# CONSTRUCTS OF OWNERSHIP STRUCTURE AND THE FINANCIAL PERFORMANCE OF LISTED CORPORATE ENTITIES: A CANONICAL CORRELATION AND MULTIVARIATE ANALYSES

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**Abstract**

This study assessed the associated link between constructs of ownership structure and indicators of firms' financial performance. Specifically, the study sought to examine the statistical link between performance measures and managerial ownership, institutional ownership, government ownership, family ownership, foreign ownership and CEO ownership. The performance measures of interest are return on asset, return on equity, earnings per share, Tobin's Q and revenue growth. Secondary data were sourced from 28 listed firms in the financial service sector (bank and non-bank institutions). The data covered 10 year period, spanning from 2009 – 2018. Models were developed in line with the hypothesis of the study and analysis was done using the canonical correlation and multivariate regression analyses amongst others. Overall, while we observed from the tests of canonical correlations that measures of ownership structure influenced the indicators of firms' performance, the result of the multivariate regression analysis further revealed that the influence which constructs of ownership structure had on Return on Assets (ROA), Earnings Per Share (EPS), and Tobin's Q were significant; whereas, the influence on Return on Equity (ROE) and revenue growth were not significant. With this, we recommend amongst others that since foreign ownership recorded a positive and significant relationship with all measures of performance, companies should map out strategies to woo foreign investors into investing in their respective shares, possibly through private placements and other probable means.

**Keyword:** Corporate governance, Revenue Growth, ROA, EPS, ROE, Tobin's Q, Ownership attributes.

**JEL Classification:** G34, L25, M49

## 1. INTRODUCTION

Recorded failures in most corporate entities in Nigeria, the world over, have been attributed to poor governance. Thus, following the total and near collapse of reputable organizations in the past, the quest for credible information and informed disclosure on firms' corporate governance became sophisticated with increasing calls for the monitoring of the activities of management, corporate boards and their respective committees (Sanda, Mikailu & Garba, 2005; Kajola, 2008; Dabor & Adeyemi, 2011; Odilu, 2019).

Accordingly, studies have argued that measures of corporate governance are intertwined with corporate performance indicators (Abdullah &Valentine, 2009; Škare, & Hasić, 2016; Surya, 2016; Odilu, 2019). This invariably brought about arguments that the existence of good governance system within firms correlates significantly with better financial performance indices like return on assets, earnings per share, revenue growth, return on equity etc. which ultimately may have multiplier long-run effect on some market based performance measures like Tobin's' Q (Oluyemi, 2005). Impliedly, the absence of good governance systems is an indication of a looming doom for organizations. This is why in Nigeria, several proactive efforts have been made by regulators to sustain confidence in the country's corporate environment and possibly enhance transparency and accountability through the enforcement of several codes of corporate governance which to date have received meaningful updates and revisions.

However, despite the revisions/updates and insightful provisions in several codes of corporate governance in Nigeria, Bebeji, Mohammed, & Tanko (2015) opine that the roles played by Board members in some recently failed organizations further heightened academic debates on governance and the sustainability of firms. Surprisingly, it is believed that incidences of corporate scandals and total or near collapse of entities (like Oceanic Bank Plc., Afribank Nigeria Plc., Cardbury Plc., African Petroleum (AP), among others), were either caused by poor management or weak corporate governance thereby unmasking acts of creative accounting, high gearing ratios, overtrading, and/or intentional fraud. This further gave room for the demand for better understanding of how companies and the investments by stakeholders can be saved through reforms in corporate governance and its components (Osemeke, 2012; Urhoghide & Omolaye, 2017).

While there are robust literature on corporate governance and variables like audit quality, profitability, reporting quality, timeliness of financial reporting, stakeholders interest, earnings management, credibility of financial statements, environmental performance and crashes in stock prices (Akpan & Riman, 2012; Yameen, Farhan & Tabash, 2019; Liu, Zhang & Liang, 2019; Odjaremu & Jeroh, 2019; Dong, Wang, Zhang & Zhou, 2020; Shahab, Ntim, Ullah, Yugang & Ye, 2020), there seem to be relatively scanty empirical evidence in Nigeria on the specific sets of corporate governance components that have positive and significant link with performance indicators amongst firms. Again, the focus of most prior

studies on components of corporate governance was mainly on board structures/attributes (Urhoghide & Omolaye, 2017), with fewer studies on ownership structure which looked at either managerial or Chief Executive Officer (CEO) ownership; yet with mixed findings (Yu, 2013; Oluwatayo & Amole, 2013; Yasser & Al Mamun, 2017; Florackis, Kanas, Kostakis & Sainani, 2020, Mittoo, Ng & Yan, 2020).

With the existence of mixed findings on the link between firms sustainability/survival and components of corporate governance, in and out of Nigeria (Kajola, 2008; Dabor & Adeyemi, 2011; Hassan & Ahmed, 2012; Akpan & Riman, 2012; Urhoghide & Omolaye, 2017; Yahaya & Lawal, 2018), the need to examine the interrelationship between more components of firms' ownership structure and indicators of firms' financial performance became inevitable. The aforesaid propels this current study which sets out to examine by means of multivariate regression and Canonical Correlation Analysis (CCA), the perceived link between the performance indicators of firms, and constructs of firms' ownership structure. The CCA and multivariate regression analysis were applied in this study because of our interest in determining the cluster of ownership structure variable(s) that best correlate with firms' performance indices.

Given the aforesaid, we hypothesized as follows:

$H_O$:     *Constructs of ownership structure has no significant influence on the performance indices of Nigerian listed firms*.

## 2.  CONCEPTUAL REVIEW

### 2.1. OWNERSHIP STRUCTURE CONCEPTUALIZED

The ownership structure of firms is a concept that explains the percentage of equity ownership/stockholding by each class of shareholders. Yahaya and Lawal (2018) avers that ownership structure remains an important factor employed in structuring the governance systems of corporate entities. In fact, ownership structure clearly determines amongst others, the voting capacity of holders of equity shares in any given company. By extension, decisions at the corporate level/board meetings are sometimes influenced by their respective ownership structure, thus making it a significant corporate governance mechanism that influences firms' behaviour (Fan & Leung, 2020) and by extension, the company's performance – positively or negatively (Nnabuife, Igomu, Apochi, Adah & Igomu, 2017; Amin & Hamdan, 2018).

Notably, several constructs of the ownership structure of firms exist (Yu, 2013; Nnabuife et. al, 2017; Amin & Hamdan, 2018), but emphasis on most prior Nigerian studies have been on CEO ownership, managerial ownership and institutional ownership (Abosede & Kajola, 2011; Adewumi, Acca & Afolayan, 2018; Ironkwe & Emefe, 2019). In order to be different from prior Nigerian studies, this study therefore focused on six (6) measures of ownership structure which includes managerial ownership, institutional ownership, government

ownership, family ownership, foreign ownership and CEO ownership. Our concern is to examine how these measures will affect selected performance measures like return on assets (ROA), return on equity (ROE), earnings per share (EPS), revenue growth and Tobin's Q.

## 2.2. FIRM PERFORMANCE

The performance of companies can be examined by assessing the data reported in their respective annual reports. According to Rouf (2012) the performance of firms refers to the underlying benefits accruing from the shares and other investments by shareholders. In theory, performance as a concept forms the core of strategic management; hence, various strategic studies have applied the construct of business performance in explaining different strategic content and processes (Al-Matari, Al-Swidi & Fadzil, 2014). In measuring performance, researchers and analysts have applied ratios (financial ratios) which express the relationships that subsist between the reported items in companies' financial statements. Financial ratios according to Kabajeh, Nu'aimat and Dahmash, (2012) are mostly meaningful when computed and used as benchmark in making comparison with several related information.

While prior related studies in accounting relied mostly on either market or accounting based performance indicators like ROA, ROE and Tobin's Q (Vijayakumar & Devi, 2011; Kajola, Ugwuegbe, Okafor, Ugwuegbe, & Hillary, 2016; Kajola, Onaolapo & Adelowotan, 2017; Vu, Phan & Le, 2018), the use of revenue growth as part of performance measure seems scarce in developing economies.

Notwithstanding, empirical evidence suggests that accounting based indices like the ROA and ROE are very relevant in analysing short-term performance whereas, market-based performance like Tobin's Q (often seen as forward looking performance measure) are better off in assessing future long-term performance (Kapopoulos & Lazaretou, 2007; Wahla, Shah & Hussain, 2012; Al-Matari et al, 2014). With the above in mind, performance measures applied in this study covers both accounting and market based indicators and includes ROA, ROE, EPS, Revenue growth and Tobin's Q.

## 2.3. PRIOR STUDIES

Prior studies that primarily examined the perceived link between firms' ownership structure and firms' performance have so far produced mixed findings, thereby propelling further quest on the association between several measures of performance and different constructs of ownership structure. Alipour and Amjadi (2011) conducted a study to possibly examine how ownership structure explains the performance trends of corporate entities. Data were obtained from the financial records of 68 firms that were listed in the Tehran Stock Exchange in Iran. Hypotheses were specified based on five identified relationship between the dependent variable (performance) and the independent variables (ownership structure measures). Analysis was done using relevant statistical tools which

included regression analysis, auto-correlation, DW-tests, F-test, t-test amongst others. Empirical documentations which emanated from the analysis suggest that the relationship between firm performance and the quantum of biggest shareholder is negative and significant. Also, institutional ownership, individual ownership and managerial ownership were found to exert significant negative influence on performance.

Furthermore, Mirza and Javed (2013), in examining the determining factors that drive the performance of Pakistani firms, analysed how ownership structure amidst other factors (corporate governance, risk management and capital structure) explains the performance trends of companies. Data for the explanatory variables and measures of firm performance (ROE and shareholders return) were sourced for a 5-year period (2007 – 2011) from 60 firms and were analysed using fixed effect regression alongside other relevant tools. Findings suggest that block holding positively affects performance; whereas, inside ownership exerted negative effect on performance.

In the Nigerian context, Worlu, Evioghenesi, Ajagbe and Okoye (2015), examined the effect which ownership structure may have on the performance of firms, though with emphasis on entrepreneurial firms. The study adopted the survey design and relied basically on the opinion of the relevant stakeholders that were randomly selected to take part in the filling of questionnaires that were designed for the study. The participants were drawn from just two (2) states in the country – Lagos and Ogun. Analysis was done using frequency counts, simple percentages and some measures of central tendency. The outcome of the analysis however led to a conclusion that for entrepreneurial firms in Nigeria, ownership structure and performance are positively related.

In a study by Jinadu et. al. (2018), an analysis was conducted on the perceived relationship between ownership structure and the performance of firms, but with emphasis on multinational banks operating in Nigeria. Data were sourced from the annual reports of the sampled firms for the study period covering 2010 to 2014 (5 years). Both correlation and panel least square techniques were employed to analyse the study's data and findings suggests the existence of significant negative link between corporate performance and ownership concentration of multinational banks. Additionally, while foreign ownership exerted positive, but insignificant impact on performance, domestic ownership was found to have significant negative impact on performance.

Furthermore, the effect which ownership structure may have on firm performance in Nigeria was investigated by Yahaya and Lawal (2018), but however focused mainly on deposit money banks. Secondary data were sourced from the financial reports of fifteen (15) sampled banks for variables like ownership concentration, managerial and foreign ownership alongside performance indicators of firms (ROA and ROE). Analysis was done using the system generalized method and results revealed that while institutional ownership exhibited significant and positive influence on movements in ROA and ROE; managerial ownership and foreign ownership recorded insignificant relationship

with ROA and ROE. The direction of relationship between performance and managerial ownership was not clearly stated.

In another study, Ironkwe and Emefe (2019), examined how ownership concentration can possibly explain the trend of the reported ROE of firms over 10 years period (2008-2017). The data obtained for this study were secondary in nature, and were gathered from reliable sources – companies financials, stock exchange fact-book and the statistical bulletin of the central bank of Nigeria. The data were analysed using the OLS regression technique via e-views statistical package. Findings could not establish a significant relationship between the ROE of Nigerian companies and their respective ownership concentration.

## 2.4. CONCEPTUAL MODEL

With the study's interest on selected performance indicators and constructs of ownership structure, we designed a working conceptual model (depicted in Figure 1) in line with the study's hypothesis to possibly express in diagrammatic form, the relationship between performance and ownership structure of firms.
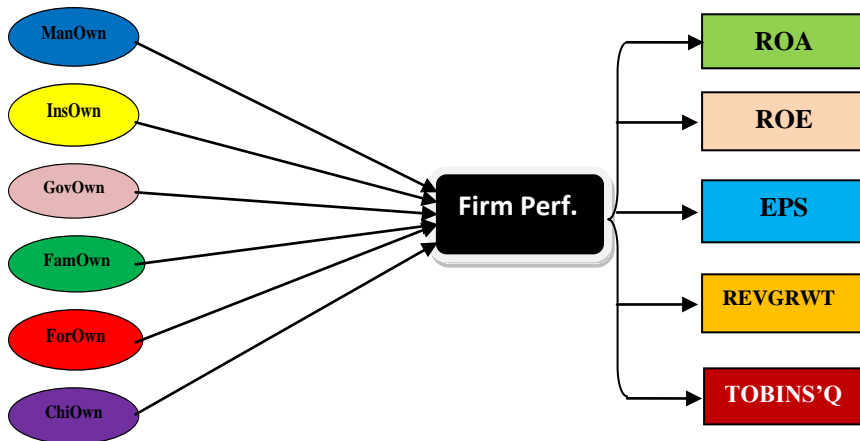


***Figure 1.*** *Conceptual Model*
*Source: (Conceptualized by the Researcher, 2020)*

## 3. RESEARCH METHODOLOGY

The *ex-post facto* research design was adopted in this study since the design relies on already existed data thus making it difficult for the researcher to manipulate the input in the analytical procedures. Additionally, efforts were made to ethically collate the data sourced so that the study's outcome is devoid of all forms of bias. Data were sourced from the financial reports of a total of 28 entities listed in the financial service sector as at 31st December, 2018 (See appendix for the list of companies). Data were collated from 2009-2018 for all the sampled firms and were subjected to relevant analyses. The hypothesis was tested using the Canonical Correlation Analysis (CCA). Adopting the CCA enables us to determine

the cluster of measures of ownership structure that correlates best with performance indices. The basic assumption here is that the proxy for performance is based on an unvarying set of more than one variable (Salmi, Virtanen & Yli-Olli, 1992). With the above, our model in the following section is specified on the basis of the CCA construct. Thus:

$$Performance = f(OWNERSHIP\ STRUCTURE)(1)$$

Equation 1 above is further broken down to incorporate the measures of the explanatory variables as shown in *(2)*.

$$Performance = f(ManOwn, InsOwn, GovOwn, FamOwn, ForOwn, ChiOwn)(2)$$

The above equation is further expressed in the explicit form as presented in *(3)*.

$$FPerf_{i\varphi} = \beta_0 + \beta_1 ManOwn_{i\varphi} + \beta_2 InsOwn_{i\varphi} + \beta_3 GovOwn_{i\varphi} + \beta_4 FamOwn_{i\varphi} + \beta_5 ForOwn_{i\varphi} + \beta_6 ChiOwn_{i\varphi} + \epsilon\ (3)$$

### 3.1. VARIABLE DESCRIPTION AND DEFINITION

*Table 1. Nomenclature and Measurement of Variables*

| Variables Names | Type | Labels | Measurement |
|---|---|---|---|
| Return on Asset | Dependent Variable | ROA | Profit After Tax/Total Assets |
| Return on Equity | Dependent Variable | ROE | Profit After Tax/Equity |
| Earnings Per Share | Dependent Variable | EPS | Total earnings/the number of outstanding equity shares |
| Tobin's Q | Dependent Variable | TOBINS' Q | Market Capitalization + Total Liabilities - Cash flow/Total asset |
| Revenue Growth | Dependent Variable | REVGR WT | current year revenue minus previous year revenue/previous revenue |
| Managerial Ownership | Independent Variable | ManOwn | Direct and indirect shareholding of Board Chairman /total outstanding shares. |
| Institutional Ownership | Independent Variable | InsOwn | Proportion of institutional shareholders with controlling interest of 5% and above |
| Government Ownership | Independent Variable | GovOwn | Proportion of shares held by government and related agencies that is 5% and above. |
| Family Ownership | Independent Variable | FamOwn | Proportion of single individuals' shareholding of 5% and above. |
| Foreign Ownership | Independent Variable | ForOwn | Dummy variable of "1" for firms with major foreign shareholders and "0" for companies without major foreign shareholders. |
| CEO Ownership | Independent Variable | ChiOwn | total share of CEO/total directors shares |

*Source: (Author's Compilation, 2020).*

**Where:**    $\epsilon$    =  Error Terms;

$i\varphi$    =  Firms $_i$ at time $_\varphi$

$\beta_0, \beta_{1,...} \beta_6 =$ Regressors.

The a-priori expectations are: $\beta_1 > 0$, $\beta_2 > 0$,…$\beta_6 > 0$, $< 0$ all things being equal.

**Note**

*FPerf* indicated above consist of five (5) measures and includes return on assets (ROA) return on equity (ROE), earnings per share, (EPS), Tobin's Q and revenue growth (Revgrwt).

## 4. RESULTS AND DISCUSSIONS

### 4.1. DESCRIPTIVE STATISTICS

The descriptive statistics for 5 indicators of firm performance and 6 constructs of ownership structure is presented in Table 2.

*Table 2. Results of Summary Statistics*

| Variables | Mean | Std.Dev. | Min.Value | Max.Value | No. of Obs. |
|---|---|---|---|---|---|
| ROA | 2.3869 | 4.3157 | -20.23 | 20.76 | 280 |
| ROE | 6.6952 | 31.4786 | -394.32 | 122.8 | 280 |
| EPS | 0.6848 | 2.0409 | -12.66 | 21.35 | 280 |
| RevGrwt | 22.7495 | 73.8851 | -53.53 | 1,082.60 | 280 |
| Tobin's Q | 0.7313 | 0.2300 | -0.27 | 1.57 | 280 |
| ManOwn | 0.1699 | 0.1919 | 0.00 | 0.81 | 280 |
| InsOwn | 0.3868 | 0.2373 | 0.00 | 0.89 | 280 |
| GovOwn | 0.0242 | 0.1006 | 0.00 | 0.60 | 280 |
| FamOwn | 0.0328 | 0.0727 | 0.00 | 0.41 | 280 |
| ForOwn | 0.0049 | 0.0050 | 0.00 | 0.01 | 280 |
| ChiOwn | 0.0224 | 0.0447 | 0.00 | 0.22 | 280 |

*Source: (Author's Compilation, 2020).*

The result of the summary statistics as presented in Table 2 indicates that the total observation for the entire dataset from a total of 28 companies over the 10 year period was 280. The mean values for the variables ranged between the value of 0.0049 (as recorded for ForOwn) and 22.7495 (RevGrwt). Additionally, the low standard deviation (std.dev) recorded for most of the variables is an indication that the values for each variable for the firms over the study period may have followed a normal curve with the presence of very insignificant or no outliers. Low values for standard deviations are indications of low level of dispersion of the collated data from their respective mean/average values. The maximum values of the explanatory variables ranged from 0.01 (ForOwn) to 0.89 (InsOwn). Largely, with values of 0.89, 0.81, 0.60, 0.41, 0.22 and 0.01 for the highest values of the explanatory variables, it is evident that institutional, managerial and government

ownership still accounts for high ownership proportions for some of the sampled firms.

## 4.2. CORRELATION ANALYSES

To further analyse the nature of our dataset, we conducted the correlation analysis for each class of the variables and Table 3 presents the outcome of the correlation analysis.

*Table 3. Correlation Results for All Variables*

| Variables | ROA | ROE | EPS | RevGrwt | Tobin'sQ | ManOwn | InsOwn | GovOwn | FamOwn | ForOwn | ChiOwn |
|---|---|---|---|---|---|---|---|---|---|---|---|
| ROA | 1.000 | | | | | | | | | | |
| ROE | 0.313 | 1.000 | | | | | | | | | |
| EPS | 0.212 | 0.142 | 1.000 | | | | | | | | |
| RevGrwt | 0.137 | 0.029 | -0.006 | 1.000 | | | | | | | |
| Tobin'sQ | -0.152 | -0.015 | 0.112 | 0.040 | 1.000 | | | | | | |
| ManOwn | 0.088 | -0.002 | -0.145 | -0.037 | -0.228 | 1.000 | | | | | |
| InsOwn | -0.061 | -0.360 | 0.033 | 0.007 | 0.005 | -0.019 | 1.000 | | | | |
| GovOwn | -0.050 | -0.025 | -0.072 | -0.001 | -0.111 | -0.030 | 0.164 | 1.000 | | | |
| FamOwn | 0.264 | 0.050 | -0.031 | 0.042 | -0.082 | 0.414 | -0.295 | -0.058 | 1.000 | | |
| ForOwn | 0.079 | 0.101 | 0.104 | 0.092 | 0.154 | 0.201 | 0.317 | -0.100 | -0.020 | 1.000 | |
| ChiOwn | 0.213 | 0.030 | -0.045 | 0.017 | -0.108 | 0.386 | -0.290 | -0.106 | 0.725 | -0.103 | 1.000 |

*Source: (Authors' Compilation, 2020)*

As observed in Table 3, the result for the correlation analysis reveals that apart from ROA, managerial ownership recorded a negative correlation with most of the performance measures. For Institutional ownership (InsOwn), we noticed a negative correlation with ROA and ROE, whereas, the correlation between InsOwn and EPS, RevGrwt and Tobins'Q was positive. Conversely, government ownership (GovOwn) recorded a negative correlation with all performance variables; whereas, foreign ownership (ForOwn) was found to be positively correlated with all performance measures. While family ownership (FamOwn) was found to be negatively correlated with EPS and Tobins'Q, the correlation between FamOwn and ROA, ROE and RevGrwt was positive.

With respect to chief executive ownership (ChiOwn), the result suggests a positive correlation with ROA, ROE and RevGrwt while the correlation between ChiOwn and Tobins'Q and EPS were both negative. Further cursory examination of the results above reveals that the correlation coefficients obtained for pairs of explanatory variables were below the threshold of 0.80 and above, a suggestion that the problem of multicollinearity may not be present in the dataset. A confirmation of this position was however made via the result of the multicollinearity test presented in the next section and as depicted in Table 4.

## 4.3. TEST FOR MULTICOLLINEARITY

In testing for multicollinearity, the variance inflation factor (VIF) test was conducted and the result (see Table 4) presents VIF values ranging from 1.07 to 2.28 for the independent variables. The highest VIF value of 2.28 was recorded for FamOwn. Also observed is that the mean VIF was 1.57 which is far below the threshold of 10. This result confirms earlier position that the data collated for the independent variables does not suffer from multicollinearity. With these results, we conclude that the specified model for this study is fit, thereby permitting us to proceed to present and discuss the results of the test of hypothesis.

*Table 4. Result of VIF*

| Variable | Fam Own | Chi Own | Man Own | Ins Own | For Own | Gov Own | Mean VIF |
|----------|---------|---------|---------|---------|---------|---------|----------|
| **VIF** | 2.28 | 2.24 | 1.32 | 1.28 | 1.22 | 1.07 | 1.57 |
| **1/VIF** | 0.43878 | 0.44553 | 0.75840 | 0.77834 | 0.81660 | 0.93863 | |

*Source: (Author's Compilation, 2020).*

## 4.4. HYPOTHESIS TESTING

We tested our hypothesis using the CCA and the result is presented in Table 5. As indicated in the table, the results of the four (4) tests of significance of the canonical correlations amongst the variables gave insights on the interrelated links between the constructs of ownership structure and the selected measures of performance addressed by this current study. As observed, the $F_{cal}$ for the various tests (Wilks'lambda, Pillai's trace, Lawley-Hotelling trace and Roy's-Largest root) were approximately, 2.4188, 2.3364, 2.4834 and 8.0688 respectively with probability values of 0.0000 for Wilks'lambda test, Lawley-Hotelling trace test and the test for Roy's largest root respectively; whereas the F-value of the Pillai's trace test obtained a p-value of 0.0001.

*Table 5. CCA Results for the Test of Hypothesis*

| **Canonical Correlations:** | | | | |
|---|---|---|---|---|
| 0.3881 | 0.2892 | 0.0846 | 0.0505 | 0.0155 |
| **Test of significance of canonical correlations** | | | | |

|  | Statistics | df1 | df2 | F | Prob>F |
|---|---|---|---|---|---|
| **Wilks' lambda** | 0.770609 | 30 | 1078 | 2.4188 | 0.0000 |
| **Pillai's trace** | 0.244210 | 30 | 1365 | 2.3364 | 0.0001 |
| **L-H trace** | 0.278613 | 30 | 1337 | 2.4834 | 0.0000 |
| **Roy's-Largest root** | 0.177337 | 6 | 273 | 8.0688 | 0.0000 |

*Source: (Author's Compilation, 2020).*

Additionally, the result of the f-values alongside the canonical correlations of 0.3881, 0.2892, 0.0846, 0.0505 and 0.0155 respectively suggests that ownership structure strongly influenced the performance indices of firms. In light of this finding, the hypothesis that constructs of ownership structure has no significant influence on the performance indices of Nigerian listed firms is rejected. This position, though supported by earlier findings in prior researches (Adewumi, Acca & Afolayan, 2018; Ironkwe & Emefe, 2019), is at variance with the conclusions reached by Jeroh (2017), Yahaya & Lawal (2018), Jinadu et.al (2018) amongst others.

In order to provide further insight on the above results and to establish the specific link between the explanatory variables with each measure of the dependent variable, we conducted a multivariate regression analysis and the results are shown in Table 6.

*Table 6. Results for Multivariate Regression*     **Obs.**=280

| Equation | Obs. | RMSE | 'R-sq'' | F | p-value |
|---|---|---|---|---|---|
| **ROA** | 280 | 4.1808 | 0.0817 | 4.0493 | 0.0007** |
| **ROE** | 280 | 31.5243 | 0.0187 | 0.8653 | 0.5208 |
| **EPS** | 280 | 2.0156 | 0.0457 | 2.1804 | 0.0451* |
| **RevGrwt** | 280 | 74.0310 | 0.0176 | 0.8169 | 0.5576 |
| **Tobins'Q** | 280 | 0.2198 | 0.1066 | 5.4291 | 0.0000** |

*Source: (Author's Compilation, 2020). * significant at 5%; ** significant at 1%.*

From Table 6, we observed that with the result of the F-values (4.0493, 2.1804 and 5.4291) and their corresponding p-values (0.0007, 0.0451 and 0.000), while measures of ownership structure exerted significant influence specifically on ROA, EPS and Tobins'Q, we could not establish that these measures also have significant effect on ROE ($F_{cal}$ = 0.8653; p-value = 0.5208) and revenue growth ($F_{cal}$ = 0.8169; p-value = 0.5576). This result however gives insight on the possible reason behind the mixed findings from prior researches on the link between construct of ownership structure and performance. It is therefore evident that the conclusion on the relationship between ownership structure and performance will depend on either the choice of performance proxy/indices or the constructs of ownership structure adopted by the researcher. This affirms earlier assertion by

Kotey, Kusi and Akomatey (2019) who posits that the link between constructs of ownership structure and measures of performance vary.

## 5. CONCLUSION AND POLICY RECOMMENDATIONS

The relationship between six (6) constructs of ownership structure and five (5) measures of the financial performance of firms were assessed in this study. In the course of achieving the primary aim of the study, data were sourced from the financial reports of twenty-eight (28) firms listed in the financial service sector on the floor of the Nigerian Stock Exchange. The constructs of ownership structure assessed in this study included managerial ownership, institutional ownership, government ownership, family ownership, foreign ownership and CEO ownership; while performance measures (dependent variable) were return on asset, return on equity, earnings per share, Tobin's Q and revenue growth. Based on the conceptual model and the study's hypothesis, the collated data were analysed by means of relevant statistical tools which included summary statistics, correlation analysis, VIF tests, canonical correlation and multivariate regression analysis respectively.

Overall, while we observed from the tests of canonical correlations that the measures/constructs of ownership structure influenced firms' performance indicators, the result of the multivariate regression analysis further revealed that the influence which constructs of ownership structure had on ROA, EPS, and Tobins'Q were significant; whereas, the influence on ROE and revenue growth were not significant. We also observed that among all the explanatory variables, government ownership was the only variable that recorded a negative correlation with all the measures of performance, while foreign ownership was found to be the only explanatory variable that recorded positive correlation with all performance indices. On this note, we recommend as follows:

- Since foreign ownership recorded a positive and significant relationship with all measures of performance, companies should map out strategies to woo foreign investors into investing in their respective shares through private placements and other possible means.
- Where possible, the proportion of government shareholding in financial service companies should be reduced in order to minimize its negative impact on the overall performance of companies.
- Further studies should be conducted to identify and ascertain why government ownership recorded negative association with all performance measures of financial service companies.

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# APPENDIX

| S/N | COMPANIES | SECTOR | MAJOR BUSINESS |
|---|---|---|---|
| 1 | Abbey Building Society | Financial Service | Mortgage Bank |
| 2 | Access Bank | Financial Service | Bank |
| 3 | Aiico | Financial Service | Multline Insurance |
| 4 | AxaMansard | Financial Service | Non-Life Insurance |
| 5 | Consolidated Hallmark | Financial Service | Non-Life Insurance |
| 6 | Continental Reinsurance | Financial Service | Reinsurance |
| 7 | Cornerstone Insurance | Financial Service | Multline Insurance |
| 8 | Custodian & Allied Insurance | Financial Service | Non-Life Insurance |
| 9 | Fidelity Bank | Financial Service | Bank |
| 10 | First Bank Holding | Financial Service | Bank |
| 11 | First City Monumental Bank | Financial Service | Bank |
| 12 | Guaranty Trust Bank | Financial Service | Bank |
| 13 | Lasasco Assurance | Financial Service | Multline Insurance |
| 14 | Linkage Assurance | Financial Service | Non-Life Insurance |
| 15 | Mutual Benefit Assurance | Financial Service | Life Insurance |
| 16 | Nem Insurance | Financial Service | Non-Life Insurance |
| 17 | Prestige Assurance | Financial Service | Non-Life Insurance |
| 18 | Regency Aliance Ins | Financial Service | Non-Life Insurance |
| 19 | Royal Exchange | Financial Service | Non-Life Insurance |
| 20 | Sovereign Trust | Financial Service | Non-Life Insurance |
| 21 | Stanbic Ibtc Holding | Financial Service | Bank |
| 22 | Sterling Bank | Financial Service | Bank |
| 23 | Sunu Assurance | Financial Service | Non-Life Insurance |
| 24 | Union Bank Of Nig | Financial Service | Bank |
| 25 | United Bank For Africa | Financial Service | Bank |
| 26 | Wapic Insurance | Financial Service | Non-Life Insurance |
| 27 | Wema Bank | Financial Service | Bank |
| 28 | Zenith Bank | Financial Service | Bank |