

# Board of Directors Characteristics and Firm Performance: Evidence from the Insurance Sector in Bahrain

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This paper aims to examine the relationship between the board of directors' characteristics and insurance firms' performance. The study focused on an important sector, insurance companies in Bahraini Bourse for the past eight years (2012-2019). Data were obtained from annual reports issued by the firm's sites of both the characteristic of boards of directors that were considered as the independent variable and the firm's performance that was regarded as the dependent variable. The research analysed how the board of directors' characteristics relates to return on equity (ROE), return on assets (ROA) and earnings-per-share (EPS), which measure company performance. The analysis used the Panel regression approach. The study found a positive and significant relationship between the frequency of boards meeting and insurance performance. Other characteristics are found insignificant, specifically, the board size, independent directors, and board attendance.

**Key words:** *Board of directors' characteristics, Firm performance, the Bahraini Insurance sector*

## 1. INTRODUCTION

The "agency problem" is attributed to the separation between ownership and management, and the different objectives of each. The owners seek to obtain the most significant amount of effort out of management in exchange for a reasonable wage, and the management seeks to maximise its benefit by obtaining the most considerable amount of rewards, incentives and benefits. This conflict of interest exposes the owners to a loss because of management behaviour of not exerting enough effort and attention to maximise the return for the owners. The reason for this is due to the inability of the owners to directly follow the performance, decisions and actions

of the management because of the latter's experience with the working conditions and problems and familiarity with the technical issues (Jensen and Meckling, 1976).

Corporate governance involves a system via which a firm is controlled and directed. It is a mechanism that focuses on how decisions are made, and persons empowered to make such decisions. Having robust corporate governance in place tends to enhance investors' confidence and even promote transparency and accountability (Buallay et al., 2017). However, corporate governance tends to experience numerous problems that affect firms earning management (Bhuiyan et al. 2010). Such issues can be solved by having a board of directors to assist in making policies and giving guidelines on how problems should be solved. The board of directors' acts as a representative body that focuses on safeguarding the interest of the company owners. The board of directors comprises of independent individuals who monitor and formulate firm policies to ensure that shareholders wealth is maximised. The board of directors cannot challenge the corporate directors' authority. However, they can give their fair and proper opinion regarding how the firm affairs should be carried out (Ajili, and Bouri, 2018). The board of directors ensures that corporate managers do not deviate from their primary roles of maximising shareholders' wealth. Therefore, the board of directors plays an imperative role in corporate governance. The board of directors establishes policies by ensuring that corporate managers adhere to the stipulated guidelines. Corporate managers must consider the advice and opinion of the board of directors regarding the kind of decision they should undertake (Aktan et al. 2018).

The board of directors may establish policies on the kind of investment opportunities that corporate managers should undertake (Alareeni, 2018). The type of investment decision made should be in line with the shareholder's risk profile and time horizon to achieve profit maximisation goals (Al-Daoud et al. 2016). The board of directors provides guidelines on how the management should act in compliance with the set financial reporting guidelines (Al-Matari, 2019).

Al-ahdal et al. (2020) argued that corporate governance does not only enhance the financial performance of the firm but also improve the overall macro-economic performance of the entire nation. One of the most fundamental areas where corporate governance has been applied is in the Bahrain insurance sectors. Under this sector, there are over 150 insurance firms (Central bank of Bahrain, 2019). The Bahraini Corporate Governance Code which implemented by 2011 aims to enhance credibility and transparency in the commercial environment of the Kingdom of Bahrain by regulating the relationship between boards of directors and shareholders and between boards of directors and their committees. The code sets conditions and controls for members of the Board of Directors and their qualifications, which makes companies run by competent persons. It also sets conditions to the presence of independent and non-executive members in the board of directors to support the decisions of the board in a manner that takes into account the rights of small shareholders (Ministry of Industry and Trade website, 2020).

The paper focuses on determining whether the board of director's characteristics positively influences the financial performance of the insurance sector in Bahrain.

## 2. THEORETICAL FRAMEWORK

The business environment is highly dynamic and hence, a need to have a board of directors to formulate policies and make strategic decisions. The first board of directors was established in the United States over 150 years ago. The establishment of the board of directors played a fiduciary role by representing the interest of shareholders to ensure that their wealth is maximised (Bukair, and Rahman, 2015).

Preventing, detecting and prosecuting accounting fraud is the responsibility of the board of directors, and they should take "preventive" action. Even with Corporate governance and financial disclosure reforms, corporate accounting remains "murky", and businesses continue to find ways to play "hide-and-seek" game with financial reporting. Accounting fraud allowed companies to look with higher value to the degree that re-adjusted shareholders lose value during the market, allowing investors to lose large amounts of money (Bhasin, 2012). Most recognised stock exchange markets such as New York, London, Australian, and Bahrain stock exchanges have a requirement that any firm that needs to list its securities must have a strong board of directors.

The correlation between boards of director's characteristics and firm performance has been studied based on the various robust functions performed by the board. The two main functions include resource monitoring on behalf of shareholders and resource provision. Agency theory helps to explain that board of directors' act as agents because they monitor firm performance on behalf of the owners. The resource dependency theory helps to explain the underlying reason behind the resource provision role played by the board of directors. They allow senior managers to run the company more effectively (Hakimi et al., 2018). According to Sonnenfeld (2002), a board of directors should carry out four key roles: formulating policies, advising senior management, instilling discipline, providing direction during a crisis.

The board of directors also should be involved in ensuring a robust internal control mechanism and policies are in place to help in managing risk and enhance compliance with the financial reporting regulations (Gaynor et al. , 2016). Such compliance may help to minimise fraudulent activities such as selling shares that are over or undervalued. Besides, it may become possible to minimise the incidence of fraud that has been witnessed over the past years, where shareholders have succumbed to losses due to a firm withdrawing its stock within a short period after the IPO (Kilgore, 2007).

Strong corporate governance adopted by the board of directors is highly recommended in the contemporary business world. The board of directors is one of the critical factors in the governance process, and many businesses desperately need good corporate governance. One of the main benefits of developing acceptable corporate governance practices is to help companies.

Thus, their home countries, access international capital markets and receive higher premiums while pursuing foreign investment. A firm's stock price is usually related to its results, so shareholder returns depend on how well a company is run. The company's managers serve as shareholder agents by making decisions to improve the company's performance. (Freihat, et al. 2019)

The United Kingdom has also embraced corporate governance and supports the presence of a strong board of directors. For example, in 2003, the UK established a Combined Code of Corporate Governance (Ibrahim, Ouma, and Koshal, 2019). The code ensures that the best practices of governing the companies and financial reporting are enhanced (Fekadu, 2015). The banking sector must embrace Basel I, II, III, IV, among others, were established to ensure robust corporate governance. The corporate governance code has continued to gain prominence, even in other countries (Jared I Landow, 2020). The board of directors' acts as a representative of the shareholders' interest and hence plays an imperative corporate governance role (Assenga et al., 2018). The board of directors receives powers from shareholders to carry out corporate governance roles (Kao, Hodgkinson, and Jaafar, 2019).

Black et al. (2020) clarify that a change in the board structure, combined with increased transparency, will influence the market value of a company as anticipated cash flows to minority shareholders increase.

### 3. HYPOTHESIS DEVELOPMENT

The paper focuses on investigating the influence that board of director's characteristics have on the financial performance of the insurance sector in Bahrain. According to Jensen and Meckling, the board of directors tends to enhance firm financial performance because managers and shareholders' interest are converged (Li, and Roberts, 2018). However, such convergence may end up creating agency problems because corporate managers may decide to pursue interests that are contrary to shareholders' expectations (Mehdi, Sahut, and Teulon, 2017). For example, managers may undertake highly risky investment projects. Besides, managers may reward themselves large salaries and benefits, reducing shareholder wealth (Merendino, and Melville, 2019). Some of the essential characteristics of the board of directors that were utilised to formulate the four hypothesis states below include the board of director's size, independent, expert, and board of director's meetings (Minichilli, Corbetta, and MacMillan, 2010). The characteristics were links to financial performance measures, which include return on assets ROA, return on equity ROE, and earning per share EPR.

Considering the above, we propose the following hypothesis:

***H1. Board size has a significant positive relationship with the firm's performance.***

The Board of directors consist of directors which includes the investors, entrepreneurs, board members, and other vital members in the start-up ecosystem, the provision of board assists in accelerating the start-up's growth in terms of business, support the companies while providing them required funding, new market entry while ensuring success. The research confirmed, size of the board of directors is negatively related to the profitability of firms while the influence of external directors harms the operating performance of a firm (Rashid, 2018). While conducting the study about the relation between board size and ROE, a null hypothesis was presumed that stated there is no significant impact on corporate governance on a firm's performance. However, the result stated, the t-statistic is 1.966387, which is more than 1.654. Alternatively, the probability is 0.0432, which is less than 0.05. Hence, this null hypothesis has been rejected according to the regression results which showed an effect of board size on ROE (Najjar, 2012).

Board of directors' size is measured by the number of directors who oversee the governing mechanisms of the firm. It comprises of independent individuals voted in by shareholders to form the board of directors (Mishra, and Kapil, 2018). A large board of directors tends to be more effective if such board comprises persons with a substantial background in finance, accounting and many years of experience (Mishra, and Kapil, 2018). A large board of directors may help to enhance accountability among the senior managers because the board of directors is answerable to shareholders (Mishra, and Kapil, 2018). Based on the literature, the board of directors has two significant impacts: ridged decision and effective monitoring (Fauzi, and Locke, 2012). A large board of directors tends to make a more ridged decision than a smaller board of directors (Mishra and Kapil, 2017). Rigidity emerges because all the board of directors' members must be convinced to agree and accept a particular idea before implementing a decision (Mishra, and Kapil, 2017). Such rigidity helps to ensure that whatever decision has been arrived is implemented, which reduces fraud and, consequently, enhances the quality of financial reports (Najjar, and Salman, 2012). The other impact of a large board of directors' size is that effective monitoring is enhanced because the board of directors' members has a trained eye that can detect inconsistent and accounting manipulations in the financial report (Nasser, 2019). For example, one board of directors' member may detect a problem in the financial data (Nasser, 2019). The other member focuses on scrutinising incontinuity in the decisions made my managers and conforms the managers for an explanation. Such sharing of roles helps to identify inconsistency and ensure that the shareholders' interest is safeguarded (Nasser, 2019). Such effectiveness helps to ensure that the board of directors are accountable for their decisions, which consequently help to enhance the quality and overall financial performance of the Bahrain insurance sector.

***H2. The percentage of independent directors has a significant positive relationship with the firm's performance.***

As per the concept, to sustain any investor for the long term, the board should increase its independence and competence. However, experiential studies have not proven an optimistic link between the level of board independence and improved financial performance. Notably,

the independence of the board members is maintained by the Central Bank of Bahrain (CBB). CBB monitor the financial and monetary operations of approximately 376 banks and financial institutes, 14,095 workforce members in Bahrain, and providing regulatory requirements, financial and licensing rule for each of the different financial institutions. CBB supervises the insurance sector, and it recently made it mandatory for all independent financial advisors to attain internationally recognised qualifications, and that's a first in the Middle East. The banking systems Bahrain jointly has more than \$208.2 bn accounted in a balance sheet where the financial corporations contribute 16.5 % of total GDP in 2019 (Central Bank of Bahrain, 2019).

Besides, Ibrahim, Ouma and Koshal (2019) also mentioned several studies found that board independence is an essential factor of corporate governance to investigate its impact on firm performance. Additionally, the gender composition of the board can have a favourable effect on both the eminence of the supervising role of the board and firm performance. The independent variables of a firm include Board size, CEO status, Ownership concentration, Firm size, Industry performance, Employees, and Shares traded considering the dependent variables, i.e. ROE and ROA.

The board of directors' independence involves having adequate time to carry out their roles without interference from the third parties (Chou, and Buchdadi, 2017). The board of directors should be given ample time to discuss and enhance firm internal control (Puni, 2015). They should not have divided attention in the sense that they can dedicate their time and mental efforts to ensure that they formulate robust policies that will help the firm achieve its strategic and financial goals (Teti, Dell'Acqua, Etro, and Volpe, 2017). The senior management should not interfere with the board of directors' activities because such disruption may not only compromise the firm internal control mechanism but may also affect the quality of decisions made (Tornyeva, and Wereko, 2012). Therefore, ensuring the board of directors' autonomy may help enhance earning management, which could further lead to higher financial performance.

***H3. The board meetings have a significant positive relationship with the firm's performance.***

All the operating Joint Stock companies, which are combined under the Bahrain Commercial Companies Law, required abiding by the rules while conducting board and shareholder meetings. During board decision-making meetings, the directors should attend it disclosing about corporate governance (The Kingdom of Bahrain code, 2010). According to the statistical report, corporate performance and frequency of board meeting share a negative and inverse relation as measured by the dependent variable Tobin's Q (Ntim and Osei, 2011). The Bahraini Shareholding Company (BSC) needs to conduct general assembly as per Law Decree No. 21 of 2001 (as amended) (Ministry of Industry, Commerce and Tourism, 2020) for facilitating the smooth operation of the board in terms of influencing and guiding the firms to attain their expected performance. A recent board meeting was conducted on the 19<sup>th</sup> of November from

5:00 to 7:00. The meeting was aimed to support diversity and inclusion among the start-up and corporate boards in the Arab World, learning with the assistance of a 3BL Associates Think-Do-Tank initiative and Diversity on Board programs. The meeting was developed through an interactive panel discussion of the board members. The meeting was conducted with the partnership of Global Entrepreneurship Week Bahrain, Regional and Local diversity partners, and Tamkeen, among others. Leena Al Olaimy, who was the co-founder of 3BL Associates and Diversity on Board and other essential speakers, including Heather Henyon, Kalyan Krishnan (risk advisory) were there to generate cautiousness about the general mistakes' owners conduct in terms of selecting the board and advisory executives (Diversity on Board, 2020).

Board meeting entails the number of meeting that board of directors carry out in a year. The standard number of the board meeting should be four times in a year (Eluyela et al., 2018). A literature review also shows that the board of directors meeting has a significant influence on a firm's financial performance. Among the three components of the board of directors meeting that impact, the financial performance includes frequency, attendance, and meeting content (Tukur, and Balkisu, 2017). Based on the literature, more frequent meetings tend to positively impact the firm financial performance because recurring meeting helps to deal with numerous issues that could not have been addressed in a single meeting (Wang, Jeng, and Peng, 2007). However, the frequency of board of directors depends on firm size (Yasser, Al Mamun, and Rodrigs, 2017). The standard number of meeting in a year used to be four times (Uadiale, 2010). However, firms with the ability to conduct regular audit meetings can continue doing so to enhance the accuracy and quality of the financial reports. The minimum number of Board of directors' meetings specified in the articles of association shall therefore be adhered to. (The Kingdom of Bahrain code, 2018).

*H4. The board meeting attendance has a significant positive relationship with the firm's performance.*

The attendance of the meeting is an essential factor that has a significant influence on the financial performance of the firms (Yasser, Al Mamun, and Seamer, 2017). The board of directors should invite CFO, internal and external auditors, CEO, and all the relevant stakeholders to put forth their views and unfold corporate governance issues (Ashfaq, and Rui, 2019). The board of directors' meeting's attendance is imperative as whereby, the agenda of the meeting should be disclosed, and minutes was taken during the meeting (Chou, Chung, and Yin, 2013). The board of directors' attendance should comprise of all stakeholders with different. The internal control mechanism can be enhanced by ensuring that the board of directors comprises members with skills, experience, and expertise in management, human resource, IT, finance and accounting (Yasser, Al Mamun, and Seamer, 2017). Also, industrial knowledge and numerous years of experience among the board of directors' members can significantly help to improve the firm financial performance (Green, and Homroy, 2018). The Bahrain insurance sector can improve its financial performance by having board attendance made upon of industry experts.

## 4. RESEARCH METHODOLOGY

### 4.1 DATA COLLECTION

All insurance firms listed on the Bahrain Bourse. This study uses secondary data from yearbook reports of insurance organizations itemized on the Bahrain Bourse for 2012 to 2019. This period was considered because of the code of corporate governance was developed, and all organizations are needed to adopt it as from 1st January of 2011 and full compliance expected to be achieved by the end of the same year (Kukreja, 2013). According to the data gathered from the Bahrain Bourse, there were only 5 insurance firms that were operating as at December 2012. Therefore, five insurance companies were purposively included in the study to form the sample size. The sample in this case was 100% of all the insurance firms that are listed on Bahrain Bourse, indicating that the whole study population was involved in the study. There were 40 observations for the five insurance companies for consecutive years of eight years (2012-2019).

### 4.2 VARIABLE MEASUREMENT

Table (I) shows the definitions and measurements of the variables used in this study.

Table I: The Labels and Measurement of the Variable		
Labels	Variables	Definition and Measurement
<b><i>Firm performance variables (dependent variables)</i></b>		
ROA	Return on assets	Return on assets, is a representation of an organizational performance and it is measured by expressing net profit as a fraction of the company's total assets.
ROE	Return on Equity	Return on Equity, a representation of an organizational performance that is measured by expressing the net profit as a fraction of the company's total equity value.
EPS	Earnings per share	It is the ratio of net profit after deducting all the taxes divided by the outstanding equity shares.
<b><i>Board of directors' variables (Independent variables)</i></b>		
BODS	Board size	The summation of directors who constitute the board of the firm
BODI	Board independence	The fraction of independent non-executive directors within a board compared to the summation of all board members
BODM	Board meeting frequency	The summation of all board meetings during the accounting year.
BODA	Board meeting attendance	The proportion of the participation of the board of directors' members in the meeting.
<b><i>Control variables</i></b>		
InFSIZ	Firm size	The natural logarithm of book value of assets of a given firm

LVRGE	Leverage	The ratio of total liabilities to total assets.
FAGE	Firm age	Estimated from the number of years that a firm had been operating from the date of its incorporation to the end of 2019

The company size as its total assets was used as the first control variable. This was done in line with the previous scholarly studies in GCC countries such as Hamdan and Al Mubarak (2017) in Saudi Arabia and Bahrain, AL Nasser (2019) in Saudi Arabia, Arouri et al. (2014) in GCC countries Al-Matari (2019) in Oman, Hakimi et al. (2018) in Bahrain, Ajili and Bouri (2018) in GCC countries (A. Hamdan, 2018) in Saudi Arabia. In these studies, it had already been hypothesized that the company size directly influences the firm's performance due to a number of reasons which include economies of scale, issues of diversification, and access to cheap source of finance. The present study has applied the natural logarithm of the total amount of assets as Fsize.

#### 4.3 MODEL SPECIFICATION

The study applied panel regression that offer reliable information on numerous statistical cases for so many years. This approach has numerous benefits or merits when compared to the time-series or cross-sectional data as it has more freedom and reduced collinearity. This is likely to improve the overall econometric estimates established by the study (Shah and Khan, 2007). Both the fixed as well as random-effect techniques were all tested within the regression analysis. The present study applies regression analysis of the generalized least square (GLS) for all the relevant measures of performance ROE, ROA and EPS so as to establish the relationship which is there between firm performance and the characteristics of the board of directors together with its relevant control variables. The technique of GLS offers treatment for the relevant endogenetic time-invariant sources. The model for testing the hypotheses of the study is shown below:

$$\begin{aligned} \text{ROE} &= \beta_0 + \beta_1 \text{BODS} + \beta_2 \text{BODI} + \beta_3 \text{BODM} + \beta_4 \text{BODA} + \beta_5 \ln\text{FISIZ} + \beta_6 \text{LVRGE} + \beta_7 \text{FAGE} + e \\ \text{ROA} &= \beta_0 + \beta_1 \text{BODS} + \beta_2 \text{BODI} + \beta_3 \text{BODM} + \beta_4 \text{BODA} + \beta_5 \ln\text{FISIZ} + \beta_6 \text{LVRGE} + \beta_7 \text{FAGE} + e \\ \text{EPS} &= \beta_0 + \beta_1 \text{BODS} + \beta_2 \text{BODI} + \beta_3 \text{BODM} + \beta_4 \text{BODA} + \beta_5 \ln\text{FISIZ} + \beta_6 \text{LVRGE} + \beta_7 \text{FAGE} + e \end{aligned}$$

ROE, ROA and EPS are used as proxies of firm performance in this study. Where Return on Equity (ROE) is, estimated by approximating the net profit as a fraction of the overall total equity value, return on assets (ROA) is calculated by expressing net profit as a fraction of the company's total assets. EPS on the other hand is estimated as the net profit after deducting all the taxes and the resulting preference dividends divided by summation of all the existing equity shares. Board of directors' variables, BODS is approximated as the summation of all directors within the board of a firm. It is always measured as the proportion of the independent non-executive directors on the board to the total board directors. Board meeting frequency (BODM) is calculated as the summation of all board meetings during the accounting year. Board meeting

attends (BODA) is projected as the proportion or fraction of the participation of the board of directors' members in the meeting. Also, firm size (FSIZ), leverage (LVRGE) and firm age (FAGE) serve as controls. Table II includes all related variables and the measurement of each variable.

The Pearson correlation matrix that is there among all the relevant variables of the study are shown in Table II. As shown in table II, the board meeting frequencies, the board size, Board meeting attendance, size of the firm and age all has a positive correlation with the performances of the respective insurance firms. It is important to note, however, that the independence of such board and the leverage all has some form of negative relationship with the actual performance of the respective insurance institutions. It is indicated from the table that there exists no significant correlation among the respective independent variables, with a maximum correlation coefficient of around 0.55 (Table II), a figure that is less than 0.80, showing that there is no major issue of multicollinearity. The study in this case helped determine the Variance Inflation Factor (VIF) and the overall results are shown in table III, indicating that all the values range from 1.38 to 2.49, all less than 10, showing the non-existence of multicollinearity issue (Hair et al., 2010).

<b>Table: II</b>		<b>Pearson correlation (n = 40)</b>								
Variables	ROE	ROA	EPS	BODS	BODI	BODM	BODD	FSIZ	LVRGE	FAGE
ROE	1.000									
ROA	0.896*	1.000								
EPS	0.761*	0.768*	1.000							
BODS	0.225	0.201	0.381	1.000						
BODI	-0.011	-0.156	-0.174	-0.558*	1.000					
BODM	0.007	-0.148	-0.028	0.006	0.277	1.000				
BODD	0.022	0.101	0.118	0.336	-0.356	-0.239	1.000			
FSIZ	0.073	-0.055	0.077	0.201	0.151	0.472*	0.239	1.000		
LVRGE	-0.340	-0.582*	-0.343	0.026	0.277	0.243	0.071	0.257	1.000	
FAGE	0.084	-0.106	-0.024	-0.339	0.673*	0.321	-0.364	0.235	0.425*	1.000

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$   
**Notes:** ROE is Return on Equity, ROA is Return on Assets, EPS is Earnings Per Shares, BODS is Board Size, BODI is Board Independence, BODM is Board meeting frequency, BODA is Board meeting attendance, FSIZ is firm size, LVRGE is Leverage, FAGE is firm age.

<b>Table III:</b>	<b>Testing for variance inflation factor</b>	
<i>Variable</i>	<i>VIF</i>	<i>1/VIF</i>
<i>BODS</i>	2.49	0.401817
<i>BODI</i>	2.32	0.431290
<i>BODM</i>	1.75	0.570827
<i>BODA</i>	1.71	0.584635
<i>FSIZE</i>	1.65	0.605796
<i>LVRGE</i>	1.60	0.625420

<i>FAGE</i>	1.38	0.722401
<i>Mean VIF</i>	1.84	
<b>Notes:</b> BODS is Board Size, BODI is Board Independence, BODM is Board meeting frequency, BODA is Board meeting attendance, FSIZ is firm size, LVRGE is Leverage, FAGE is firm age. VIF is the variance inflation factor		

## 5. DESCRIPTIVE STATISTICS

Table IV demonstrate the respective descriptive statistics of both the independent and dependent variables for a period of between 2012 and 2019. The table in this case presents the standard deviation, the maximum, minimum and the mean for the respective panel data variables for the period between 2012 and 2019. The mean return on equity for the 5 insurance firms incorporate in the study was 0.038 while the maximum return was .15 and minimum return being -.29 with a standard deviation of 0.105. The estimated average return on asset was established to be 0.018 while the maximum return was 0.082 and minimum return being -0.052 and a standard deviation of 0.028. The mean earning per share (EPS) was .017, with a maximum return being 0.059 and minimum return -.105 and a standard deviation of 0.027.

<b>Table IV</b>	<b>Descriptive statistics (n = 40)</b>				
<b>Variable</b>	<b>Obs</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>Min</b>	<b>Max</b>
ROE	40	0.038	0.105	-0.294	0.154
ROA	40	0.018	0.028	-0.052	0.082
EPS	40	0.017	0.027	-0.105	0.059
BODS	40	8.475	1.894	5	10
BODI	40	0.391	0.139	.2	.6
BODM	40	5.6	1.410	3	11
BODA	40	0.897	0.113	0.446	1
FSIZE(000)	40	142771.9	140882.7	26167	420134
LVRGE	40	0.653	0.145	0.411	0.841
FAGE	40	31.9	9.142	14	44
<b>Note:</b> dependent and independent variables are defined in Table I					

The average size of the board was 9 with a maximum size of 10 and minimum size of 5 board members, having a standard deviation of 1.894. Concerning board independence, the mean equal to 0.391, the independent board members maximum and minimum percentage is .6 and .2 in that order. The mean percentage of the board meeting was 5.6, with a minimum and maximum of 3 and 11 respectively. In terms of board meeting attendance, the average, as presented in Table 5.12, is 0.897 with maximum and minimum of 1 and 0.446 in that order. The size of the sampled insurance companies showed an average value of 142771.9, with a maximum value of around 420134 and minimum value of 26167. The mean leverage of the respective insurance companies was around 0.653 with maximum and minimum of 0.8411 and

0.41. Finally, the mean for the age of the insurance companies was estimated to be 31.3 years, with the highest years being 44 and least years being 14.

## 6. PANEL REGRESSION RESULTS

The subsequent step was to undertake the Hausman Test so as to establish the most appropriate method that should be used. Such a test is utilised to examine if actually a relevant correlation exists between the error term and the explanatory variables (Baltagi, 2008). The establishment of a significant p-value would actually help reject the null hypothesis and preference given to the fixed effected model. The researcher in this case therefore undertook a Hausman test for the three models with ROA, ROE and EPS. The finding results of the three models showed insignificant levels at 1% and therefore the null hypothesis got rejected. Lastly, the study utilised fixed special effects for the subsequent panel data analysis. The results are shown in table V, having ROE, ROA and EPS indicating significant p-values.

Table V	Selecting between fixed effects and random effects					
	<i>GLS regression</i>					
	Fixed Effects Coefficient (p-value)			Random Effects Coefficient (p-value)		
DV Variables	ROE	ROA	EPS	ROE	ROA	EPS
IV Variables						
BODS	0.008 (0.499)	0.001 (0.593)	0.004 (0.216)	0.024 (0.042)**	0.005 (0.041)**	0.006 (0.005)***
BODI	-0.061 (0.718)	-0.032 (0.383)	-0.029 (0.506)	0.113 (0.511)	0.017 (0.678)	0.008 (0.848)
BODM	0.027 (0.046)**	0.006 (0.041)**	0.009 (0.012)***	0.000 (0.947)	-0.000 (0.883)	0.000 (0.947)
BODA	0.086 (0.595)	0.046 (0.195)	0.055 (0.194)	0.128 (0.458)	0.056 (0.168)	0.040 (0.358)
FSIZE	1.367 (0.000)***	0.341 (0.000)***	0.259 (0.001)***	-0.007 (0.893)	-0.005 (0.672)	-0.002 (0.855)
LVRGE	-2.894 (0.000)***	-0.782 (0.000)***	-0.576 (0.000)***	-0.420 (0.001)***	-0.149 (0.000)***	-0.106 (0.001)***
FAGE	-0.015 (0.058)**	-0.004 (0.034)**	-0.006 (0.006)***	0.004 (0.052)**	0.001 (0.045)**	0.001 (0.046)**
_cons	-4.631 (0.000)***	-1.119 (0.000)***	-0.814 (0.002)***	-0.177 (0.411)	0.006 (0.909)	-0.047 (0.390)
R <sup>2</sup>	0.5787	0.6804	0.5295			
Prob > F	0.0005	0.0000	0.0018			
Wald chi2	15.75	30.95	19.99			
Prob > chi2	0.0275	0.0001	0.0056			
Hausman fixed random/ Prob>chi2	0.0001	0.0000	0.0002			

\*\*\*, \*\*, and \* indicate a level of significance at the 1, 5 and 10% level, respectively

**Notes:** ROE is Return on Equity, ROA is Return on Assets, EPS is Earnings Per Shares, BODS is Board Size, BODI is Board Independence, BODM is Board Meeting Frequency, BODA is Board meeting attendance, FSIZ is Firm Size, LVRGE is Leverage, FAGE is Firm Age.

Table V demonstrates that the GLS fixed effect estimation for all the relevant performance measures (ROE, ROA and EPS) are significant at 1% significance level. The R<sup>2</sup> for ROE, EPS and ROA was 0.5787, 0.5295 and 0.6804 respectively, showing that 57, 68 and 52 per cent variance in all the relevant performance measures get interpreted by the respective four explanatory variables as well as the three control variables.

Board size has an insignificant impact on performance with all performance measurement (ROE, ROA and EPS). Therefore, H1 get rejected. The findings don't support previous findings of Garba and Abubakar (2014), Hakimi et al. (2018), Assenga et al. (2018) Arouri et al. (2014) and Al-Matari (2019) who support that large board size has a positive impact on the organizational performance. Also, it doesn't support the findings of Mkadmi and Halioui (2013), who argued that the board size has a negative impact on the firm's performance. The result in this case support the arguments by Fekadu (2015). He claims that board size in the financial sector has minimized power, and its size does not actually matter a lot in regard to decision making as prescribed by the policy regulatory bodies.

Besides, Arouri et al. (2014) indicated that bank boards within the GCC countries never have any significant impact on the firm's performance since the boards in such GCC nations are still at the early stage of development. The fraction of the independent directors who are in such boards have insignificant impacts on the company's performance and this led to the rejection of H2. Thus, independent directors on Bahraini's corporate boards may not be independent, likely contributing to the board's weakened control role. This result is supported by the low percentage of the independence ratio which is equal to 36%.

Board meetings frequency has both significant and positive effect on firm overall performance. Therefore, H3 is accepted (see Table IX). This result support the resource dependence theory as argued by Al-Matari (2019), and Farooque et al.(2020). The result tend to contradict the findings of some other studies that did establish a significant negative board meetings frequency-firm performance association (Johl et al., 2015) and insignificant association amid a board meeting and financial performance (Naseem et al., 2017). Therefore, frequent meetings by board members can be perceived as a reflection of improved corporate performance.

Finally, board meeting attendance has no negative effect on all performance measurement (ROE, ROA and EPS). Thus, H4 is rejected. This finding contradicts with the theoretical interpretation that the firm's director has to attend their respective board meetings so as to monitor, supervise and stipulate the firm or even make relevant strategic decisions for it. This result is constant with the first one related to the size of the board as if the size effect is not

significant on performance, so how much members are attending the meeting also should be insignificant. It seems that the members of the boards of directors in the Bahraini insurance companies are having an ineffective role in performance.

In regard to the control variables, firm size (FSIZE) has a high positive effect on ROE and ROA. This was very consistent with the study's expectations. This is very much consistent with the results from other relevant studies that established that large-size firms are most likely to realize better results as demonstrated by the significant and positive relationship such as Ajili and Bouri (2018), Al-Matari (2019) Bukair and Abdul Rahman (2015) and Najjar (2012). The overall finding shows that big insurance companies tend to have somehow lower costs of collection of information, lower risks and more resources within the respective financial markets leading into better performance. Additionally, leverage (LEV) tend to have a major adverse impact on the firm's performance and these findings are supported by other scholarly research (Ajili and Bouri, 2018) According to Bukair and Abdul Rahman (2015), financial sector desire to utilise their respective internal sources so as to finance their respective investments instead of getting funds from outside. Finally, the results showed that firm age (FGAE) has a weak significant negative connotation with ROE, ROA and EPS, which can as well be explained by the mere fact that age of insurance firms affect negatively in performance. This results inconsistent with finding found by AL Nasser (2019).

## 7. CONCLUSION

This study analyzed the influence that board of director physiognomies have on firms' overall performance for a sample of 5 insurance firms in Bahrain from 2012 to 2019. The GLS fixed effect model is applied so as to test such relationships.

The study results show that the performance of insurance firms is not entirely affected by the board size, board independence, board meeting attendance. The results did not reject the null hypotheses that the board meetings frequency improves insurance firms' performance. However, size of the board, independence of the board and board meeting attendance has an insignificant impact on the general performance of the respective insurance firm. In contrast, board meeting has great positive effects on insurance companies in Bahrain performance. This clearly demonstrates that the function of the board of directors is a sector with close regulation. Therefore, it would be highly recommendable if the respective regulatory body relax all of their prescriptive together with the stringent policies and devolve all its powers to the board of directors. The study findings seem to be highly valuable knowledge source for both the regulators and policymakers, especially those who are responsible for developing and enhancing the Bahraini Corporate Governance Code, and in several ways. First, it may help Bahrain insurance firm's regulators to come up with relevant strategies that can be used to improve the general performance of the respective insurance firms. Additionally, Bahrain insurance firm's policymakers need to evaluate the overall board size of any given firm as the study found that the size of boards has no effect. The study recommends that the size of the

board of directors should be the minimum number that is mentioned in the Bahraini CGC as this will help in reducing costs. Finally, policymakers in insurance firms of Bahrain need to revise all the requirements by CG on how to choose BODS, BODI and BODAs and subsequently initiate some limits on the appointment of board members so as to strengthen its composition as well as structure.

## **8. STUDY LIMITATIONS AND FUTURE RESEARCH:**

The study is limited to insurance companies listed on the Bahrain Stock Exchange. It does not include unlisted companies, which means that the results cannot be generalised to all insurance companies in the Kingdom of Bahrain. The study cannot be generalised to cover entire emerging economies. The findings stem from a Bahraini context only. Also, Performance metrics used in this analysis could be problematic as accounting standards, and compliance in developing countries are lower. Thus, annual reports cannot reflect the state of affairs and performance of an organisation accurately. Moreover, accounting profits are subject to manipulation.

Since the theoretical framework is limited, it is proposed that future researchers use another theoretical framework with various changes, additions to existing constructs. Other frameworks are often supposed to influence the directors' positions. Therefore, attempting to suggest more possible predictors (e.g. organisational life-cycle level, ownership structure) would be essential for future study. Furthermore, although this study mainly finds support from the dominant agency problem, future scholars should explore board roles through different theoretical lenses. Hybrid approaches may be used for potential study. Although this analysis is focused on quantitative data collection and interpretation, likely researchers may consider collecting a combination of quantitative and qualitative data that can provide an integrated approach with mixed findings. It can also be paired with gathering longitudinal data, seeking to capture the changing effects over time.

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