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Board Structure Diversity and Dividend Decisions of Deposit Money Banks in Sub-Sahara African Countries

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ABSTRACT: A board must be varied in size and independence to make intelligent dividend payouts. This research analyses how board structure diversity and traditional criteria affect Sub-Saharan African banks dividend choices. From 2008 until 2023, stock exchanges in Nigeria, South Africa, Kenya, and Gabon provided data. In the research, Board structure diversity (Board Independence and Board size) and conventional characteristics (Bank size and Bank age) were independent variables, whereas dividend payout ratio was the dependent variable. EPS is the control variable. We employed an ex post facto study approach using correlation, descriptive, and panel dynamic analysis. The findings show that board independence and EPS negatively affect dividend choices. However, the interplay between board independence and EPS and board size and EPS effects dividend choices more positively and significantly than when analysed separately. The research also indicated that board independence and EPS separately affect dividend distribution choices positively but insignificantly. According to the study, board structure diversity affects dividend choices in Sub-Saharan African deposit money banks (DMBs) from 2008 to 2023. The research suggests increasing board independence and size can dramatically impact dividend distribution choices.

KEYWORDS: Board structure diversity, Dividend decision, Board size, Board Independence, Earnings per share

1. INTRODUCTION

A diverse corporate board, representing various genders, minority groups, and ages, enhances productivity and decision-making by incorporating different talents, creativity, and experiences (Nwidobie, 2020). The OECD (2021) recommends board diversity, including diverse backgrounds, experiences, and demographics such as history, career, age, gender, race, ethnicity, education, and culture. This diversity benefits corporate governance by improving performance, risk management, innovation, accountability, profitability, and sustainability. This study argues that diverse boards make better dividend decisions. Researchers have explored the link between a company's board and its dividend policy (Nguyen, Dang & Dau, 2021). Some theorists suggest that strong, diverse boards lead to larger dividend payments, protecting shareholders' interests.

Dividend decisions directly affect investor trust and investment returns (Bappah, Saleh, and Hassan, 2022). When a firm fails to provide returns after a history of losses, investors may lose faith, leading to capital withdrawal and potential liquidation (Bappah et al., 2022). Directors may decide to distribute earnings to owners or reinvest them to finance expansion or high-yield investments (Nguyen et al., 2021). Earlier studies, including those by Alshabibi, Pria and Hussainey (2021), Moloi and Marwala (2020), and Thompson and Manu (2020), found a link between board structure diversity and dividend decisions. These studies focus on different aspects of board diversity. This study specifically examines how board size and independence affect dividend decisions in Sub-Saharan African countries.

Researchers, investors, and the public are concerned about agency costs, where managers use firm resources for personal gain at the expense of owners, leading to scandals and failures even in seemingly strong banks (Viviers et al., 2023). Such incidents have caused investors to lose faith in bank management (Saleh, Abdulkarim, & Ibrahim, 2020). Fama and Jensen cited in Viviers et al. (2023) state that the board of directors is crucial for corporate governance, helping to align management and shareholder interests to reduce agency costs and maximize firm wealth (Alshabibi et al., 2021). Any mistakes by the board can severely impact on the firm and its shareholders. Therefore, it is imperative for the board to be diverse in terms of size and independence to make sound dividend payment decisions. This paper examines the interactive influence between board structure diversity and conventional factors on dividend decisions in the banking sector of Sub-Saharan African countries. The study will be guided by this objective:

- Investigate the interactive effect of board structure diversity (BI and BS) and conventional factors (BZ and BA) on dividend decisions of selected DMBs in sub-Saharan Africa

2. CONCEPTUAL, THEORETICAL AND EMPIRICAL REVIEW

2.1 Conceptual Review

Board Structure Diversity

Board structure diversity refers to the variety in a board's makeup, encompassing factors like board size, board composition, and board independence (Awen, Lamido, & Yahya, 2023). Board size is the total number of directors on the board, with an optimal size balancing diverse perspectives and efficient decision-making (Bappah, Saleh, &Hassan, 2022). Larger boards may offer broader expertise, while smaller boards can promote quicker, more focused discussions (Tampakoudis et al., 2022). Board composition involves the mix of executive and non-executive directors, with diversity in professional backgrounds and industries enhancing the board's ability to address complex issues (Awotundun, 2021). Board independence, referring to the inclusion of independent directors who have no material relationship with the company, is critical for objective decision-making and oversight (Abdulwahab et al., 2023). A high level of independence reduces conflicts of interest and ensures impartial governance (Alshalbibi, Pria, & Hussainey, 2021). Together, these elements of board structure diversity promote well-rounded decision-making, accountability, and effective governance by bringing diverse skills, experiences, and independent perspectives to the boardroom

Conventional Factors

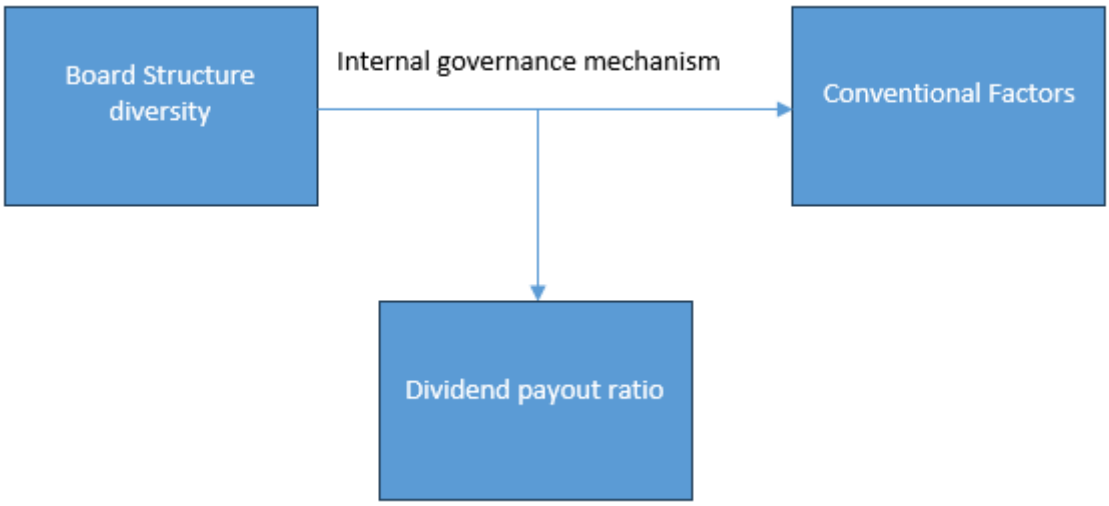
Conventional factors refer to the key elements or mechanisms that are essential for the effective control and oversight of organizations. These factors ensure that the organization is managed in a transparent, ethical, and efficient manner, while balancing the interests of shareholders and other stakeholders (Ele & Micheal, 2024). Factors such as bank age and bank size are essential in shaping corporate governance within banking institutions. Bank age refers to the number of years a bank has operated, with older banks typically having more established governance structures and reputations, which can affect their risk tolerance and governance practices (Mhadhbi, Terzi, & Bouchrika, 2020). Bank size, usually measured by total assets or market capitalization, influences the complexity of governance structures, with larger banks requiring more sophisticated risk management and internal controls due to increased regulatory scrutiny (Nguyen & Dang, 2022). Together, these factors influence the governance framework, risk management, and financial performance of banks.

Dividend Decision

The dividend decision is a fundamental aspect of corporate financial policy, determining how much of a company's earnings are distributed to shareholders as dividends versus retained for reinvestment (Abdullahi, Adebayo, & Aliyu, 2020). This decision is often expressed through the dividend payout ratio, which indicates the proportion of net income allocated to dividends (Aigbovo & Evbayiro-Osagie, 2022). Lintner (1956) highlighted the importance of stability in dividend payments, with companies gradually adjusting payouts based on earnings changes to maintain investor confidence. In contrast, Miller and Modigliani (1961) argued that in perfect markets, the dividend decision does not affect firm value. However, real-world factors like taxes, agency costs, and information asymmetry limit this assertion. Jensen (1986) further argues that higher dividend payouts help mitigate agency problems by reducing excess cash available to management. Thus, the dividend decision, reflected in the payout ratio, is a strategic balance between returning value to shareholders and funding future growth, shaped by various theoretical perspectives.

2.2 Conceptual Framework

The relationship between board structure diversity, firm specific factor, and dividend policy is based on the need to have good governance. Organisation that are properly controlled and managed are expected to have appropriate board size and board composition. The presence of reasonable non-executive directors in the board would check the excess of the executive directors. This would enhance the capacity of the board to pay dividend as long as firm specific factors such as profitability, liquidity, investment, taxation, asset quality are favorable.



Overview of the relationship between the variable
Source: Author's Model, 2025

2.3 Theoretical Review

Agency cost Theory

Jensen and Meckling's 1976 agency cost theory, expanded by Mitnick (1975) and Eisenhardt (1989), states that when owners appoint managers (agents) to operate a corporation, there is a conflict of interest since owners are recruiting managers. Agencies cost because managers prioritise themselves above owners. These costs include monitoring Expenses incurred by shareholders to limit managers' self-serving behaviors. Jensen and Meckling (1976) also highlight

Dividend payments as a tool to mitigate agency issues by reducing free cashflows available to managers, which could otherwise be misused on non-productive ventures (Jensen, 1986). By distributing dividends, firms align the interests of managers and shareholders, reducing agency conflicts and enhancing shareholder value (Singh & Tandon, 2019).

Resource Dependency Theory

Pfeffer (1973) created the hypothesis, and Pfeffer & Salancik (1978). Through dividend policy, it highlights the crucial functions that the board of directors plays in granting access to resources that would improve the organization's success. It explains that organizations rely on external resources and manage relationships with external entities to reduce uncertainty. Firms use dividends as a strategic tool to secure resources, reduce reliance on external financing, and build investor confidence. By consistently paying dividends, companies signal financial stability, manage investor relations, and enhance their legitimacy, thereby reducing their dependency on external capital and ensuring favorable access to resources when needed (Dunham & Zhang, 2023).

Theoretical Framework

This study relies on agency cost theory by incurring monitoring costs to ensure the management work in line with shareholder's interest. This suggests that professional managers such as non-executive directors need to be incorporated in the board to enhance payment of dividend where favorable conventional factors prevail.

2.4 Empirical review

Many studies have examined the relationship between board structure diversity and dividend decisions, yet their findings are inconclusive.

Naburi and Ndede (2019) examined the influence of board composition on the dividend decisions of 64 companies listed on the Nairobi Securities Exchange in Kenya from 2011 to 2015. The research uses board independence, director skill, and board diversity as indicators of board composition, treating them as independent variables, while dividend decisions are defined as the dependent variable. The findings indicate that board independence negatively and significantly affects dividend decisions, whereas both board skill and board diversity exhibit positive but insignificant effects on these decisions. However, the study does not address conventional factors that influence dividend decision.

Hussain, Mahfuzur, and Ridzuan (2021) examined board composition and dividend distribution practices in 336 Malaysian non-financial firms from 2005 to 2016. Board size correlated positively and strongly with dividend policy, whereas independent directors correlated negatively and weakly.

Similar to this, Suwaiden and Khalaf (2020) evaluated dividend policy, ownership structure, and board composition of industrial companies listed on the Amman Stock Market between 2013 and 2015. Their study shows that board size, duality, and EPS positively and substantially affect dividend policy. This study on non-financial firms did not examine how board structure diversity and conventional variables interact.

Petroski and Yahaya (2024) analysed the effect of independent boards and committees on the quality of profits. Using corporate-level data from 154 publicly listed corporations spanning 2008–2022, adopting a Generalized Method of Moments to deal with endogeneity. Their study found that Board independence, audit committee independence, risk committee independence, and business size are statistically significant. nomination and compensation committee independence, profitability, listing age, leverage, and earnings quality have no statistical significance. Their study differs from the ongoing study in terms of selected variables being studied as well as scope and sample size. But similar to some extent because both studies included board independence and earnings quality/dividend decision.

Khan (2021) analysed how the features of the board as well as the structure of the ownership affects dividend policies in Turkish listed businesses from 2013 to 2019, excluding banking and utility sectors. The findings revealed that board size has a positive impact while Board independence doesn't significantly affect dividends policy. Thompson and Manu (2021) employed the dividend declaration dummy variable in a fixed effect logistic regression to evaluate if board characteristics impact dividend policy. Board factors, including size, had a positive effect. However, their study failed to consider conventional factors which is the focus of this study.

Abu-Afifa et al. (2022) investigated the relationship between board qualifications and dividend distribution. Using panel data from the Amman Stock Exchange (ASE) between 2012 and 2019, their study employed the Generalized Method of Moments (GMM) estimator, which revealed that larger board sizes were associated with a reduction in dividend distribution, while board composition had no significant impact. In contrast to their focus on board qualifications as a measure of board structure, the present study examines board independence alongside conventional factors such as bank size and earnings per share (EPS) to explore their influence on dividend decisions.

Oloyede (2020) discusses the implications of dividend policy on shareholder wealth and company valuation, emphasizing the balance firms must strike between reinvesting earnings for growth and returning profits to shareholders, in findings he articulated that dividends serve not only as a reward to shareholders but also as a signal of a company's financial health and stability.

Furthermore, He examines various theories related to dividend policy, including the Modigliani and Miller theorem, which posits that in perfect markets, dividend payments do not affect stock prices. However, real-world deviations highlight the importance of dividends in investor perception and market reaction. The study did not address the interplay between board structure diversity and dividend decision, how corporate governance mechanisms affect financial outcomes of the company.

Ellili (2022) examined ESG disclosure and dividend policy in UAE financial market. Data from 2010 and 2020 are sampled. Their research indicated that board independence influences ESG disclosure and dividend distribution. The present study introduced conventional factors and how this affect dividend decision. Kanojia and Bhatia (2022) examined corporate governance and dividend distribution in Indian and US-listed companies. They found that board independence and size affect dividend payments in US companies, but not in Indian businesses. More so, the study did not take into consideration the conventional factor (Bank size and EPS) which constitute the focus of the present study.

Awen, Lamido, and Yahaya (2023) explored the impact of board characteristics on dividend policy in Nigeria utilizing data from 1,120 businesses spanning 2012 to 2021. The findings derived from the Ordinary Least Squares (OLS) method revealed that both board size and independence significantly influence the dividend policies of listed corporations. This research differs from the ongoing study in terms of sample, participants and key variables. Fayyaz et al. (2023) assessed corporate governance using a comprehensive index that includes board size and independence. Findings revealed that in emerging market stock exchanges like China, India, and Pakistan, corporate governance quality affects dividend pay-out for non-financial companies. However, they did not take into consideration the conventional factors.

Literature gap

The earliest major study on dividend decisions credited to Linter (1956) focuses on conventional factors particularly previous dividend and firm earning. Other such as Adesola and Okwong (2005), Olowo(2013), Oloyede (2020) and many others expanded the discussion of dividend decision focusing on conventional factors such as current earning, liquidity, investment, current asset, risk management and many others without considering board structure diversity as it affect dividend decision. This study attempts to cover the gap in the literature by incorporating board structure and conventional together and see how it affects dividend decisions. Lastly, the scope of study considers sub-Saharan Africa countries, unlike reviewed studies that were limited to country study

3. METHODOLOGY

This study employed the *ex post facto* research design and utilized panel data from four selected countries in sub-Sahara Africa namely Nigeria, South Africa, Kenya and Gabon. Data spanning 2008 to 2023 was obtained from the stock exchange of each country. The sample size comprises of 10 banks from each selected country. The criteria for selection are that the banks must be listed on the stock exchange of each country on or before 2008.

3.2 Model Specification

This study utilizes a linear dynamic panel approach. It adapted the model of Nharo, Moloi, and Hlobo (2021) which is stated below;

$DPRi = y_1 + y_2BGEN_{2it} + y_3BETHN_{3it} + y_4AVAGE_{4it} + y_5BFINEX_{5it} + y_6BSIZE_{6it} + y_7BIND_{7it} + y_8PROF_{8it} + y_9PREVDIV_{9it} + \dot{\varepsilon}it \ldots$

where:

DPR is a dependent variable representing the Dividend Payout Ratio;
BGEN is an independent variable representing Board Gender;
BETHN is an independent variable representing Board Ethnicity;
AVAGE is an independent variable representing Average Age of Board Members;
BFINEX = is an independent variable representing Board Financial Expertise;
BSIZE is an independent variable representing Board size
BIND is an independent variable representing board independence
PROF is a control variable representing a company's Profitability, and
PREVDIV is a control variable representing a company's Previous Dividend

The adapted model of Nharo, Moloi, and Hlobo (2021) was revised to suit the objectives of this study. Variables like board gender, board ethnicity, board financial expertise, company's profitability level, company's previous dividend were replaced with variables such as bank size, bank age, and earnings per share. The modified model is presented below:

$DPR_{it} = \lambda_0 + \lambda_1 BID_{it} + \lambda_2 BS_t + \lambda_3 BA_{it} + \lambda_4 BZ_{it} + \lambda_5 EPS_{it} + \mu_{it}$

The dependent variable is dividend payout ratio (DPR) while the independent variables are Board Independence (BI), Board size (BS), Bank age (BA) and Bank size (BZ) while earnings per share (EPS) is the control variable; λ_0 represents the autonomous value Constant term while λ_1, λ_2, λ_3, λ_4, λ_5 are parameters estimate expressing the coefficient of the variables; μ_{it} is the stochastic error term.

4. RESULTS AND DISCUSSION

4.1Preliminary Results

The preliminary results present the estimated descriptive statistics, correlation matrix, panel dynamic analysis.

Table 1: Descriptive Statistic and Normality Test

Variable	Obs	Mean	Std. Dev.	Min	Max
dpr	640	.7222656	1.354321	0	11.36
bid	640	3.25625	1.158742	2	9
bs	640	13.67188	2.701386	6	21
eps	640	2.0165	2.791005	.01	21.11
bz	640	2.33e+07	5.05e+07	0	4.21e+08
age	640	1.653187	.1451355	1.26	2.11

Skewness/Kurtosis tests for Normality

		------ joint ------			
Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
dpr	640	0.0000	0.0000	.	0.0000
bid	640	0.0000	0.0000	64.18	0.0000
bs	640	0.0042	0.1589	9.55	0.0084
bz	640	0.0000	0.0000	.	0.0000
ba	640	0.3007	0.0003	12.74	0.0017
eps	640	0.0008	0.0460	13.55	0.0011

Source: Researcher's Computation (2024)

Table 1 results shows that average bank size (BS) of 13.67, average BID of 3.25, EPS average of 2.01 with DPR of 0.72 as the dependent variable which had second lowest average value compare to other study variables. Kline (2011) suggested evaluating data distribution shapes using these measures. Furthermore indicated by Tabachnick and Fidell (2001) are commonly accepted as suitable for evaluating normality skewness and kurtosis values between -4 and +4. This supports the view that these indicators provide a consistent assessment of the departure from normality. The normalcy test employing the kurtosis and skewness tests is summarised in Table 1 below. Thus, the study variables were normally distributed.

Table 2. Correlation Matrix

	dpr	bid	bs	bz	ba	eps
dpr	1.0000					
bid	0.0606	1.0000				
	0.1257					
bs	0.0377	0.0424	1.0000			
	0.3415	0.2841				
bz	0.0100	0.1421	-0.0060	1.0000		
	0.8011	0.0003	0.8791			
ba	0.0908	0.1282	0.0983	0.0551	1.0000	
	0.0216	0.0012	0.0128	0.1637		
eps	-0.2574	0.0780	-0.0545	0.1093	-0.0583	1.0000
	0.0000	0.0486	0.1683	0.0056	0.1408	

Source: Researcher's Computation (2024)

Table 2 shows that a low positive connection between dividend payout ratio (DPR), BID, BS, BZ, BA and EPS low negative and significant connection with DPR. This insinuated that both board structure diversity (BI and BS) and conventional factors (BZ and BA) have low positive connection with dividend payout ratio. All the variables degree of associations has a low association, hence, there is no presence of multicollinearity problem among these variables and this was also supported by multicollinearity result in Table 6.

Cross-Section Panel Dependence Test

In the absence of the cross-sectional dependence test (Pesaran (2007), that is, the CD test), the estimates obtained from the panel analysis would be severely skewed. Table 3 contains panel time series data that demonstrates the existence of cross-sectional dependence relations. As a consequence of this, the variables of the research studies were altered to include Dividend Payout Ratio (DPR), Board Independence (BID), Board Size (BS) and Earning Per Share (EPS) that transpired in any of the examined selected deposit money banks in one of the sub-Sahara nations also had an impact on other nations. Table 3 indicated that there exist cross-sectional of study variable among banks in selected sub-Sahara nations.

Table 3: Result of the Cross-section Dependence Test

Variables	t-statistic	p-value
DPR	21.765	0.000**
BID	4.534	0.031**
BS	5.871	0.000**
EPS	6.096	0.021**
BZ	10.456	0.029**
BA	4.661	0.001**

Source: Researcher's Compilation (2024) @ 5% level of Significance

After cross-sectional dependence test, second generation stationarity check like CIPS unit root was employed since the data set was long panel in nature and the study variables display that there existed cross-sectional dependence. The panel data fall under the category of long panel and since the study variable exhibited cross-sectional dependence, there is need to employ second generational unit root called cross-sectionally augmented Dickey-Fuller (CADF) to test stationarity of the panel data set shown in table 4 below.

Table 4: Cross-Sectionally Augmented Dickey-Fuller (CADF) For Unit Root

Variables	Statistic	P-value	Level of Stationarity	Remark	Statistic	P-value	Level of Stationarity	Remark
BID	-1.697	0.581	-	Not Stationary at Level	-2.329	0.000	I(1)	Stationary at First Difference
BS	-2.499	0.000	I(0)	Stationary at Level	-	-	-	
EPS	-1.291	0.217	-	Not Stationary at Level	-2.715	0.000	I(1)	Stationary at First Difference
DPR	-2.815	0.000	I(0)	Stationary at Level		-	-	
BAGE	-0.600	1.000	-	Not Stationary at Level	-3.074	0.000	I(1)	Stationary at First Difference
BZ	-0.402	1.00	-	Not Stationary at Level	-2.343	0.020	I(1)	Stationary at First Difference

Source: Researcher's Computation (2024)

It was very crucial to test for unit root for the study variables. The unit root result indicated that BS and DPR were stationary at level I(0) while BID and EPS were stationary at first difference I(1). Likewise, both Bank Age (BAGE) and Bank Total Asset – Bank Size (BZ) were stationary at first difference. Since there exist mix integration among study variable panel ARDL is the best appropriate method of analysis to be used. See table 5 below for ARDL panel regression to test for long run and short run.

Interactive Effect Model Result

Table 5: Mean Group (MG) Estimation: Error Correction Form

Variable	**Coefficient**	**Std. Error**	**z-Stat**	**Prob.**
Long run:				
Bid	-0.254	0.182	-1.39	0.164
Bs	0.079	0.059	1.33	0.183
Eps	-0.463	0.339	-1.36	0.173
ba (bank age)	0.157	2.041	0.08	0.939
Bz	0.800	7.824	0.10	0.919
Short run:				
Constant	0.211	0.383	0.55	0.580
Bid	-0.040	0.078	-0.51	0.610
Bs	-0.004	0.015	-0.31	0.760
Eps	-0.514	0.320	-1.61	0.108
Ba	1.676	0.995	3.68	0.032
Bz	0.441	0.734	0.44	0.659
ECT_{t-1}	-0.694	0.075	-9.19	0.000
Pooled Mean Group (PMG) Estimation				
Variable	Coefficient	Std. Error	z-Stat	Prob.
Long run:				
Bid	-0.021	0.008	-2.47	0.013
Bs	-0.004	0.003	-1.05	0.296
Eps	-0.025	0.003	-6.48	0.000
Ba	1.254	1.230	4.02	0.008
Bz	0.603	0.401	1.50	0.133
Short run:				
Constant	0.473	0.079	5.93	0.000
Bid	-0.020	0.037	-0.54	0.587

Bs	-0.039	0.022	-1.70	0.039
Eps	-0.510	0.194	0.94	0.348
Ba	0.853	0.696	1.23	0.220
Bz	0.111	0.008	12.56	0.000
ECT_{t-1}	-0.554	0.065	-8.42	0.000
Dynamic Fixed Effects Regression: Estimated Error Correction Form				
Variable	**Coefficient**	**Std. Error**	**z-Stat**	**Prob.**
Long Run:				
bid	0.0007 0.076	0.01	0.993	
bs	0.053	0.033	1.59	0.113
eps	0.016	0.035	0.47	0.642
ba	0.401	0.309	1.30	0.195
bz	2.371	0.716	3.52	0.004
Short Run:				
Constant	-0.002	0.365	-0.01	0.994
Bid	-0.0007	0.065	-0.01	0.991
Bs	-0.042	0.021	-1.95	0.051
Eps	0.115	0.025	4.50	0.000
Ba	0.688	0.007	2.91	0.043
Bz	0.728	0.207	3.22	0.023
ECT_{t-1}	-0.694	0.039	-17.37	0.000
Hausman Test: MG—Mean Group; PMG—Pooled Mean Group; DFE—Dynamic Fixed Effect (MG VS PMG VS DFE)				
		Chi-Square		Prob.
MG vs PMG		0.01524		1.000
DFE vs PMG		2.63718		0.000**
Note: ** denotes significance at 5%.				

Source: Researcher's Compilation (2024)

Dependent Variable: Dividend Payout Ratio (DPR)

Our model may be estimated using Mean Group (MG), Pooled Mean Group (PMG), and Dynamic Fixed Effect (DFE) estimators utilising the panel ARDL estimating technique. The panel ARDL approach offers this potential since each of these estimators operates under a different set of assumptions. To determine which of the three models—the Mean Group (MG), Pooled Mean Group (PMG), and Dynamic Fixed Effect (DFE) estimators—is best suited for the research, it is crucial to perform the Hausman test. Table 5, which is available online, displays the Hausman test results. The table shows that the null hypothesis, according to which PMG is more efficient, cannot be disproved since the chi-square coefficient is not significant when MG and PMG are compared using the test. The chi-square coefficient is not significant, which explains this. Consequently, it may be said that PMG is better than MG. However, when comparing DFE and PMG, it is found that the chi-square coefficient is significant, indicating that the null hypothesis—that PMG is more efficient than DFE—is rejected (Table 5). Due to this, the DFE is chosen as the most efficient estimator out of the three and is used for model estimating applications.

Also, from Table 5 Dynamic Fixed Effects (DFE) regression was adopted and the result shown that in the long-run that BID had positive and insignificant effect on Dividend Payout Ratio (DPR) (β = 0.0007, z-Stat = 0.01, P>0.05), BS had positive and insignificant effect on DPR (β = 0.053, z-Stat = 1.59, P>0.05) as well as EPS had positive and insignificant effect on DPR (β = 0.016, z-Stat = 0.47, P>0.05). Also, in the long run BA (Bank Age) (β = 0.401, z-Stat = 1.30, P>0.05) had positive and insignificant influence on DPR while BZ had positive and significant effect on DPR (β = 2.371, z-Stat = 3.52, P<0.05). However, in the short run, the DFE result shown that BS had negative and significant influence on DPR (β = -0.042, z-Stat = -1.95, P=0.05), insinuate that inverse effect between DRP and BS which indicated that increase in board size will lead to decrease in DPR among selected deposit money banks in sub-Sahara while EPS had positive and significantly affect DPR (β = 0.115, z-Stat = 4.50, P<0.05). Increase in EPS will surely improve DPS which means that there exist a direct and positive link between DPR and EPS. Likewise, in the short-run the both BA (β =

0.688, z-Stat = 2.91, P<0.05) and BZ (β = 0.728, z-Stat = 3.22, P<0.05) had positive and significant influence on DPR. This indicated that as the selected banks increase in age and size as increment in their DPR. Economically speaking, the panel of selected banks in sub-Saharan Africa showing a long-term relationship between the study variables is significant since it indicates that these banks satisfy the long-term solvency demand since they pay dividends to their shareholders and have a varied board that improves the banks' continuity over the short and long terms.

For the variables to be considered cointegrated, the error correction term (ECT), another noteworthy result in Table 5, has to be significant, negative, and less than unity. The model meets this criterion, as shown in Table 4, which shows that every variable in the model has a long-term relationship. Furthermore shown is how the short-run equilibrium path shifts to the long-run equilibrium path at -0.694, or 69.4%. 69.4% in the following year corrected the proper sign of deviation from the DPR of long-run equilibrium in one year, thereby suggesting a significant long-term correlation between the variables on the lag-added error correction term.

This suggested that the factors under investigation had a long-term link. The null hypothesis, according to which there is no discernible impact of board structure diversity on dividend choices made by banks in particular sub-Saharan nations, was therefore refuted by this research.

Table 6: Post Estimation Test

Multicollinearity Test		
Variables	**VIF**	**I/VIF**
BA – Bank Age	5.60	0.178597
EPS	4.55	0.219739
BID	2.97	0.337078
BS	2.48	0.402976
BZ	2.04	0.489309
Specification Error Test	F(3, 4) = 5.28	Prob > F = 0.0708
Wooldridge test for Autocorrelation in panel data	F(1, 39) = 4.349	Prob > F = 0.0636

Source: Researcher's Computation (2024) @ 5% level of Significance

Since the VIF (variance in inflation factor) values in Table 6 were less than 5, the study in Table 6 indicates that multicollinearity among the predictor variables in the model was not majorly problematic. Though most people agree that a threshold of 10 is the highest limit, it is interesting to note that the study usually regards a VIF score higher than 5 as cause for concern (Menard, 2009; Lind et al., 2012). Table 6 summarises these findings and indicates, for the variables in the range of 2.04 to 5.60, no multicollinearity between their VIF. Tolerance levels (1/VIF) above 0.1 and varied between 0.178 and 0.489 verified the absence of multicollinearity. The tolerance factor may be defined as the reciprocal of the variance inflation factor. Although Table 6 shows no multicollinearity issue in the interaction model, there is a multicollinearity problem if the variance inflation factor and tolerance factor are higher than 5 to 10 and lower than 0.1 to 0.2, respectively. Also, table 6 depicted both model Specification Error Test and Wooldridge test for Autocorrelation in panel data. It was shown that the interactive combine model free from error specification in the model as the P >0.05 and also there is autocorrelation problem since the (p>0.05). Thus, the DFE model is well fitted and robust to explain the interactive effect of BID, BS, BA, BZ and EPS on DPR.

5. CONCLUSION AND RECOMMENDATIONS

This study reveals both a short-term and long-term correlation between the dividend choices of deposit money banks (DMBs) in sub-Saharan Africa and the variety of their board structures between 2008 and 2023. Additionally, this study shows that although EPS also has a negative significant impact on dividend choice in sub-Saharan Africa, board structure diversity and an independent proxy for board independence have a negative significant impact. This study demonstrates that the interaction between board independence and profits per share, as well as between board size and earnings per share, has a more positive and significant impact on dividend selections than non-interaction effects among the banks in sub-Saharan African countries. Furthermore, this study demonstrates that changes in board independence and earnings per share (EPS) have a favourable and negligible impact on the decision about dividend distribution.

Based on these conclusions, the recommendations are as follows. First, the board structure diversity should be improved on board independence and board size to contribute significantly to the dividend payout decisions as theorized in the Agency dividend

theory. Second, the management and board of directors should be more business innovative to significantly improve the earnings per share, towards affecting the dividend payout decisions in accordance to the resource dependency theory. Third, the bank assets and age should be effectively utilized, leading to significant dividend decisions in the DMBs of the sub–Saharan African countries. Lastly, the dividend decisions should not be limited to board structure diversity but consider returns on equity to favour the shareholders' investment returns.

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