

## CORPORATE BOARD FEATURES AND DIVIDEND POLICY IN NIGERIAN BANKS

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**Abstract:** *The study examined the influence of corporate board attributes on dividend policy decision in twelve Nigerian banks for the period 2009-2021. The independent variable, corporate board features, was surrogated by four attributes (board size, composition, gender diversity and meetings). Dividend per share served as a proxy for the dependent variable, dividend policy. Fixed effects least square regression model was adopted as the study's analytical instrument. Findings reveal that board size, board composition and board meetings have an inverse and significant relationship with dividend per share. The finding further indicates a direct and insignificant association between gender diversity and dividend per share. Overall, result provides empirical evidence in support of substitution hypothesis perspective of agency theory.*

**Keywords:** *Agency cost, board size, board composition, board gender, corporate governance, dividend pay-out.*

**JEL Classification:** *C24, G34, G35.*

### 1. Introduction

The importance of effective corporate governance in every business organisation has received greater attention from investors, management of corporations, policy makers, regulatory bodies and the public for some decades. This may be attributed to series of corporate failures recorded in the last three decades around the world, which was remarkably traced to poor corporate governance mechanisms in these organisations.

Poor or ineffective corporate governance in a public limited entity occurs due to separation of ownership and control (Jensen & Meckling, 1976). Corporate managers, as agents of shareholders, create agency conflict between them and the shareholders by pursuing their selfish interest, which is contrary to the overall interest of the shareholders.

The board of directors is an internal corporate governance structure employs by shareholders to monitor activities of the management and ensures that decisions made at meetings are in line with the interest of the shareholders' maximisation objective. This act invariably tends to reduce the agency conflict and its associated costs to a moderate level. The board has different attributes, such as the size, composition and gender diversity, which help in shaping its structure and members contribution to the attainment of the corporate objectives (which includes protection of the interest of shareholders).

The shareholders are entitled to dividends from profits made by corporate entities at the end of the financial year. The decision to pay dividend or not is due to many factors as

documented in extant literature. However, dividend payment sends signal to the investors and the public on what is happening and what is expected to happen in the future to the company. Also, when dividends are paid, the free cash that will be available to the management to play with will be drastically reduced. This suggests that payment of dividend is another means of ameliorating the conflict between the management and the shareholders.

There is plethora of empirical studies on corporate governance-dividend policy nexus in the literature with their individual limitations. For instance, some studies used firm-specific attributes, such as profitability (Hameed, Hussain, Naheed & Shahid, 2021), firm size (Kajola, Desu & Agbanike, 2015), leverage (Marfo-Yiadom & Agyei, 2011; Rafique, 2012), and cash flows (Afza & Mirza, 2011), as corporate governance attributes. Little attention was made in the use of board attributes in spite of the fact that corporate board has been seen to explain dividend policy in some previous studies in both developed and developing countries. Most of the existing studies used the conventional agency proposition to offer explanation on the topical issue, thereby producing mixed results. Very limited studies (such as Elmagrhi, Ntim, Crossley, Malagiha, Fosu & Vu, 2017; Pahi & Yadav, 2018; Sendur & Dogukanh, 2019; Nharo, Moloji & Hlobo, 2021; Saliya & Dogukanli, 2022), have considered the role of quality corporate governance regime existing in the organisations and its influence on dividend policy from the perspectives of outcome and substitution hypotheses of agency theory. However, most of these studies as found in previous works, were carried out in the developed countries which have different corporate governance jurisdiction and enforcement from those in the developing/emerging countries.

Gaps noticed in some of the existing studies are expected to be mitigated in this study. This objective is expected to be achieved by using data from Nigerian deposit money banks to explain the interaction between four corporate board attributes (size, composition, gender diversity, meetings) and dividend policy from the perspectives of outcome and substitution hypotheses.

## **2. Literature Review**

### **Theoretical Framework**

The agency theory as postulated by Jensen and Meckling (1976) was adopted as the theory that underpinned this study. Agency theory proposes that due to separation of ownership and control in corporate entities, the relationship between the principal (owners/shareholders) and the agent (management/directors) may not be cordial, thereby resulting into conflict. According to Jensen (1986), the agents may decide to pursue their own interest by engaging in some actions that profit them as agents but inconsistent with the expectations of the principal (who delegates the running of the activities of the company to them). In order to align the interest of both parties, the principal has to find means of curtailing the excesses and opportunistic behaviours of the agents.

The agency theory submits that dividend payment is one of the best known methods of reducing agency costs and resolving the conflict between the principal and the agent in corporate organisations (Idris & Hussaini, 2016; Chang, Kang & Li 2016; Al Sa'eed & Amin, 2018).

La Porta, Lopez-de- Silanes, Shleifer and Vishny (2000) introduced two competing propositions to explain the efficacy of agency theory in corporate governance-dividend policy decision. These propositions are the substitution and outcome hypotheses. The substitution hypothesis suggests that companies that are weakly governed and with lower protection of rights of minority shareholders have tendency to pay higher dividends. Dividend payment in this case is used to cover their inefficiencies, such that they

(management) will be in good book of the shareholders and new investors. An inverse relationship is therefore expected between corporate governance attributes (of which board attribute is part of) and dividend payout. The outcome hypothesis proposes that companies having sound corporate governance practices tend to pay higher dividends due to the boards' effective monitoring mechanism and the need to align the interest of the shareholders (which they represent) and the management (Nharo *et al.*, 2021). Similarly, companies that are poorly governed pay lower dividends because managers are only interested in their selfish aggrandisement (Al-Taleb, 2012). A direct association between corporate governance attributes and dividend payout is expected under the outcome hypothesis.

### **Related empirical studies and development of hypotheses**

#### **Board size and dividend policy**

Board size is the total number of directors on the board of an entity in a financial year. Its membership includes the executive (internal) directors, independent and non-executive (external) directors. In various countries' codes of corporate governance, the functions and duties of corporate boards are clearly defined. One critical function of the board is to efficiently and effectively monitor and supervise the management as well as provide policy direction in the running of the corporation so as to achieve its objectives. There is no universally acceptable opinion on the size of corporate board in the literature. However, most countries' codes of corporate governance provide that every corporate entity should have sufficient number of directors on board that will be necessary to drive the operations of the business unhindered.

The substitution hypothesis favours smaller board size. It submits that companies with smaller board size are more effective in monitoring activities and have less coordination costs, which eventually lower agency costs (Lipton & Lorsch, 1992 cited by Shafana & Safeena, 2022; Manzoor & Joiya, 2018; Mardani & Indrawati, 2018; Tarus, 2020) unlike companies with larger boards with coordination problems resulting in poor governance structure (Jensen, 1993). Companies that are poorly governed are likely to pay higher dividends as compensation for their ineffective corporate governance structure. This implies that an inverse relationship should be expected between board size and dividend payout.

The outcome hypothesis favours a larger size. The proponents of this hypothesis argue that a larger board has people of diverse skill, experience and opinions, which might improve the effectiveness of the monitoring process and eventually support the management in reducing the agency costs (Ntim, Opong & Danbolt, 2015; Elmagrhi *et al.*, 2017; Emmanuel, Uwuigbe, Teddy, Tolulope, & Eytomi, 2018; Osemene & Fagbemi, 2019). The interests of shareholders are therefore protected through payment of higher dividends; hence a direct association is expected between the two variables.

Empirical evidence has so far shown mixed results. Consistent with the predictions of outcome hypothesis, Litai, Chuan and Kim (2011) utilised data from 1,056 listed Australian firms during 2001-2008, found a direct relationship between board size and dividend payments. Ikuanda, Muiru and Kamau (2016) used a sample of Kenya manufacturing companies for the period, 2008-2014. The findings produced a direct association. Dissanayake and Dissabandara (2021) employed data from 170 Sri Lankan companies during the period 2015-2019. Findings from the panel regression indicated board size and dividend policy are directly related. Pahi and Yadav (2018) and Salya and Dogukandi (2022) studies also produced positive outcomes.

In support of substitution hypothesis, Ghasemi, Madrakian and Keivani (2013) employed data from 81 listed companies in Iran for the period 2005-2011 and result

showed board size and dividend policy are inversely related. Same negative association result was established in a study conducted by Batool and Javid (2014) in Pakistan where data from 100 listed manufacturing companies for the period 2003-2011 were utilised. However, few other studies did not support the predictions of outcome and substitution hypotheses as findings produced an insignificant relationship. Sani and Musa (2017) assessed the effect of board attributes on dividend policy of 8 Nigerian banks for 2006-2015 financial years. Regression results of pooled OLS and random effects model produced a weak (insignificant) negative relationship. Nharo *et al.*, (2021) utilised data from a sample of 29 firms in South Africa for financial years, 2013-2018. Results from the fixed effects regression revealed an insignificant effect. Shehu (2015); and Shafana and Safeena (2022) also indicated an insignificant relationship in their studies.

Following the discussion above, the study hypothesizes that:

H<sub>1</sub>: Board size has a relationship with dividend policy.

### **Board composition and dividend policy**

Board composition, also known as board independence, refers to the proportion of outside/independent directors in the boardroom. It is regarded as the most crucial component of a firm's internal corporate governance monitoring mechanism (Gregory, 2000 cited by Mili, Sahut & Teulon, 2017). Outside directors bring to the boardroom unique qualifications, diverse experience, skills, expertise and objective opinions (Kajola, Adewumi & Babatolu, 2015; Hussain, Rigoni & Orji, 2018).

With all these traits, the outcome hypothesis suggests that outside directors are capable of protecting the interest of the shareholders from opportunistic behaviours of managers (Easterbrook, 1984 cited by Dissanayake & Dissabandara, 2021; Uwuigbe, Olusanmi, & Iyoha, 2015; Elmagrhi *et al.*, 2017), thereby mitigating the agency conflict through payment of dividends. The outcome hypothesis predicts a direct association between board composition and dividend payout.

According to the substitution hypothesis, the presence of outside directors can help in limiting the amount of dividends payable to shareholders through their monitoring activities especially for firms that are poorly governed (Benjamin & Zain, 2015; Mili *et al.*, 2017).

The findings from previous empirical studies are mixed. For example, consistent with predictions of outcome hypothesis, Riazi, Liu and Ahmad (2016) used data from Pakistani listed companies for the period, 2009-2015 to test the possible interaction between board composition and dividend payments. Regression result exhibited a positive and significant relationship between the two variables.

Supporting the substitution hypothesis, Mili *et al.*, (2017) study of firms in Asian and GCC emerging markets during the financial crises revealed that Asian firms, GCC firms and all firms showed that board composition and dividend policy were inversely related. Similar negative association outcomes were established in studies by Pahi and Yadav (2018); Mirza and Malik (2019); Suwaidan and Khalaf (2020) and Nazar (2021).

In line with the reviewed theory and empirical findings, the study hypothesizes that:

H<sub>2</sub>: Board composition has a relationship with dividend policy.

### **Gender diversity and dividend policy**

Agency theory recognises the impact of women directors as a corporate governance attribute on the board as their presence have effect on boardroom discussion and decision-making.

The outcome hypothesis submits that women directors improve board effectiveness (Seto-Pamies, 2015; Pucheta-Martinez, Bel-Oms, & Oleina-Sempere, 2016; Mustafa, Ahmad & Chanfren, 2017; Anuar *et al.*, 2020), thereby using dividend payment as a means

of reducing agency costs and opportunistic behaviour of management to a manageable level (Ye, Deng, Liu, Szewczyk, & Chen, 2019; Gyapong, Ammad, Ntim, & Nadeem 2021). Other qualities of women directors that have been empirically validated in previous studies indicated that they are hardworking, skillful, professionals and with high sense of integrity in their dealings with management and other directors on the board (Carter *et al.*, 2003 cited by Elmagrhi, *et al.*, 2017; Ingley and Walt, 2005; Elmmagrhi, *et al.*, 2017), enhance strategic decision making and possession of strong leadership trait (Lee, 2015). All these features are necessary for smooth running and participation in a modern corporate organisation. Accordingly, a direct association is expected between board gender diversity and dividend payout.

Substitution hypothesis, however proposes that the presence of women in corporate boards can lead to increase in conflict among board members, thereby exuberating agency costs. With this, firms with high presence of women on board will need to pay higher dividend to mitigate the weak corporate governance structure in place (Elmagrhi, *et al.*, 2017).

Empirically, a number of previous studies following outcome hypothesis approach suggested a direct association between gender diversity and corporate dividend policies. For example, Adamu, Ishak and Hassan (2017) used data from 89 Nigerian firms for 2013-2015 to explain the board structure and dividend policy puzzle. The findings reported that women directors and dividend policy were positively related. Studies by Al-Amarnah, Yaseen and Iskandrani (2017); Kristianto (2018); Kajola, Olabisi, Soyemi and Olayiwola (2019); and Dissanayake and Dissabandara (2021), also revealed a direct relationship between the two variables.

By contrast to findings above and in support of substitution hypothesis, Saeed and Sameer (2017) employed data from a sample of some international countries, showed that companies that engaged larger number of female directors paid lower amount of dividends. This negative relationship was also confirmed by Elmagrhi *et al.*, (2017); and Mustafa, Saeed, Awais and Aziz (2020).

Following the above discussion, the study hypothesizes that:

H<sub>3</sub>: A relationship exists between gender diversity of the board and dividend policy.

### **Board meetings and dividend policy**

Board meeting is an internal corporate governance mechanism where issues of strategic importance that concern the corporate entity are discussed. It affords the directors the opportunity to perform their duties in line with the tenant of a country's code of corporate governance (Laksmanna, 2008 cited by Mili *et al.*, 2017).

Regular meetings of the board, according to the outcome hypothesis, avail the directors the opportunity to effectively monitor and evaluate the activities of the management. This is achieved through seamless communication of information to management; thereby using the medium to mitigate agency conflict between management and the shareholders. This will therefore encourage the alignment of the interest of management with the owners through pursuit of higher dividend payment (Ntim, 2013). The outcome hypothesis proposes a direct association between board meetings and tendency to make dividend payments.

Substitution hypothesis, however submits that companies that meet regularly can increase agency costs as a result of less time that will be available for serious monitoring function. As a result of this poor corporate governance practices, dividend payment is used by management as substitute for mitigating agency problems they have with shareholders (Benjamin & Zain, 2015). The substitution hypothesis therefore suggests an inverse relationship.

Empirical studies in this area are scarce. Mili *et al.*, (2017) used data from emerging markets of countries from Asia and GCC during the financial crises of 2003-2011, reported a significant direct relationship between board meetings (board intensity) and dividend policy. The finding is consistent with the prediction of outcome hypothesis. Riazi *et al.*, (2016) also revealed a positive result in the study conducted in Pakistan between 2009 and 2015.

On the contrary, in Turkey, Saliya and Dogukanli (2022) utilised data from 55 companies for the period 2011-2019 to explore how board meetings respond to dividend payments. The finding from fixed effects regression suggested an inverse association between meetings of board and dividend policy, which provided evidence in support of substitution hypothesis.

Consistent with the prediction of agency theory, the study hypothesizes that:

H<sub>4</sub>: Board meeting has a relationship with dividend policy.

### **3. Methodology**

#### **Data source**

The research design employed was basically *ex-post facto* as all required data necessary for the attainment of the objective of the study were historically available in the banks' annual reports. As at December 2021, Nigeria had fourteen listed banks and this served as the population of the study. Due to issue of incomplete data necessary for the accomplishment of the objective of the study, two banks were excluded from the population and a sample of twelve listed banks was employed. Relevant data were extracted manually from the banks' annual financial reports that were downloaded from their websites.

#### **The variables**

##### **Dependent variables**

Dividend policy, the study dependent variable, was surrogated by dividend per share. This variable was adopted in this study because of its peculiar feature of not being volatile as firms' earnings approach zero.

##### **Independent variables**

Following the review of relevant empirical studies, four factors (board size, composition, board gender diversity, board meetings) were identified as corporate board attributes capable of influencing dividend policy of listed business organisations; and subsequently adopted as the independent variable's (board attributes) proxies.

##### **Control variables**

There are some other variables not captured in the study's model that can have effect on the dependent variable, dividend policy (Nharo *et al.*, 2021; Hameed *et al.*, 2021; Saliya & Dogukanli, 2022). Failure to recognise the importance of these variables may affect the explanatory power of the model and produce spurious findings. The study included four of such variables (firm size, profitability, firm age and leverage) as control variables.

Theoretically, a larger firm has the capacity to raise funds from the capital market, enjoys better economies of scale, and generates bigger cash flow and profit than a smaller firm. Thus, a larger firm is expected to pay higher dividends to its shareholders as compensation for their investment in the company (Farrelly *et al.*, 1985 cited by Noorhavati, Zuraida & Nurul, 2018).

The effect of firm age on dividend policy depends on the growth cycle which the firm is. A matured (older) firm may not have great incentive in future investment growth and will therefore prefers the distribution of its profits in form of dividends to its

shareholders and vice-versa for a growing firm (Al-Malkawi, 2007 cited by Batool & Javid, 2014).

In compliance with statutory requirements, dividends are paid from corporate profits, hence, it is expected that firms with higher profits have the likelihood to pay higher dividends (Kajola, Adewumi & Oworu, 2015; Nyere & Wesson, 2019).

Agency theory provides that in order to avoid the cost of external financing, firms that are highly levered do have higher transaction costs and will find it difficult to use earnings generated to pursue robust dividend policy (Al-Shubiri, 2011).

The study expects a positive association between each of the first three control variables (firm size, age, profitability) and dividend pay-out, while a negative relation is envisaged between leverage and dividend pay-out.

### Model Specification

The study model is specified in equation 3.1:

$$DPS_{it} = \beta_0 + \beta_1 BDZ_{it} + \beta_2 BCO_{it} + \beta_3 BGD_{it} + \beta_4 BMG_{it} + \beta_5 FSZ_{it} + \beta_6 FAG_{it} + \beta_7 PRF_{it} + \beta_8 LEV_{it} + e_{it} \quad (3.1)$$

Where,

DPS = Dividend per share

BDZ = Board size

BCO = Board composition

BGD = Board gender diversity

BMG = Board meetings

FSZ = Firm size

FAG = Firm age

PRF = Profitability

LEV = Firm leverage

e = stochastic error term.

### Measurement of variables

Table no. 1 depicts the description and measurement of the study variables.

**Table no. 1. Measurement of variables**

Variable	Description	Measurement	Source
DPS	Dividend per share	Ratio of cash dividend paid to total equity shares issued	Mirza & Malik (2019); Anh & Tuan (2019); Hameed <i>et al.</i> , (2021)
BDZ	Board size	Number of directors sitting on the board in a financial year	Shafana & Safeena (2022); Dissanayake & Dissabandara (2021)
BCO	Board composition	Proportion of external directors to total board membership in a financial year	Hussain <i>et al.</i> , (2018); Anuar <i>et al.</i> , (2020)
BGD	Board gender diversity	Proportion of female directors to total board membership in a financial year	Adamu <i>et al.</i> , (2017); Mustafa <i>et al.</i> , (2020)
BMG	Board meetings frequency	Number of meetings held in a financial year	Dewasiri <i>et al.</i> , (2019); Nguyen & Nguyen (2021)
FSZ	Firm size	Natural log of total asset	Kajola <i>et al.</i> , (2019); Tarus (2020)

FAG	Firm age	Log of the number of years of the company to the study period	Mili <i>et al.</i> , (2017); Salah (2018)
PRF	Firm profitability	Ratio of profit after tax to total asset	Noorhayati <i>et al.</i> , (2018); Nharo <i>et al.</i> , (2021)
LEV	Firm leverage	Ratio of total debt to total asset	Dissanayake & Dissabandara (2021)

Source: Authors' compilation from various empirical studies, 2022

#### 4. Results and Discussion

##### Descriptive

Table no. 2 provides the summary result of the descriptive statistics.

**Table no. 2. Descriptive statistics**

Variable	Mean	Minimum	Maximum	Standard dev.	Skewness	Kurtosis
DPS	0.560	0.000	3.600	0.828	1.863	2.612
BDZ	13.237	6.000	20.000	2.965	-0.195	-0.328
BCO	0.651	0.467	0.923	0.117	1.051	0.102
BGD	0.209	0.000	0.571	0.119	0.070	-0.075
BMG	6.071	1.000	16.000	2.402	1.288	2.389
FSZ	11.984	10.033	12.985	0.595	-0.896	0.786
FAG	1.534	0.602	2.107	0.278	-0.179	1.169
PRF	0.023	-0.242	0.266	0.053	0.800	10.648
LEV	0.092	0.000	0.684	0.114	3.151	11.760

Source: Authors' computation, 2022

The mean dividend per share (DPS) of the sampled banks from Table no. 2 is 56% and it ranges from 0% to 360%. It suggests that the corporate managers and their boards, on the average, have used the profits available to the banks for payment of higher dividends. This perhaps may be to cover their corporate governance structure inefficiencies during the study period.

The mean board size (BDZ) is 13, with minimum of 6 and a maximum of 20 members. This suggests that the board of each of the selected banks have sufficient board members that will enable them to accomplish their tasks efficiently and effectively.

The proportion of outside/non-executive/independent directors sitting in the board (BCO) averaged 65.1%, with minimum of 46.7% and a maximum of 92.3%. This is substantially in compliance with the principle of the country's code of corporate governance issued in 2018, which requires more of non-executive directors than executive directors as a result of their high degree of objectivity which they bring to the board.

The proportion of female directors to the board membership (BGD) has an average of 20.9%. This indicates that there is imbalance in the diversity representation as more males are favoured than females in the Nigerian banks' boardrooms.

The code of corporate governance of 2018 specifies that a public or private listed company should have board meetings at least on a quarterly basis in a financial year. The mean board meeting (BMG) of the sampled banks is about 6, with minimum of 1 and a maximum of 16 times in a financial year. There is a substantial compliance with the provision of the corporate governance code in this respect.

Regarding the control variables, the bank size (FSZ) has a mean of ₦963.8 billion ( $\log^{-1}$  11.984), with minimum of ₦10.8 billion ( $\log^{-1}$  10.033) and a maximum of ₦9,660.5



billion ((log<sup>-1</sup> 12.985). The average age (FAG) of the sampled banks is 34 years (log<sup>-1</sup> 1.534). The average profitability (PRF) is 2.3%, indicating poor usage of the asset by the management in generating profits. The average leverage (LEV) is 9.2%, suggesting that the banks are lowly levered.

Board size (BDZ) with standard deviation of 2.965 has the highest dispersion from mean, while leverage has the least dispersion from mean (with standard deviation of 0.114).

### Correlation

Table no. 3 shows the direction of association between the study variables.

**Table no. 3. Pearson correlation matrix**

Var	DPS	BDZ	BCO	BGD	BMG	FSZ	FA G	PRF	LEV
DPS	1								
BDZ	-.070	1							
BCO	-.157**	-.538***	1						
BGD	.141**	-.056	-.030	1					
BMG	-.274***	.172**	-.082	-.006	1				
FSZ	.218***	.405***	-.413***	-.196***	.208***	1			
FAG	-.078	-.059	.173**	.074	.214***	.208***	1		
PRF	.381***	-.155**	.287***	.322***	-.224***	-.288***	-.041	1	
LEV	-.151**	-.255***	-.171**	.061	.046	-.068	.019	-.324***	1

\* p < 10%; \*\* p < 5%; \*\*\* p < 1%,

Source: Authors' computation, 2022

From Table no. 3, dividend per share (DPS) has a negative but insignificant association with board size (BDZ). DPS has a negative and significant association with two of the explanatory variables- board composition (BCO) at 5% level and board meetings (BMG) at 1% level. DPS however has a direct association with board gender diversity (BGD) at 5% level. These results suggest that there is an inverse association between dividend payment and all the explanatory variables, except BGD. As for the control variables, DPS has a direct and significant association with firm size (FSZ) and profitability (PRF) both at 1% level, but negative and significant association with leverage (LEV) at 5% level. The association between DPS and firm age (FAG) is negative and insignificant.

The result in Table no. 3 further reveals that highest coefficient of 53.8% occurs between board size (BDZ) and board composition (BCO). This is less than the acceptable threshold for occurrence of multicollinearity between explanatory variables of 0.7 and above (Nharo *et al.*, 2021). Since no variable has a coefficient of 0.7 and above, then there is absence of multicollinearity issue between the explanatory/control variables.

### Collinearity test

Table no. 4 provides the result of the multicollinearity test among the explanatory/control variables.

**Table no. 4. Multicollinearity test result**

Variable	VIF	Tolerance Value (1/VIF)
BDZ	1.829	0.547
BCO	1.958	0.511
BGD	1.234	0.810
BMG	1.143	0.875
FSZ	1.572	0.636
FAG	1.225	0.816
PRF	1.493	0.670
LEV	1.465	0.682
Average	1.490	0.693

Source: Authors' computation, 2022

The variance inflation factor (VIF) was employed to further determine if multicollinearity issue existed between the explanatory/control variables or not. The result of the test in Table no. 4 reveals that board composition (BCO) has the highest value of 1.958, while board meetings (BMG) has the least value of 1.143. The average VIF is 1.490. There is no variable that has a value of more than 10.0. This suggests absence of multicollinearity issue between the study variables (Wooldridge, 2012). Thus, all the variables are fit to be included in the regression.

### Regression

Table no. 5 shows the results of the three separate regressions conducted (pooled ordinary least square, fixed effects and random effects, and summary results of diagnostic tests.

**Table no. 5. Regression results**

Variable	POLS		FEM		REM	
	t-stat	p-value	t-stat	p-value	t-stat	p-value
Constant	-2.130**	0.035	-0.993	0.323	-1.385	0.168
BDZ	-3.764***	0.000	-4.332***	0.000	-3.029***	0.003
BCO	-3.299***	0.001	-5.899***	0.000	-3.682***	0.000
BGD	1.023	0.308	0.534	0.594	0.443	0.658
BMG	-3.165***	0.002	-3.004***	0.003	-2.068**	0.040
FSZ	5.206***	0.000	7.216***	0.000	3.527***	0.001
FAG	-1.040	0.300	-0.698	0.486	0.101	0.920
PRF	5.383***	0.000	5.076***	0.000	5.078***	0.000
LEV	-1.473	0.143	-2.235**	0.027	-0.797	0.427
R <sup>2</sup>	0.409		0.391		0.236	
Adj. R <sup>2</sup>	0.377		0.362		0.195	
F-stat	12.711***		22.271***		5.682***	
F-stat (prob)	.000		.000		.000	
Durbin-Watson stat	1.944		1.695		1.714	
Observations	156		156		156	
Redundant fixed effects tests	138.528*** (0.000)					
Hausman test	72.160*** (0.000)					

\* p < 10%; \*\* p < 5%; \*\*\* p < 1%,

Source: Authors' computation, 2022

There are similarities in the results of the three regressions. Board size, board composition and board meetings have an inverse and significant relation with dividend per share, while board gender diversity and dividend per share are positively and insignificantly related.

To determine which of the three regression techniques to be used for inference, two diagnostic tests were performed. The redundant fixed test was employed to discriminate between the pooled OLS (POLS) and fixed effects least square regression (FEM). Result in Table no. 5 shows that the chi-square value is 138.528 and significant at 1% level ( $p < 0.01$ ). It suggests that FEM has preference over POLS technique. Hausman (1978) specification test was later conducted to select the better analytical technique between the FEM and random effect generalised least square regression (REM). Result in Table no. 5 indicates a chi-square value of 72.160 and significant at 1% level ( $p < 0.01$ ). It clearly reveals that for this study, the FEM is a better technique than the REM. Inference of this study will therefore be made using the result of the fixed effects least square regression as shown in Table no. 5 (columns 4 and 5).

From Table no. 5, the adjusted  $R^2$  of 0.362 indicates that about 36.2% variation in the dividend policy (dividend per share) is explained by the four board attributes and four control variables, while about 63.8% cannot be accounted for by the study models. The F-stat value is 22.271 and this is significant at 1% level ( $p < 0.01$ ), suggests that the model is properly fitted. The Durbin-Watson value of 1.695 is within allowable benchmark of 1 and 3 (Alsaeed, 2006), indicating absence of autocorrelation among the series used in the study.

Result in Table no. 5 reveals that board size (BDZ) is negatively related to dividend per share (DPS) and this is significant at 1% level ( $t = -4.332$ ;  $p = 0.000$ ). This shows that as board size increases, dividend paid by the sampled banks, decreases and vice-versa. It therefore implies that dividend payment was not used by these banks as a monitoring mechanism but as substitute for ameliorating the poor governance structure in the system. The finding, which is consistent with the prediction of substitution hypothesis, is supported by studies conducted by Ghasemi *et al.*, (2013) and Batool and Javid (2014). The finding is however at variance with the outcomes of the studies conducted by Pahi and Yadav (2018) and Salya and Dogukandi (2022), which produced a direct and significant relationship between the two variables. Hypothesis 1 is hereby validated, as board size and dividend policy are negative and significantly related.

Table no. 5 indicates that board composition (BCO) has an inverse and significant effect on DPS at 1% level ( $t = -5.899$ ;  $p = 0.000$ ). This indicates that as more non-executive/ external/independent directors are engaged in the boardroom, the dividend per share reduces. This can be interpreted from the substitution hypothesis perspective which submits that the outside directors can help in limiting the amount of dividends payable to shareholders through their presence especially for firms that are poorly governed. The finding is supported by the studies conducted by Suwaidan and Khalaf (2020); Nazar (2021); and Nharo *et al.*, (2021). The finding is however inconsistent with Kulathunga, Weerasinghe and Jayarathne (2017) and Shafana and Safeena (2022) that produced positive relationship. Hypothesis 2 is empirically supported as board composition and dividend policy are negative and significantly related.

Board gender diversity (BGD) and DPS, as indicated in Table no. 5, is positive but not significant at 5% level ( $t = 0.534$ ;  $p = 0.594$ ). It indicates that the presence of more women in the boardroom affects the likelihood to pay dividend due to their effective monitoring of the management, although this is not having any strong impact. The finding is inconsistent with the predictions of both outcome and substitution hypotheses. The finding of the study has the support of the studies conducted by Nharo *et al.*, (2021) and

Saliya and Dogukanli (2022). It is not in line with the studies of Al-Rahahleh (2017); Al-Amarneh *et al.*, (2017); and Dissanayake and Dissabandara (2021), which reported a positive and significant relationship. Hypothesis 3 is not empirically supported as board gender diversity and dividend policy have no significant relationship.

Board meetings (BMG) has a negative and significant impact on DPS at 1% level ( $t = -3.004$ ;  $p = 0.003$ ). This finding indicates that having many meetings in a financial year show presence of poor governance structure as agency costs tend to increase. This is consistent with the prediction of substitution hypothesis and supported by empirical studies conducted by Elmagrhi *et al.*, (2017); and Saliya and Dogukanli (2022). Hypothesis 4 is supported as board meetings and dividend policy are negative and significantly related.

For the control variables, profitability and firm size have a positive relation at 1% level, while leverage has an inverse relationship at 5%, with dividend per share. These results are consistent with agency theory. Firm age however, has an inverse and insignificant relationship with dividend per share.

### 5. Conclusion and recommendations

In trying to resolve the corporate governance-dividend puzzle, this study empirically explored the influence of four board attributes have on the dividend policy of listed banks in Nigeria. Twelve (12) banks were selected as sample for study time frame of thirteen (13) years (2009-2021).

Regression result from fixed effects least square model revealed an inverse and significant relationship between three of the attributes (board size, board composition, board meetings) and dividend per share (dividend policy proxy). A direct association between the fourth attribute (board gender diversity) and dividend policy was reported, the relationship is however insignificant.

Arising from the results of the study, it is evidenced that Nigerian banks, during the period of the study, operated in a poor corporate governed environment. Dividend payments made to shareholders was not as a result of effective monitoring of the management by the board members to reduce agency costs. The dividend payment was used as a strategic mechanism to cover the board's inefficiency so as to be in good book of the shareholders, future investors and the general public. The finding of the study therefore validated the proposition of the substitution hypothesis perspective of agency theory.

It is recommended that regulatory bodies in Nigeria, particularly the Securities and Exchange Commission and Financial Reporting Council of Nigeria, should endeavour to consistently revise their regulations so as to institutionalize the principles of corporate best practices in Nigerian corporate entities. Special attention should be directed to the boards of listed companies, being the internal mechanism that is responsible for provision of leadership and formulation of strategic policies that will enhance and sustain the prosperity of the corporations. The size of the board; its composition; and frequency of board meetings, should be adequately considered whenever such revisions to the regulations are being considered.

Corporate shareholders are also advised to encourage more representation of female directors in the boardroom. This will enable the organisation to reap the benefits of the effective monitoring skills of the female directors, which subsequently will reduce agency costs and the conflict between the management and shareholders, to the barest level.

For future line of study, efforts should be made by researchers to conduct similar studies in other economic sectors, particularly companies in the non-financial sector, which perhaps have a larger population size. Cross-country studies may also produce a more robust result, which can be fairly generalised.

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