

The Relationship between Corporate Governance and Bank's Performance: Evidence from Arabian Countries

Khaled Lafy AL-Naif

Associate Prof.

Business & Finance Faculty, the World Islamic Sciences & Education University,
(W.I.S.E) Jordan.
kalneif@yahoo.com

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Abstract. This paper will examine the relationship between one of the most important corporate governance mechanisms (board size), and two bank's financial performance measures (return on asset ROA and return on equity ROE).

The study employs pooled data, and OLS estimation method to examine empirically the relationship between board size and Arabian bank's performance for 55 banks across seven Arabian countries namely; Jordan, Kuwait, United Arab Emirates, Saudi Arabia, Lebanon, Egypt and Oman, for the period 2008 - 2012.

The results of this study provide an evidence of a positive significant relationship between board size and both proxies of bank's financial performance (ROA and ROE).

As per the results of this study, board size is becoming a significant variable in determining the performance of Arabian banks. Therefore, it is better for the shareholders and regulators to give special attention when determining board size since they benefit from having more members in the board. This result suggests that further research should be done regarding other corporate governance mechanisms such as; board composition, chief executive status and foreign ownership.

We also recommend extending the study using non financial measures, and it would be very interesting if both financial and non financial performance measures were used.

1. Introduction

The subprime mortgage crisis, which started with the beginning of the 21th century, has affected the global economy markedly creating challenges for most economies across the world.

According to Organization for Economic Co-operation and Development (OECD) the major cause of this financial crisis is board failures in financial firms [1], so OECD has launched an action plan to improve corporate governance, hence the structure and size of corporate boards have received much attention in recent corporate governance reforms.

Corporate boards play a central role in the corporate governance of companies. The two basic functions of the B.O.D are advising and monitoring. The advisory function involves the providing expert advice to the Chief Executive Officer (CEO). Second function of the B.O.D is to hire the CEO and other top executives and evaluate their performance and to ensure that managers pursue the interest of shareholders [2, 3].

While the past decade have seen extensive research on governance structures of the board composition and performance in nonfinancial firms, B.O.D in banking firms and their effectiveness have received only a limited attention.

Based on pertinent literature and empirical findings in other countries, the motivation of this paper is to contribute to the Corporate Governance literature in Arabian countries by investigating the effect of board size and bank's performance in a sample of 55 Arabian banks from 2008-2012. Since the effect of B.O.D size on performance has not been investigated for Arabian firms especially in banking sector.

1.2 Problem Statement

What is the relationship between board size and Arabian bank's performance?

1.3 Purpose of the Study

This study aims to analyze the level of correlation between one of the most important corporate governance mechanisms (board size) and two bank's financial performance measure (ROA and ROE) in the Arabian bank's by using appropriate statistical tools.

It also aims to provide a body of knowledge that would be beneficial for the investors, regulators, shareholders and stakeholders.

The remainder of this paper is organized as follows: section 2 reviews the literature, previous studies and hypotheses development. Section 3 describes methodology employed to test the main idea behind the model and data. Section 4 presents result and discussion. Section 5 provides a conclusions. Finally section 6 provide limitation and recommendations.

2. Literature Review, Previous Studies And Hypotheses Development

The previous academic literature on board size and performance stems from agency theory by Berle and Means (1932) [4]. Fama (1980) on agency theory argued that B.O.D is the key to monitor, supervise and coordinate with managers, and that board's size and structure are central to keep a check on managers' activity [5].

The theoretical governance literature argues that boards fulfill their duties of advising and monitoring management by choosing board composition and size appropriately. The governance literature also argues that firms choose board size to balance advisory needs with the costs of decision-making in large groups [6].

Corporate Governance Codes recommend boards not to be too big and an ideal size of board is between 5 to 16 depending on the size and diversification of the organization [7]. On the other hand, Brown and Caylor (2004) suggest that a board size between 6 to 15 members is ideal to enhance the firm performance [8].

While Adams and Mehran (2003) and Hayes and Schaefer (2005) document a board size of roughly 12 in their sample of manufacturing firms [9, 11].

Hayes, and Schaefer (2005) and Adams (2009) argues that Banks however have a larger board size than non-financial firms due to several important factors such as it is tightly regulated [10,11].

By reviewing the literature we found that there are various arguments regarding the relationship between board size and performance which are:

i) Several management scientists and sociologists such as; Kiel and Nicholson (2003), Adam and Mehran (2005) and Dalton (2005), [12,13,14] etc. argues that large board size increases the diversity in terms of experience, skills, gender, style of management and nationality. This improves overall planning, diversified views, more of expert opinions and advice, and more skilled managers which results in superior performance.

From this perspective, firms with larger B.O.D would have a higher performance. In another words there were positive association between board size and firm's performance.

This view on positive association between board size and firm's performance is confirmed by several empirical studies such as; Kiel and Nicholson (2003); Adams and Mehran (2005); Belkhir (2009) and Sheikh et al.(2012). [12, 13, 15, 5].

ii) Lipton and Lorch (1992) argued that small board size increases firm's performance and thus the value. Their argument was based on the notion that few board members can conveniently communicate, coordinate and collaborate and the decision-making process is smoother in small size boards [16].

Based on this theoretical arguments there were negative relationship between board size and firm performance, i.e firms with fewer board members have superior performance compared to companies with crowded boards.

This argument was supported by several empirical studies such as; Loderer and Peyer (2002); Lasfer (2004); Evans and Nagarajan (2008) [17, 18, 19]

iii) few studies reported no significant correlation between board size and a firm's performance such as: Aggarwal et al. (2007) US firms and Topak (2011) [20, 21].

iv) Mak and Li (2001) found that the sign and significance of the relationship between board size and performance is sensitive to the estimation method [22].

Because of mixed results of prior studies, therefore Prior evidence is unclear on board size effects on firm performance.

2.1 Board Size & Firm's Performance in Banking Industry

Most studies on board size and performance were applied on manufacturing firms. Among the minority which are conducted on banking industry are:

1- Belkhir (2009) study on U.S. banks by taking sample data (set of 174 banking, holding, saving and loans companies with book value of over \$ 1 billion. By using a panel data set of nearly 1,150 bank-years, over the period 1995-2002, the study revealed a positive relation between board size and measures of performance [15].

2- Adams and Mehran (2005) studied the relation between board size and firm performance by a sample of 35 publicly traded US bank holding companies during 1959-1999. They concluded that board size does not have a negative effect on performance [13].

3- Tanna, Pasiouras and Nnadi (2008) underscore the positive relation between board size and performance for English banks [23].

2.2 Hypotheses:

From the above discussion, and in order to know the relationship between the board size and Arabian bank's performance (ABP), we see our preliminary hypotheses as follows:

H₀: there is no significant relationship between the board size and (ABP).

H1 there is a significant relationship between the board size and (ABP).
 The null hypothesis will be rejected if the board size shows a statistically significant impact on (ABP).
 This is denoted statistically as follow

$$H_0: r = 0 \quad (1)$$

$$H_1: r \neq 0 \quad (2)$$

Where *r*: is level of correlation between the two variables.
 The null hypothesis is $H_0: r = 0$, we will accept our hypothesis with 95 % confidence level
 The Alternative hypothesis $H_1: r > 0$ or $H_1: r < 0$.

3. Methodology

3.1. Data and Sample

The data used for this study were derived from the annual reports and web sites of Arabian banks between 2008 and 2012. The sample of the banks consists of a random sample of 55 Arabian banks selected from all commercial bank listed banks at seven Arabian Stock Exchange for the period of 2008-2012

Table 1 shows the distribution of the sample across countries:

Table 1. Sample distributions

country	Jordan	KSA	Kuwait	Oman	Lebanon	Egypt	UAE	Tunisia
#of bank	14	9	8	4	7	5	3	5

3.2. Variables

Under theoretical and empirical considerations, we choose the variables as follow:

3.2.1. Dependent Variable: Bank's financial performance:

This study employed the two most frequently used proxies of firm financial performance at academic research: Return on assets ROA, and Return on Equity ROE:

Return on Assets (ROA):

Return on assets is both a measure of profitability and asset utilization and has been used in a number of recent studies [24]. Return on assets (ROA) is calculated as profit after tax divided by total assets.

Return on Equity (ROE):

Return on Equity is calculated as profit after tax divided by total shareholders' equity of a firm.

ROA and ROE are better indicators of corporate performance because they include the balance sheet [25].

3.2.2. Independent Variable: Board Size:

In line with the several previous studies such as Yasser et al.,(2011) [7] board size is the total number of members of the board of directors.

3.3.The Model

The linear model used in this study is given below:

$$\text{BNK Perf} = \alpha + \beta 1\text{BZit} + \varepsilon_{it} \quad (3)$$

Because the study employs ROA and ROE as proxies of banks' performance we used the following linear models:

$$\text{Model 1: ROA} = \alpha + \beta 1\text{BZit} + \varepsilon_{it} \quad (4)$$

$$\text{Model 2: ROE} = \alpha + \beta 1\text{BZit} + \varepsilon_{it} \quad (5)$$

Where:

BNK Perf : is banks' performance.

ROA: Return on assets :the bank_i net profit for year_t divided by its total assets.

ROE: Return on equity the bank_i net profit for year_t divided by its total shareholders' equity.

α : is the intercept .

BZ: is the total number of the members of board of directors of bank_i.

The models that are employed in the study are tested using pooled sample. The pooled data is the data that contains pooling of time series and cross-sectional observations (combination of time series and cross-section data) [26].

Statistical methods such as correlation and significance tests were also utilized to test the effect of board size on financial performance measure i.e return on equity and return on asset.

4.Result and Discussion

4.1.Descriptive Statistics

Table. 2 provides descriptive statistics for the principal variables used in this study, for the period 2008-2012.

Board size (BSZ) of our sample ranges from 5 to 15 members with a mean of 9.76 members and a median of 10 members.

This is consistent with the Pakistani firms which have a mean of 9 members [7]. But it is very high when compared to Finnish firms which have a mean and a median of 3.7, 3 respectively. And it is below U.S firms average board size which is 12, 11 as documented by Vafeas (1999) and Yermack and Shivdasani (1999) respectively [27, 28].

Table 2 also indicates that the mean ROA and ROE for our sample firms during 2008-2012 is 1.35 and 9.32% respectively.

Table 2. Descriptive statistics.

	BSZ	ROA	ROE
Mean	9.756458	1.353229	9.316192
Median	10.00000	0.960000	9.820000
Maximum	15.00000	18.30000	36.31000
Minimum	5.000000	-2.210000	-59.33000
Std. Dev.	1.811411	2.486648	8.448626
Skewness	0.073165	4.630515	-1.855579
Kurtosis	3.432083	27.43715	18.45166

Jarque-Bera	2.349884	7711.540	2851.445
Probability	0.308837	0.000000	0.000000
Sum	2644.000	366.7250	2524.688
Sum Sq. Dev.	885.9262	1669.522	19272.40
Observations	271	271	271
Cross sections	55	55	55

4.2. Empirical Results

In this Section, we investigate and test the relation between board size (BSZ) and bank performance as measured by ROA and ROE using OLS regressions.

4.2.1. Correlation Results

Tables. 3 and table 4 present the correlation among the variables. From Table 3, and 4 using the Pearson correlation, bank's board size is positively and significantly correlated with both of ROA and ROE where the coefficients 0.097 for ROA and 0.282 for ROE and is (sig 0.047, 0.00) respectively. So, At 95 % level of confidence, the null hypothesis is rejected.

H₀: there is no significant relationship between the board size and (ABP).

Table 3. Correlations (Pearson):ROA as a firm performance proxy.

	ROA	BSZ
ROA	1	0.097 (0.047)**
BSZ	0.097 (0.047)**	1

Table 4. Correlations (Pearson) - ROE as a firm performance proxy.

	ROE	BSZ
ROE	1	0.282* (0.00)
BSZ	0.282* (0.00)	1

This result means if the board size increase the performance of the bank will increase. This correlation result is consistence with the agency perspective, which argued that a larger board is more likely to be watchful for agency problems because a greater number of qualified people will add their expertise in reviewing management actions and can affect the performance of the firm [12].

4.2.2. Regression Analysis

Table 5 presents OLS regression estimates of the relation between board size and ROA and ROE, during the period 2008-2012.

4.2.2.1. Board size and ROA (Model 1)

Table 5 present the results of the overall sample (271 observations), the coefficient of board size is

positive (3.407635) and significant with a T value: 2.574541 .

It is evident that board size explains firm performance measured by (ROA) at a statistically significant level, as indicated by the T-statistic (5% level of significance). This result means that 1 % increase in board size will result 3.4 % increase in ROA.

Tables 5. Regression results for Board Size and ROA (Model 1)

Dependent Variable	ROA	Coefficient	Std. Error	t-Statistic	Prob.
IN Dependent Variable	BSZ	3.407635	1.323590	2.574541*	0.010
R-squared	0.04445				
Adjusted R-squared	0.04445				
Durbin-Watson stat	1.367636				
Method:	Pooled Least Squares				
Total pool (unbalanced) observations:			271		

*sig<.05

The adjusted R² is 0.044, which means that our model is explaining 4.4% of the variation of firm's performance (ROA).

This result consistent with the correlation result. So, the null hypothesis is rejected.

4.2.2.2. Board size and ROE (Model 2):

Table 6 present the results of examining the effect of board size on ROE as proxy of bank's performance.

Tables 6. Regression results for Board Size and ROA (Model 2)

Dependent Variable	ROE	Coefficient	Std. Error	t-Statistic	Prob.
In Dependent Variable	BSZ	0.965640	0.049865	19.36522	0.0000
R-squared	0.070538				
Adjusted R-squared	0.070538				
Durbin-Watson stat	0.7913				
Method:	Pooled Least Squares				
Total pool (unbalanced) observations:			263		

From the regression results for the overall sample (263 observations), and according to t test results, it is observed that, board size is significant in explaining ROE (P value: 0,00 < 0,05). The coefficient of the variable is 0.965640 which means 1% increase in board size increases ROE approximately 0.96%. It is evident that board size explains firm performance measured by (ROE) at a statistically significant level.

The adjusted R² is 0.07, which means that board size is explaining 7% of the variation of firm's performance (ROE).

This result supports the argument that large board size increases the diversity in terms of experience, skills, gender, style of management and nationality. which improves overall planning, diversified

views, more of expert opinions and advice, and more skilled managers which results in a superior performance [12, 13].

Thus, this result is also in agreement with previous empirical studies such as Belkhir (2009) on U.S. banks; Kiel and Nicholson (2003); and Adams and Mehran (2005). And is contradict with Tanna, Pasiouras and Nnadi(2008), English banks [15, 12, 13,23]

5. Conclusion

This paper adds to the governance literature in Arabian environment by examining the relationship between one of the most important corporate governance mechanisms (board size), and bank's financial performance using two proxies, (return on equity, ROE and return on asset ROA).

The study employs pooled data, and OLS estimation method to examine empirically the relationship between board size and Arabian banks' performance for 55 banks across seven Arabian countries namely; Jordan, Kuwait, United Arab Emirates, Saudi Arabia, Lebanon, Egypt and Oman, for the period 2008 - 2012.

The results indicates that board size have significant positive impact on financial performance (ROA and ROE) of Arabian banks. we concluded that the change in number of directors does have significant contribution on financial performance of Arabian banks.

There are several interpretations of this result:

- the strategic decision making capabilities increases as board size increase.
- a larger board is more likely to be watchful for agency problems because a greater number of qualified people will add their expertise in reviewing management actions [12].
- banking industry is considered large, more diversified, and consequently have the need to deal with relatively more sectors of the environment, so it require more advice from their boards and thus have larger boards [29, 30]
- large board size increases the diversity in terms of experience, skills, gender, style of management and nationality wich improves overall planning, diversified views, more of expert opinions and advice, and more skilled managers which results in superior performance [12,13, 14].
- The result could be influenced by many factors other than the governance of a company such as impact of financial crises in other countries.

In general we conclude that board size, do have significant impact on financial performance (ROA and ROE) of Arabian banks. Therefore, it is better for the shareholders and regulators to give special attention when determining board size since they benefit from having more members in the board.

6. Limitation and Recommendations

Since this study focuses only on one of corporate governance mechanisms (board size), because of the unavailability of data of other mechanisms such as: board composition, chief executive status and foreign ownership), we would suggest that further research should be done regarding other corporate governance mechanisms.

We also recommend extending the study using non financial measures, and it would be very interesting if both financial and non financial performance measures were used.

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References

[1] G. Kirkpatrick, The Corporate Governance Lessons from the Financial Crisis, Financial Market Trends, OECD 2009/1. available at:

<http://www.oecd.org/daf/ca/corporategovernanceprinciples/42229620.pdf>.2009.

- [2] C. G. Raheja, Determinants of Board Size and Composition: A Theory of Corporate Boards, *Journal of Financial and Quantitative Analysis*, vol. 40, pp. 283-306, 2005.
- [3] E. F. Fama, and M. Jensen,. Agency problems and residual claims, *Journal of Law & Economics*. vol. 26, pp. 327-349.1983.
- [4] A. A. Berle, and G. C. Means, *The Modern Corporation and Private Property*. Commerce Clearing House, New York. 1932.
- [5] J. Sheikh, M. Khan, W. Iqbal, and W., Ahmed, Examination of Theoretical and Empirical Studies on Firm's Performance in Relation to its' Board Size: A Study of Small and Medium Size Public Firms, *Journal of Management Research*, vol. 4(2). 2012.
- [6] A. Renée and H. Mehran, Bank Board Structure and Performance: Evidence for Large Bank Holding Companies, *Journal of Financial Intermediation*, vol. 21, pp. 243-267, 2012.
- [7] Q. R Yasser, E. Harry and Shazali Abu Mansor, Corporate governance and firm performance in Pakistan: The case of Karachi Stock Exchange (KSE)-30, *Journal of Economics and International Finance*, vol. 3(8), pp. 482-491, August 2011.
- [8] L. D Brown, J. Robinson and M. Caylor, Corporate governance and firm performance. [http://www.issproxy.com/pdf/corporate governance.2004](http://www.issproxy.com/pdf/corporate%20governance.2004)
- [9] R. Adams, and H. Mehran, Is Corporate Governance Different for Bank Holding Companies? *Economic Policy Review* , vol. 9, pp. 123-142, .2003.
- [10] R. Hayes, H. Mehran, and S. Schaefer, Board Committee Structures, Ownership and Firm Performance. *Working Paper*, Federal Reserve Bank of New York.2005.
- [11] R. B. Adams, Governance and the Financial Crisis, *ECGI Finance Working Paper* No. 248, 2009.
- [12] G. Kiel, and G. Nicholson, g, Board Composition and Corporate Performance: How the Australian Experience Informs Contrasting Theories of Corporate Governance. *Corporate Governance: An International Review*, vol. 11(3), pp. 189-205, 2006. Accessed from <http://eprints.qut.edu.au> 2006
- [13] R. B. Adams, and H., Mehran, Corporate Performance, Board Structure and its Determinants in the Banking Industry", *Working Paper*, EFA, Moscow Meetings. 2005.
- [14] D. Dalton, and C. R. Dalton, Boards of directors: Utilizing empirical evidence in developing practical prescriptions, *British Journal of Management*, vol. 16, S91-S97,2005.
- [15] M. Belkhir, Board of Directors' Size and Performance in the Banking Industry. *International Journal of Managerial Finance*, vol. 5 (2), pp. 201-221, 2009.
- [16] M. Lipton, and J.W., Lorsch, A Modest Proposal for Improved Corporate Governance, *Business Lawyer*,vol. 48, pp. 59-77, 1992.
- [17] C. Loderer, and U., Peyer, Board Overlap, Seat Accumulation and Share Prices, *European Financial Management*,vol. 8(2), pp.165-92, 2002.
- [18] M. Lasfer, On the Monitoring Role of The Board of Directors: The Case of The Adoption of Cadbury Recommendations in the UK, *Advances in Financial Economics*, vol. 9, pp. 287-326, 2004.
- [19] C. Evans, and N. J., Nagarajan, Board Size and Firm Performance: The Moderating Effects of the Market for Corporate Control, *Review of Quantitative Finance and Accounting* vol.31, pp. 121-145, 2008.

- [20] R. Aggarwal, E. Isil, S. Rene and W. Rohan, Do U.S. Firms Have the Best Corporate Governance? A Cross-Country Examination of the Relation between Corporate Governance and Shareholder wealth, *NBER Working Paper*. 12819, 2007.
- [21] M. Topak, The Effect of Board Size on Firm Performance: Evidence from Turkey, *Middle Eastern Finance and Economics*, *EuroJournals Publishing*, 14. <http://www.eurojournals.com/MEFE.htm>, 2011.
- [22] Y.T., Mak, and Y.Li, Determinants of Corporate Ownership and Board Structure: Evidence from Singapore. *Journal of Corporate Finance*, vol.7, pp. 235-256, 2001.
[http://dx.doi.org/10.1016/S0929-1199\(01\)00021-9](http://dx.doi.org/10.1016/S0929-1199(01)00021-9)
- [23] S. Tanna, F. Pasiouras and M., Nnadi, The Effect of Board Size and Composition on The Efficiency of UK Banks, *Economics, Finance and Accounting Applied Research Working Paper*, Coventry University. 2008.
- [24] Erhardt, et al. Board of directors diversity and firm financial performance, *corporate governance: An international review*, vol.11(2), pp. 102-111 2003.
- [25] J.M. Stern, J.S., Shiely and I., Ross, The EVA Challenge: Implementing Value-Added Change in an Organization, USA, *John Wiley & Sons*, 2004.
- [26] D. Gujarati, *Basic Econometrics*, McGraw-Hill, New York. 2003.
- [27] N. Vafeas, Board meeting frequency and firm performance, *Journal of Financial Economics*, vol.53, pp. 113-142, 1999.
- [28] D. Yermack, and A. Shivdasani, CEO Involvement in the Selection of New Board Members: An Empirical Analysis, New York University, Center for Law and Business, *Working Paper* No. 98-015. Available at SSRN: <http://ssrn.com/abstract=169528> or <http://dx.doi.org/10.2139/ssrn.169528>, 1999.
- [29] A. L. Boone, L. C. Field, J. M. Karpoff, and C. G. Raheja, The determinants of corporate board size and composition: An empirical analysis, *Journal of Financial Economics*, vol. 85, pp. 65-101, 2007.
- [30] K. Lehn, P. Sukesh, and M. Zhao, Determinants of the size and structure of corporate boards: 1935-2000, *Working Paper*, Katz Graduate School of Business, 2004.