

Do board characteristics affect financial performance of firms? An empirical study on Dhaka Stock Exchange (DSE) listed Insurance Companies of Bangladesh

Md. Kamrul Islam & Sugandha Mobin Sharna

Abstract

This study has conducted to find out whether board characteristics have any correlation with the insurance companies' financial performance or not. It considered 27 DSE listed insurance companies' secondary data spanning five years. To draw the relation between characteristics of boards and performance of companies, there has been a regression analysis considering board size, women members in the board, number of independent directors and audit committee size as independent variables, the dependent variable has been considered to be return on assets (ROA). The study found that the only factor significantly affecting ROA is independent directors' number. The findings of this research will help policy makers as well as investors to understand the significance of independent directors, therefore, affect their decision-making approach. As this research only considered DSE listed companies, there is a scope of further research considering insurance companies which are not listed in DSE.



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Introduction

Insurance sector is one of most crucial financial market participants in Bangladesh. There are two types of Insurance companies operating in Bangladesh: Life and Non-Life. The number of life insurance and non-life insurance companies is 18 and 44 respectively. This sector is still small (Masuduzzaman et al., 2013) but in recent times there is a sharp increase of its assets and market share. The profitability of the sector is also in rise. According to the different authors, A common metric is return on assets of understanding profitability (Daare, 2016). There are several elements that play a role to the profitability of insurance companies. One important element is corporate governance in enhancing the performance of the firm throughout the world. It is a vital topic as the inclusive performance is closely connected with the compliance of corporate governance of the insurance companies. According to Datta (2018), the corporate governance's effect on a company's financial outcome is an important matter, and it is one of the most crucial factors in economic growth and financial market steadiness. Corporate governance establishes a system of interactions between the board, investors, and other stakeholders of a company providing a framework for determining the company's goals. In order to demonstrate a connection between corporate governance and the performance of insurance businesses, this study is relevant. The study's conclusions will help this industry create successful corporate governance processes. The relationship between several aspects of corporate governance and business performance has received particular attention in the literature. Empirical studies favor a favorable correlation between several aspects of corporate governance and the firm's performance (Aggarwal et al., 2009; Daare, 2016; Datta, 2018; Dhouibi, 2013; Fekadu, 2015; Malik, 2011; Suherman et al., 2019). Diverse scholars have employed various aspects of corporate governance to investigate their influence on business performance. Endraswati & Cahya (2020) and Ujunwa et al. (2012), however, discovered a detrimental effect on the corporate governance traits and financial performance of the organizations. Particularly, the presence of independent directors in the boardroom may be a crucial factor to take into account when assessing the effect on a company's success. In actuality, independent directors have a favorable effect on insurance businesses' financial success (Kallamu, 2016). Various internal and external factors might have an impact on a company's profitability. The company needs to determine such elements. This study will look at a few variables to see how they affect insurance company profitability in Bangladesh. The main goal of this study is to identify the characteristics that influence profitability. The specific purpose is to show the link between independent directors and the Return on assets. To ascertain the link between independent directors and business performance, 135 sample of insurance companies in Bangladesh were monitored during a sample period of 5 years. We contend that independent directors significantly affect how well insurance businesses function in Bangladesh. In the current study, we seek to investigate the effect independent directors have on the monetary success of the listed insurance businesses. The literature review and methodology are covered in the parts that follow. The empirical analysis that follows, where we have explored the findings of several analyses, is followed by closing remarks.

Problem Statement

Board characteristics and their influence on the firm's profitability are widely considered in the field of research. Different researchers studied the link between these two areas in various contexts. In this study, we are examining the relationship between board characteristics and the financial performance of the firm in the context of insurance companies in Bangladesh. The problem of the study is the degree of board characteristics that influence the profitability of DSE-listed insurance companies of Bangladesh. Some studies have found a significant relationship among board size, independent directors, number of women members in the board, audit committee size, and return on assets. However, different other researchers did

not find any considerable link in this regard. This paper is aiming to fill up the gap of existing literature wants to draw a specific conclusion. We hope, this study will provide a comprehensive understanding and guideline to the practitioners.

Research Gap

In Bangladesh's financial market, insurance companies are essential players. There are 18 and 44, respectively, life insurance and non-life insurance businesses. There are 54 companies that are listed on the Dhaka Stock Exchange (DSE). The purpose of the study is to determine whether board qualities affect the performance of Bangladeshi insurance businesses. Many studies have a population gap, despite the fact that research have looked at the effect of different board features on the financial success of insurance businesses. Only life insurance firms were taken into account by some articles, while others only looked at the data over a one- or two-year period. In fact, some studies' sample sizes are under 50. Other research has focused solely on non-financial industries or publicly traded corporations. As a result, the study of board features' effects on firm performance has the potential to take into account from the perspective of the insurance business with a bigger sample size. To fill the vacuum in the body of available knowledge, this study is tracking a sample of all insurance businesses that are listed on the DSE during a five-year period.

Objective of the Study

The primary goal of this study is to investigate how the boards' characteristics affect the performance of insurance companies in Bangladesh. The objective of this study is to provide a general overview of Bangladeshi insurance firms.

Literature of Context

Researchers have identified the function and significance of board directors as well as the numerous ways in which their personal traits affect the performance of businesses. The size of a board is often determined by the number of directors on it. It is crucial to gauge the effectiveness of the board. A larger board, in accordance with Jensen and Meckling (1976), can enhance the effectiveness of the firms' boards. Additionally, the management receives assistance in reducing agency expenses. As a result, the organization can generate greater financial results. There is a positive correlation between board size and corporate performance, according to a number of other research. Accounting return and market indices seem to benefit from corporate governance but return on equity is not significantly impacted (Farooq et al., 2022). Large boards are thought to be capable of guiding a company in the right direction because they can incorporate a variety of skills that aid in successful decision-making. Adams and Mehran (2009) claimed that there is a link between board size and company performance in the US banking industry. The importance of women on boards must be emphasized in numerous studies. The number of women on the board on various companies' boards is rising. Numerous academics conducted studies to determine the relationship between having a female board member and the success of the company, but the findings of these studies were not consistent. Female directors have a significant impact on financial success, according to Smith, Smith, and Verner (2006); nevertheless, Ferreira (2009) stated that there is a negative correlation. Bohren and Strom (2007) found a negative correlation between gender and business outcomes. Bar, Niessen, and Ruenzi (2008) came at a similar conclusion. Numerous studies have discovered a link between a company's success and the directors' independence, which is made possible by the hiring of outside directors. Aggarwal et al. (2009) and Dahya et al. (2008) discovered a positive relationship between the value of a corporation and the independence of the board. It has been noted that the impact is more favorable in nations with shareholders-friendly legal systems. Additionally, effective

governance grants various privileges to the minority owners. Another study conducted in a single country supports similar findings. For instance, Yeh & Woidtke (2005) discovered that board independence improves value in Taiwan and Korea. Black & Kim (2012) discovered the same outcome for both nations. It was discovered that when the board is under the control of members of the controlling family, poor governance is the nature of it, and when the board is allowed adequate flexibility, the nature of governance is good. The quantity of meetings is thought of as a technique to gauge activity and pinpoint board-relevant characteristics. Board meetings, according to Byrne (1996), can be reinforced by the criticism of the directors. These studies suggest that board members who regularly meet may act in the best interests of shareholders. Additionally, it was discovered that meetings improved other facets of a board's performance. For instance, the quality of audit work is correlated with the frequency of director meetings, according to Carcillo and Hermanson (et al. 2002). Sometimes board meetings don't accomplish much, however, as A deadline is always present and they might not be used efficiently, claim Lipton and Lorsch (1992). Jensen (1993) held the same opinion. An audit committee's main responsibility is to supervise the creation of financial reports. Kajol and Sunday (2008) stated in an article that the more audit committee members there are, the more professionals are available to conduct internal audits and prepare financial reports. When studying the link between the audit committee size and the financial performance of a firm, different findings have been made in earlier studies. Additionally, a favorable relationship between the number of audit committee members and a firm's performance was discovered by Kyereboah-Coleman in 2007. Therefore, the size of the audit committee may be important for a corporation's successful financial performance. Many scholars have utilized ROA as a performance indicator (Kiel & Nicholson, 2003; Yahya Ali Al Matari, 2012; Carter et al, 2003; Satirenjit Kaur Johl and Barry J Cooper, 2015; Masood Fooladi, 2015). The relationship between board member characteristics and a company's financial performance was examined by several researchers using various techniques and instruments. In order to determine the relationship between independent directors and a company's performance, Daare (2016) employed an OLS regression model. The identical performance measure (ROA) and dependent variable, independent directors, were employed in the investigations by Alhassan et al. (2015) and Malik (2011). Regression analysis was employed by Curak et al. (2012) and ROA was employed as the outcome variable in the study to gauge the financial success of a corporation.

Hypotheses development

Methodology

Sample

The data from mentioned insurance firms make up the study's sample. Companies without data for at least five years have been removed from our database. The final sample therefore represents 135 firm years of observation (Five years data, 2016-20, of 27 listed insurance companies). We used manually gathered data from published yearly reports and websites, among other secondary sources.

Empirical model

$$FR = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4$$

Where,

FR = Firm's Financial Performance

X₁ = Size of Board

X₂ = Independent Directors

X₃ = Women Board Member

X₄ = Size of Audit Committee

a = Constant term of the model

The correlation research design was employed in this study to examine the relationship between board members, the proportion of women on the board, the size of the audit committee, and independent directors and company performance (ROA).

Data Analysis

In order to achieve the goal of the research, the investigation must be perfected through proper data analysis.

Defining Variables

The dependent variable in this analysis is ROA, which is used as a performance indicator. The characteristics of the board, such as its size, the proportion of women on the board, the size of the audit committee, and the number of independent directors, are the outcome variables.

Hypothesis Statement

The size of the board, the proportion of independent directors, the presence of women on the board, and the size of the audit committee have all been studied in this area. On the basis of that, the following signs for independent variables are predicted.

Hypothesis 1 (H1): Board size has positive effect on the firm's profitability

Hypothesis 2 (H2): Number of independent directors in the boardroom has positive relationship with the firm's performance

Hypothesis 3 (H3): Women members in the boardroom has negative correlation with the firm's profitability

Hypothesis 4 (H4): Audit committee size has positive effect on the financial performance of the company

Result & Interpretation

This section of the study provides proof that the study's objectives were met. Descriptive statistics, variance analysis (ANOVA), and the significance of the coefficients are all included.

Descriptive Statistics

The descriptive statistics display the mean of the features of the boards in terms of a minimum and maximum value. This approach solely takes into account the variables' values from the previous year. 27 observations of 27 companies are thus presented below.

Table-1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Board Size	27	3.15	3.75	3.05	0.1525
Women Member In BOD	27	0	1.54	0.772	0.415
Audit Committee	27	1.4	3.02	1.754	0.2507
Independent Directors	27	0	1.3	0.701	0.4061
Valid N (listwise)	27				

Board size has an average percentage of 3.05 among the 27 observations. Other observations differ from the mean result by 0.1525. The median number reveals that there are on average 1.00 (0.772) female directors on the board (BOD). Women's participation in BOD differs by 0.415 standard deviations from the average outcome, as shown by the standard deviation.

Multiple Regression Analysis Interpretation

ROA serves as the outcome variable in this section, and a multiple linear regression model has concentrated on the predictor variables of board size, female board members, audit committee size, and independent directors.

Table-2: Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. Change	
1	.494 ^a	0.235	-0.027	0.0251	0.235	0.849	9	18	0.451	2.13

a. Predictors: (Constant), Independent Directors, Female Executive, Women BOD Member, number of Meeting, Directors' number, Audit Committee, Executive Committee, Size of the Board

b. Dependent Variable: ROA

Coefficient of Multiple Determinations (R^2) Interpretation

Some significant statistics of the model's expounding power are shown in the summary output. The R-square value demonstrates how predictor variables accurately describe the percentage of variation in the outcome variable. The fact that the r-square in this case is 0.235, or 23.50 percent, shows that the predictor variables can account for 23.50 percent of the variation in return on asset. However, 76.50 percent of the variation in ROA can be explained by factors outside the scope of this study. The value of R^2 is 23.50 percent, which shows the model has a very high level of predictive ability.

Interpretation of Adjusted Coefficient of Determination (R^2_{adj})

The significance of the predictor variables explains the other regular variation in percentage in the dependent variable, as shown by the adjusted r-square. As a result, the adjusted r-square value of -0.027, or -2.7 percent, indicates that independent variables cannot account for 2.7 percent of the variation in the statistical significance of ROA.

Analysis of Variance (ANOVA)

Table-3: ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.007	9	.002	.849	.494 ^a
	Residual	.015	18	.002		
	Total	.022	27			

a. Predictors: (Constant), Independent Directors, Female Executive, Women BOD Member, number of Board Meeting, Directors in the board, Audit Committee, Executive Committee, Board size

b. Dependent Variable: ROA

The overall variation in the ANOVA table is 0.022. Regression-explained variation is 0.007, and residual error or SSE is 0.015.

The validity of the Model by Using F-Test

Hypothesis H_0 : There is no interaction between the predictor variables and Return on Asset (ROA).

Hypothesis H_1 : Return on Asset is affected jointly by the independent variables (ROA).

Decision: The F-value in this case is 0.494, which is greater than 0.05. As a result, the null hypothesis should be accepted, and the alternative hypothesis should be disregarded. Together, the independent variables have little or no impact on ROA.

Table-4: Significant Test for Individual Variables

Model	Unstandardized Coefficients		Standardized Coefficients	t-value	Sig. p-value	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	0.112	0.154		0.873	0.396	-0.181	0.379
Board Size	-0.071	0.061	-0.412	-1.012	0.34	-0.271	0.072
Women Member In BOD	-0.013	0.021	-0.275	-1.912	0.32	-0.051	0.021
Audit Committee	0.006	0.05	0.041	0.182	0.71	-0.062	0.072
Independent Directors	0.056	0.012	0.112	0.392	0.046	-0.031	0.048

a. Dependent Variable: ROA

Board Size:

Hypothesis H_0 : Size of Board and ROA are not correlated.

Hypothesis H_1 : Size of Board and ROA are related.

Decision: Here, the board size significant value is 0.34, which is greater than the expected value of 0.05, and the critical significant level (α) is at 5%, or 0.05. The null hypothesis must therefore be accepted because the alternative hypothesis has been rejected.

Women Member in BOD:

Hypothesis H_0 : ROA is unaffected by women serving on the BOD.

Hypothesis H_1 : Women on the BOD have an effect on ROA.

Decision: Here, the Women Member in BOD significant value is 0.32, which is higher than the expected value of 0.05, and the critical significant level (α) is at 5%, or 0.05. The null hypothesis, which states that having women on the BOD has no discernible effect on ROA, has been accepted because the alternative hypothesis has been rejected.

Audit Committee:

Hypothesis H_0 : ROA is not impacted by the Audit Committee.

Hypothesis H_1 : ROA and the Audit Committee are unrelated.

Decision: Here, the "Audit Committee" significant value of 0.71 is greater than the standard value of 0.05 and the critical significant level (α) is set at 5%, or 0.05. As a result, the null hypothesis must be accepted because the alternative hypothesis cannot be.

Independent Directors:

Hypothesis: H_0 : Independent Directors don't affect ROA in any way.

Hypothesis: H_1 : The number of independent directors affects ROA.

Decision: Here, the "Female Executive" significant value is 0.046, higher than the expected value of 0.05, and the critical significant level (α) is set at 5%, or 0.05. The null hypothesis, which states that Independent Directors have no impact on corporate financial performance as measured by ROA, has been accepted because the alternative hypothesis should not be accepted. According to the results, the presence and percentage of independent directors have a significant impact on the firm performance metric, ROA, meaning that the company with a higher percentage of independent directors in its boardroom performs better than others. Aggarwal et al. (2009), Hasan et al. (2019), and Iqbal & Kakakhel all present evidence of a similar outcome (2016). The outcome also shows that, according to the ROA measure, the firm's size is significant at a 90% level of confidence. Additionally, as demonstrated by Black & Kim (2012), Haniffa et al. (2006), and Hasan et al. (2007), the coefficient result of firm leverage shows a significant correlation with firm performance (2019).

Conclusion

The purpose of this study was to determine how the different board characteristics affected the performance of insurance companies. It can be deduced from a sample of 27 insurance companies that were listed on the Dhaka Stock Exchange between 2016 and 2020 that the presence and proportion of independent directors have a significant impact on the firm's performance as measured by the firm performance metric, ROA. According to the outcome, the company performs better than others who have a higher percentage of independent directors in their boardrooms. Ceteris paribus was the fundamental presumption of the study, which found that Businesses that have more independent board members perform better than others. The research's findings exactly supported the hypothesis. This study's empirical model was successful enough to establish a relationship. Based on the study's inferences, the board of directors ought to focus more on the proportion of independent directors as a means of

boosting company performance. Additionally, decision-makers should use the results as a guide when developing new regulations to keep a sufficient number of independent directors in the boardroom. The study only considers DSE listed insurance companies and is based on information from the years 2016 to 2020. In future studies, the sample size and observation period might be boosted. Samples from unlisted insurance companies may also be taken into account. Additionally, a similar study in other industries could add to the insights and broaden the applicability of the findings. Finally, future research might look at the connection between the executive committee's performance and the number of independent members.

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