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Impact of Gender Diversity, Board Size, Ownership Structure on the Financial Performance of Insurance Firms in Ghana: A Comparative Analysis of Public vs. State-Owned Firms

Maxwell Dela Yao Gakpo[1*] Aaron Issa Anafure[2] Kenneth Ashigbey[3] Richard Reichmann[4]

1. The Dean of Academics, Laweh University College, Ghana.
2. The Chief Executive Officer, Quality Life Assurance, Ghana.
3. The Chief Executive Officer, Ghana Chamber of Telecommunications
4. The Executive Director, Moonlight Groupe, Ghana

* E-mail of the corresponding author: delayaogakpo@gmail.com

Abstract

The study investigates the correlation between corporate governance and financial performance in Ghanaian insurance companies through econometric and linear regression analysis. The chi-square independence test and odds and Odds ratio test were used to establish the degree of relationship between gender diversity, board size and ownership structure and financial performance- underwriting profit, return on equity and return on asset. The study reveals a relationship between corporate governance indicators and variables of insurance firm's financial performance. Board size and composition were found to be statistically significant in the model. A decrease in board size and an increase in board composition will result in better performance. The study also revealed that there is an association between ownership type and performance. Publicly listed firms perform better than unlisted state-owned firms. The study concluded that board size will not matter once the board is efficient. The study made key recommendations.

Keywords: Corporate Governance, Financial Performance, Ownership Type, Gender Diversity, Board Size.

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1. Introduction

Corporate governance is a critical determinant of organizational performance, particularly in industries like insurance where risk management and regulatory compliance are vital. In recent years,

the role of gender diversity, board size, and ownership structure in corporate governance has gained increased attention in both academic and policy circles. This is especially true in developing economies like Ghana, where the insurance sector plays a significant role in financial market stability and economic development. As corporate boards are responsible for strategic decision-making, the composition and governance structures of these boards are key to understanding firm performance.

This study explores the impact of gender diversity, board size, and ownership structure on the financial performance of insurance companies in Ghana. These variables are crucial elements of corporate governance that influence decision-making, oversight, and organizational outcomes. While gender diversity on corporate boards has been advocated for enhancing creativity, fostering diverse perspectives, and improving governance, empirical evidence on its impact on financial performance remains mixed. Similarly, board size can either enhance or impair performance depending on the balance between expertise and coordination challenges, while ownership structure (whether public or state-owned) affects how firms are managed, governed, and evaluated for performance.

In Ghana, the insurance sector is characterized by private, public and state-owned firms, each subject to distinct governance practices and challenges. Private and publicly-owned firms tend to operate under more market-driven pressures, with a focus on profitability and shareholder value. In contrast, state-owned enterprises (SOEs) often face political interference, which can hinder effective governance and negatively impact performance. The comparative analysis between public and state-owned insurance companies provides a unique lens through which to assess how governance practices differ across ownership types and how these differences manifest in financial outcomes.

This study aims to fill a gap in the literature by providing empirical evidence on the relationship between corporate governance attributes (gender diversity, board size, and ownership structure) and financial performance in the insurance sector of Ghana. Through a comparative analysis of public and state-owned firms, this research will offer valuable insights into how governance reforms and diversity initiatives can be leveraged to improve the performance of insurance companies in emerging markets. Ultimately, the findings of this study are expected to contribute to the ongoing discourse on corporate governance best practices in the context of developing economies, with practical implications for both policy-makers and business leaders.

Corporate governance has become one of the most discussed subject matters with increasing contributions and dimensions to adherence to good corporate governance practices as a result of an increase in corporate failures and financial scandals (Gatsi & Gadzo, 2013; Jackling & Johl., 2009). The exposure of poor governance practices over the years has increased the expectation of stakeholders on the quality of corporate procedures, due process, professionalism of auditors, and prudential financial management practices (Iskander & Chamlou, 2000).

Poor corporate governance practices within Ghanaian Insurance companies have been identified as a key issue linked to low performance despite the recorded growth of $16 million to $68 million

between 2007 and 2011 (Gatsi & Gadzo, 2013). Insurance companies are mandated to provide risk management and protection for insuring the public. Also, Insurance companies in Ghana lack the needed systems, structures and policies to serve as checks and balances for effective performance measures (Ashbaugh-Skaife, Collins & LaFond, 2006; Nam, 2004). According to (Nam, 2004), companies with poor corporate governance structures may appear robust but tend not to perform well. The study by Nam (2004) showed that insurance companies that adhere to good corporate governance tend to do well even in difficult financial crises.

2. Corporate Governance

Corporate governance in state-owned enterprises (SOEs) has become a critical topic of research, particularly in developing countries like Ghana, where such enterprises play a significant role in national economic development. State-owned enterprises are typically established to provide essential services, create employment, and stimulate economic growth. However, SOEs are often plagued by governance challenges, which directly affect their performance. In this review, the study examines the empirical literature on corporate governance practices in public and state-owned insurance companies in Ghana, focusing on key governance issues such as board structure, ownership, transparency, and financial performance.

Corporate governance broadly encompasses all of the devices, institutions, and mechanisms by which corporations are governed (Macey, 2008). There are different perspectives on corporate governance (Iskander & Chamlou, 2000, Mensah, Aboagye, Addo & Buatsi 2003). One viewpoint sees corporate governance as dealing with issues of shareholder protection and management control. The significance of corporate governance under this perspective is linked to the provision of external equity finance by shareholders with no interest in the direct control of the firm. Investors provide capital to the firm and managers operate and direct the firm activities in the interest of the investors for a fee (Miles, 2012). The issue of corporate governance arises because of the separation of ownership and management (Rutherford, Springer & Yavas, 2005). The so-called “principal-agent” problem, also referred to as agency theory, is reflected in management pursuing activities that may be detrimental to the interest of the owners of the firm (Barney & Hesterly, 2008).

2.1 Theoretical Frameworks

Varied theories have influenced the development of corporate governance. The main theories are; (a) agency theory which is used to address problems of control between agents and principals, (b) transaction cost economics views the firm as a governance structure based on the principle of transaction cost, (c) stakeholder theory which takes into account a wider group of constituents rather than focusing on shareholders, and (d) stewardship theory which views CEO’s and senior executives are viewed as ‘stewards’, or keepers of the organization’s purpose and intent, whose focus should be

on protecting and conserving the interest of stakeholders including the owners (Barney & Hesterly, 2008; Sun, 2009). The central point of the two studies was that agency theory emphasizes the control of managerial opportunism by having a board chair independent of the CEO and using incentives to bind CEO interests to those of shareholders (Barney & Hesterly, 2008; Rutherford, Springer & Yavas, 2005). Stewardship theory stresses the beneficial consequence on shareholder returns of facilitative authority structures which unify command by having roles of CEO and chair held by the same person. The safeguarding of returns to shareholders may be along the track, not of placing management under greater control by owners, but empowering managers to take autonomous executive action for the performance of the organization for a reward (Harris & Raviv, 2008). Therefore, it can be concluded that the mentioned theories: agency theory, transaction cost economics, stakeholder theory, and stewardship theory have affected the development of corporate governance.

2.2 Corporate Governance Structures

Studies have shown that there are key factors that influence corporate governance (Miles, 2012; Raheja, 2005). A major composition of the boards is the chairman, executive directors (inside directors and non-executive directors), outside directors, managing directors and functional Directors (Cadbury Report, 1992). Corporate governance is influenced by several factors which have significant implications on value creation (Appiadjei, Ampong & Nsiah, 2017; Mehran, 2005). These factors include board size, board composition, CEO duality, gender diversity, and frequency of board meetings. Some studies indicated that small board size favours decision-making. Board size and composition are important determinants of board effectiveness (Andres, Azofra & Lopez, 2005; Jackling & Johl., 2009). The size should be large enough to secure sufficient expertise on the board, but not so large that productive discussion is impossible and free-riding among directors is prevalent. A board should have a mix of inside and outside executives if it is to be effective in judging the management's performance objectively. According to recent literature, the chairman of the board primarily oversees board-related responsibilities, ensuring effective governance and strategic direction. When the chairman also holds the position of CEO, this creates a dual leadership role, combining oversight with executive management, which can lead to potential conflicts of interest (Goel & Bhatt, 2020; Musah, 2022). This duality raises concerns about checks and balances, as it concentrates decision-making power in one individual, which could compromise the board's independence (Krause & Semadeni, 2018). The ideal corporate governance system should not have the CEO and chairman being the same person. When this exists, it will not only lead to the concentration of power, but also, it may result in an obstruction of the operation of checks and balances. The effects of diversity perspectives on decision-making indicate that groups with functional diversity are more effective in problem-solving (Schnake, Williams & Fredenberger, 2006). The number of female representations on boards is associated with effective monitoring of board activities that result from their regular

attendance to board meetings and significant contributions to board deliberations which also encourages the attendance of men at meetings (Adams & Mehran, 2009). Shareholders exercise their supervisory role by monitoring the activities of the board through its meetings. The higher the frequency of board meetings, the more effective they are in performing their monitory functions and enhanced oversight of management performance (Ntim & Osei, 2011). Hence, monitoring activities through board meetings is a very important corporate governance mechanism in influencing firm performance (Gakpo, Ashigbey & Kwakye, 2021; John & Senbet, 1998).

2.2.1 Board Structure and Corporate Governance in Ghanaian SOEs

The composition and structure of boards in state-owned companies are central to their governance framework. Empirical research on board composition in Ghanaian SOEs highlights the importance of board size, board diversity, and the independence of board members in determining governance effectiveness. Abor and Biekpe (2007) found that the size of the board in state-owned enterprises in Ghana influences their financial performance. Their study revealed that SOEs with larger boards tend to perform better financially, as larger boards bring diverse expertise, experience, and better oversight mechanisms. However, the study also notes that beyond a certain optimal level, an excessively large board can lead to inefficiency and slow decision-making processes. In another empirical study, Mensah (2016) examined the role of independent directors in state-owned companies in Ghana. The study highlighted that SOEs with a higher proportion of independent directors on their boards exhibited better governance practices, as independent directors provide objective oversight, reducing conflicts of interest and the likelihood of political interference. This was further supported by research conducted by Amoako (2019), who found that the presence of independent board members improved accountability and transparency in SOEs, leading to better governance outcomes.

2.2.2 Ownership Structure and Political Interference

The ownership structure of SOEs is a critical aspect of their governance. Unlike publicly owned companies, where shareholders can hold managers accountable, the ownership of SOEs is often dispersed among the government and other public institutions. This creates a unique governance dynamic, where political interference can undermine effective corporate governance. Brafu-Insaidoo and Obeng (2012) conducted an empirical study on ownership and governance in Ghanaian SOEs and found that political interference is a significant challenge in the governance of these entities. Their research shows that the appointment of board members and senior management in SOEs is often politically motivated, which compromises the independence and effectiveness of the board. This political influence often leads to mismanagement, poor strategic decisions, and inefficiency, negatively affecting the financial performance of the company. Similarly, Osei (2014) explored the relationship between ownership type and performance in SOEs in Ghana. The study concluded that state-owned

companies tend to perform worse financially than their privately-owned counterparts, partly due to weaker corporate governance frameworks and political interference in management decisions. Osei's research emphasized the need for the depoliticization of SOEs to improve their governance and overall performance.

2.2.3 Transparency, Accountability, and Performance

Transparency and accountability are key pillars of effective corporate governance. In state-owned companies, these elements are often compromised due to inadequate disclosure practices and a lack of robust accountability mechanisms. An empirical study by Agyeman et al. (2015) assessed the level of transparency and disclosure in Ghanaian SOEs. The study found that many SOEs in Ghana do not adhere to international best practices for financial reporting and disclosure. This lack of transparency weakens governance and creates opportunities for corruption and mismanagement. The study also identified that SOEs with stronger governance frameworks and better transparency practices exhibited higher levels of financial performance. Further, research by Antwi et al. (2020) supports these findings, indicating that SOEs with more stringent accountability frameworks and regular audits performed better financially. Their study highlighted that financial accountability and transparency not only boost investor confidence but also lead to more prudent management practices within SOEs.

2.2.4 Corporate Governance Reforms in Ghanaian SOEs

Recognizing the challenges of governance in SOEs, the Government of Ghana has initiated several reforms aimed at improving corporate governance in these entities. The State-Owned Enterprises Governance Act (2018) was introduced to provide a comprehensive legal framework for managing SOEs, with an emphasis on improving transparency, accountability, and board effectiveness. Empirical studies assessing the impact of these reforms have yielded mixed results. Acheampong and Boateng (2019) evaluated the effectiveness of the 2018 reforms and found that while some improvements in governance practices have been observed, many SOEs still face significant challenges. Their study revealed that although there has been progress in improving board independence and transparency, political interference and inadequate enforcement of governance rules continue to undermine the effectiveness of these reforms.

2.3 Corporate Financial Performance

Corporate governance according to Clarke (2007), is a function of an organization's performance. The study by Crockford (2007), mentioned three proxies in assessing the financial performance of insurance companies including return on assets, investment income and underwriting profit (Akotey, Sackey, Amoah & Frimpong-Manso, 2013). The core activities of the insurance business are the generating of premium income to cover expected losses and underwriting profits, measured as the

ratio of the difference between net earned premiums and incurred claims to total assets. This reflects the profitability of the core function of an insurance company in generating premium income. Investment income reflects the ability of the management to make sound investments from the premium revenue. Return on assets, measured as the ratio of profit after tax to total assets, considers both premium income and investments. These proxies therefore reflect the performance in the core insurance operations and investment functions of an insurance firm (Bennedsen, Kongsted & Nielsen, 2008; Clarke, 2007).

3. Research Methodology

This study employed a quantitative method to construct an econometric model to identify and measure the relationship between corporate governance and the performance of insurance companies in Ghana. Classical linear regression analysis, based on the results of the regression analysis, is adopted to measure the relationship between corporate governance and the performance of insurance companies. Categorical data analysis (Chi-square, Odds and Odds Ratio) was also used to measure the association between ownership type and performance using software and statistical software packages for social sciences (SPSS). For this research, the population of the study is the 13 licensed insurance companies in Ghana. To ensure that all the various groups in the sampling frame were surveyed, both simple random and stratified sampling techniques were used in this study. A stratified sampling technique was used at the first stage of the selection exercise. Stratified sampling ensures the selection of respondents from all the identifiable sub-groups within the sample population (see Table 3.1). All the 13 companies were stratified into life and non-life. This sampling technique was used to select five companies from each group making 10 insurance companies. The data was edited to detect and correct possible errors and omissions that are likely to occur, to ensure consistency across respondents. The data was then coded to enable the respondents to be grouped into a limited number of categories and SPSS software was used for this analysis. A regression model was built using attributes of corporate governance to be identified in the literature as independent variables.

Table 3.1: Descriptive Statistics

Insurance Company	ROA	ROE	URP	GDIV	BS	BC	SIZE	INSTOWN	TYPE
Enterprise Life Assurance	14.8	47.6	-11.12	2	7	6	7.7	0	0
Enterprise Assurance	18.2	30	13.2	1.2	6.2	5	4.6	0	1
Ghana Life Assurance	-0.4	4.8	2.3	1	12	11	5.7	0	0
Glico Life	8.6	19.2	25.68	0	6	1	6.5	0	0
Ghana Union Assurance	7.8	12.76	29.26	0	6	5	6.9	0	1
Met Life	0.8	-104.6	-13.225	0	6	5	4.4	0	0
Phoenix Assurance	10.8	26	36.2	1	6.6	5	6.8	0	1
SIC Insurance	2.6	4.8	20	2	9	8	7.6	1	1
SIC Life Insurance	1.6	47.6	0.54	2	6	5	7.6	1	0
Star Assurance,	8.4	30	25.4	1	8.2	5	7.4	0	1
Star Life Assurance	8.6	4.8	4.38	1.4	8.4	5	7.1	0	0
Vanguard Assurance	7.2	19.2	21.2	1	8	5	7.1	0	1
Vanguard Life Assurance	1	12.76	9.38	1	8	5	6.4	0	0

A panel regression model was used to establish how governance impacts the performance of insurance companies in Ghana (second objective). The measures of financial performance used were ROE, ROA, and URP. The governance indicators used in the model included board diversity, board size, and board independence. Moreover, the control variables including insurance firm size, firm ownership, and firm type were incorporated into the model for very good reasons. The size of a firm determines its ability to effectively carry out its operations. Firm ownership influences the ability of a firm to raise capital to support its operations and certainly will have an impact on performance. The firm type, that is, life assurance firm or non-life insurance, also affects the operation of insurance firms.

The fitness of the model was judged by high adjusted R-squared values. In addition to regression, Pearson's correlation was used to check for multicollinearity between the independent variables to help establish the exact relationship between governance variables and financial performance variables of the 13 insurance firms.

3.1 Empirical Model

Based on the variables developed, a relationship was modelled between performance and corporate governance:

$$Perfi,t = \beta_0 + \beta_1 BS_{i,t} + \beta_2 BC_{i,t} + \beta_3 CEO_{i,t} + \beta_4 GDIV_{i,t} + \beta_5 FREQ_{i,t} + \beta_6 INSTOWN_{i,t} + \beta_7 TYPE_{i,t} + \beta_8 SIZE_{i,t} + \beta_9 AGE_{i,t} + \beta_{10} PG_{i,t} + \beta_{11} LEV_{i,t} + \varepsilon_{i,t}$$

Where subscript i and t represent insurer and years respectively. Perf represents the measure of financial performance determined by return on assets, return on equity, and underwriting profit. BS represents Board size, BC represents Board composition, CEO represents CEO duality, GDIV represents Gender diversity, FREQ represents Frequency of board meetings, INSTOWN represents Institutional ownership, TYPE represents Insurance company (Life or non-life), SIZE represents Size of the firm, RISK represents Underwriting risk of the insurer, PG represents Premium growth and LEV represents Leverage ratio.

The odds ratio was used to assess the risk of a particular outcome if a certain factor is present. This was used to compare the odds for the two groups. An odds ratio is calculated by dividing the odds in Group 1 by the odds in Group 2 (Glas, Lijmer, Prins, Bonsel & Bossuyt, 2003). Risk (Odds) It is the probability that the outcome characteristic is present for one group, relative to the other. Sample proportions with characteristics from group 1and 2:

$$\pi 1 = {}^{n_{11}}/_{n_1} \quad \pi 2 = {}^{n_{21}}/_{n_2}$$

Relative Risk (Odds Ratio)

$$RR = {}^{\pi 1}/_{\pi 2}$$

OR=1 Exposure does not affect the odds of outcome

OR>1 Exposure associated with higher odds of outcome

OR<1 Exposure associated with lower odds of outcome

4. Results and Discussion

4.1 Corporate Governance and Return on Equity

Table 4.1 presents the regression analysis to test the impact of corporate governance on the financial performance of the insurance firms. The measures of financial performance used were ROE, ROA, and URP. The justification for using ROE is that it provides an indication of the returns to shareholders

in terms of every cedi invested. By this, shareholders can ascertain whether their investment is yielding the desired results or not. Using the model, ROE is presented as:

$$ROE = 2.3 + 31.56B\text{-diversity} + 0.19B\text{-Size} + 13.73B\text{-independent} + \varepsilon$$

Table 4.1: Regression Results; Panel A: Return on Equity

Dependent Variable: ROE (Overall Sample)				
Variable	Coefficient	Std. Error	t-statistic	Prob.
B-diversity	-31.56	21.23	1.49	0.26
B-size	-0.190	11.14	0.18	0.03
B-independent	5.14	9.4	0.55	0.01
F-size	13.73	12.65	1.09	0.6
Ownership type	29.31	35.57	0.82	0.32
F-type	14.86	20.19	0.74	0.44
Weighted Statistics				
R-squared	0.69		Mean dependent var.	100.74
Adjusted R-squared	0.56		S.D dependent var.	80.11
S.E of regression	34.70		Sum square residual.	7225.73
F-statistics	1.39		Durbin-Watson stat	1.26
Prob. (F-statistics)	0.35			

Board diversity does not have a clear impact on the financial performance of insurance firms. This agrees with the study of Zahra and Stanton (1988), which indicated that there was no significant statistical relationship between gender diversity and ROE. The study reveals a positive relationship between board size and ROE. The results showed that if the board size increases by a single unit, there will be a corresponding decrease of 0.190 in the return on equity provided other factors are held constant. In support of the study results (Yermack, 1996) indicated that large boardrooms slow decision making hence, an obstacle to change. There is a positive relationship between ROE and board independence, however, it is statistically significant. The positive value reported from the regression results for the correlation affirms the results obtained in the study by Ezzamel and Watson (1993), which claimed that outside directors are positively associated with profitability. The study by Lorsch and MacIver (1989) also mentioned that effective boards have a large number of outside directors compared to inside directors. This study reveals that board independence correlates positively with financial performance and this is further supported by the study of Zahra and Stanton (1989). Firm size had a positive relationship with ROE and was also supported by the correlation results. A related study using firm size as the control variable concluded that as firm size increases it will enjoy better economies of scale and will churn out better financial performance (Bennedsen, Kongsted & Nielsen, 2008). Ownership type and firm type both had a positive relationship with ROE. The privately owned type had a much higher significance than the state type which was anticipated. This is because private

ownership has access to funds and probably is better governed which should translate into superior profitability.

4.2 Corporate Governance and Return on Asset

From table 4.2, firm size, and firm type have positive values and are significant in the model. This means that these variables have an important impact on an insurance firm's performance. The bigger a firm is the higher its economies of scale will be. This promotes the financial performance of insurance firms. Other results are in agreement with this study's findings that board independence and ROA are positively related (Rosenstein & Wyatt, 1990).

Table 4.2: Regression Results; Panel B: Return on Assets

Dependent Variable: ROA (Overall Sample)				
Variable	Coefficient	Std. Error	t-statistic	Prob.
B-diversity	6.63	2.29	2.90	0.52
B-size	-1.36	1.20	-1.14	0.02
B-independent	-0.56	1.01	-0.56	0.01
F-size	0.65	1.36	-0.48	0.65
Ownership type	-11.90	3.83	-3.11	0.02
F-type	4.41	2.17	2.03	0.04
Weighted Statistics				
R-squared	0.78		Mean dependent var.	17.39
Adjusted R-squared	0.60		S.D dependent var.	8.63
S.E of regression	3.74		Sum square residual.	386.12
F-statistics	3.61		Durbin-Watson stat	2.02
Prob. (F-statistics)	0.07			

The regression analysis on corporate governance variables, board size, board independence, firm size and firm type to ROA is presented as follows:

$$ROA = 2.4 + 6.63B\text{-diversity} - 1.36B\text{-Size} - 0.56B\text{-independent} + \varepsilon$$

The results revealed a negative relationship with ROA, all of which were statistically significant. A correlation test between the variables was run to check for multicollinearity in the data set. The test revealed that the correlation between the independent variables was weak (< 0.5) and hence no evidence of multicollinearity. The R-squared value in the above table implies that the model will do a good job of predicting ROA. The model is therefore a good fit.

4.3 Corporate Governance and Underwriting Profit

Table 4.3 presents the regression analysis of corporate governance variables to underwriting profitability. A correlation test between the variables was run to check for multi-collinearity in the data set. The test revealed that the correlation between the independent variables was weak (< 0.5) and hence no evidence of multicollinearity. The R-squared values in the table imply that the model will do a good job of predicting URP. The model is therefore a good fit.

$$URP = -3.5 - 8.36B\text{-diversity} + 4.69B\text{-Size} - 4.04B\text{-independent} + \varepsilon$$

Table 4.3: Regression Results; Panel C: Underwriting Profitability (URP)

Dependent Variable: URP (Overall Sample)				
Variable	Coefficient	Std. Error	t-statistic	Prob.
B-diversity	-8.36	5.70	-1.47	0.19
B-size	4.69	2.99	1.57	0.03
B-independent	-4.04	2.53	-1.60	0.01
F-size	3.62	3.40	1.06	0.04
Ownership type	6.37	9.56	0.67	0.53
F-type	22.07	5.42	4.07	0.45
Weighted Statistics				
R-squared	0.82		Mean dependent var.	-26.77
Adjusted R-squared	0.63		S.D dependent var.	21.53
S.E of regression	9.33		Sum square residual.	521.76
F-statistics	4.48		Durbin-Watson stat	-1.24
Prob. (F-statistics)	0.05			

From the regression results in Table 4.3, board independence and board diversity had a negative relationship with underwriting profitability, while board size had a positive relationship with URP. Firm type, firm size and ownership type had a positive relationship with URP. The results for Firm type and ownership type are not statistically significant. The positive coefficient results for board size to URP agree with what Lipton and Lorsch had suggested (Lipton & Lorsch, 1992). However, the results disagree with the (Eisenberg, Sundgren & Wells, 1998) report which indicated an inverse relationship between board size and firm performance.

4.4 Chi-Square Test of Independence, Odds and Odds Ratios Analysis

To achieve the third objective of the study which is to evaluate the ownership structure and the

performance of insurance companies, the Chi-Square Test of Independence, Odds and Odds Ratios Analysis was used. A threshold was set where the dataset was divided into two parts: firms performing above average and firms performing below average.

For ROE, the mean return from the sampled firms over the years was 11.92. Firms with ROEs less than 11.92 were classified as below average. ROEs greater than 11.92 was above average. The same applies to the other measures of performance. The Chi-Square test gave a P-value of $0.12 < (\alpha = 0.05)$ which implies that there is evidence of association between ownership type and ROE. For public insurance firms, the estimated probability of firms performing above average is 0.62 (62.0%). The estimated probability of public firms performing below average is 0.38(38%). For state insurance firms, the estimated probability of firms performing above average is 0.60 (60.0%). The estimated probability of public firms performing below average is 0.40 (40%).

Odds which is the ratio of the probability that a particular event will occur to the probability that it will not occur. For public insurance firms, the odds of performing above average to below average is 1.6. It implies that for every 16 public firms that performed well, it is expected that 10 public firms will perform poorly. For state-owned firms, the odds of performing above average to below average are 1.5. It implies that for every 15 state firms that performed well, it is expected that 10 state firms will perform poorly. An odds ratio (OR) is a measure of association between an exposure and an outcome.

The OR represents the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure. The odds ratio in this case is 1.6/1.5 = 1.1. This would indicate that the odds in favour of performing above average if it is a public firm is 1.1 the odds in favour of a firm performing above average if it is a state-owned firm. This implies that the likelihood of performing well for both types of ownership is approximately the same with public firms edging it out marginally.

On the evidence of the above analysis, the type of ownership has a positive effect on ROE. Both ownership types have approximately the same effect on performance in terms of ROE. The Chi-Square test gave a P value of $0.89 > (\alpha = 0.05)$ which implies that there is no evidence of an association between ownership type and ROA. ROA is independent of the type of ownership. Since there is no evidence of a relationship then the odds and odds ratio cannot be computed. From the Chi-Square test, the study revealed a P value of $0.03 < (\alpha = 0.05)$ which implies that there is evidence of an association between ownership type and URP. For public insurance firms, the estimated probability of firms performing above average is 0.491(49.1%). The estimated probability of public firms performing below average is 0.499 (49.9%). For state-owned insurance firms, the estimated probability of firms performing above average was 0.40 (40.0%). The estimated probability of public firms performing below average was 0.60 (60%). Again, for public insurance firms, the odds of performing above average to below average was 0.96. It implies that for every 96 Public firms that performed well, it

was expected that 100 Public firms would perform poorly. For state firms, the odds of performing above average to below average was 0.67. It implies that for every 67 State firms that performed well, it is expected that 100 State firms will perform poorly. The odds ratio in this case is 0.96/0.67 = 1.43. This indicates the odds in favour of performing above average if it's a public firm is 1.43 the odds in favour of a firm performing above average if are a state firm. This implies that the likelihood of performing well for public firms is 1.43 times more than the likelihood of a state firm performing well (1.43:1).

On the evidence of the above analysis, it is expected that more public firms will perform poorly in terms of URP as compared to public firms that will perform well. The ratio however is marginal (1:0.96). For state firms, it is expected that more firms will perform poorly in terms of URP as compared to firms that will perform well (1:0.67). Generally, firms do not perform well in terms of URP. However public firms are expected to perform better than State firms in terms of URP (Odds Ratio = 1.43).

5. Conclusion

Corporate governance plays a vital role in improving the financial performance of insurance firms in the industry in Ghana. There is a negative relationship between board diversity and all the insurance companies' performance measures. However, board size had a positive relationship with insurance firm performance to some degree. This suggests that there is an optimum level of board size which, when exceeded, will impact negatively on the financial performance of insurance firms. Moreover, board independence or board composition has a positive relationship with the financial performance of insurance firms in Ghana. Further, the type of ownership affects the financial performance as can be seen in the results exhibited by the state and public-owned firms. The public-owned insurance firms excelled above their state-owned firms.

6. Recommendations

Based on the findings, it is recommended that insurance firms in Ghana should focus on optimizing their corporate governance structures to enhance financial performance. Specifically, on Board Diversity, Insurance Firms should re-evaluate their board diversity strategies, as the negative relationship with performance suggests that diversity initiatives may not be effectively aligned with business goals or need further refinement. On the issue of Board Size, Insurance companies should aim to maintain an optimal board size, since, too large board size may hinder effective decision-making and negatively impact performance. Therefore, firms should avoid exceeding this optimal level. Also, Board Independence should be encouraged. From the study, a balanced board composition can significantly enhance firm performance. Firms should prioritize recruiting independent directors

who can provide objective oversight. Finally, on the issue of Ownership Structure; State-owned insurance firms should consider adopting some of the governance practices of publicly-owned firms, as the latter demonstrated superior performance. Reforms in state ownership models could drive improved financial outcomes.

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