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Factors Influencing the Financial Performance of Pension Fund Administrators in Nigeria

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Abstract

This research studies the impact of board size, board independence, gender diversity, and density contribution on the financial performance of pension fund administrators in Nigeria. It aims to identify the difference in performance between the sets of funds, which are based on the recent multi fund structure classification system. This study uses 20 of the 22 PFAs firm-year panel data for a 3-year period ranging from 2018 to 2020 to analyse the findings. Analysis of variance and panel regression analysis are employed to analyse the relationship between the sets of factors and the financial performance of each of them. Results revealed that there are significant differences in performance between the funds. The findings established the fact that board independence and density contribution significantly influence the financial performance of funds, while board size and gender diversity have no significant impact on the financial performance of funds. The findings provide evidence on the performance of the different categories of fund, which will help the contributor(s) to decide on whether to stay on their default fund or move to another fund. Furthermore, the findings of this study should be of interest to managers and boards of companies in making appropriate choices about corporate governance tools and firm characteristics to improve company's financial performance.

Keywords: Board Size, Board Independence, Gender Diversity, Density Contribution, Financial Performance.

Introduction

Pension is a retirement benefit paid to the employees to allow them to be financially independent at old age and in the post-employment period. In the past, pension scheme in Nigeria had always been non-contributory, and it came from budgetary allocations (Fapohunda, 2013). However, under the old system, a number of issues were detected, including diversion of remitted or allocated funds, the existence of ghost pensioners on the pension payroll, non-availability of records, unskilled administration, inadequate funding, and delay or lack of payment after retirement (Ikechukwu, 2009). To solve these irregularities, the Pension Reform Act of 2004 established the contributory pension scheme, which is funded by the monthly contributions from the employees' salary as well as contributions from the employers (Temitope et al., 2018). Since then, Pension Fund Administrators (PFAs) in Nigeria

have been given the task to manage the country's pension funds, with the National Pension Commission (PENCOM) keeping an eye on their operations.

Over the years, there is steady growth in the Nigerian pension funds. This is attested by a 5.6% increase recorded in the net assets of the industry. As gathered from the PENCOM data, pension fund assets escalated to ₦13.001 trillion (\$31.69 billion) as of September 2021. In the same vein, the number of Retirement Savings Account (RSA) registration also moved from 9.43 million to 9.46 million in September, compared to August 2021. Also, a total of 245,385 new RSA registration were recorded between January to September 2021 (Ndimele, 2021).

Plantinga (2006) opined that pension funds perform a useful role in providing collective pensions for individuals. Pension funds perform a fundamental role in the Nigerian economy and have strongly influenced the country's GDP. A total of ₦8.22 trillion (63.2% of the entire net assets) were invested in FGN securities as of September 30, 2021. At the same time, ₦2.29 trillion (17.6% of the funds) were put into local money market instruments. Another ₦968.26 billion, or 7.4% of the total funds, were invested in corporate debt instruments. While the amount invested in corporate debt securities has climbed by ₦131.93 billion in the year 2021, the amount invested in mutual funds has decreased by 27.6%, standing at ₦161.84 billion, making it the smallest percentage of their investment portfolio (Ndimele, 2021). Furthermore, there is an increase of ₦100.57 billion from ₦12.9 in pension fund assets between the months of August and September 2021. The increase is due to more money being contributed by RSA holders. With better investment returns, more people are signing up with the different RSAs (Ndimele, 2021).

Nevertheless, the new pension scheme enforced by the Pension Reform Act (PRA) of Nigeria is still under a lot of strains due to the diverse economy, as noted in most developing countries around the world. It is also argued that due to the lack of transparency in the schemes, the corruptive practices of the old scheme has been transferred to the new plan (Ibenegbu 2017). As a result, the scheme suffers from weak, inefficient, less transparent, and cumbersome administration (Kimeli & Wepukhulu, 2018).

However, Ahmed (2005) in Essien et al (2014) highlighted some of the benefits of the reform scheme, and assured all the stakeholders in the pension system that their interest is adequately guaranteed in the new Act. He stated that the employees who are the main subject matter in any pension scheme, stand to benefit enormously because the RSA is managed safely by independent pension managers. The employees' annual contribution are invested continually in interest yielding ventures such as bonds and shares. For the employers, Ahmed (2005) argued that by remitting this contribution in piece meals (monthly), the financial burden of transferring huge sums of money to the pension fund at any time is alleviated. In addition, business is created for many financial institutions that are licensed as PFAs and PFCs, which in turn create employment opportunities and generate profits for those who manage the RSAs.

Prior studies have addressed various issues related to the management of pension funds. For instance, Zamri and Nor (2015) found that the return on investment (ROI) served as a benchmark for measuring the performance of the funds. Similarly, Jackowicz and Kowalewski (2012a) concluded that independent chairman of the supervisory board is linked to poorer

performance in pension fund management. Their study also found that other governance parameters have no effect on the performance of the funds. In addition, Temitope et al. (2018) established that the contribution density of the fund, measured in unit price, significantly affect financial performance of the funds.

Institutional background of pension administration in Nigeria

In the field of pension provisions, private pension fund is replacing underfunded social security at the moment (Hainaut, 2014). In 2004, Nigeria joined the group of nations implementing a defined contribution plan. Before this, defined benefit scheme is run by the public sector in the nation, whereby the government covered all the costs associated with the payment of all levels of employee pensions and gratuities (Marcellus & Osadebe, 2014). The PRA of 2004 permits the creation of a defined contributory pension plan for every worker in the Federal Republic of Nigeria. It mandates the provision of retirement benefits to all employees, which includes all entities in the public and private sector, which has five staff members or more (Akpan & Ukpung, 2014).

As of July 2, 2018, all Nigeria's PFAs adopted the Multi Fund Structure for RSA, whereby the funds are separated into four different fund categories. The Multi Fund Structure is a framework that aligns with the age and risk profile of RSA holders. The multi fund system allows for inter-fund movement. The fund classifications are:

- **RSA FUND I:** (An active contributor who is under 50 years old and elects to have his/her contribution invested in this fund). A large portion of the fund is invested in purchasing shares of firms, compared to other fund types; therefore, it has the biggest exposure to the stock market among all the funds within the multi fund structure.
- **RSA FUND II:** (default fund for all active contributors who are under 50 years old). Most RSA holders belong to this group.
- **RSA FUND III:** (default fund for all active contributors aged 50 or over). The PFAs are mandated to transfer anyone at 50 years of age or older from Fund II to Fund III.
- **RSA FUND IV:** (Fund solely for retirees). The Retiree fund is another name for it. The Fund IV category is the default location for all RSA holders who have retired from active duty, and retirees are not allowed to change to any other fund categories (Nairametric, 2020).

Conceptual Framework

Agency theory and the resource-based view (RBV) are the underlying conceptual frameworks for this study. Agency theory is the most popular conceptual framework for analysing corporate governance (Fama & Jensen, 1983; Jensen & Meckling, 1976). The following attributes, namely Board size, Board independence, gender diversity, and density contribution are selected as factors that influence the financial performance of pension fund administrators in Nigeria.

Literature Review and Hypotheses Development

By focusing on the recently established multi-fund structure, the current study is therefore interested to find out whether there is a significant difference in the performance of the set of funds under the PRA, after implementing the multi-fund structure. The study also attempts to examine the factors influencing the financial performance of pension fund administrators

in Nigeria for the years 2018 to 2020. This is achieved by analysing and comparing each factor on the financial performance indicator (using ROA as the performance indicator). Hence, the following hypotheses are proposed to determine whether there are significant difference among the four types of funds in terms of their financial performance.

H1: There is no significant difference in the financial performance of the four types of pension funds.

The factors examined in this study are Board independence and gender diversity from the perspective of Agency theory, and Board size as well as density contributions using the RBV theory. The following section reviews earlier studies on the impact of corporate governance and other pertinent factors on the financial performance of pension funds. Despite various researches on the factors influencing the performance of pension funds, such as manager's gender (Alda, 2016), experience (Kempf et al., 2017), tenure (Clare et al., 2016), the level of specialisation of the administrators (Alda et al., 2017) or expenses (Broeders et al., 2019), there is limited information on the relationship between the related pension fund features and the financial performance of PFAs. The following factors are examined in the current study as being crucial predictors of PFAs' financial performance in Nigeria.

Corporate Governance and Pension Fund Performance

Corporate governance is the administration of a corporation that clarifies the connection between its stakeholders and determines the organisation's performance (Tulung & Ramdani 2018b). Corporate governance is viewed as a strategy for directing and controlling a corporation (Eluyela et al., 2018). It indicates that corporate governance has aided the performance of pension system when pension contributors' funds are utilised to achieve the goals of retirement income (Okoye & Richard, 2013).

A number of researchers have investigated this issue extensively, particularly from the perspectives of accounting and audit. The majority of these researches often discovered a positive, direct, and significant influence or correlation between the corporate governor's traits and the financial success of the organisations. Although there has not been a unanimous agreement on the findings, the majority of them generally concur that the organisations' poor performance may be linked to weak governance procedures (Kamath, 2019). Additionally, a significant amount of literature has explored the effect of corporate governance (Arora, 2015; Bhagat & Bolton, 2008; Paniagua et al., 2018), and Board characteristics (Dalton & Dalton, 2011; Nanka-Bruce, 2011; Rebeiz, 2015; Uwuigbe et al., 2018) on firms. For example, Okoye and Richard (2013) had examined corporate governance mechanisms and looked into how best practices in corporate governance influence the efficiency of the contributory pension schemes.

Board Size

Typically, the term "Board size" refers to the number of Board members (Freihat et al., 2019). There is a general belief that the number of Board members influences company's performance. Yet there is no one ideal size for a Board (Fauzi & Locke, 2012). It is believed that Boards with seven or eight members operate more effectively (Mohd, 2021). In a similar vein, a Board should have no more than ten members, preferably between eight and nine (Alqatan, 2019; Mohd, 2021). Thus, Boards should only have seven or eight members if they

want to operate effectively (Mohd, 2021). Yet, the theory and fact contradict each other when it comes to whether a larger or smaller number of Board of Directors is associated with better corporate performance (Pacini et al., 2008). Hence, there is a conflicting empirical evidence on the relationship between Board size and corporate performance. Several studies supported the view that there is a positive relationship between Board size and company performance (Al-Matari, 2020; Andreou et al., 2014; Bhatt 2015; García-Ramos & Díaz, 2020; Queiri et al., 2021). However, other studies established a negative relationship between the two variables (Das & Ghosh, 2006; Mohamed et al., 2016; Yamori et al., 2017). Some studies even discovered an insignificant association between Board size and company performance (Freihat et al., 2019; Michael et al., 2022; Vaidya, 2019).

Thus, Board size and financial performance shows a mixed relationship. Hence, the association, if any, between financial performance and Board size is unclear. Based on RBV, larger Boards bring the necessary resources and talents, which improves the success of the company, and thus, have a positive impact on firm performance (Saravanan, 2017). Therefore, we hypothesize that:

H2: Board size positively influences the financial performance of pension fund administrators.

Board Independence

Agency theorists contended that Board independence, that is, the directors' capacity to maintain their independence from managerial control, has an impact on PFAs' performance. Board independence is therefore, widely defined as the percentage of independent directors (NED) in relation to the overall number of directors. It is stated that a Board with more independent directors may better supervise managers' opportunistic conduct, safeguard shareholders' interests, and contribute towards the rise of the company's stock price than a Board with a lot of dependent members (Dharmadasa et al., 2021; Freihat et al., 2019).

Empirically, the relationship between Board independence and financial performance is mixed; some studies revealed a positive relationship (Hossain et al., 2001; Tulung & Ramdani 2018a), while others exhibit a negative relationship (Al-saidi 2021; Coles et al., 2008; Alsartawi, 2019). For example, Freihat et al (2019) noted a strong association between the number of outside directors and ROE, proving that shareholders' interest are well-protected and that outsiders can serve a monitoring function, based on their independence. On the other hand, Mohamed et al.'s (2016) study failed to detect any relationship between Board independence and firms' performance. The mixed results may be due to the differences in institutional environment, the independence of NED, and the effective roles exercised by them. Hence, Board independence will, in accordance with the agency theory, balance the power held by the insiders and the outsiders. Without outside directors, an insider-dominated Board may abuse its immense power or fail to function effectively (Dalton et al., 1999). This justification is supported by the argument that independent boards will improve business performance. Therefore, we hypothesize that:

H3: Board independence positively influence the financial performance of pension fund administrators.

Gender Diversity

Another facet of corporate governance that is taken into consideration in this study is gender diversity. One Board characteristic that has received a lot of attention recently is the proportion of female Board members (Fernández-temprano & Tejerina-gaite, 2020). The presence of diverse genders on a Board, especially women directors, is thought to constitute good corporate governance (Alqatan, 2019; Mohd, 2021). This is essentially argued as a result of: (1) the addition of unique qualities, skills, and talent to the Board of Directors; (2) the development of a Board's problem-solving abilities and capacity to view problems from a variety of angles, leading to alternate solutions and improved business performance (Mohd, 2021).

The empirical findings on the relationship between gender diversity and firm performance is debatable. Some studies showed a positive relationship (Aggarwal et al., 2019; Attah-boakye et al., 2020; Azzim & Fonte 2015; Perryman et al., 2015), while others found evidence of a negative relationship (Abdullah, 2014; Darmadi, 2013; Lim et al., 2019), and still others found no relationship at all (Almarayeh, 2021; Fernández-temprano & Tejerina-gaite, 2020; Marinova et al., 2015).

The agency theory revolves around the role of the Board in monitoring and controlling managerial actions. Fama and Jensen (1983) contended that having a gender-diverse Board helps to mitigate agency issues between the managers and the shareholders since women tend to be more inquisitive than males, making them tougher and more active monitors than their male counterparts (Adams & Ferreira, 2009). Consistent with the agency theory and the findings of Papangkorn et al (2019), we hypothesize that:

H4: Gender diversity positively influence the financial performance of pension fund administrators in Nigeria.

Pension Fund Characteristics and Financial Performance of Pension Schemes

In the context of pension plans, "firm characteristics" refers to the explicit presentation of a scheme's key performance areas (Cinca & Molinero, 2001). According to this concept, firm characteristics are defined as those sustaining qualities that a scheme must possess in order to achieve its objectives. Density of contribution is therefore one of the factors that influence performance. The higher the contribution, the more money is invested in the economy and other pension-funded projects (Amiens & Abusomwan, 2020).

Density of Contributions

The amount that each member pays into pension funds is referred to as the contribution density (Bodie et al., 2009). Temitope et al (2018) noted that a key factor in determining the financial performance of pension plans is the density of contributions they receive from their contributors. Oluoch (2013) found that the density of contributions is a crucial element that influences pension benefits. According to Temitope et al (2018), large contributions consequently provide the PFA with economies of scale. A fund with enormous contributors who are capable of contributing huge funds to the scheme, will have ample money to invest to generate higher income. The reverse may likely occur if the contributions made by the contributors are insufficient for the fund to make any significant asset investments (Bodie et al., 2009; Kigen, 2016).

The empirical literature on density of contributions revealed mixed results. For instance, Annaert, Van den Broeck, and Vennet (2003) found that there is a positive and significant relationship between contributions and performance pension funds. However, Fajnzylber et al (2011), as well as Temitope et al (2018) noted that contribution density have a negative significant effect on financial performance. In contrast, Oluoch (2013); Owiyo (2017) contended that contributions do not have any effect on the financial performance of pension funds. This study examines the issue in the context of RBV theory, therefore, we hypothesize that:

H5: Density of contribution positively influence the financial performance of pension fund administrators.

Methodology

This study employs the quantitative approach, which involves the Ex-post Facto research design. This means that the investigation started after the fact has occurred without interference from the researcher.

Data Sources and Sample Selection

The population of the study consists of 22 PFAs, who operate in Nigeria. Two PFAs were excluded due to incomplete data. The study covered a period of three years, 2018 to 2020 (the period within which a multi-fund system was introduced) using secondary data. The sources of data were annual reports of the RSA published by the PFAs that manage the RSA fund. Data were extracted from the statement of income and expenditure for the year, the statement of assets and liabilities as at the year-end, and the PFAs' profiles. For each PFA, the data about corporate governance were sourced from the individual PFA's website/profile, and annual reports from PENCOM, which is responsible for the prudential supervision of the PFAs. While data about fund characteristics were sourced from the Fund Statement of Assets and Liabilities, Fund Income and Expenditure Statement.

Model Specification

Statistical tests were conducted using of Analyses of Variance (ANOVA) to obtain descriptive statistics and Pearson correlations. In addition, panel regressions were employed to examine the performance of funds, as well as factors influencing the financial performance of PFAs. The panel data analysis approach provides some advantages. First, econometric estimates are available easily, compared to pure time-series or pure cross-sectional data analysis methods. Second, it takes into account multicollinearity and individual heterogeneity (Kyereboah-Coleman & Osei 2008). The panel is balanced as the study consider three years' data from 20 PFAs, out of the total 22 existing PFAs in the country.

To achieve the objectives of the study, a model is developed for this study as follows:

$$ROA_{i,t} = \alpha + \beta_1 Bsize_{i,t} + \beta_2 Bindp_{i,t} + \beta_3 Gdiv_{i,t} + \beta_4 Dcon_{i,t} + \epsilon_{i,t}$$

Where:

ROA	=	Return on assets
Bsize	=	Board size
Bindp	=	Board independence
Gdiv	=	Gender diversity

Dcon = Density contribution

ϵ = Errors that may occur

I = is a notation for the individual PFAs

t = the time period

Measurement of Variables

Variables	Measurements	Sources
Financial performance	ROA, which will be computed as: Net profit as a percentage of total assets during the year	(Alhababsah & Yekini 2021)
Board size	Total number of directors on the Board of a company	(Vaidya 2019)
Board independence	The proportion of the number of non-executive directors to the total number of directors on the Board	(Freihat et al. 2019)
Gender diversity	Number of female directors on the Board	(Aggarwal et al. 2019)
Density contribution	The total contribution by RSA holders or contributors to a pension scheme	(Michael et al. 2022)

Results

Descriptive Analysis for each type of fund

Descriptive statistics for the whole sample, that is, 20 PFAs across the country is depicted in Table 1. The results indicated that the mean value for average ROA (Avrroa) is 2.339, with a standard deviation of 0.783. The mean values for Fund I, Fund II, Fund III, and Fund IV are 0.796, 6.304, 1.042, and 1.209 respectively. The standard deviation for each type of fund is 0.674, 1.975, 0.557, and 0.301.

Table 1
Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
AvrROA	60	2.339	.783	1.12	5.52
Fund 1	60	.796	.674	-.76	2.71
Fund 2	60	6.304	1.975	3.08	14.41
Fund 3	60	1.042	.557	.14	2.88
Fund 4	60	1.209	.301	.56	2.57

The results proved a significant difference in performance among the different type of funds (Table 2). Fund I (F-value = 69.26, p-value = 0.0000), Fund II (F-value = 10.03, p-value = 0.0025), Fund III (F-value = 22.07, p-value = 0.0000), and Fund IV (F-value = 11.35, p-value = 0.0014). The model has an overall p-value of 0.0000.

Table 2

Results of Anova Test

Source	Partial SS	df	MS	F	Prob>F
Model	29.300842	4	7.3252106	58.75	0.0000
fund1	8.635803	1	8.635803	69.26	0.0000
fund2	1.2504678	1	1.2504678	10.03	0.0025
fund3	2.7510563	1	2.7510563	22.07	0.0000
fund4	1.4149775	1	1.4149775	11.35	0.0014
Residual	6.857323	55	.1246786		
Total	36.158165	59	.61285026		

Number of obs = 60

R-squared = 0.8104

Root MSE = .353099

Adj R-squared = 0.7966

Statistics for independent variables in the regression model

For the regression model, the descriptive statistics for the whole sample is demonstrated in Table 3. The results revealed that the mean value for ROA is 2.338, and the standard deviation is 2.542. The mean values for Board size, Board independence, gender diversity, and density contribution are 0.433, 0.833, 0.733, and 402.365 respectively. The standard deviation for each of the factors are 0.497, 0.373, 0.443, and 2432.947 respectively.

Table 3

Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
ROA	240	2.338	2.542	-.76	14.41
board size	240	.433	.497	0	1
board independence	240	.833	.373	0	1
gender diversity	240	.733	.443	0	1
density contribution	240	402.365	2432.947	.01	23301

Pearson's Correlation Matrix

Pearson moment correlation was done on the dependent and explanatory variables to look for multicollinearity and to examine the relationships among the different variables in the study (Table 4). As a general rule, a correlation with an absolute value of 0.7 or greater (Liu, Wei, & Xie 2014) indicates a multicollinearity problem. However, Gujarati and Porter (2008), as well as Hair et al (2010) proposed a cut-off point of 0.8. Multicollinearity could affect the regression analysis and diminish the model's overall reliability or positive power. This study showed a significant positive weak correlation between return on assets and density of contribution. In addition, a weak significant negative correlation is established between Board size and gender diversity. Similarly, there is a significant positive weak correlation between Board size and density contribution. Furthermore, the correlation between gender diversity and density contribution are significant, but it is negative and weak.

To set this study free from multicollinearity issue, we calculated the variance inflation factors (VIFs) for all the variables (Wooldridge, 2014). The VIFs ranged from 1.007 to 1.143, which means all the VIFs are below the cut-off point of 10 (Wooldridge, 2014). This proved that

there is no multicollinearity issue among the variables.

Table 4

Pearson's correlations matrix

Variable	roa	bsize	bind	gdiv	dcon	VIF
roa	1.000					
bsize	0.016 (0.809)	1.000				1.119
bindp	0.105 (0.106)	-0.060 (0.353)	1.000			1.007
gdiv	-0.018 (0.779)	-0.309** (0.000)	0.034 (0.603)	1.000		1.143
dcon	0.191*** (0.003)	0.154** (0.017)	0.042 (0.516)	-0.215** (0.001)	1.000	1.061

Note: ***, ** and * indicate significant at 1%, 5% and 10%, respectively

Panel Regression Results

A poolability test [pooled ordinary least square (OLS) versus Panel data analysis] and Hausman test were used to determine the model appropriateness between Panel data and pooled OLS regression, and between random effects and fixed effects (Baltagi, 2005; Hausman, 1978). This study used the Hausman test to choose between random effects and fixed effects for each of the fund category.

The regression results (Table 5) indicated that the regression model is statistically significant ($p = 0.0000$). Hence, the model proved to be a good predictive model. Some variables are jointly responsible for the changes in the dependent variable, that is, ROA. Based on the Hausman test result, the most appropriate model is the one with random effects. However, Board size has a p-value of 0.938, indicating that it does not have a significant influence on the financial performance, thus, Hypothesis 1 is not supported. Board independence has a p-value of 0.000, which proves that it has a positive significant influence on the financial performance (ROA), therefore, H2 is supported. On the other hand, gender diversity has a p-value of 0.416, meaning that it does not have a significant influence on financial performance, thus, Hypothesis 3 is not supported. Lastly, density contribution has a p-value of 0.032, showing that it has a positive significance influence on the financial performance, therefore, Hypothesis 4 is supported.

Table 5

Random-effects Panel regression analysis

Variables	Coefficient	Std Error	t-statistics	Prob.
Constant	1.023	.524	1.95	0.051 *
Board size	-0.025	.319	-0.08	0.938
Board independence	1.194	.26	4.59	0.000 ***
Gender diversity	0.341	.418	0.81	0.416
Density contribution	0.000	0.000	2.15	0.032 **
Overall r-squared	0.042 **			
Chi-square	25.062			
SD dependent var	2.542			
Prob(F-statistic)	0.000 ***			
Number of Obs	240			

Notes: *, **, *** Indicates significance at 10, 5 and 1% levels, respectively. Dependent Variable: ROA.

Source: Researcher's computation using STATA 17.0

Table 6

Hausman Specification Tests

	---- Coefficients ----			
	(b) Fixed	(B) Random	(b-B) Difference	Sqrt(diag(V_b-V_B)) Std. err.
board_size	-.0421469	-.0247436	-.0174032	.1981962
board_ind	1.312883	1.194307	.1185763	.0913772
gen_div	.5756081	.3405466	.2350616	.3421266
den_con	.0001954	.0002015	-6.06e-06	.0001463

b = Consistent under H0 and Ha; obtained from xtreg.

B = Inconsistent under Ha, efficient under H0; obtained from xtreg.

Test of H0: Difference in coefficients not systematic

$$\begin{aligned} \text{chi2}(4) &= (b-B)'[(V_b-V_B)^{-1}](b-B) \\ &= 1.86 \end{aligned}$$

Prob > chi2 = **0.7618**

Discussion and Conclusion

The main objective of this study is to identify whether there are significant performance difference among the four types of funds, which were implemented under the new PRA, after the recent multi-fund restructuring. The study also aims to examine the influence of Board size, Board independence, gender diversity, and density contribution on the financial performance of PFAs in Nigeria. We adopt the agency and RBV theories to explain the relationship between the selected factors and PFAs' financial performance in Nigeria.

The findings of the study showed that there are significant differences in term of performance among the different fund classification. Empirical evidence revealed that Fund II, with a mean value of 6.304, is the best performing fund. This is justified by the fact that most RSA

subscribers belong to this class of fund. Fund IV, with a mean value of 1.209, is the second best performing fund. This is proved by the fact that all the contributors of the former Retirees account and those who retired under the new structure shifted to Fund IV. Fund III, with a mean value of 1.042, is the third performing fund. This is mainly because the subscribers under this fund are few in numbers (pre-retirement), compared to Fund II and IV. Lastly, Fund I, with a mean value of 0.796, is the lowest performing fund because Fund I is optional, that is, the contributors may decide to shift from Fund II or III to Fund I at their own will. Therefore, Fund 1 may not necessarily have as many contributors as other classes of funds.

Furthermore, our panel regression analysis revealed that Board independence and density contribution positively and significantly influence PFAs' financial performance in Nigeria. The empirical findings lend support to the agency and RBV theory. The regression results on Board independence is consistent with the agency theory, which argued that a Board with a large number of outside directors is independent and may independently monitor and advise managers, who are obliged to promote the shareholders' interests. Moreover, the separation of roles may enable Boards to perform their oversight functions more effectively because such Boards are considered independent. Therefore, agency theory suggests a positive relationship between Board independence and firm performance (Rashid, 2018).

Similarly, the findings on density of contribution is in line with RBV theory, which posits that the resources controlled by a firm tend to retain the firm's sustainable competitive advantage (Omari 2021). However, this study failed to extricate any significant influence of Board size and gender diversity on PFAs financial performance in Nigeria.

The findings provide evidence on the performance of the different categories of fund, which will help the contributor(s) to decide on whether to stay on their default fund or move to another fund. Furthermore, the findings of this study should be of interest to managers and boards of companies in making appropriate choices about corporate governance tools and firm characteristics to improve company's financial performance.

This study is able to give the significant contribution on both theoretical and contextual view. The research mainly contributes to the limited knowledge of pension fund particularly pension fund administrators. In addition, our research has theoretically paved way for understanding the influence of some factors towards PFAs' financial performance. Therefore, each factors' role have been identified and clarified. From the contextual view, this research has indicated that the implementation of multi fund structure under the new PRA has significantly enhance the PFAs financial performance. The overall contribution shows that PFAs performance varies differently as classified into Fund I, II, III and IV. It is hoped that, this research may help the contributors to have insight into the research pattern and enable them track the activities of their respective PFAs as well as each fund class. It may also help them identified the best performing class of fund and in turn decide on whether to maintain their fund or move to another class of fund. This research is very significant to the existing knowledge as it covers the new PRA, which is implemented in 2018.

This research is not void of limitations. Future study might consider incorporating more areas, such as board structure, board committees, board members' experience, age of the fund, fund size, and firm expenses as variables in the study. In addition, future research might need

to gather data for a longer period of time, which would provide a better understanding of the relationship between the selected factors and the financial performance. Finally, this study focused only on short-term performance measurement (i.e., ROA), future research could consider long-term performance measurement, such as Tobin's-Q.

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