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Corporate Governance and Performance of Islamic Banks: A Comparative Study of Banks in Malaysia and the GCC Countries*

İslami Bankalarda Kurumsal Yönetişim ve Performans: Malezya ve Körfez İşbirliği Konseyi Ülkelerindeki Bankaların Karşılaştırmalı Bir Çalışması

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ABSTRACT

This paper contributes to the literature by discussing the relationship between corporate governance and performance of Islamic banks operating in Malaysia and the Gulf Cooperation Council (GCC) countries. The effects of board independence and board size on performance are examined by using relevant analyses. The paper finds that there was a significant and negative relationship between ROA and board independence and it was also a significant predictor of ROE. Malaysian banks were performed better than the GCC banks by comparing the average ROE and ROA and they also had more independent directors. According to the univariate test results, Malaysian banks were performed better than the GCC banks in terms of ROE and Tobin`s Q.

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ÖZ

Bu çalışmanın amacı, Malezya'da ve Körfez İşbirliği Konseyi (KİK) ülkelerinde faaliyet gösteren İslami bankaların kurumsal yönetişimi ve performansları arasındaki ilişkiyi tartışarak yazına katkıda bulunmaktır. Yönetim kurulu bağımsızlığının ve büyüklüğünün banka performansı üzerindeki etkileri ilgili analizler kullanılarak incelenmiştir. Çalışma, aktif karlılığı ve kurul bağımsızlığı arasında anlamlı negatif bir ilişki olduğunu ve aynı zamanda aktif karlılığının öz sermaye karlılığının önemli bir yordayıcısı olduğunu ortaya koymuştur. Öz sermaye karlılığı ve aktif karlılığı ortalamaları bakımından Malezya bankalarının KİK bankalarından daha iyi performans gösterdikleri ve ayrıca daha bağımsız yönetim kurullarına sahip oldukları bulunmuştur. Tek değişkenli test sonuçlarına göre ise, Malezya bankalarının öz sermaye karlılığı ve Tobin Q oranları açısından KİK bankalarından daha iyi performans gösterdikleri ortaya konmuştur.

1. Introduction

The importance of corporate governance in the financial industry has augmented in recent years because, during the crisis, some leading financial institutions and many others experienced very hard conditions. Some of those like the Lehman Brothers went bankrupt with a huge debt. Yet before that, at the beginning of 2000, for instance in the US, some scandals linked to the board of directors and CEOs have forced the government to discuss and bring new regulations on corporate governance. Then after in 2002, The Sarbanes-Oxley Act has been legislated to bring new standards to the public companies in the US. Many countries have started to publish their guidelines on corporate governance of firms. Furthermore, the UK is one of the countries which were affected by this kind of business fiascos and outrages in the

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late 1980s (Padgett, 2012: 138). After these significant crises, in 1991 the Cadbury Committee was established to scrutinize the reasons behind these failures (Padgett, 2012: 138). Besides, the OECD has published a guideline on corporate governance for its member countries. Moreover, during the last two decades, corporate governance has been studied widely by many scholars but after the recent global financial crisis which started in 2008, their interests in this issue have grown increasingly.

In recent years, not only conventional financial institutions but also Islamic financial institutions' corporate governance structure has been examined. Islamic banks mainly operate under the principles of Islamic Law (Shari`ah) and according to these principles interest (riba) is prohibited in all transactions. Therefore, the banks which are Islamic banks cannot demand interest for any financial transactions and products. Many scholars have published a great number of publications about the corporate governance of Islamic financial institutions. Many of them have examined and compared the corporate governance and performance of Islamic banks with conventional banks. In this paper, however, the relationship between corporate governance and performance of Islamic banks is examined. The reason for that is many publications have been conducted to compare Islamic and conventional banks in different countries but a few of them have concentrated on only Islamic banks. The sample of banks was chosen from Malaysia and the Gulf Cooperation Council (GCC) member countries namely Bahrain, Kuwait, Oman, Saudi Arabia, Qatar, and the United Arab Emirates. The banks operating in Malaysia and the GCC countries have been compared from 2007 to 2011, based on the relationship between governance structure and performance. The reason behind this choice is that both countries have long-established and developing Islamic banking industry for many years.

The unique hand-collected dataset used in this paper. Board structure variables were collected from banks` annual reports and audited financial statements. Besides that financial data were collected from Bankscope. The paper is separated into six parts including this part. The second part is the literature review. In this part, relevant sources about corporate governance, board structure, and firm performance, and specifically corporate governance and performance of Islamic banks and differences between conventional and Islamic banks are discussed. The concept for the performance evaluation from different articles and books is provided. In the third part, the methodology of the research is explained. The econometric model and hypothesis are introduced in detail. Return on Assets (ROA), Return on Equity (ROE), and Tobin`s Q used as profitability ratios to evaluate the performance of banks. Additionally, two board characteristics, the board size, and board independence are used as corporate governance variables. The corporate governance variables and performance variables will be regressed. The dependent variables are performance variables and independent variables are board characteristics (size and independence). In the fourth part, the empirical results of the research are explained. The Pearson correlation matrix and multiple regressions were conducted for analyses. In the last part of the paper, the summary and conclusion of the research are discussed in detail. The limitations and future aspects of the research are also provided in this part.

2. Literature review

In this section, the relevant literature about corporate governance, regulations, board structures, and performances of non- financial firms and financial firms, specifically conventional and Islamic banks is discussed. In the first part, corporate governance is defined and the recent changes explained.

2.1. Definitions of corporate governance

Corporate governance has been defined in different ways depending on the author`s center of concern. For instance, the Organization for Economic Co-Operation and Development (OECD) has defined it from the perspective of Economics and does not indicate the objective of corporate governance, which is bound to be value-oriented. (Chapra and Ahmed, 2002). There may be some other good explanations for corporate governance but the prominent one is defined by The Cadbury Committees (Padgett, 2013: 401). According to the committee, corporate governance is the system that companies are managed and controlled (Cadbury Report, 1992: 15). However, a wider explanation is made by OECD which is more convenient when considering corporate governance of banks (Padgett, 2013: 401). According to the OECD principles of corporate governance (2004), companies should consider not only its shareholders' interests but also another group of stakeholders` interests in the society because banks` performance is very important for the entire success of a country`s economy (Padgett, 2013: 401). Moreover, the term corporate governance has added importance only during the last two decades and its implications have not still become fully brought out although a considerable number of studies have become available on the subject (Chapra and Ahmed, 2002).

With the understanding of the importance of stakeholder approach after some critical crisis and scandals, most of the banks and firms started to recognize that considering both stakeholders and shareholders benefits together and applying this multidimensional approach to corporate governance can support the institutions and banks functioning, profitability and market values (Padgett, 2013: 413). According to the Cadbury Report, for the UK companies` board composition and accountability should be the most important part of the corporate governance structure. The report advises that boards should have a chair and this chair should not be the CEO of the company at the same time (Cadbury Report, 1992: 15). In addition to this, boards should have a minimum of three non-executive directors and independent managers (Padgett, 2012: 138). The shifting of those perspectives also affects bank governance approaches. According to the OECD principles, risk management is one of the most important tasks of the board of directors. For this purpose, all of the banks should be ready for challenging possible risks (Padgett, 2013: 405). Because of banks' specifics, it is broadly believed that banks are opaque institutions and that information asymmetries are marked, especially concerning the risk characteristics (Nienhaus, 2007: 128).

Furthermore, due to the importance of the banks for an economy, some countries held a meeting for banking regulations in 1988. The Basel Committee on Banking Supervision (BCSB) has been formed to regulate member states` banking industry. Since that year the committee has

worked on some regulatory framework and has declared them under name of Basel accords. The last one is Basel III that declared in 2010-2011. Moreover, it could be seen that corporate governance literature usually focuses on the possible associations between corporate governance and performance.

Most of the studies about this area presented that managerial improvements and achievements can directly affect firms, banks, and other financial institutions` profitability (Padgett, 2013: 413). Furthermore, the financial crisis of 2008 triggered some new regulations that made the industry rules much stricter since an extraordinarily huge number of financial institutions were collapsed or bailed out by governments. The fiasco of these institutions leads to a freeze of global credit markets and required government interventions worldwide (Erkens, Hung and Matos, 2012: 389). The current financial crisis has brought several questions concerning the corporate governance of financial institutions (Aebi, Sabato and Schmid, 2011: 3213).

2.2. Corporate governance and performance of conventional banks

Arslan, Karan and Eksi (2010: 3), in their study on firms in Turkey, suggested that board independence had no effect on accounting measures but positive effect on Tobin`s Q. Judge, Naoumova and Koutzevol (2003: 393) could not find a negative relation between insider directors and performance in their research on Russian firms.

Haniffa and Hudaib (2006: 1034) found that board independence did not affect the performance of Malaysian firms. Klapper and Love (2004) in their study explore the determinants of firm-level governance and find that governance is correlated with the extent of the asymmetric information and contracting imperfections that firms face. They also find that better corporate governance is highly correlated with better operating performance and market valuation and provide evidence that firm-level corporate governance provisions matter more in countries with weak legal environments.

Yermack (1996; 185) examines the relationship between board size and firm performance, concluding that the smaller the board size the better the performance, and proposing an optimal board size of ten or fewer. Adams and Mehran's (2002) study on a sample of bank holding, they examine the effect of “board size and "board composition” as a measure of corporate governance on value. Their results explain the absence of a robust relationship between board composition and value and a positive relationship between board size and value in contract with the abundant existing literature for non- financial firms. Erkens et al., (2012: 389) use an international sample of 296 financial firms from 30 countries. Consistent with Beltratti and Stulz (2012), they find that firms with more independent boards and higher institutional ownership experienced worse stock returns during the crisis. They argue that firms with higher institutional ownership took more risk before the crisis which resulted in larger shareholder losses during the crisis period. Moreover, firms with more independent boards raised more equity capital during the crisis, which led to a wealth transfer from existing shareholders to debt holders.

2.3. Performance and corporate governance of Islamic banks

Good governance is vital to the capability of a business to safeguard the interests of its stakeholders. These are extendable further to other values including nonfinancial ones (Grais and Pellegrini, 2006: 2). Good governance is also very important for Islamic banks. Grais and Pellegrini (2006) stated that in the case of an institution offering Islamic financial services, stakeholders believe their processes to be made in compliance with the principles of Shari`ah (Islamic Law). A corporate structure that allows such an institution to device good governance through Shari`ah-compliant operations is therefore essential (Grais and Pellegrini, 2006). Islamic banks have several distinctive features. The first and most important feature of Islamic banks is the prohibition of interest, regardless of its form or source. The receiving and paying interest is prohibited by the Islam (the Qur'an) in all ways (Olson and Zhoubi, 2008: 47).

Turk Ariss (2010: 101) analysed the conditions in Islamic and conventional global banking markets comparatively and studied the dissimilarities in profitability between these markets, using a sample of banks across 13 countries during 2000–2006. She found results that suggested the Islamic banks assign a higher share of assets compared to traditional banks, which also have better capitalized structure. The results also revealed that Islamic banks is less competitive compared to traditional banks. She also found that profitability significantly increases with market power, but not sustaining greater profitability for Islamic ones. Beck, Demirgüç-Kunt, and Merrucher, (2013: 433) found little significant differences between the Islamic and conventional banks by comparing indicators of a business orientation, cost efficiency, asset quality, and stability. While they found that Islamic banks are more cost-effective in a large sample of countries, it was conventional banks that were more cost-effective than Islamic banks in countries where both banks are operated. Specifically, in countries where the market share of Islamic banks was higher, conventional banks tend to be more cost-effective but less stable.

As stated above, studies on corporate governance in Islamic banks mostly in recent years, keep a quite small space in the literature. These existing studies focus either on the structure of Shari`a advisory boards in Islamic banks or on the theoretical comparison of corporate governance systems in conventional banks and Islamic banks (see, Khandelwal and Aljifri, 2016; Almutairi and Quttainah, 2017; Ulussever, 2018). In his study, by using corporate governance variables belonging to Islamic and conventional banks from many countries, Ulussever (2018: 34) revealed that Islamic banks have stronger boards and chief executive officers than traditional banks. However, he concluded that conventional banks have a better and more effective management system than Islamic banks in creating value for their shareholders. In another study, Khandelwal and Aljifri (2016: 566) by employing 80 Islamic banks from many countries analyzed the effectiveness of corporate governance in these banks by using the variables of the size of advisory boards, the size of the audit committee, the size of the board of directors and the composition of the board of directors. In a similar vein, Almutairi and Quttainah (2017: 601) examined the effect of the advisory boards on the performance of 82 Islamic banks from 15 countries and stated that it has been demonstrated

that large company boards and large advisory boards are better and more efficient in monitoring and consultancy roles than small boards, and as a result, enlargement of these boards improves bank performance. Finally, Grassa and Matousi (2014: 346) examined the corporate governance structures and practices of Islamic banks in Southeastern Asian countries comparatively in their studies found that there are significant differences in the corporate governance structures and practices of those banks in those countries which they argued that relevant policymakers and responsible institutions should work on improvement and standardization to change this situation.

3. Methodology

In this part, the research methodology of the study is explained in detail in the separate titles. The focus of the study is to find out whether there are any relationships between corporate governance and the performance of Islamic banks in Malaysia and the GCC countries.

3.1. Hypotheses and research questions

As was mentioned before, the study aims to examine the effects of board structure (board size and board independence) on bank performance measurements ROA, ROE, and Tobin`s Q. Our sample includes Islamic banks from Malaysia and the GCC countries. Therefore the analysis aims to find answers to the following questions:

1- Do board size and board independence affect the ROA, ROE, and Tobin`s Q of Islamic banks in GCC countries and Malaysia?

2- Is there any difference between Islamic banks in the GCC countries and Malaysia about corporate governance and performance?

Besides, the hypotheses of the study are as follows:

H_1: There is a positive and significant relationship between ROA and board size and board independence.

H_2: There is a positive and significant relationship between ROE and board size and board independence.

H_3: Board independence and board size have a significant relationship with Tobin`s Q.

H_4: There are significant differences between Islamic banks in Malaysia and the GCC countries in terms of ROA, ROE, and Tobin`s Q.

3.2. Methods

To find out answers to these questions, relevant analyses were carried out. The multiple linear regression analyses and correlation analyses were used to test the hypotheses. The results were explained in detail in the empirical results part.

To investigate the correlation between independent variables (board size and board independence) and dependent variables (ROA, ROE, and Tobin`s Q) the Pearson Correlation test was used. By using this test, the relations between the control variable (LNGDP) and the other variables were also examined. Furthermore, the dummy variable was used for the country to distinguish the two groups. As this dummy variable was transient and categorical, another correlation test, the Spearman-Brown Correlation test was inevitably used to measure the correlations for the aforementioned variable with the others.

Moreover, to examine the independent variables are whether the significant predictors of the dependent variables which were considered as performance measurements, Multiple Linear Regression Analysis (MLRA) were used. To observe the effect of countries' GDPs on dependent variables and the effect of independent variables on dependent variables while controlling the GDPs, the hierarchical method of MLRA was used. Additionally, the regression model was designed to include the country's effect on the banks as the dummy variable to understand whether any interpretable consequence on banks' ROA, ROE, and Tobin's Q values may arise from being an Islamic bank in Malaysia or the GCC countries. Dummy variable coding database is provided in Table 1.

Table 1. Coding Dummy Variable

Variable	Level	Dummy	Coding
State	1. GCC	state_d	GCC:0
	2.Malaysia		Malaysia:1

The hierarchical regression analysis used for the research allows additions of independent variables to the analysis at variable steps. Also, this method gives the ability to the researcher to modify the added style concerning the research purpose. Regarding this flexibility, by controlling the effects of one or more variables in the analysis, one can observe the effect of remnant variables on the dependent variables. For each of the performance variables namely ROA, ROE, and Tobin's Q that were considered as dependent variables, the Hierarchical MLRA (HMLRA) was performed and 3 separate regression models were tested for relevance/significance.

3.3. Pre-test and diagnostics

Before analysis, the distributions of dependent and independent variables were tested to observe whether they satisfy the assumptions of Multiple Linear Regression Model Assumptions (MLRA). For that purpose, primarily, the existence of uni-directional extreme values and multi-directional extreme values of these variables were studied. Uni-directional extreme values were studied through the box-plot graphs whereas those multi-directional extreme values were studied via Mahalanobis Distance values. After relevant assessments, 9 extreme values were removed from the analysis. That was due to the possible negative effects of these extreme values on both normality assumptions of distribution and regression analysis (Tabachnick and Fidell, 2007). To solve this problem, 9 banks were removed from the sample. Therefore, the normality in the distribution of these variables was evaluated employing both their histograms and descriptive statistics such as the coefficient of skewness and kurtosis. After removing the outliers, it was found that the distribution of the variables was close to normality without any excessive deviation.

Another important assumption of MLRA is that there must be no multiple correlations between predictor variables that

are being processed. Multiple correlation problems appear especially when the correlation is above or equal to 90 (Tabachnick and Fidell, 2007). The high-level correlation between variables could be tested in a few possible ways. In the research, binary correlations between variables were studied first for that purpose and the absence of a multicollinearity problem between independent variables considered as board structure and log GDP considered as controlling variables was confirmed.

Another important assumption of MLRA is related to homoscedasticity between variables (Tabachnick ve Fidell, 2007). Before analysis, Scatter plots of variables were structured to observe any heteroscedasticity problem. The evaluations confirmed the absence of such a heteroscedasticity problem as well.

3.4. Data collection and variables

Aforementioned, the data were collected from 2007 through 2011 from Bankscope and Thomson Reuters which are the most reliable and dependable databases and sources. The banks were determined firstly according to the list on the Association of Islamic Banking Institutions Malaysia (AIBIM) website and then separately checked from the countries` central banks' websites. According to the AIBIM and the central banks, there are 77 Islamic banks operated in the sampled seven countries, however, unfortunately, some banks have not released their annual reports and financial statements, therefore, the sample decreased to 63 banks.

Furthermore, the sample was produced with 63 banks where the 20 of them are Malaysian bank and 43 of them are the GCC countries` banks. Besides that, due to the lack of relevant information about the market value of equity for some banks, the Tobin`s Q ratio could not be measured for them. Thus, for Tobin`s Q measurement just 29 bank data could be used for statistical analysis. Another problem with the data collection process was that relevant information for some banks for some years could not be found. This causes missing data problems. To get around this problem, the default technique of statistical program delegating mean of series instead of each missing data was used. (Mertler and Vannatta, 2005).

Consequently, to examine the significant difference between Malaysian and the GCC banks` ROA, ROE, and Tobin`s Q, the Mann-Whitney U test was used. This test is used when samples are smaller than 30 or when the assumptions are violated. Due to the Malaysian banks' sample is smaller than 30, this test had to be used.

Table 2. Bank Number per Country

	ROA-ROE		Tobin`s Q	
Nation	**Population**	**Sample Size**	**Population**	**Sample Size**
Bahrain	25	20	8	7
Kuwait	7	6	5	5
Qatar	5	3	4	4
Saudi Arabia	6	6	6	6
UAE	12	8	5	4
Malaysia	22	20	4	3
Total	**77**	**63**	**32**	**29**

4. Results

In this part of the study, the descriptive statistics and analysis are discussed in detail in the first section then the results of regression analysis are discussed in the second section. Lastly, the Mann-Whitney U-test results to compare Malaysian and the GCC banks in terms of ROA, ROE, and Tobin`s Q performance measures are explained.

4.1. Descriptive analysis

In this section, details on descriptive statistics are provided for each variable. The values for each variable could be seen in Table 3 and Table 4. Both tables are divided into three panels. The statistical values for the entire sample banks are given in Panel A. In Panel B and Panel C, the results for the GCC countries` banks and Malaysian banks are given.

4.1.1. Descriptive analysis: ROA and ROE

In Table 3, it could be seen that ROA had an average value of 0.94 for the entire sample which was quite high and 1.03 for GCC countries` banks and 0.74 for Malaysian banks. It could be claimed that the Malaysian bank performed lesser than GCC countries' banks according to these results. The ROE, on the other hand, had a mean of 7.20 for the entire sample and 5.80 for the GCC banks and 10.28 for Malaysian banks which means Malaysian banks performed better than the GCC banks. From the board structure aspect, it could be said that the Malaysian banks` board of directors was comprised of an average number of 8.45 members and 83.15% of them were non-executive directors. Whilst the GCC banks had a mean of 9.12 for board size with a percentage 76% of them were non-executives. Whereas the entire sample had 8.91 board members with a percentage of 80.6% non-executive members. Therefore, on average, the Malaysian banks` board of directors were more independent than the GCC banks yet, had a smaller board size. The values for skewness and kurtosis were quite small so it seems that sample data might have a normal distribution.

Table 3. Descriptive Statistics: ROA and ROE

Statistics	ROA	ROE	BOARD SIZE	BOARD INDEP.	GDP
Panel A: Entire Sample					
Mean	0.94	7.20	8.91	78.23	11.30

Median	1.03	7.80	9.00	80.58	
Minimum	-2.94	-10.68	5.00	33.33	11.28
Maximum	4.33	26.47	13.20	100.00	11.37
Standard Deviation	1.31	8.50	1.75	16.68	
Skewness	-0.03	-0.05	-0.15	-0.86	
Kurtosis	1.03	-0.29	-0.04	0.14	
Observations	315	315	315	315	
Panel B: GCC Banks					
Mean	1.02	5.80	9.12	76.00	11.28
Median	1.25	5.63	9.00	77.98	
Minimum	-2.94	-10.68	5.00	33.33	11.28
Maximum	4.33	25.11	12.00	100.00	11.28
Standard Deviation	1.46	8.25	1.65	18.72	
Skewness	-0.06	0.09	-0.37	-0.55	
Kurtosis	0.59	-0.20	-0.01	-0.61	
Observations	215	215	215	215	25
Panel C: Malaysia Banks					
Mean	0.75	10.28	8.45	83.15	11.37
Median	0.87	10.75	8.60	83.13	
Minimum	-1.47	-7.07	5.40	53.67	11.37
Maximum	2.58	26.47	13.20	100.00	11.37
Standard Deviation	0.92	8.43	1.92	9.62	
Skewness	-0.80	-0.46	0.36	-1.19	
Kurtosis	1.65	0.61	0.74	3.96	
Observations	100	100	100	100	5

4.1.2. Descriptive analysis: Tobin's Q

Tobin`s Q values are given in Table 3 however, the sample is consists of just 29 banks in total. According to the mean values, Malaysian banks had a greater Q ratio than the other banks with an average value of 1.06. This means they had overvalued stocks because of the Q ratio greater than 1 means that a firm's stocks are overvalued. On the other hand, the GCC banks had a quite low average value of 0.43 for the selected period which means their stocks were undervalued. The average numbers of board members were 9.32 for the GCC banks and 8.73 for Malaysian banks. Besides, the mean of the proportion of non-executive members was 75% for the GCC banks and 90,3% for Malaysian banks which means that these Malaysian banks were more independent than the others. The values for skewness and kurtosis were quite small so it seems that sample data might have a normal distribution.

Table 4. Descriptive Statistics: Tobin`s Q

Statistics	**TOBIN`S Q**	**BOARD**	**BOARD**	**GDP**

		SIZE	INDEP.		
Panel A: Entire Sample					
Mean	0.49	76.20	11.29		
Median	0.41	77.78			
Minimum	-0.12	42.55	11.28		
Maximum	1.32	100.00	11.37		
Standard Deviation	0.31	18.03			
Skewness	0.97	-0.33			
Kurtosis	0.38	-0.86			
Observations	145	145	30		
Panel B: GCC Banks					
Mean	0.42	9.31	74.62	11.28	
Median	0.35	9.00	77.11		
Minimum	0.12	6.60	42.55	11.28	
Maximum	1.10	11.80	100.00	11.28	
Standard Deviation	0.25	1.27	18.29		
Skewness	0.90	-0.17	-0.16		
Kurtosis	0.34	-0.12	-0.92		
Observations	135	135	135	5	
Panel B: Malaysia Banks					
Mean	1.06	8.73	90.30	11.37	
Median	1.04	7.40	89.60		
Minimum	0.08	5.60	84.95	11.37	
Maximum	1.32	13.20	96.36	11.37	
Standard Deviation	0.25	3.97	5.74		
Skewness	0.38	0.13	0.56		
Kurtosis	0.00	0.00	0.00		
Observations	15	15	15	5	

4.2. Correlation matrices

The Pearson and Spearman-Brown correlation tests were carried out separately for Malaysian and GCC countries banks` on dependent variables; ROA, ROE, and Tobin

`s Q and independent variables; board size, board independence, GDP and country dummy. The analysis results are stated in Table 5, 6, 7, and 8. The Pearson correlation test results between ROA and ROE and the other variables are shown in Table 5 and the Spearman-Brown correlation test results are given in Table 6. Moreover, the results for Tobin`s Q and other variables, on the other hand, are stated in Table 7 and 8.

4.2.1. Correlation matrices: ROA and ROE

According to the results in Table 5, ROA and board independence were significantly and negatively correlated at the 5% significance level (r= -.251, p= .045). In another word, the Islamic banks' ROA increases, when their boards` independence decreases. However, there was no correlation between board structure variables and the others because of the high p values from the 5% significance level. On the other hand, ROE and ROA had a positive and significant correlation (r= .736. p= .000). Additionally, ROE and GDP were positively and significantly correlated at the 5% significance level (r=.246, p=.050). Lastly, according to the coefficients from the Spearman-Brown test in Table 6, a dummy variable for Malaysia and ROE had a significant and positive correlation at the 5% significance level (r= .274, p= .029).

Table 5. Pearson correlation matrix: ROA and ROE

Variables	**1**	**2**	**3**	**4**	**5**
ROA	-				
ROE	0.736***	-			
Board Size	0.082	0.050	-		
Board Ind.	-0.251*	-0.183	0.078	-	
GDP	-0.097	0.246*	-0.179	0.200	-

* p < .05, ** p < .01, ***p < .001

Table 6. Spearman-Brown Rank Correlation Coefficients: ROA and ROE

Variables	**ROA**	**ROE**	**Board Size**	**Board Indep.**	**GDP**
State (Dummy Malaysia)	- 0.130	0.274*	-0.199	0.154	1.000**

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

4.2.2. Correlation matrices: Tobin`s Q

In Table 7 and 8, according to the Pearson Correlation and the Spearman-Brown correlation tests for 29 Islamic banks in from 2007 through 2011, significant and positive relations between both Tobin`s Q and GDP (r= .616, p=

.000) and Tobin`s Q and dummy Malaysia (r= .494, p= .006) were found at the 1% significance level. Whilst, no correlation was noticed between Tobin`s Q and another variable.

Table 7. Pearson Correlation Matrix: Tobin`s Q

	1	2	3	4
Tobin`s Q	-			
Board Size	0.104	-		
Board Ind.	0.351	0.148	-	
GDP	0.616**	-0.116	0.272	-

** p < .01

Tablo 8. Spearman-Brown Rank Correlation Coefficients: Tobin`s Q

Variables	Tobin`s Q	Board Size	Board Ind.	GDP
State (Dummy Malaysia)	0.494**	-0.142	0.264	0.802**

** p < .01

4.3. Regression analysis

Aforementioned, the performance variables namely ROA, ROE, and Tobin's Q that were considered as dependent variables, were regressed with independent variables that are board independence and board size. The Hierarchical MLRA (HMLRA) was performed for the regression and 3 separate regression models were tested for significance. This method was used in prior research to compare two groups for each firm performance variable (Van Ness et al. 2010). The regression equations for ROA, ROE, and Tobin`s Q are as follow:

$$ROA = \beta_0 + \beta_1 BSIZE + \beta_2 BINDP + \beta_3 LNGDP + Dummy + \varepsilon \quad (1)$$

$$ROE = \beta_0 + \beta_1 BSIZE + \beta_2 BINDP + \beta_3 LNGDP + Dummy + \varepsilon \quad (2)$$

$$Tobin`s\ Q = \beta_0 + \beta_1 BSIZE + \beta_2 BINDP + \beta_3 LNGDP + Dummy + \varepsilon \quad (3)$$

After regression analyses were conducted, the results were given separately for each dependent variable.

4.3.1. Board structure effects on ROA

The HMLRA results in which ROA was selected as the dependent variable are provided in Table 9.

GDP was taken as the dependent variable in the first block of analysis. It could be seen that GDP by itself explained the 9% variation in banks' ROA (R = .097, R^2 = .009, F = 0.593) while it could not predicted ROA in a significance level (p = 0.444). The second block of analysis included the independent variables of board independence, the board size, and dummy state (Malaysia). By controlling GDP, those second block variables contributed by 7% to the previously explained variation in ROA (R = .273, R^2 = 0.74, F = 1.607) however, they were not also found to be the significant predictors of ROA (p > .05). Dummy state variable was not evaluated in the hierarchical regression equation which means that there was no significant effect on the location of the bank on its ROA measurements. As could be seen, for the ROA, from the ANOVA results that the F value was not significant at the %5 level (p = 0.197) which means that the model was not a significant fit of the data.

Table 9. Hierarchical Multiple Linear Regression Analysis Results: ROA

Model	Independent Variables	B	SE	β	t	R	R^2	ΔR^2	F
1	**Constant**	35.246	44.554		0.791				
	GDP	-3.035	3.441	-0.097	-0.770	0.097	0.009	0.009	0.593
2	**Constant**	12.207	45.609		0.256				
	GDP	-0.916	4.034	-0.029	-0.227				
	Board Ind.	-0.020	0.010	-0.253	-1.928	0.273	0.074	0.065	1.607
	Board Size	0.073	0.095	0.097	0.761				

4.3.2. Board structure effects on ROE

The HMLRA results in which ROE was selected as the dependent variable are provided in Table 10.

GDP was taken as the independent variable in the first block of analysis. It could be seen that GDP by itself explained almost 6% of the variation in ROE (R = .246, R^2 = .061, F = 4.003) while it could predicted ROE significant level (p = 0.50). The standardized regression coefficient of GDP variable (β) at this stage was found .246. There was a positive and significant relationship at the 5% level of GDP and ROE. The second block of analysis included the independent variables of board independence, the board size, and dummy state. On controlling GDP, those second block variables contributed by 7% to the previously explained variation in ROE (R = .364, R^2 = .133, F = 3.057). This increased the given variation to 13%. However, among these variables, only board independence was found to be a significant predictor of ROE (p = .041). In this block, the β coefficient of log GDP is .321 and of the board, independence was -.258. There was a negative and

significant relation between ROE and board independence. Dummy state variable was not evaluated in the hierarchical regression equation which means that there was no significant effect on the location of the bank on its ROE measurements. Therefore, for the ROE, ANOVA results showed that the F value was significant at the %5 level (p = 0.035) which means that the Model was a significant fit for the data.

Table 10. Hierarchical Multiple Linear Regression Analysis Results: ROE

Model	Independent Variables	B	SE	B	t	R	R^2	ΔR^2	F
1	**Constant**	-554.459	280.709		1.975				
	GDP	49.683	24.831	0.246	2.001*	0.246	0.061	0.061	4.003*
2	**Constant**	-719.288	285.660		-2.518*				
	GDP	64.684	25.263	0.321	2.560*				
	Board Ind.	-0.131	0.063	-0.258	-2.084*	0.364	0.133	0.072	3.057*
	Board Size	0.618	0.597	0.127	1.035				

*p ≤ .05

4.3.3. Board structure and Tobin`s Q

The HMLRA results in which Tobin's Q was selected as the dependent variable are provided in Table 11.

GDP was taken as the dependent variable in the first block of analysis. It could be seen that GDP by itself explained almost 38% of the variation in Tobin's Q (R = .616, R^2 = 380, F = 17.166) while it could predict Tobin's Q at 1% significant level (p = 0.000). The standardized regression coefficient of GDP variable (β) at this stage was found .616. There was a positive and significant relationship of .001 between GDP and Tobin's Q. As in the previous two models, the second block of analysis included the independent variables of board independence, the board size, and dummy state. On controlling GDP, those second block variables contributed by about 8% to the previously explained variation in Tobin`s Q (R = .676, R^2 = .457, F = 5.253) however, none of these variables were found to be a significant predictor of ROE (p > .05). In other words, when GDP was controlled, there was no significant relation between Tobin's Q and also whether board size and board independence located in Malaysia or not.

Table 11. Hierarchical Multiple Linear Regression Analysis Results: Tobin`s Q

Model	Independent Variables	B	SE	B	t	R	R^2	ΔR^2	F
1	**Constant**	-78.710	19.116		-4.117***				
	LNGDP	7.018	1.694	0.616	4.143***	0.616	0.380	0.380	17.166***
2	**Constant**	529.569	639.760		0.828				
	GDP	-46.966	56.732	-4.126	-0.828				
	Board Ind.	0.004	0.003	0.208	1.291	0.676	0.457	0.077	5.253**
	Board Size	0.023	0.030	0.120	0.783				
	Dummy State	4.816	5.090	4.702	0.946				

**p < .01, *** p < .001

4.4. Mann-Whitney U-Test results

The Mann-Whitney U test results were presented in Table 12. The test was conducted separately for Malaysian and the GCC banks in terms of average values of ROA, ROE, and Tobin`s Q. As it could be seen that there was no significant difference between Malaysian and the GCC banks in terms of their average ROA values (U=369.00, p= .304). Whereas, ROE showed significant differences between groups (U= 290.00, p= .030). When mean rank was considered, it is seen that Malaysian banks` ROE measurements were higher than the GCC banks`. For Tobin`s Q, there were also significant differences between the two groups and again, Malaysian banks were performed better than the GCC countries` banks.

Table 12. Mann-Whitney U Test Results

Variables/ Group	N	Mean Rank	Sum of Ranks	U	p
ROA					
GCC	43	34.11	1501.00	369.00	.304
Malaysia	20	28.95	579.00		
ROE					
GCC	43	29.09	1280	290.00	.030*
Malaysia	20	40.00	800		
TOBIN`S Q					
GCC	26	14.07	380.00	2.00	.008**
Malaysia	3	28.33	85.00		

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

5. Conclusion

To conclude, the aim of this study to examine corporate governance and financial performance of Islamic banks operating in Malaysia and the Gulf Cooperation Council countries (except Oman), namely Bahrain, Kuwait, Qatar, Saudi Arabia, and the United Arab Emirates. According to the regression analysis, Pearson and Spearman-Brown correlation tests and Mann-Whitney U test results, it could be concluded that for ROA, the regression model was not significantly fit the data and there was no evidence for the effects of board independence and board size on the banks' performance whether they were operating in either Malaysia or the GCC countries. However, according to the Pearson correlation matrix, there was a negative and significant relationship between ROA and board independence for Malaysian and GCC banks. Besides, according to the regression results, the regression model was significant for ROE and there was a negative and significant effect of board independence on ROE. Moreover, when GDP was controlled in the regression, there was no significant effect on Tobin`s Q whether the banks operating either in Malaysia or the GCC countries. Consequently, as it could be stated that operating in Malaysia or the GCC countries, board independence and board size had no significant effects on performance variables. Nevertheless, the Mann- Whitney U tests were shown that there were significant effects on Tobin`s Q and ROE whether the banks operate in Malaysia or the GCC countries. According to the results, for these two variables, Malaysian banks were performed better than the other group banks for the selected period. Consequently, although the results are mixed, this study contributes to the Islamic banks and corporate governance literature and pave the way for new studies.

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