

The Impact of Board Characteristics on Indigenous Bank Performance in Ghana

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Abstract

Indigenous banks in developing economies have been identified as having weaker corporate governance mechanisms compared to their multinational counterparts. This weakness has been attributed to the failure of indigenous banks in the 2017-2018 Ghanaian banking crisis. However, there is a lacuna of research into the impact of corporate governance mechanisms in developing countries and indigenous banks. This research addresses this by examining the relationship between the board characteristics of board size, composition, gender diversity, and meeting frequency on the financial performance of indigenous banks in Ghana. Panel Ordinary Least Squares regression was conducted using data from indigenous banks' annual reports and the Ghana banking survey reports for eight years, 2016 – 2023. The results indicated a statistically significant positive relationship between board size, board composition, and the financial performance of indigenous banks in Ghana when measured using both return on assets and return on equity. However, the research found that there was no significant relationship between gender diversity and the frequency of board meetings and the financial performance of indigenous banks in Ghana. These findings offer implications for indigenous financial institutions and policymakers seeking to support indigenous banks, which are more susceptible to financial and governance failures.

Keywords

Board Characteristics, Corporate Governance, Ghana, Indigenous Banks

Paper type

Research Paper

Introduction

Corporate governance has received significant research attention due to its potential impact on firm performance in both developed and developing economies (Casavecchia, 2016; Kowalewski, 2016; Boachie, 2023). Corporate governance refers to the systems, mechanisms, processes and structures by which companies are controlled and directed (Aboagye and Otioku, 2010; Fama and Jensen, 1983). Corporate governance mechanisms play an important role in ensuring firm competitiveness and sustainability (Aboagye and Otioku, 2010; Ehikioya, 2009). The inclusion and implementation of sound corporate governance practices can positively influence efficiency, financial performance, and stimulate investor confidence, leading to positive business outcomes (Claessens and Yurtoglu, 2013; Kao et al., 2019). Companies that prioritize sound corporate governance can increase shareholder value through higher cash flow and/or lower cost of capital, safeguarding against institutional failure (Agyemang and Castellini, 2015). However, Puni and Anlesinya (2020) suggest that the impact of corporate governance mechanisms on firm performance is still theoretically inconclusive and underexplored in the context of developing countries.

Effective boards have been posited as a vital internal mechanism for ensuring positive corporate governance (Garcia-Torea et al., 2020), as the board of directors is the highest level of governance structure at the firm level (Fama and Jensen, 1983). It is the board's job to balance shareholders' interests with those inside the corporation and defend and advance the interests of shareholders (Weisbach, 1988). It has been stated that the board of directors is the most effective means of protecting shareholder value and interests from current management's self-serving intentions (Adeabah et al., 2019). Mak and Li (2001) argue that the role of the board of directors is especially crucial in emerging markets, where inadequate institutional mechanisms are common.

While corporate governance has been identified as an essential component of effective business management in a variety of industries, it has been identified as especially important in the financial industry (Quoc Trung, 2022), with inadequate corporate governance practices identified as the root cause of previous bank failures and distress (Amidu, 2007). Financial institutions are important to the growth and development of economies (Alhassan et al., 2022; Boachie, 2023), and their failure has a severe economic impact as financial institutions support the transfer and mobilization of funds (Boachie, 2023; De Bock et al., 2020). The important role of financial institutions and the part that corporate governance mechanisms play in their success has led to a considerable amount of research in this area. However, research has focused on multinational financial institutions, which have been influenced by homogenized

governance practices, financial systems and legal practices (Lu and Wang, 2021). This contrasts with indigenous African banks, which have been found to have limited and weak corporate governance systems, which were attributed to the 2017-2018 financial sector crisis in Ghana (BoG, 2018; Obuobi et al., 2020). The more robust corporate governance practices and financial reserves of multinational banks operating in Ghana led to none of them failing in the 2017-2018 crisis (BoG, 2018).

As corporate governance in indigenous banks is under researched and these banks have weaker corporate governance systems than their well-researched multinational competitors (Lu and Wang, 2021; Obuobi et al., 2020), and the cases of failure for indigenous banks in Ghana due to weak corporate governance mechanisms (BoG, 2018; Obuobi et al., 2020), we explore the link between board characteristics and the financial performance of indigenous Ghanaian banks. Specifically, this research examines the relationship between board size, composition, gender diversity, and meeting frequency, and the financial performance of indigenous banks in Ghana. In doing so, this research addresses the inconclusive link between corporate governance mechanisms and firm performance (Puni and Anlesinya, 2020). This research also addresses calls by Andoh et al. (2022) for further research into financial institutions in emerging and developing economies due to increasing liberalization and calls for further research into corporate governance in developing countries (Puni and Anlesinya, 2020). On a practical level, understanding which corporate governance mechanisms are significant for enhancing profitability offers practical implications for industry, financial stability, and economic growth (Garcia-Herrero et al., 2009; Sinha and Sharma, 2016).

Why is this study different?

Like other studies, this one is prompted by a wave of indigenous banking collapses in Ghana, which have been linked to poor corporate governance practices, fraud, ineffective risk management, undercapitalization, and poor managerial decision-making. The Bank of Ghana (BoG), the regulator, attributes these failures to poor governance practices. Consequently, the regulator has implemented several reforms aimed at improving governance culture and promoting financial stability within the banking sector, including introducing a corporate governance Directive in 2018 and increasing the minimum capital requirement from GHS120 million to GHS400 million. Notably, of the 33 banks operating in Ghana during the crisis period of -2017 to -2018, only indigenous banks failed; all multination/foreign banks remained unaffected. Ten (10) indigenous banks failed, as the number of banks decreased from 33 to 23

after the reforms. Such developments have led stakeholders to describe the governance structures of indigenous banks as weak. Accordingly, this study is necessary to assess how internal board characteristics—such as board size, composition, gender diversity, and meeting frequency—affect the financial performance of these indigenous banks, and whether the reforms introduced by BoG have positively impacted their profitability. The findings will help policymakers and relevant stakeholders in Ghana’s banking sector review policies and regulations to strengthen governance practices among indigenous banking institutions.

Furthermore, governance practices can serve as a way to address the “agency problem”—the separation of ownership and control—in indigenous banks in Ghana, thus promoting corporate efficiency and profitability (Puni and Anlesinya, 2022; Staikouras et al., 2007). This is critical because indigenous banks act as financial intermediaries, providing access to payment systems, generating liquidity, and facilitating transactions—among other roles—by reducing transaction costs and information asymmetries, and managing risks through financial products that help consumers hedge, price, and share risks amidst economic uncertainties (Staikouras et al., 2007). Given the vital role these banks play in financial intermediation in Ghana, ensuring their safety and soundness remains a key public policy concern for the BoG, which has responded with recent governance reforms. This research, therefore, uniquely builds on BoG’s reforms by examining how board characteristics influence the financial performance of indigenous banks in Ghana.

The specific board attributes studied include board size, composition, gender diversity, and meeting frequency, important indicators of effective governance that draw significant theoretical and practical attention (BoG, 2019; Puni and Anlesinya, 2022). The involvement of the BoG in financial regulatory reforms in Ghana underscores that such interventions are primarily aimed at enhancing financial stability and protecting consumers, including investors, depositors, and insurance policyholders. The results of this study will thus contribute to the literature on corporate governance from the perspective of indigenous banks and provide actionable insights for regulators, policymakers, investors, and management of these banks, guiding reforms to foster financial stability and continued participation in the financial intermediation process within Ghana and abroad.

Literature Review and Hypotheses Development

Corporate Governance and Internal Mechanisms

Corporate governance has emerged as a prominent topic in academic research due to its influence on firm performance (Casavecchia, 2016; Kowalewski, 2016; Boachie, 2023).

Research indicates that board characteristics are the most influential internal corporate governance mechanism (García-Sánchez et al., 2022). Effective boards can help to reduce information asymmetry between managers and shareholders and can provide a first line of defense for shareholders, protecting their interests (Weisbach, 1988). Boards function as a resource that provides legitimacy and reputation, guidance, counsel, and expertise, and routes for information sharing between the firm and external organizations (Abor and Biekpe, 2007). Through these activities, boards are recognized as a strategic resource that supports firms in diverse ways to improve firm performance (Andoh et al., 2022). Despite the importance of effective boards, it has been posited that boards of firms in developing countries can be weak due to poor institutional regimes, which limits investor protection (Banerjee et al., 2019). Board size, composition, gender diversity, and meeting schedule have been found to be important indicators for assessing the effectiveness of boards as a corporate governance mechanism (Ehikioya, 2009; Puni and Anlesinya, 2020).

Board Size and Profitability

Resource dependency theory suggests that when the board is large, it improves institutional performance, resulting in a positive association between board size and organizational performance (Boachie, 2023). Research frequently suggests that larger boards are more beneficial because they bring a variety of skills and perspectives, thereby enhancing decision-making processes (Dalton et al., 1999). However, the opposing viewpoint cautions that a larger board could lead to difficulties in coordination and slower decision-making, thereby affecting efficiency adversely (Yermack, 1996). The dichotomy of these viewpoints necessitates empirical investigation. This paper focuses on the impact of board size in the context of indigenous Ghanaian banks.

Prior studies, such as Haider and Fang (2016) and Nguyen et al. (2014), found that board size has an inverse relationship with firm performance. These findings are consistent with the argument that agency problems and coordination issues become severe with an increase in the board size. Similarly, Black et al. (2006) and Chen et al. (2005) found no statistically significant relationship between board size and firm performance. However, Kiel and Nicholson (2003) found that board size was positively associated with the value of the firm. This result supports the assertion that a larger board size is considered a significant resource to the firm and may improve firm performance. In the context of Ghana, the use of different datasets and measurement periods has revealed that board size has had both positive (Abor and Fiador, 2013; Adeabah et al., 2019) and negative (Fiador, 2013) associations with firm performance.

The financial performance of indigenous banks may be positively impacted as the benefits of board skills and experience outweigh the expense of keeping such highly qualified personnel in terms of other costs and allowances; therefore, it is hypothesized that:

Hypothesis 1: The board size of Indigenous banks in Ghana positively impacts their profitability

Board Composition and Profitability

The board composition is the proportion of the non-executive directors (NEDs) to the executive directors on the board of a firm. It is the responsibility of the board to protect the interests of shareholders by effectively monitoring managerial behavior and opportunism (Jensen and Meckling, 1976). However, to be able to do this, the board must be independent (Boachie, 2023). John and Senbet (1998) assert that a board's level of independence is directly related to the composition of the board. They clarify that the board is said to be independent when the proportion of outside (independent) directors rises relative to the number of inside directors. Previous studies have been conducted on the impact of outside directors' representation on the board and firm performance, which have reported mixed findings. For instance, Klein et al. (2005) found in their study that having more independent outside directors on the board enhances the performance and reputation of the company. Further, Chung et al. (2003), found that board independence has a positive impact on performance because it allows outside directors to effectively supervise managerial risk management. However, Bukair and Rahman (2015) found that there is no relationship between the composition of the board and the financial performance of Islamic banks.

To reduce managerial opportunism and conflicts of interest while advancing the interests of shareholders and other stakeholders, NEDs are supposed to conduct independent oversight of the executive management's operations. Therefore, the NED's objective and efficient oversight of executive management will benefit indigenous banks in terms of their financial performance. Given the promotion and advocacy of NED's in developed economies and the potentially limited expertise of indigenous firms, it is hypothesized that:

Hypothesis 2: The board composition of indigenous banks in Ghana has a positive link with their profitability.

Board Gender Diversity and Profitability

The question of board gender and how it impacts a firm's success has received growing attention (Andoh et al., 2022). There is a growing consensus that female directors bring a unique set of competencies and perspectives to boardrooms (Carter et al., 2003). Specifically, gender diversity has been shown to improve group dynamics, decision-making processes, and stakeholder relations (Joecks et al., 2013). Konrad et al. (2008) highlighted that female board members can bring new perspectives to decision making, offering a significant contribution to the development business strategy. Zaid et al. (2020) argue that women can be more risk adverse, may favor low-risk investment decisions, and found them less inclined to act unethically compared to men, which could have implications for corporate boards. The different perspectives and views which female board members can bring to discussion can influence board level decision making and business outcomes (Chijoke-Mgbame et al., 2020). Research into the influence of board gender diversity has been conducted largely in developed countries (Chijoke-Mgbame et al., 2020), but the limited research conducted in emerging countries has had mixed findings when it comes to the investigation of the impact of gender diversity, and the financial performance of firms. For example, Ntim (2015) found that there is a statistically significant positive association between the board gender diversity and the market value of stocks on the South African Stock Exchange. Smith et al. (2006) identified that board gender diversity had a positive relationship with financial performance although this was dependent on the academic qualification of the female board members. Moreno-Gomez and Calleja-Blanco (2018) report a positive and significant relationship between gender diversity, measured by the number of female top managers, female board members, and female CEOs, and the profitability of non-financial firms using a sample of listed non-financial firms in the Colombian Stock Exchange. In contrast, Adeabah et al. (2019) found that there is a maximum threshold to the impact of gender diversity on efficiency in African banks, and the relationship between the two is non-linear. According to Adeabah et al. (2019), gender diversity improves bank efficiency, that is until there are two women on a nine-member board. After that, adding more women will cause the efficiency of the bank to drop. Fiador and Sarpong-Kumankoma's (2021) findings regarding the quality of bank loan portfolios in Ghana was more negative, finding that having more women on boards had a negative impact on bank loan portfolios and in turn performance. Given the push for the greater inclusion of women on boards it is hypothesized that:

Hypothesis 3: Gender diversity among indigenous banks in Ghana's boards of directors has a positive link to their profitability.

Meeting Frequency and Profitability

Board meetings and participation are important ways for directors to fulfil their oversight obligations. When boards of directors meet on a regular basis, they are more likely to improve corporate performance and fulfil their responsibilities in the best interests of shareholders. Therefore, the regularity of board meetings is thought to be a key factor in increasing the board's efficacy (Conger and Lawler, 2009; Adams and Ferreira, 2009). According to a study by Godard and Shatt (2004), the financial performance of French companies was found to benefit from an increase in board meetings. In a similar vein, Davidson et al. (1998) discovered a positive correlation between the quantity of board meetings and corporate financial performance in the US. Similar findings were also found in times of crisis, with it identified that during a financial crisis, companies with low board attendance fare worse financially than those with higher board attendance (Francis et al., 2015). Ntim and Osei (2013) discovered that the number of board meetings affects company performance in South Africa, demonstrating that the link can exist in developing economies.

However, this association between the number of board meetings and corporate performance is contested. Johl et al. (2015) found a negative correlation between the frequency of board meetings and firm performance. Highlighting that simply having board meetings might not be enough to improve performance.

Given the potential expertise, skills, and experiences which can be shared with management, which could be particularly important for smaller indigenous banks, it is hypothesized:

Hypothesis 4: The frequency of board meetings has a significant positive impact on bank profitability in Ghana.

Methodology

The scope of this study encompasses the entire spectrum of 23 universal banks that are currently registered and fully operational in Ghana. This landscape has evolved substantially due to the recent financial reforms instituted by the Bank of Ghana (BoG). For this study, the sample has been meticulously curated to include only indigenous banks, which make up 39.1% of the total number of universal banks in Ghana. The remaining 60.9%—comprising foreign-controlled banks—have been deliberately excluded from the sample. The exclusion of foreign banks was driven by two major considerations. First, these banks were largely insulated from the banking crisis that triggered the sweeping BoG reforms, a crisis that had a more profound impact on indigenous banks. Second, local stakeholders within the banking sector in Ghana tend to hold the view that foreign banks already adhere to robust corporate governance (CG)

mechanisms. The temporal bounds of the study are confined to the fiscal years of 2016 -2023. This specific time frame was selected because of the availability of corporate governance data. We studied five (5) indigenous banks over an eight (8) year period because these were the banks with complete governance and financial data needed for this study. The study employed both descriptive analysis and correlation coefficients for data interpretation.

The board characteristics data (board size, board composition, board gender, and the frequency of board meetings) were extracted from the annual reports of individual firms over the eight years (2016-2023). The control variables, bank size and bank age, were obtained from the individual annual reports of the banks studied. The data on the performance measures (return on assets and return on equity) were obtained from the Ghana Banking survey reports, which are published annually by Price Waterhouse Coopers, and financials from annual reports, where ratios were unavailable for a particular period. The performance of the bank is defined in terms of return on assets (Profit after Tax/Total Assets) and return on equity (Profit after Tax (PAT)/Shareholders' fund). Return on assets is a widely recognized financial metric used to evaluate a company's efficiency in generating profit from its assets. Specifically, Boone et al. (2007) and Linck et al. (2008) have demonstrated that good governance attributes can have a positive influence on a company's growth potential, thereby affecting its ROA. Several factors, such as market conditions, regulatory landscape, and economic cycles, can moderate this relationship, making it a complex and multifaceted issue (Claessens and Yurtoglu, 2013). Return on equity (ROE) measures the efficiency with which a firm uses shareholders' equity to generate profits. The selection of ROE as a dependent variable is corroborated by its frequent application in governance research. As such, it serves as an appropriate yardstick to gauge the effects of board characteristics on profitability. For instance, the link between governance structures and ROE has been extensively studied, revealing that better governance practices can positively influence ROE (Shleifer and Vishny, 1997). The ROE is subject to a variety of external and internal influences, and its relationship with corporate governance can be non-linear and contingent on various factors such as industry norms, shareholder structures, and company size (Brown and Caylor, 2006). By incorporating ROA and ROE as dependent variables, this study aims to provide a multifaceted evaluation of how board characteristics impact profitability. These metrics, grounded in prior empirical research, will help illuminate the governance-profitability relationship in the context of Ghana's indigenous banks, particularly in the wake of recent regulatory reforms.

The board size is measured by the total number of directors on the board of an indigenous bank. The board composition is measured by the proportion of non-executive directors (NEDs) on

the board. Similarly, the board gender diversity is measured by the proportion of women to the total board size of a bank. The intensity of board activity is defined by the frequency of board meetings during the financial year. Additionally, we employed bank size and bank age as control variables in this study. These control variables aim to account for confounding effects that could otherwise influence the relationship between board characteristics and bank profitability metrics. The bank size is measured by the log of the total assets and bank age is measured by the log of the number of years of establishment. Bebchuk and Cohen (2005) indicate that the size of a firm is a significant factor influencing governance structures and, consequently, profitability outcomes. The construction of all study variables for empirical analysis is defined in Table 1.

Table 1: Description of study variables

Variables	Acronym	Definition
Independent Variables		
Board size	<i>Bsize</i>	Total number of members on the Indigenous bank board
Board Composition	<i>BCOM</i>	Number of non-executive directors to total directors
Gender diversity -% of females on the board	<i>FemDir</i>	The ratio of female directors to the total number of directors on the board
Board meetings	<i>BM</i>	Total number of meetings in a year
Dependent Variable		
Return on assets	<i>ROA</i>	Profit after Tax/Total Asset
Return on equity	<i>ROE</i>	Profit after Tax (PAT)/Shareholders' fund.
Control Variables		
Firm size	<i>Fsize</i>	The natural logarithm of the firm's total assets
Firm Age	<i>Fage</i>	The natural logarithm of the number of years from the date of establishment

Data Analysis and Results

In this study, before we proceeded with model construction, a multicollinearity test was conducted to assess the relationships among predictor variables. Multicollinearity testing

involves calculating the Variance Inflation Factor (VIF) values. Table 2 displays the VIF values obtained for each variable during data processing:

Table 2: Variance Inflation Factor

Variables	ASSET	AGE	SIZE	NED	GD	MF
VIF	1.372688	2.439759	4.294237	2.866156	1.146631	1.476970

The VIF values for each variable are all below 10, shown in Table 2. Thus, it can be inferred that multicollinearity is not present in the data. Therefore, we can proceed to the next stage, which is model formation.

Model Selection from Panel Data Regression

Before proceeding with constructing a model using panel data regression, it is crucial to perform a test to determine the most appropriate approach. Table 3 presents the results obtained from the R application. The Chow test outcome rejects the null hypothesis, suggesting that the fixed effects model is not appropriate. Consequently, considering the inadequacy of the fixed effects model, the Lagrange Multiplier test is conducted to identify the suitable candidate among the random effects (REM) or common effects (CEM) models. The results indicate that the common effects model (CEM) is suitable for both models.

Table 3: Chow and Lagrange Test

Models	TESS	STATISTIC	p-value	Decision
ROA	Chow	0.800	0.579	Fail to reject Ho
	Chow	-0.866	0.806	Fail to reject Ho
ROE	Lagrange Multiplier	0.927	0.495	Fail to reject Ho
	Lagrange Multiplier	-0.829	0.796	Fail to reject Ho

Descriptive Statistics

Table 4 provides a summary of descriptive statistics of the study. The average profitability of the local banks is 0.2 and -15.8 percent, respectively. This implies that providers of capital earn only 0.2 percent and equity holders lose 15.8 percent on their investment. In comparison, these are significantly lower compared with the average treasury bill rate in Ghana, which is about

24 percent. The average board size for the indigenous banks in Ghana is large, 9.7, which is consistent with the BoG corporate governance directive (2018). The standard deviation of 1.866 indicates that some banks have larger board sizes than others. Table 4 shows that on average, indigenous banks in Ghana have 7.577 board members appointed outside the bank (non-executive directors), which far exceeds the minimum requirement of 30% in line with the BoG corporate governance directive (2018). This means that the board is independent, which could help to improve effectiveness and performance (Adeaba et al., 2019; Fama and Jensen, 1983).

Table 4: Descriptive Statistics

	<i>ROA</i>	<i>ROE</i>	<i>ASSET</i>	<i>AGE</i>	<i>SIZE</i>	<i>NED</i>	<i>GD</i>	<i>MF</i>
Mean	0.002	-0.158	8048.711	34.200	9.711	7.577	2.244	9.400
Standard								
Deviation	0.038	0.864	5183.206	21.747	1.866	1.453	0.712	5.553
Kurtosis	4.290	18.587	2.873	-1.252	-0.809	0.939	0.329	1.182
Skewness	-1.894	-3.948	1.447	0.256	0.178	-0.693	0.393	1.317
Count	45	45	45	45	45	45	45	45

Table 4 indicates that on average only two (2) board members are female which is on the lower side given women are considerable resources to an organization. Similarly, Table 4 shows that on average the board meets 9.4 times in a year. This is more than twice the BoG corporate governance directive (2018) which indicates that at least bank boards must meet four times. This suggests that the intensity of the board activity is robust enough to deal with emergent operational issues in the banking sector in Ghana which is subject to systemic risk factors globally. The age of indigenous banks in Ghana on average is 34.2 years. This suggests that most of these banks are young, bringing the average age down to 34 years probably reflecting the poor performance in ROA and ROE respectively.

Correlation Analysis

The correlation results of this study are presented in Figure 1. The Pearson correlation coefficient was used by the authors to verify the possibility of multicollinearity between the explanatory variables in the study. The results of the correlation matrix do not generally indicate the existence of multicollinearity in our study as confirmed by a mean VIF in Table 2

above. Each variable has a VIF below 10 suggesting the nonexistence of multicollinearity in our datasets. Therefore, the regression results are presented in Tables 5 and 6 to examine the relationship between board characteristics and the performance of indigenous banks in Ghana.

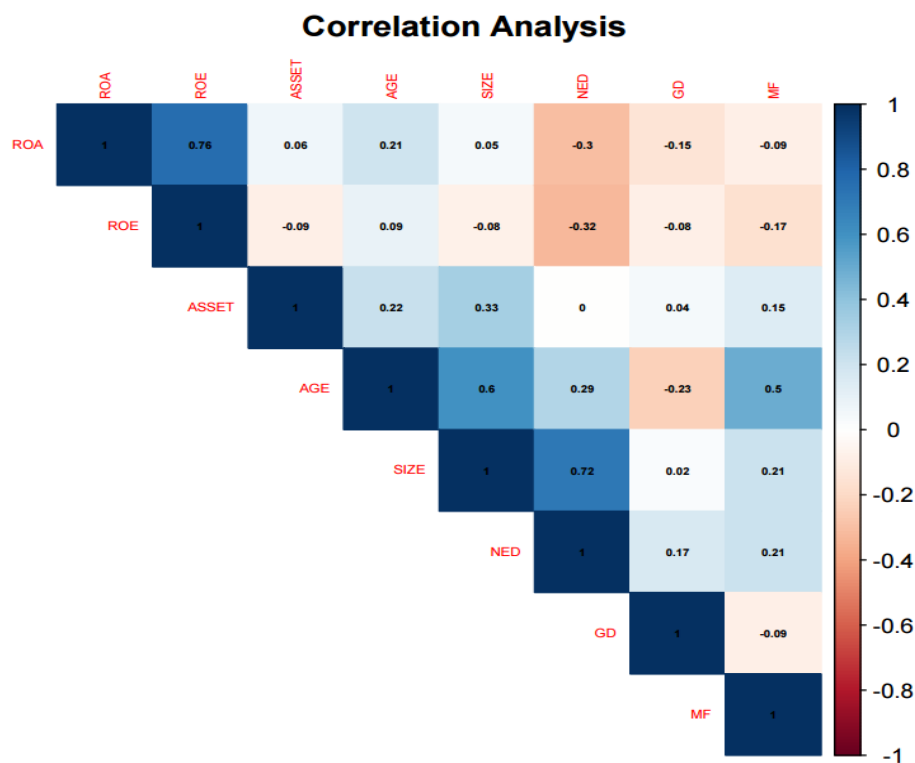


Figure 1: Pearson correlation analysis

Regression Results

In this study, the regression analysis is employed to examine the association between board characteristics as well as control variables and the performance of indigenous banks in Ghana. Tables 5 and 6 present the regression results of the study. The results indicate a significant positive relationship between the board size and performance of indigenous banks in Ghana (ROA = 0.001*** and ROE = 0.001917 **). The regression results in Tables 5 and 6 revealed that the non-executive directors have a significant positive relationship with the financial performance of local banks in Ghana (ROA = t, -2.5511, p, 0.016 * and ROE = t -2.5181, p, 0.018032 *). However, the regression results in Tables 5 and 6 revealed that there is no

association between gender representation in the indigenous banks in Ghana and their financial performance (ROA =t, 1.9388, p, 0.062 and ROE=t, 1.5000, p, 0.145220). The regression results in Tables 5 and 6 show a positive relationship between board meeting frequency and the financial performance of indigenous banks in Ghana (ROA = t, 1.1511, p, 0.259 and ROE = t, 1.0197, p, 0.316900) although this is not significant. Regression results showed a positive association between the size of a bank and its financial performance in Ghana (ROA = t, 1.170, p. 0.251 and ROE = t, 2.0633, p. 0.048824*). Although the positive relationship of the size of indigenous banks and ROA was not significant, the association with ROE is significant. Finally, the study found a significant relationship with the age of indigenous banks in Ghana (ROA = t, -2.183, p.0.037* and ROE = t, -2.6311, p. 0.013893 *).

Table 5: Pooled OLS Regression (ROA)

	Estimate	Std. Error	t-value	Pr(> t)
(Intercept)	-7.576	0.980	-7.728	<0.000 ***
ASSET	<0.000	<0.000	1.170	0.251
AGE	-0.0232	0.016	-2.183	0.037 *
SIZE	6.1176e-01	1.6452e-01	3.7186	0.001***
NED	-4.5200e-01	1.7718e-01	-2.5511	0.016 *
GD	3.9636e-01	2.0443e-01	1.9388	0.062.
MF	3.5633e-02	3.0955e-02	1.1511	0.259

Total sum of Squares: **41.864**

Residual Sum of Squares: **21.012**

R-Squared: **0.4981**

Adj. R-Squared: **0.39055**

F-statistic: **4.63129 on 6 and 28 DF, p-value: 0.0021901**

(***), >0.001; (**), >0.01; (*), >0.05; (.), >0.1

Table 6: Pooled OLS Regression (ROE)

	Estimate	Std. Error	t-value	Pr(> t)
(Intercept)	-5.1621e+00	1.0437e+00	-4.9461	3.521e-05 ***
ASSET	9.0767e-05	4.3992e-05	2.0633	0.048824 *
AGE	-3.2870e-02	1.2493e-02	-2.6311	0.013893 *
SIZE	6.0155e-01	1.7499e-01	3.4377	0.001917 **

NED	-4.7360e-01	1.8808e-01	-2.5181	0.018032 *
GD	3.2597e-01	2.1732e-01	1.5000	0.145220
MF	3.3762e-02	3.3108e-02	1.0197	0.316900

Total Sum of Squares: **47.43**

Residual Sum of Squares: **22.825**

R-Squared: **0.51877**

Adj. R-Squared: **0.41183**

F-statistic: **4.85097 on 6 and 27 DF, p-value: 0.0017687**

(***), >0.000; (**), >0.01; (*), >0.05; (.), >0.1

Discussion

Board Size and Profitability

Based on the findings, we accept *hypothesis 1* which stated that the board size of indigenous Ghanaian banks has a significant positive impact on their profitability. Identifying that indigenous banks in Ghana who have larger boards perform better than ones with smaller boards. Larger boards can provide a greater range of expertise and experience, which can support more effective decision making. Larger board sizes according to Ofoeda (2017) are better positioned to monitor management activities to ensure that management decisions are made to the benefit of the firm. The competitive nature of the banking industry in Ghana requires that indigenous banks adopt larger board sizes with diverse skills and experience to compete with their foreign counterparts with strong governance foundations and significant resources. Similarly, the BoG corporate governance directive (2018) stipulates that the appointments of directors for all banks must be approved by the Bank of Ghana. The essence of this regulation is to ensure that directors of indigenous banks have the requisite skills, experience, and morally sound character, which will help to improve the board performance and by extension the performance of the banks. Another significant reason for the corporate governance directive (2018) requirement of the large board size of indigenous banks in Ghana is to ensure that the boards become more difficult for the CEO and the management to dominate the powers of the board. The outcomes of this study are consistent with the literature (Boachie, 2023; Ofoeda, 2017; Sarpong-Danquah et al., 2022).

Board Composition and Profitability

As a result of the separation of ownership and control the main function of the board of directors is to mitigate the agency conflicts that arise in the corporate business (Fama and

Jenson, 1983; Ofoeda, 2017). Therefore, the proportion of non-executive board members in local banks in Ghana is a significant variable in explaining their financial performance. We thus accept hypothesis 2 of the study which stated that *the board composition of indigenous Ghanaian banks has a significant positive link with their profitability*. This is in line with the argument that independent directors have incentives to protect the interests of shareholders due to maintaining their “reputation” in the market for outside directorships to be particularly important (Ofoeda, 2017).

The results show that the more non-executive directors on the boards of indigenous banks in Ghana, all other things constant, the better they perform. The results also show that there may be other factors affecting the profitability of indigenous Ghanaian banks other than the experience and expertise of NEDs. This may include other factors such as intensive competition from foreign banks operating in Ghana. The relevance of non-executive directors regarding their external experience and expertise on sound financial and legal frameworks can be said to have been reflected in the financial performance of local banks in Ghana. This is essential because when the expertise, experience and independence of the non-executive directors are put together with the knowledge of the executive directors who have access to information and are better able to discriminate between legitimate or illegitimate causes of organizational misfortune, it can lead to improved financial performance. This is especially important because the ability of the non-executive directors to play the monitoring role effectively is impaired by the problem of information asymmetry (Ofoeda, 2017).

The independent monitoring role of the board by the non-executive directors is especially important because indigenous banks in Ghana are highly characterized by uncertainties and inefficiencies compared with their foreign counterparts. Although having more NEDs on the boards of indigenous banks can be expensive, the benefits can outweigh the costs. The coordination and cooperation of executive directors who have in-depth and firm-specific knowledge and expertise can improve the performance of indigenous banks in Ghana. The result of our study is consistent with the agency theory which argues that corporate performance is associated with strong and effective independent board members mitigating the agency conflicts between managers and shareholders to maximize profit for shareholders. The study finding is consistent with empirical literature (Abor and Biekpe, 2007; Huang, 2010) which found a positive association between board independence and financial performance. However, our study contradicts Ofoeda (2017) who found a negative relationship between board composition and non-bank financial institutions' financial performance although Ofoeda's (2017) study was limited to only return on asset as a profitability measure.

Gender Diversity and Profitability

Proponents of gender diversity on boards argue that women bring new ideas, have an ability to communicate relevant information, and deal with strategic issues effectively (Ofoeda, 2017). However, our research rejected hypothesis 3, that *gender diversity among indigenous banks in Ghana's banks' boards of directors has a positive link to their profitability*. This finding aligns with that of Mori (2014), who found that gender diversity of boards in African companies did not lead to increased profitability. Our results found no relationship between gender and profitability, which contradicts the findings of Ofoeda (2017) who found that gender diversity is negatively related to the financial performance of non-bank financial institutions in Ghana. The finding that gender diversity on boards does not influence profitability differs from studies conducted outside of Africa (Carter, 2003; Kang et al., 2010). This could stem from inadequate representation of women on indigenous bank boards in Ghana to be able to influence the financial performance of these banks. The lack of female directors on boards is evidenced in Table 4. The descriptive statistics showed that on average there is only two (2.244) female members on the boards of indigenous banks in Ghana. This suggests that the BoG should revise its corporate governance directive (2018) to legislate the representation of women on indigenous bank boards in Ghana to benefit from the potential offered, perhaps enhancing the financial performance of indigenous banks in Ghana. Policy initiatives that encourage and assist women to take on such roles might help to boost gender diversity on boards.

Board Meetings and Profitability.

Meeting frequency measures the intensity of board activity and is an important determinant of board effectiveness. Corporate governance theories argue that board meetings and attendance is a significant channel through which non-executive directors access firm-specific information from executive directors to fulfill their monitoring function. Based on these results, we reject *hypothesis 4, which hypothesized that the frequency of board meetings has a significant positive impact on indigenous banks profitability in Ghana*. The results suggest that while board meeting frequency is important for monitoring and discussing the company's strategic direction, too many such meetings may consume managerial time and resources. The descriptive statistics in Table 6 show that on average indigenous bank boards in Ghana met about 9.4 times instead of four (4) times as stipulated by the corporate governance directive (2018). The high number of meetings is especially reflective of the board composition in indigenous banks in Ghana as most of the board members are non-executive board members.

However, this should be minimized to improve bank profitability. The findings of this study contrast with prior empirical literature by Godard and Shatt (2004) and Davidson et al. (1998) who uncovered a positive association between the frequency of board meetings and financial performance, and contrasts with that of Ofoeda (2017) and Johl (2006) who found a negative relationship between the frequency of board meetings and financial performance.

Conclusions and Implications

Corporate governance is the building block for organizational success as it establishes the climate for organizational internal activities. However, the role and influence of corporate governance is under researched in developing countries (Puni and Anlesinya, 2020). Corporate governance is critical in the banking sector due to the reliance on customers' deposits and the contributions from shareholders and other creditors to finance their operational activities. The fast paced and increased liberalization of financial markets in developing countries has led to calls for research into banks and financial institutions in these markets (Andoh et al., 2022). This research addresses these calls and extends corporate governance research into indigenous banks, which have been overlooked in the extant literature, by researching the impact of board size, board composition, gender diversity, and meeting frequency, on the financial performance of indigenous banks in Ghana. Our regression results further indicate that there exists a statistically significant positive relationship between board size, board composition, and the financial performance measured using the ROA and ROE respectively. We, however, found that the frequency of board meetings and gender diversity have a positive relationship with financial performance, but these relationships were not statistically significant. While we have shown that our findings are consistent with empirical literature, the findings indicate that the adoption of corporate governance structures in line with the corporate governance directive (2018) in Ghana has some significant implications for indigenous banks in Ghana. For instance, one fundamental implication is that indigenous banks with well-functioning corporate governance systems and structures will have easy access to funding from investors -either through the capital market or deposit mobilization which in turn improves their performance. It is also worth noting for management, industry players, and other stakeholders of indigenous banks in Ghana to identify and assess the corporate governance mechanisms that positively influence their financial performance, with which the findings of this study will help. The findings of this study suggest that corporate governance practices and mechanisms are context-specific and therefore cannot be imported entirely from advanced economies for implementation in the local banking industry in Ghana. The results show that the banking

industry in Ghana has unique features and thus might react differently to governance structures, and this justifies the context and the research gap that this study seeks to fill.

In this regard, Ofoeda (2017) indicates that corporate governance embraces a broader set of variables which include the economic and legal environment, proactive practices within an institution, proper accounting practices, internal control systems, the nature and quality of information flow, and the level of involvement by staff in the day-to-day operational activities and decisions of a corporate entity. Indeed, the problems associated with information asymmetry will be reduced significantly when there exists broader and more effective corporate governance variables and practices in an organization. Furthermore, an indigenous bank in Ghana with a sound and well-established governance system will become less risky to invest in by investors. This study has shed some light on the relevance of corporate governance practices and their influence on indigenous banks in Ghana. However, further research is needed to develop and explore some of the insights delivered by our study. It will be interesting to research the low gender diversity among indigenous banks in Ghana compared to their foreign counterparts in the banking sector in Ghana. Again, it will be fascinating to investigate and compare the corporate governance practices of foreign and local banks in Ghana and how this influences their financial performance. In addition, further research is required to establish the influence of other corporate governance structures (external corporate governance mechanisms) on the operations of indigenous and foreign banks in Ghana.

This study thus provides useful insight to the regulators and other stakeholders on the importance of corporate governance mechanisms to the indigenous banks in Ghana. The study also highlights the unique characteristics of the local banking industry in Ghana and can help policymakers and regulations bring about the needed changes. Based on the findings of our study, we recommend that the Bank of Ghana undertake a review of its corporate governance directives (2018) to legislate at least a 40% gender representation on the local bank boards in Ghana as women are significant resources for organizational success. This study is limited to eight years (2016-2023) and only local banks with relevant corporate governance data were included in the sample.

References

- Aboagye, A.Q. and Otieku, J. (2010), "Are Ghanaian MFIs' performance associated with corporate governance?", *Corporate Governance*, Vol. 10 No. 3, pp. 307-320. <https://doi.org/10.1108/14720701011051938>
- Abor, J. and Biekpe, N. (2007), "Corporate governance, ownership structure and performance of SMEs in Ghana: implications for financing opportunities", *Corporate Governance: The International Journal of Business in Society*, Vol. 7 No. 3, pp. 288-300.
- Abor, J. and Fiador, V. (2013), "Does corporate governance explain dividend policy in Sub-Saharan Africa?", *International Journal of Law and Management*, Vol. 55 No. 3, pp. 201-225.
- Adams, R. B., and Ferreira, D. (2009), "Women in the boardroom and their impact on governance and performance". *Journal of Financial Economics*, Vol. 94 No. 2, pp. 291-309.
- Adeabah, D., Gyeke-Dako, A. and Andoh, C. (2019), "Board gender diversity, corporate governance and bank efficiency in Ghana: a two-stage data envelope analysis (DEA) approach", *Corporate Governance: The International Journal of Business in Society*, Vol. 19 No. 2, pp. 299-320, doi: 10.1108/CG-08-2017-0171.
- Agyemang, O.S. and Castellini, M. (2015), "Corporate Governance in an Emergent Economy: A Case of Ghana". *Corporate Governance*, 15, 52-84.
- Alhassan, H., Kwakwa, P. A., and Donkoh, S. A. (2022), "The interrelationships among financial development, economic growth and environmental sustainability: Evidence from Ghana", *Environmental Science and Pollution Research*, Vol. 29 No. 24, pp. 37057–37070. <https://doi.org/10.1007/s11356-021-17963-9>.
- Amidu, M. (2007), "Determinants of capital structure of banks in Ghana; An empirical approach", *Baltic Journal of Management*, Vol. 2 No. 1, pp. 67–79.
- Andoh, J. A.N., Abugri, B. A. and Anarfo, E. B. (2022), "Board Characteristics and performance of listed firms in Ghana", *Corporate Governance*, Vol. 23 No.1, pp. 43-71.
- Banerjee, S., Oriani, R. and Peruffo, E. (2019), "Corporate board structure and foreign equity investments in weak institutional regimes", *Corporate Governance: An International Review*, Vol. 27 No. 6, pp. 458–476.
- Bank of Ghana. (2018), *Corporate governance directive 2018 for banks, savings and loans companies, finance houses and financial holding companies*. www.bog.gov.gh.
- Bebchuk, L.A. and Cohen, A. (2005), "The costs of entrenched boards", *Journal of Financial Economics*, Vol. 78 No. 2, pp. 409-433.
- Black, B., Jang, H. and Kim, W. (2006), "Does corporate governance predict firms' market values? Evidence from Korea", *Journal of Law, Economics, and Organization*, Vol. 22 No. 2, pp. 366-413.
- Boachie, C. (2023), "Corporate governance and financial performance of banks in Ghana: the moderating role of ownership structure", *International Journal of Emerging Markets*, Vol. 18(3), pp. 607-632. DOI 10.1108/IJOEM-09-2020-1146.
- Boone, A. L., Casares Field, L. C., Karpoff, J. M. and Raheja, C. G. (2007), "Determinants of corporate board Size and composition: An empirical analysis", *Journal of Financial Economics*, Vol. 85 No. 1, pp. 66-101.

- Brown, L.D. and Caylor, M.L. (2006), "Corporate governance and firm performance", Available at SSRN 586423.
- Bukair, A.A. and Abdul Rahman, A. (2015), "Bank performance and board of directors attributes by Islamic banks", *International Journal of Islamic and Middle Eastern Finance and Management*, Vol. 8 No. 3, pp. 291-309.
- Carter, D. A., Simkins, B. J. and Simpson, W. G. (2003), "Corporate governance, board diversity, and firm value", *Financial Review* Vol. 38 No.1, pp. 33-53.
- Casavecchia, L. (2016), "Fund managers' herding and mutual fund governance", *International Journal of Managerial Finance*, Vol. 12 No. 3, pp. 242-276.
- Chen, Z., Cheung, Y.L., Stouraitis, A. and Wong, A.W.S. (2005), "Ownership concentration, firm performance and dividend policy in Hong Kong", *Pacific-Basin Finance Journal*, Vol. 13, pp. 431-49.
- Chijoke-Mgbame, A.M., Boateng, A. and Mgbame, C.O. (2020), "Board gender diversity, audit committee and financial performance: evidence from Nigeria", *Accounting Forum*, Vol. 44 No. 3, pp. 262–286.
- Claessens, S. and Yurtoglu, B. B. (2013), "Corporate governance in emerging markets: A survey", *Emerging Markets Review*, Vol. 15, pp. 1-33.
- Conger, J. and Lawler, E.E. (2009), "Sharing leadership on corporate boards: a critical requirement for teamwork at the top", *Marshall School of Business Working Paper* No.MOR, 19-09.
- Davidson, W.N., Pilger, T. and Szakmary, A. (1998), "Golden parachutes, board and committee composition and shareholder wealth", *The Financial Review*, Vol. 33 No. 4, pp. 17-32.
- De Bock, K. W., Coussement, K. and Lessmann, S. (2020), "Cost-sensitive business failure prediction when misclassification costs are uncertain: A heterogeneous ensemble selection approach", *European Journal of Operational Research*, Vol. 285 No. 2, pp. 612–630.
- Ehikioya, B.I. (2009), "Corporate governance structure and firm performance in developing economies: evidence from Nigeria", *Corporate Governance: The International Journal of Business in Society*, Vol. 9 No. 3, pp. 231-243.
- Fama, E. F. and Jensen, M. C. (1983), "Separation of Ownership and Control", *Journal of Law and Economics*, Vol. 26 No. 2, pp. 301-325.
- Fiador, V.O. (2013), "Determinants of financial governance practices: evidence from NGOs in Ghana", *International Journal of Sociology and Social Policy*, Vol. 33 Nos 1/2, pp. 114-130.
- Fiador, V. and Sarpong-Kumankoma, E. (2021), "Does corporate governance explain the quality of bank loan portfolios? Evidence from an emerging economy", *Journal of Financial Economic Policy*, Vol. 13 No. 1, pp. 31-44.
- Francis, B., Hasan, I. and Wu, Q. (2015), "Professors in the boardroom and their impact on corporate governance and firm performance", *Financial Management*, Vol. 44 No. 3, pp. 547-581.

- García-Herrero, A., Gavilá, S. and Santabárbara, D. (2009), "What explains the low profitability of Chinese banks"? *Journal of Banking and Finance*, Vol. 33 No.11, pp. 2080-2092.
- Garcia-Torea, N., Fernandez-Feijoo, B. and de la Cuesta, M. (2016), "Board of Director's Effectiveness and the Stakeholder Perspective of Corporate Governance: Do Effective Boards Promote the Interests of Shareholders and Stakeholders?", *BRQ Business Research Quarterly*, Vol. 19 No. 4, pp. 246–260.
- García-Sánchez, I.-M., Hussain, N., Khan, S.-A. and Martínez-Ferrero, J. (2022), "Assurance of corporate social responsibility reports: Examining the role of internal and external corporate governance mechanisms", *Corporate Social Responsibility and Environmental Management*, Vol. 29 No. 1, pp. 89–106.
- Godard, L. and Shatt, A. (2004), "Caractéristiques et fonctionnement des d'administration français: Unétat des lieux", *Cahier du FARGO*, no. 104020, Février
- Haider, J. and Fang, H.X. (2016), "Board size, ownership concentration and future firm risk", *Chinese Management Studies*, Vol. 10 No. 4, pp. 692-709.
- Huang, C.J. (2010), "Board, ownership and performance of banks with a dual board system: evidence from Taiwan", *Journal of Management and Organization*, Vol. 16 No. 2, pp. 219-234.
- Jensen, M. C. and Meckling, W. H. (1976), "Theory of the firm: managerial behaviour, agency costs, and ownership structure", *Journal of Financial Economics*, Vol. 3 No. 4, pp. 305-360.
- Joecks, J., Pull, K., and Vetter, K. (2013), "Gender diversity in the boardroom and firm performance: what exactly constitutes a "critical mass?". *Journal of Business Ethics*, Vol.118 No. 1, pp. 61–72.
- Johl, S.K. (2006), "Corporate Entrepreneurship and Corporate Governance: An Empirical Analysis", Doctoral dissertation, University of Nottingham.
- Johl, S.K., Kaur, S. and Cooper, B.J. (2015), "Board characteristics and firm performance: evidence from Malaysian public listed firms", *Journal of Economics, Business and Management*, Vol. 3 No. 2.
- John, K. and Senbet, L. (1998), "Corporate governance and board effectiveness", *Journal of Banking and Finance*, Vol. 22 No. 4, pp. 371-403.
- Kang, E., Ding, D.K. and Charoenwong, C. (2010), "Investor reaction to women directors", *Journal of Business Research*, Vol. 63 No. 8, pp. 888-894.
- Kao, M. F., Hodgkinson, L. and Jaafar, A. (2019), "[Ownership structure, board of directors and firm performance: Evidence from Taiwan](https://doi.org/10.1108/CG-04-2018-0144)", *Corporate Governance*, Vol.19 No. 1, pp. 189-216. <https://doi.org/10.1108/CG-04-2018-0144>
- Kiel, G.C. and Nicholson, G.J. (2003), "Board composition and corporate performance: how the Australian experience informs contrasting theories of corporate governance", *Corporate Governance: An International Review*, Vol. 11 No. 3, pp. 189-205.
- Klein, P., Shapiro, D. and Young, J. (2005), "Corporate governance, family ownership and firm value: the Canadian evidence", *Corporate Governance: An International Review*, Vol. 13 No. 6, pp. 769-784.

- Konrad, A.M., Kramer, V. and Erkut, S. (2008), "The impact of three or more women on corporate boards", *Organizational Dynamics*, Vol. 37 No. 2, pp. 145-164.
- Kowalewski, O. (2016), "Corporate governance and corporate performance: financial crisis", *Management Research Review*, Vol. 39 No. 11, pp. 1494-1515.
- Linck, J. S., Netter, J. M. and Yang, T. (2008), "The determinants of board structure", *Journal of Financial Economics*, Vol. 87 No. 2, pp. 308-328.
- Lu, J. and Wang, J. (2021), "Corporate governance, law, culture, environmental performance and CSR disclosure: A global perspective", *Journal of International Financial Markets, Institutions and Money*, Vol. 70, p. 101264.
- Mak, Y.T. and Li, Y. (2001), "Determinants of corporate ownership and board structure: evidence from Singapore", *Journal of Corporate Finance*, Vol. 7 No. 3, pp. 235-256.
- Moreno-Gomez, J. and Calleja-Blanco, J. (2018), "The relationship between women's presence in corporate positions and firm performance: the case of Colombia", *International Journal of Gender and Entrepreneurship*, Vol. 10 No. 1, pp. 83-100.
- Nguyen, T., Locke, S. and Reddy, K. (2014), "A dynamic estimation of governance structures and financial performance for Singaporean companies", *Economic Modelling*, Vol. 40, pp. 1-11.
- Ntim, C.G. (2015), "Board diversity and organizational valuation: unravelling the effects of ethnicity and gender", *Journal of Management & Governance*, Vol. 19 No. 1, pp. 167-195.
- Obuobi, B., Nketiah, E., Awuah, F. and Amadi, A. G. (2020). Recapitalization of banks: Analysis of the Ghana banking industry", *Open Journal of Business and Management*, Vol. 8 No. 1, pp. 78-103.
- Ofoeda, I. (2017), "Corporate governance and non-bank financial institutions profitability", *International Journal of Law and Management*, Vol. 59 No. 6, pp. 854-875.
- Sarpong-Danquah, B., Oko-Bensa-Agyekum, K. and Opoku, E. (2022), "Corporate governance and the performance of manufacturing firms in Ghana: Does ownership structure Matter"? *Cogent Business & Management*, Vol. 9 No. 1, pp. 2101323.
- Puni, A. and Anlesinya, A. (2019), "Corporate governance mechanisms and firm performance in a developing country", *International Journal of Law and Management*, Vol. 62 No. 2, pp. 147-169.
- Quoc Trung, N.K. (2022), "Board of directors characteristics affect commercial banks' performance – evidence in Vietnam", *Cogent Business & Management*, Vol. 9 No. 1, p. 2060164.
- Shleifer, A. and Vishny, R. (1997) "A Survey of Corporate Governance", *The Journal of Finance*, Vol. 52, pp.737-783.
- Sinha, P. and Sharma, S. (2016), "Determinants of bank profits and their persistence in Indian banks: A study in a dynamic panel data framework", *International Journal of System Assurance Engineering and Management*, Vol. 7 No. 1, pp. 35-46.
- Smith, N., Smith, V. and Verner, M. (2006), "Do women in top management affect firm performance? A panel study of 2,500 Danish firms", *International Journal of Productivity and Performance Management*, Vol. 55 No. 7, pp. 569-593.

Staikouras, P. K., Staikouras, C. K. and Agoraki, M. K. (2007). The effect of board size and composition on European bank performance. *Eur J Law Econ*, 23, pp.1–27.DOI 10.1007/s10657-007-9001-2

Weisbach, M.S. (1988), “Outside directors and CEO turnover”, *Journal of Financial Economics*, Vol. 20 No. 1, pp. 431-460.

Yermack, D. (1996), “Higher market valuation of companies with small boards of directors”, *Journal of Financial Economics*, Vol. 40 No. 2, pp.185-211.

Zaid, M.A., Wang, M., Abuhijleh, S.T., Issa, A., Saleh, M.W. and Ali, F. (2020), “Corporate governance practices and capital structure decisions: the moderating effect of gender diversity”, *Corporate Governance: The International Journal of Business in Society*, Vol. 20 No. 5, pp. 939-964.