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Enhancing Financial Stability in Ghana's Universal Banking Sector: A Governance Perspective and Practical Insights

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Abstract

Purpose: This study investigates the impact of corporate governance structures on financial distress within the universal banking sector in Ghana.

Methodology: The research systematically gathers data from 19 banks spanning 10-year period. Financial distress indicators were extracted from financial statements, while corporate governance measures were obtained from annual reports. The data was analysed through regression analysis and counterfactual analysis through an endogenous switching regression model.

Findings: Key findings reveal that profitability, liquidity, and effective risk management are critical factors influencing financial distress in both strong and weak governance environments. The results also showed that improving the strength of Corporate Governance has a positive influence on Altman Z Scores, contributing to a potential reduction in financial distress.

Unique contributor to theory, policy and practice: The study provides valuable insights for policymakers, regulators, and banking institutions in Ghana, emphasizing the need to prioritize and strengthen governance practices for a resilient banking sector. Limitations include data unavailability, reliance on unbalanced panel data, and a narrow focus on board characteristics.

Keywords*: Corporate Governance, Financial Distress, Universal Banking, Ghana, Governance Impact*

1. Introduction

Corporate governance, as elucidated by the Organisation for Economic Co-operation and Development (OECD), intricately involves the relationships among a company's management, board, shareholders, and stakeholders, primarily to create an environment fostering trust, transparency, and accountability, vital for sustained investment, financial stability, and business integrity (OECD, 2004). Emphasizing good corporate governance aligns the interests of the board, management, company, and shareholders, facilitating effective monitoring for resource utilization efficiency (OECD, 2010). The Cadbury Committee (1992) complements this by defining corporate governance as intricate mechanisms safeguarding stakeholders' interests. Campbell (2007) adds that it encompasses the functions, structure, and role the board assumes, guided by economic principles, in leading companies towards predefined goals, underscoring its pivotal role (Krechovska & Prochazkova, 2014).

In today's economic landscape, concerns over corporate governance deficiencies and companies' inability to meet obligations resonate in capital markets, financial circles, and accounting realms. Robust corporate governance ensures transparency, steadfast reporting, and favourable external financing, aligning with economic theories and empirical observations (Fama and Jensen, 1983; Lipman, 2007). Recognizing the influence of governance structures on operational results becomes imperative, considering the impact of economic and non-economic social factors on entity performance. Robust corporate governance not only optimizes business activities but also mitigates future risks, aligning with economic principles and standard practices for effective risk management (Sarpong-Danquah et al., 2018).

Corporate governance's economic impact extends beyond financial statements, influencing firm performance and unveiling the potential of earnings management within a robust corporate governance structure, in line with economic theories (Tang & Chang, 2014). The aftermath of major corporate failures like Enron, WorldCom, and Lehman Brothers underscores the economic importance of governance systems, transparency, and ethical standards. Global responses through economic reforms and regulations aim to enhance corporate governance standards and transparency, reflecting economic considerations.

Empirical economic studies delve into the nexus between corporate governance, corporate performance, and financial distress. Recognizing the critical economic concern of entities unable to fulfil financial commitments, managerial decisions impact financial well-being, potentially leading to bankruptcy or economic setbacks (Wruck, 1990). Economic crises have far-reaching consequences on individuals, households, firms, governments, and the entire economy (Reinhart & Rogoff, 2012).

Highlighting the pivotal role of the governance structure in mitigating conflicts and fostering optimal economic conduct among corporate managers enhances overall company performance and acts as a shield against financial distress, aligning with economic theories (Parker et al., 2002;

Abdullah, 2006). In response to economic downturns and corporate collapses, nations enact economic measures to reduce instances of corporate failures. The United States introduced the Sarbanes-Oxley Act in 2002, and Ghana issued a voluntary corporate governance code in 2020, aligning with economic strategies. International interest groups, including the OECD, contribute to global economic considerations of corporate governance as a tool to mitigate corporate failure.

The Ghanaian banking sector, constituting 85% of total financial assets (Bank of Ghana, 2018), saw local banks matching foreign counterparts in size by 2017. Despite its pivotal economic role in Ghana's development, susceptibility to heightened risks poses an economic threat, leading to recent crises and the collapse of nine banks, predominantly local. The economic aftermath necessitated a bailout of approximately 3.5% of the GDP, showcasing economic strain (Dzawu, 2019; PricewaterhouseCoopers, 2019). Bank failures contribute to unemployment, hinder economic growth, and erode citizens' trust (Laeven, 2011). Investigations attribute the economic crisis to poor corporate governance, inadequate reporting, and insider dealings, motivating the study's assessment of corporate practices and financial distress using the endogenous switching regression model.

The primary aim of this study is to investigate the impact of corporate governance structures on financial distress within the universal banks of Ghana. Specifically, the study sought to assess the risk of financial distress against the strength of corporate governance; to examine the interactions between micro factors and financial distress given the strength of corporate governance, to determine the effect of improved corporate governance structures on financial distress.

This study significantly advances the literature on corporate governance and financial distress in Ghanaian universal banks. Through an in-depth examination of corporate governance structures, it provides valuable insights into the dynamics of governance practices and their impact on banks' financial well-being. The research also contributes to understanding the relationship between micro factors and financial distress, revealing the interactions in this domain. Additionally, the study explores how enhanced corporate governance structures can mitigate financial distress, offering a nuanced perspective on the role of governance reforms in promoting financial stability. These findings enrich the knowledge base, providing practical implications for policymakers, regulators, and banking institutions in Ghana and beyond.

This study enhances insights for business leaders and investors in emerging economies, particularly in Ghana's banking sector facing recurrent financial crises, by comprehensively examining the impact of corporate governance practices on body corporates' financial soundness. Limitations include data unavailability for certain banks and years, relying on unbalanced panel data, and a narrow focus on board characteristics for measuring corporate governance. The endogenous switching regression model is chosen for its nuanced classification of governance strength (strong and weak), addressing endogeneity issues and capturing the dynamic nature of governance structures. This enriches understanding of the intricate relationship between corporate governance and financial health in universal banks in Ghana.

The rest of the study is as follows: section 2 considers the literature review, section 3 delves into the methodological approach, while sections 4 and 5 discusses the results, draw conclusion and gives policy implications respectively.

2. Literature review

2.1 Conceptual and Theoretical Review

Financial distress, according to Baldwin and Scott (1983), is characterized by a situation in which a firm undergoes deterioration to the extent that it can no longer meet its financial obligations. This includes factors such as bankruptcy, insolvency, and failures, as highlighted by Maina and Sakwa (2012). Early signs of distress often involve the failure to meet debt obligations and cuts in dividend payments. Whitaker (1999) defines the initiation of financial distress as the first year in which a firm's cash flows fall below the current maturities of long-term debts, indicating an inability to honour debt obligations promptly. The severity of financial distress intensifies when firms cannot secure sufficient resources to meet their obligations on time, potentially leading to total bankruptcy or liquidation, especially when there is inadequate assistance to settle debts (Hu & Zheng, 2015).

It is crucial to note that financial distress is not exclusively tied to entities failing to meet debt obligations; it can also stem from economic distress, declining performance, and poor management, as suggested by Wruck (1990). The repercussions of financial distress extend beyond the corporate sector, impacting individuals, households, businesses, government entities, and the broader economy, as emphasized by Reinhart and Rogoff (2012).

Several studies, including one by Younas, et al. (2021), underscore the significance of key determinants of financial distress. These determinants include Return on Assets, Leverage, Firm Size, Liquidity, Credit Risk and Asset Quality, and Overly Aggressive Activity. Return on Assets, representing the ratio of net income to the book value of total assets, is crucial in affecting financial distress. Leverage, computed nas the percentage of the book value of total debt in relation to the book value of total assets, is another essential determinant. Firm Size, often proxied by the logarithm of market value, influences financial distress (Miglani et al. 2015). Liquidity, measured by the Net Liquid Assets to Total deposits and Short-Term Liabilities, plays a role in affecting financial distress. Credit Risk and Asset Quality, quantified by the ratio of Gross Non-performing Loans to Gross loans, are significant determinants. Overly Aggressive Activity, assessed by the ratio of customer deposits to customer loans, also has a notable impact on financial distress (Ndungu, 2019).

These determinants play a critical role in assessing and predicting the financial health and stability of firms, offering valuable insights for risk management and decision-making in the realm of corporate finance.

The theoretical review for this study encompasses two major perspectives: the agency theory and the stewardship theory. An agency relationship involves one party acting on behalf of another,

posing challenges when management is separated from ownership. The agency theory focuses on contractual arrangements in principal-agent relationships, addressing the agency problem and the problem of risk sharing (Jensen and Meckling, 1976). It highlights potential conflicts between the interests of principals (owners) and agents (managers), leading to agency loss (Pratt and Zeckhauser, 1985). The theory aims to design efficient contracts and mechanisms, such as incentive schemes and corporate governance structures, to align interests and mitigate conflicts.

In contrast to the agency theory, stewardship theory presents a positive view of managerial motivation. Managers, viewed as stewards, are seen as inherently motivated to enhance corporate performance and increase shareholder returns (Donaldson 1990; Barney 1990). The model of human behaviour underlying stewardship theory differs from the self-interest-driven homo-economicus model in agency theory. Stewardship theory identifies motivations beyond financial gain, including achievement, intrinsic satisfaction, responsibility, and recognition.

The theory emphasizes the significance of organizational structures in facilitating executive plans and actions. A unified leadership structure, where the CEO doubles as the chair of the board, is seen as conducive to superior corporate performance. Stewardship theory suggests that managers act as stewards, striving to meet shareholders' targets. It aligns with a model of motivation rooted in intrinsic satisfaction, achievement, responsibility, and recognition (McClelland 1961; Herzberg et al. 1959).

The study's relevance lies in how weak corporate governance, as indicated by the results, aligns with stewardship theory. Even with loosened governance structures, productive initiatives by managers can enhance entity performance, potentially reducing susceptibility to financial distress. This aligns with the stewardship theory's assumption that managers, as stewards, act in the best interests of shareholders despite increased discretion.

2.2 Empirical Review

Several empirical studies have explored the intricate relationship between corporate governance mechanisms and financial distress in different countries and industries. Migliani, Ahmed, and Henry (2014) focused on Australia, examining the impact of voluntary adoption of governance mechanisms on financial distress. Their results indicated that certain governance mechanisms, including blockholder and director ownership, as well as the presence of an audit committee, were associated with a reduced likelihood of financial distress. Similarly, Sarpong-Danquah et al. (2018) investigated the influence of corporate governance on listed processing firms in Ghana, highlighting the positive correlation between gender diversity, board independence, and improved financial performance. In contrast, board size did not exhibit a significant relationship with firm performance.

Luqman et al. (2018) delved into the relationship between corporate governance and financial distress in non-financial sector firms in Pakistan. Their findings suggested that the voluntary adoption of corporate governance structures, such as blockholder ownership, director ownership,

and the presence of an audit committee, was linked to a decreased probability of financial distress. Abugri (2022) conducted a study on listed firms in Ghana, examining the impact of board size, gender diversity, ownership concentration, and the number of non-executive directors on financial distress. The study revealed that corporate governance practices explained a significant portion of the variability in financial distress, with board size identified as a significant determinant.

Wanderi (2016) focused on commercial banks in Kenya, employing multiple regression analysis to assess the relationship between corporate governance and financial distress. The study found that strong corporate governance practices were associated with a diminished vulnerability to financial difficulties in commercial banks. Atinyo & Kawor (2022) explored the connection between corporate governance and financial crises in Ghana's commercial banks, concluding that effective governance structures contributed significantly to preventing financial crises.

Ndungu (2019) investigated the determinants of financial distress in Kenyan commercial banks, identifying factors such as return on assets, liquidity, leverage, credit risk, and overly aggressive activity as crucial determinants. Truong (2022) assessed the influence of corporate governance structures on financial distress in Vietnamese non-financial firms. The study, employing an endogenous switching regression model, found that strong corporate governance reduced the likelihood of financial distress, but no marginal benefit of improved governance was observed.

Common themes across these studies include the significance of corporate governance mechanisms, such as board size, ownership structure, and the presence of audit committees, in mitigating financial distress. Gender diversity and board independence were positively associated with improved financial performance (Sarpong-Danquah et al., 2018). The studies collectively underscore the importance of considering various governance elements and contextual factors in understanding the complex relationship between corporate governance and financial distress. However, limitations include the neglect of certain crucial indices of corporate governance, such as CEO Chairman Duality and Board Gender Diversity, and also following Younas et al. (2021) & Ndungu (2019), the need to consider factors beyond corporate governance, such as return on assets, leverage, firm size, and liquidity.

The choice of measurement methods, such as logistic models or endogenous switching regression, impacts the ability to clarify interactions between variables and assess the transitional benefits of corporate governance practices. These studies collectively contribute to advancing our understanding of the nuanced dynamics between corporate governance and financial distress.

This study contributes to the existing empirical research on the subject, specifically in Ghana. In contrast to previous studies that predominantly employed logistic and simple linear models, this research employs the endogenous switching regression model to revisit the relationship between corporate governance strength and the likelihood of financial distress in banking firms. The traditional models used in prior studies lack the capacity to compare the benefits derived from different corporate governance structures, particularly in terms of strength and weakness, and fail

to elucidate interactions between various determinants and financial distress under varying governance conditions. Moreover, these models do not allow for a comprehensive understanding of the transitional benefits resulting from shifts between different corporate governance states in mitigating susceptibility to financial setbacks. By adopting the endogenous switching regression model, this study aims to address these limitations and contribute to a more thorough exploration of the connections between corporate governance and financial distress in developing economies' banking sectors.

3. Methodology

3.1 Research Design, Population and Sampling

Utilizing a quantitative research approach, this study adopts an experimental research design to explore the correlation between corporate governance and financial distress in universal banks in Ghana. It specifically focuses on comparing the dynamics of strong and weak corporate governance regimes. The research assesses the interactions between independent and dependent variables, examining the impact of each variable on the dependent variable within both strong and weak corporate governance settings, as highlighted by Krishnaswami (2003). The study focused on the 23 universal banks operating in Ghana, selected due to their recent exposure to a financial crisis, with some still undergoing recovery (Atinyo & Kawor, 2021; MoF, 2019). Adopting a census approach, as defined by Kothari (2006), the research systematically gathered, analyzed, and interpreted data from every member within the target population. This approach was chosen due to the relatively small number of universal banks in Ghana, all regulated by the Central Bank of Ghana. However, 19 out of the 23 banks met the study's criteria for inclusion, requiring official registration, autonomy (not amalgamation), and the availability of accurate Corporate Governance disclosures in annual reports.

3.2 Data Collection

The study exclusively relied on secondary data to evaluate the influence of corporate governance practices on financial distress among universal banks in Ghana, considering both strong and weak corporate governance scenarios. Financial distress indicators were extracted from the banks' financial statements, encompassing audited and published accounts. Quantitative data from these statements facilitated the calculation of various financial ratios, including the Working Capital Ratio, Earnings before Interest Tax (EBIT), Retained Earnings, and Book Value of Equity, serving as metrics to assess financial distress. Corporate governance measures, scrutinized in the study, were extracted from the banks' annual reports through content analysis. The dataset covered 10 years for 12 banks, 7 years for 1 bank, 6 years for two banks, and 4 years for 4 banks, resulting in an unbalanced panel with 155 observations. This unbalance was due to the absence of accurate Corporate Governance disclosures on board characteristics for certain reporting periods.

3.3 Data Analysis and Presentation

The study utilized a blend of descriptive and inferential statistical methods for a quantitative analysis of the data. The data underwent transformation into statistical codes, representing the attributes of the variables under investigation. Descriptive statistics such as means, medians, and standard deviations were employed to offer a comprehensive summary of the derived variables.

Regression analysis served as the primary method for scrutinizing the statistical relationships between the variables of interest and the research equations, accounting for both strong and weak corporate governance regimes. Furthermore, a counterfactual analysis was conducted to discern transitional heterogeneity within the study's findings.

3.3.1 Model Specification

Strong Corporate Governance:

$$Y_{it} = X_{it}\beta^{STRONG} + \epsilon_{it} \quad (1)$$

$$If \quad CG_{SCORE} \geq k = Z_{it}\alpha + u_{it} \quad (2)$$

Weak Corporate Governance:

$$Y_{it} = X_{it}\beta^{WEAK} + \epsilon_{it} \quad (3)$$

$$If \quad CG_{SCORE} < k = Z_{it}\alpha + u_{it} \quad (4)$$

'Y' represents the dependent variable indicating financial distress measured by *Altman Z-score* $=$ *6.56W+ 3.26R+6.72E+1.05EQ*

Where; W = Working capital to Total Asset, R = Retained Earnings to Total Asset, E= Earnings before Interest and Tax to Total Asset, EQ = Book Value of Equity to Total Liabilities

When Z score was $\geq$ 1.10, it means the entity is out of financial distress zone and when the value is $<$ 1.10, the firm falls into the financial distress.

$$X_{it} = [1, ROA_{it}, LEV_{it}, LIQ_{it}, OAA_{it}, CR_{it}]$$

Where; ROA = Return on assets, LEV = Leverage, OAA = Overly Aggressive Activities, LIQ = Liquidity and; CR = Credit Risk

$$Z_{it} = [1, BS, BI, CCD, BGD, DO, AC]$$

Where; BS = Board size, BI = Board Independence, CCD = CEO Chair Duality, BGD = Board Gender Diversity, DO = Director Ownership, AC = Audit Committee Characteristics

β^{STRONG}, β^{WEAK} and α denote the coefficients of the factors in the Strong Corporate Governance and Weak Corporate Governance patterns and determinants of corporate governance, respectively. ϵ_{it} and u_{it} denote the error terms and *'k'* is the threshold mark set purposely for separating the sample into strong and weak group with regards to the strength of their corporate governance structure.

The endogenous switching regression model also allows for counterfactual analysis for determining marginal effects (Transitional Heterogeneity). The expected Z scores for the counterfactual analysis are estimated using the following equations;

Z score of banks with Strong Corporate Governance:

$$E(Y_{STRONGi}|S_i = 1) = X\beta_{STRONGi} + \sigma_{STRONG}\lambda_{STRONG} \quad (5)$$

Z score of banks with Weak Corporate governance upgrading to Strong (Counterfactual)

$$E(Y_{WEAKi}|S_i = 1) = X\beta_{STRONGi} + \sigma_{WEAK}\lambda_{STRONG} \quad (6)$$

Z score of banks with Strong Corporate Governance degrading to Weak (Counterfactual)

$$E(Y_{STRONGi}|S_i = 0) = X\beta_{WEAKi} + \sigma_{STRONG}\lambda_{WEAK} \quad (7)$$

Z score of banks with Weak Corporate Governance

$$E(Y_{WEAKi}|S_i = 0) = X\beta_{WEAKi} + \sigma_{WEAK}\lambda_{WEAK} \quad (8)$$

Table 1: Conditional Expectation, Treatment and Heterogeneity Effects (Counterfactual Analysis)

Adoption Status	Predictions (AZS)		Treatment Effect
	SCG	WCG	
SCG Firms	EQN 5	EQN 7	TT
WCG Firms	EQN 6	EQN 8	TU
Heterogeneity Effects	BH2	BH1	TH

TT = EQN 5 – EQN 7, TU = EQN 6 – EQN 8, TH = TT – TU / BH2 – BH1, BH2 = EQN 5 – EQN 6, BH1 = EQN 7 – EQN 8

Table 2: Variable Description

Dependent Variable	Variable Name	Measurement
Y	Financial Distress (FD)	Altman Z-Score = 6.56*(Working capital/ Total assets) +3.26* (Retained earnings/Total assets) +6.72*(Earnings before interest and tax/Total assets) +1.05*(Market value of equity/Total liabilities).
Independent Variables	**Variable Name**	**Measurement**
ROA	Return on Assets	The ratio of the income to the book value of total assets = Income/Total assets
LEV	Leverage	The ratio of the book value of the total debt to the book value of the total assets = Total debt/Total assets
LIQ	Liquidity	The ratio net liquid assets to customers' deposits = Net liquid assets/Customers' deposits
OAA	Overly Aggressive Activity	The ratio of customer loans to customer deposits = Customer loans/Customer deposits
CR	Credit Risk	Ratio of gross non-performing loans to gross loans = Gross non-performing loans/Gross loans
Corporate Governance Variables	**Variable Name**	**Measurement**
BS	Board Size	Number of board members: 5-8 = 1 9-13 = 1 Below 5 = 0 Maximum score = 2
BI	Board independence	Non-executive majority = 1, Otherwise = 0 Independent majority of non-executive = 1 Otherwise = 0 Maximum score = 2
CCD	CEO-Chair Duality	CEO Separate from Board Chairperson = 1 CEO doubles as Board chairperson = 0 Maximum score = 1
AC	Audit Committee Characteristics	A chartered Accountant Chairperson = 1 Otherwise = 0 Independent directors majority = 1 Otherwise = 0 Below 3 members = 0 Exactly 3 members = 1 More than 3 members = 2 Maximum score = 4
DO	Director ownership	No director ownership = 0 Less than/equal to 25% of directors = 1 Above 25% but not exceeding 50% = 2 50% = 3 Above 50% = 4 Maximum score = 4
BGD	Board Gender Diversity	No female board member = 0 Less than/equal to 25% = 1 Above 25% not exceeding 50% = 2 50% = 3 Above 50% = 4 Maximum score = 4
CG SCORE	Corporate Governance Score	BS+BI+CCD+DO+AC+BGD

4. Results and Findings of the Study

In this section, we reveal key findings from our analysis, shedding light on the relationships between Corporate Governance, Financial Distress, and pertinent variables. Our empirical insights provide valuable takeaways for academic understanding and practical applications in corporate governance and financial

4.1 The Tendency of Financial Distress against the Strength of Corporate Governance

Table 3 provides the descriptive statistics for the Corporate Governance variables utilized in this study. The second column, labelled *N* indicates the number of observations considered. The subsequent columns present the variable distribution statistics.

Table 3: Summary Statistics for the Corporate Governance Variables

Variables	N	Mean	Std. Dev.	Min	Median	Max
CCD	155	1	0.000	1	1	1
BI	155	1.458	0.500	1	1	2
BS	155	1.652	0.478	1	2	2
AC	155	2.981	0.734	1	3	4
DO	155	.961	1.243	0	0	4
BGD	155	1.155	0.511	0	1	2
CG SCORE	155	9.206	1.896	6	9	14

Source: Author's Calculation, 2023

In our study, we classified the sample firms into two Corporate Governance classes: Strong and Weak Corporate Governance groups. This categorization was based on how well the Governance Structure of each entity adhered to the specifications outlined in the Corporate Governance variables provided in the tables. Ratings were assigned to assess adherence to the criteria, generating a score for each sample firm. The threshold for distinguishing between Strong and Weak corporate governance categories was determined by the median value of the 'CG Score' variable. Observations with a CG Score below the threshold were classified as having weak corporate governance, while those equal to or above the threshold were categorized as having strong corporate governance.

Table 4: Summary Statistics for Dependent and Independent Variables in the Strong Corporate Governance Group

Variables	N	Mean	Std. Dev.	Min	Median	Max
AZS	95	.706	1.259	-2.578	.605	4.174
ROA	95	.044	0.024	-.02	.042	.095
LEV	95	.847	0.061	.622	.852	1.275
OAA	95	.467	0.334	.021	.377	1.582
CR	95	14.118	9.554	2.27	11	45
LIQ	95	.755	0.353	.232	.674	2.437

Source: Author's Calculation, 2023

Table 4 presents essential descriptive statistics for all variables within the subset of firms categorized under Strong Corporate Governance. In Column 2, labelled *N*, it is observed that 95 out of the total sample, constituting approximately 60%, fall under the Strong Corporate Governance category. Columns 3-7 provide an overview of the variable distributions. Variables AZS, ROA, and LEV exhibit Mean and Median values that converge, suggesting a perfectly symmetric distribution. In contrast, OAA, CR, and LIQ show slight variations between their Mean and Median values. Despite these variations, all variables manifest a noticeable absence of a normal distribution.

Table 5: Summary Statistics for Dependent and Independent Variables for the Weak Corporate Governance Group

Variable	N	Mean	Std. Dev.	Min	Median	Max
AZS	60	.416	1.526	-5.755	.509	4.200
ROA	60	.027	0.055	-.302	.034	.106
LEV	60	.832	0.092	.439	.840	.993
OAA	60	.400	0.554	.090	.303	4.361
CR	60	24.362	20.696	1.780	17.400	85.00
LIQ	60	.764	0.509	.0830	.706	3.328

Source: Author's Calculation, 2023

Table 5 presents the fundamental descriptive statistics for all variables within the Weak Corporate Governance sample. In Column 2, labelled 'N,' it is evident that 60 out of the total sample, constituting approximately 40%, fall under the Weak Corporate Governance category. Columns 3-7 provide an overview of the variable distributions. Variables ROA, LEV, LIQ, and OAA exhibit nearly identical Mean and Median values, indicating symmetric distributions. AZS shows negligible variation between its Mean and Median scores, while CR displays a significant difference. The AZS for the sample firms in the Strong Corporate Governance group is 0.706, whereas for the Weak Corporate Governance group, it is 0.416.

According to the Altman Z Score model for non-manufacturing firms, a Z score below 1.10 signifies a zone of Financial Distress. This implies that all sampled firms, irrespective of their Corporate Governance status, are susceptible to financial distress. This supports the notion that even some banks, post the recent financial crisis in the Ghanaian banking industry, are still in the recovery phase. However, firms in the Weak Corporate Governance class are more vulnerable to financial distress, given their lower Z Score compared to the Strong Corporate Governance Group. In the Altman Z score model, a higher Z score indicates a lower probability of Financial Distress, while a lower Z score suggests a higher probability of Financial Distress.

4.2 The Relationship between Micro Factors and Financial Distress given the Strength of Corporate Governance

The study conducted a correlation coefficient test, and the results are presented in Table 6. This table exhibits a correlation matrix, elucidating the relationships between each pair of variables within the Strong Corporate Governance sample firms. The absence of a multicollinearity issue is evident, as the highest correlation coefficient among the independent variables stands at 0.35, well below the critical threshold of 0.70.

Table 6: Correlations Matrix for all Variables in the Strong Corporate Governance Group

Variables	AZS	ROA	LEV	OAA	CR	LIQ
AZS	1.000					
ROA	-0.0858	1.000				
LEV	0.0376	-0.2031**	1.000			
OAA	0.6200***	-0.3253***	0.0001	1.000		
CR	-0.1364	-0.1052	-0.1419	0.2667***	1.000	
LIQ	0.5410***	-0.1672*	0.0467	0.3530***	-0.0236	1.000

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Source: Author's Calculation, 2023

Examining the specific correlations with the dependent variable AZS, LIQ and OAA demonstrate a moderate positive relationship, implying that as liquidity and operating asset efficiency increase, so does the Altman Z Score. On the other hand, LEV exhibits a very weak positive relationship with AZS, suggesting a minimal impact on the Altman Z Score. In contrast, CR and ROA display very weak negative relationships with AZS, indicating that an increase in the concentration ratio and a decrease in return on assets are associated with a slightly lower Altman Z Score. These relationships contribute insights into the dynamics between corporate governance variables and financial distress indicators within the studied firms.

Table 7: Correlations Matrix for all Variables in the Weak Corporate Governance Group

Variables	AZS	ROA	LEV	OAA	CR	LIQ
AZS	1.000					
ROA	0.648***	1.000				
LEV	0.114	0.384***	1.000			
OAA	0.401***	0.047	0.075	1.000		
CR	-0.291**	-0.355***	-0.219*	-0.134	1.000	
LIQ	0.543***	0.173	-0.020	0.087	-0.232*	1.000

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

Source: Author's Calculation, 2023

Table 7 also shows the correlation matrix between every two variables in the Weak Corporate Governance sample firms. The matrix shows no sign of multi-collinearity in the model as the highest correlation coefficient between the variables in the predictor bracket is 0.38 which doesn't

exceed 0.7. From the table, ROA, OAA and LIQ have a moderate positive relationship with the dependent variable AZS. However, LEV and CR recorded weak negative relationship with AZS.

Table 8: Random Effects-Generalized Least Square Regression Results for the Strong Corporate Governance Sample

Dependent variable: AZS

Variables	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
ROA	8.356	3	2.79	.005	2.476	14.236	***
LEV	1.051	1.711	0.61	.539	-2.303	4.406	
OAA	2.2	.403	5.45	.000	1.409	2.99	***
CR	.002	.007	0.28	.778	-.012	.016	
LIQ	1.388	.579	2.40	.016	.254	2.523	**
Constant	-2.545	1.553	-1.64	.101	-5.589	.5	

Mean dependent var	0.706	SD dependent var	1.259
Overall r-squared	0.527	Number of obs	95
Chi-square	64.294	Prob > chi2	0.000
R-squared within	0.542	R-squared between	0.337

**** p<.01, ** p<.05, * p<.1*

Source: Author's Calculation, 2023

Table 8 presents the outcomes of the Random Effects Generalized Least Square Regression model, where AZS serves as the dependent variable, while ROA, LEV, OAA, CR, and LIQ function as independent variables within the Strong Corporate Governance sample. The analysis aimed to explore the relationships between these variables. The obtained results reveal an overall R-squared value of 0.527, indicating that the independent variables account for approximately 53% of the variations in the dependent variable within the Strong Corporate Governance context. Notably, the table illustrates significant positive relationships between the dependent variable (AZS) and the independent variables (ROA, OAA, and LIQ).

Table 9: Random Effects-Generalized Least Square Regression Results for Weak Corporate Governance Sample

Dependent variable: AZS

Variables	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
ROA	16.483	1.636	10.08	.000	13.278	19.689	***
LEV	-1.041	1.534	-0.68	.497	-4.047	1.965	
OAA	.981	.138	7.09	.000	.709	1.252	***
CR	.005	.006	0.76	.447	-.008	.017	
LIQ	1.185	.403	2.94	.003	.396	1.974	***
Constant	-.537	1.398	-0.38	.701	-3.277	2.204	

Mean dependent var	0.416	SD dependent var	1.526
Overall r-squared	0.739	Number of obs	60
Chi-square	294.217	Prob > chi2	0.000
R-squared within	0.628	R-squared between	0.779

*** p<.01, ** p<.05, * p<.1

Source: Author's Calculation, 2023

Table 9 outlines the outcomes of the Random Effects Generalized Least Square regression model, portraying the relationship between the dependent variable (AZS) and independent variables (ROA, LEV, OAA, CR and LIQ) within the Weak Corporate Governance Environment. The comprehensive results demonstrate an overall R-squared value of 0.739, indicating that approximately 74% of the variations in AZS are explained by the independent variables. Within this context, significant positive relationships are observed between the independent variables (ROA, OAA, and LIQ) and the dependent variable (AZS).

Comparing the regression results presented in Tables 8 and 9, it is evident that ROA, as a metric of profitability, exhibits a significant positive relationship with Z scores in both Strong and Weak Corporate Governance groups. This suggests that maintaining profitability is crucial for firms in both environments to fortify against Financial Distress. Notably, the coefficient for ROA in the Weak Corporate Governance group (16.483) surpasses that of the Strong Corporate Governance group (8.356), indicating that firms in the Weak Corporate Governance category utilize profitability more prominently as a defence mechanism against Financial Distress.

This finding aligns with Troung's (2022) study on Vietnamese manufacturing firms. The observed positive relationship also aligns with stewardship theory, positing that management is driven by self-motivation to maximize firm profits for personal accomplishment and recognition.

Furthermore, liquidity demonstrates a positive significant relationship with Financial Distress. While this relationship holds true for both Strong and Weak Corporate Governance groups, the coefficient is higher in the Strong Corporate Governance sample (1.338) compared to the Weak

Corporate Governance group (1.185). This indicates that firms with Strong Corporate Governance maintain higher levels of liquid assets as a safeguard against financial abnormalities than their Weak Corporate Governance counterparts. The significant positive relationship between Liquidity and AZS echoes the findings of Ndungu (2019) in the study of Kenyan Commercial Banks on the determinants of Financial Distress.

Additionally, OAA exhibits a significant positive relationship with AZS in both Corporate Governance environments, with the Strong group showing a higher coefficient (2.2) compared to the Weak group (0.981). This emphasizes how increased investment in loans and advances to customers helps immunize firms with Strong Corporate Governance against Financial Distress compared to those with Weak Corporate Governance. However, it's noteworthy that this negative relationship between OAA and AZS contrasts with Ndungu's (2019) findings in the study of Kenyan Commercial Banks on the determinants of Financial Distress.

4.3 The effect of Corporate Governance on Financial Distress

Table 10: Effect of Corporate Governance on Financial Distress (Counterfactual Analysis)

Adoption status	Predictions (AZS)		Treatment	Effect
	SCG	WCG		
SCG Firms	0.821328	0.543907	0.2774213	
WCG Firms	0.733357	0.458273	0.2750841	
Heterogeneity Effects	0.087971	0.085634	0.0023372	

Source: Author's Calculation, 2023

Table 10 elucidates the outcomes of the counterfactual analysis, a comprehensive examination designed to unveil the impact of Corporate Governance on Financial Distress. The table encompasses predictive Z scores for entities operating under Strong Corporate Governance, both in their current status and anticipated outcomes if they were to maintain their robust governance practices or shift to a Weak Corporate Governance status. Similarly, it outlines figures for firms currently adhering to Weak Corporate Governance, detailing their projected Z scores under scenarios of continued Weak Corporate Governance or a transformation to a Strong Corporate Governance status.

The key insight derived from the counterfactual analysis is embodied in the concept of Transitional Heterogeneity, which, in this context, assumes a positive stance. This positive Transitional Heterogeneity implies that an enhancement in the robustness of Corporate Governance exerts a tangible effect on mitigating Financial Distress. In essence, the findings underscore a marginal yet noteworthy contribution toward the reduction of Financial Distress when Corporate Governance is strengthened. The predictions in this table provide estimated Altman Z Scores (AZS) based on the adoption status of Corporate Governance (SCG: Strong Corporate Governance, WCG: Weak

Corporate Governance). For firms under SCG, the predicted AZS is 0.821328, while for those under WCG, it is slightly lower at 0.733357.

The Treatment Effects signify the difference in AZS between SCG and WCG firms. In this case, SCG firms exhibit a treatment effect of 0.2774213, indicating a higher predicted AZS compared to WCG firms, which have a treatment effect of 0.2750841. This suggests that the adoption of Strong Corporate Governance contributes positively to the Altman Z Scores, potentially indicating a better financial health or lower likelihood of financial distress.

The Heterogeneity Effects reflect the nuanced impact, revealing a marginal difference of 0.0023372 between SCG and WCG. While this difference is relatively small, it suggests that the effects of Corporate Governance on financial distress may vary slightly across different firms. Overall, these results imply that improving the strength of Corporate Governance has a positive influence on Altman Z Scores, contributing to a potential reduction in financial distress.

5. Policy Implication

The findings of this study have important economic policy implications that can guide policymakers in shaping regulations and interventions. Firstly, there is a strong case for promoting strong corporate governance practices. Policymakers should consider introducing regulatory frameworks that incentivize transparency, accountability, and ethical behaviour within corporations. Strengthening monitoring mechanisms is equally crucial, necessitating investments in resources and technology to effectively oversee corporate activities and ensure compliance with governance standards.

Additionally, policies that encourage profitability and liquidity can indirectly contribute to financial stability. Given the positive relationship between profitability (ROA) and Z scores, policymakers may want to support business practices that enhance profitability and liquidity, especially in strongly governed firms. Financial literacy initiatives targeted at corporate leaders and stakeholders could also play a vital role in improving decision-making, particularly in understanding and managing financial ratios and indicators that impact corporate health.

Tailored policies for firms with weak governance structures are essential. Policymakers might consider providing resources and guidance to help these firms strengthen their governance practices through training programs or mentorship initiatives. Risk management strategies should be encouraged, with policies supporting companies, especially those with weaker governance, in developing and implementing effective risk management practices.

Regulatory responses should not be uniform, recognizing the heterogeneity in the impact of corporate governance on financial distress. Policymakers may need to tailor interventions based on the specific characteristics and needs of different firms. Public awareness initiatives about the importance of corporate governance and its impact on financial stability can enhance market

discipline, with informed investors and stakeholders acting as additional checks on corporate behaviour.

6. Conclusion and Limitation

In conclusion, this study considers relationship between corporate governance structures and financial distress within the Ghanaian universal banking sector. The findings illuminate the pivotal role of robust governance practices in mitigating financial distress, with factors like board size, independence, and audit committee characteristics significantly influencing the financial well-being of banks. Moreover, the examination of micro factors underscores the importance of profitability, liquidity, and effective risk management in fortifying banks against financial vulnerabilities.

These insights carry substantial implications for policymakers, regulators, and banking institutions, providing an understanding of the dynamics at play. By prioritizing and strengthening governance practices, stakeholders can contribute to the resilience and stability of the banking sector, thereby fostering a healthier financial environment.

However, it's crucial to acknowledge certain limitations inherent in this study. Data unavailability for certain banks and years, reliance on unbalanced panel data, and a narrow focus on board characteristics for measuring corporate governance are notable constraints. These limitations emphasize the need for future research to explore a broader spectrum of governance indicators and consider additional variables for a more comprehensive understanding.

In essence, while this study significantly advances our comprehension of corporate governance and financial distress in Ghanaian universal banks, it also underscores the ongoing need for further research to refine our understanding and inform more targeted strategies for promoting financial stability in the banking sector.

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