Fixed assets - intangible assets / total assets	Akinsulire (2011)
Firm size	Log of total asset	Agnes (2013)
Leverage policy	Total debt / equity	Agnes (2013)
Firm growth	Changes in total revenue (%Δ Revenue)	Mohammed and Usman (2016) Agnes (2013)
Firm age	Year of incorporation to the period covered by the study	Agnes (2013) Pickering (2011)
Firm stability	Log of investment in R&D	Dun and Bradstreets (2011)

**Table 4.1 Descriptive Statistics**

	TOBINQ	ROA	OPEF	ASSTAN	FSIZE	LEV	FGRWT	FAGE	COSTA B
Mean	1.229324	0.586085	0.333737	0.463986	32.61932	0.248114	0.247402	20.25267	19.64851
Maximum	4.920000	1.190000	1.200000	0.760000	58.83000	0.640000	0.550000	67.00000	138.0000
Minimum	7.830000	-0.400000	0.010000	0.230000	19.01000	0.030000	0.010000	1.000000	0.280000
Std. Dev.	0.917705	0.279916	0.195375	0.104344	8.801715	0.106823	0.116291	14.61592	13.03273
Jarque-Bera	13100.96	23.90015	93.20049	63.82646	26.74281	8.167201	8.980580	36.56384	6952.475
Probability	0.000000	0.000006	0.000000	0.000000	0.000002	0.016847	0.011217	0.000000	0.000000
Observations	281	281	281	281	281	281	281	281	281

Source: Descriptive Statistics Result Using e-view 8

**Table 4.2 Pearson Correlation coefficient analysis**

Correlation: TOBINQ, ROA, OPEF, ASSTAN, FSIZE, LEV, FGRWT, AGE, COSTAB

	TOBINQ	ROA	OPEF	ASSTAN	FSIZE	LEV	FGRWT	FAGE
ROA	0.063							
OPEF	-0.093	0.160						
ASSTAN	-0.093	-0.169	0.285					
FSIZE	0.044	0.153	0.170	-0.286				
LEV	-0.142	0.033	0.074	0.236	-0.033			
FGRWT	0.037	0.054	0.198	-0.089	0.073	-0.204		
FAGE	-0.013	0.149	-0.212	-0.163	-0.056	-0.051	-0.016	
COSTAB	0.072	0.103	0.102	-0.124	0.064	0.068	0.034	-0.070

Source: Correlation analysis result using Minitab 16.

Table 4.3: Comparative Analysis

Variables	Kenya		Nigeria		South Africa	
	TOBINQ	ROA	TOBINQ	ROA	TOBINQ	ROA
<b>OPEF</b>	<i>0.4698</i>	<b><i>0.0184</i></b>	<b><i>0.0408</i></b>	<i>0.2239</i>	<i>0.9954</i>	<i>0.4343</i>
<b>ASSTAN</b>	<i>0.6272</i>	<i>0.8666</i>	<b><i>0.0036</i></b>	<b><i>0.0698</i></b>	<i>0.4619</i>	<i>0.1274</i>
<b>FAGE</b>	<i>0.6776</i>	<i>0.3612</i>	<i>0.6988</i>	<i>0.7474</i>	<i>0.5988</i>	<i>0.1274</i>
<b>LEV</b>	<b><i>0.0086</i></b>	<i>0.2203</i>	<b><i>0.0429</i></b>	<i>0.3107</i>	<i>0.7759</i>	<i>0.7209</i>
<b>FGRWT</b>	<i>0.3253</i>	<b><i>0.0061</i></b>	<i>0.8978</i>	<i>0.1486</i>	<i>0.8032</i>	<i>0.2489</i>
<b>COSTAB</b>	<i>0.3102</i>	<i>0.3798</i>	<i>0.7605</i>	<i>0.5045</i>	<b><i>0.0447</i></b>	<i>0.2072</i>
<b>Fsize</b>	<b><i>0.0220</i></b>	<b><i>0.0810</i></b>	<i>0.4027</i>	<b><i>0.0072</i></b>	<i>0.8433</i>	<i>0.2474</i>
<b>R-squared</b>	<b><i>0.484850</i></b>	<b><i>0.737818</i></b>	<b><i>0.396262</i></b>	<b><i>0.517965</i></b>	<b><i>0.516671</i></b>	<b><i>0.533208</i></b>
<b>R-sq (adj.)</b>	<b><i>0.376015</i></b>	<b><i>0.682427</i></b>	<b><i>0.342018</i></b>	<b><i>0.412314</i></b>	<b><i>0.465668</i></b>	<b><i>0.443224</i></b>

Source: Uzoka (2020); Summary of Regression Analysis