"Corporate governance and firm performance in the Saudi banking industry"

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CORPORATE GOVERNANCE AND FIRM PERFORMANCE IN THE SAUDI BANKING INDUSTRY

Abstract

The current research aims to explore the impact of corporate governance on the Saudi banking performance for the period of 2014–2017. Though many researchers tested the relationship of corporate governance and firm performance, globally as well as in Saudi Arabia, however, during the literature review, it was found that many excluded the banking industry. This study tries to fill the gap by looking exclusively at the Saudi banking industry. Firm performance is measured through return on assets, return on equity, and Tobin's Q as the dependent variables. The corporate governance practices are measured through the board characteristics (size, meeting, number of committees, independence, foreign board membership), and an audit committee (size, meeting, independence) as the independent variables. Firm size and firm age are the controls. Panel data analysis was implemented, using both descriptive and multivariate analysis through multiple regression to investigate the governance practices and firm performance. The empirical findings demonstrate that board size, audit committee meeting and bank size have a positive impact on ROE, whereas board independence has a negative impact on ROE. Similarly, board size and bank size have a positive relationship with ROA and board meeting has a negative relationship with ROA. Further, board (size and independence) and bank size have a positive relationship with Tobin's Q, whereas number of board committees and bank age have a negative relationship with Tobin's Q. Finally, audit committee (size and independence) and foreign board membership have no impact on the bank performance.

Keywords	corporate governance, board of directors, board committees, foreign board membership, banking industry, firm performance
JEL Classification	G21, G34, L25, O16

INTRODUCTION

The concept of corporate governance arose from the belief that the separation of ownership and management within a corporation might create substantial misuse of managerial discretion (including the possibility of abuse or conflict of interest) (Tirole, 2006). The term "corporate governance" was first coined in 1960 (Mason, 1960), derived from an analogy between the governance of cities, nations, or states and the governance of corporations (Becht et al., 2002). Corporate governance is "the system by which companies are directed and controlled" (Cadbury, 1992). Many existing studies mention that good corporate governance practice: strengthens the board, helps in effective board monitoring, improves firm profitability and performance, and achieves better economic efficiency and growth (Al-Baidhani, 2015; OECD, 2004; Sarkar & Sarkar, 2018).

The practice of poor governance has been evident in past serious American and global corporate failures such as Enron, Tyco, Health South, AIG, Bear Stearns, Countrywide Financials, Fannie Mae, Freddie Mac, General Motors, Lehman Brothers, MF Global, World Com, Olympus, Parmalat, Petrobras, Royal Bank of Scotland, Royal

Dutch Shell, Satyam, and Siemens (to name a few). These all became critical concerns in the legal system and for regulators. In addition, they became issues in the media and for academic and corporate researchers investigating the failure of governance mechanisms and looking to define corporate governance systems, frameworks and mechanisms (Larcker & Tayan, 2016). Since then, many codes, standards, and regulations have been formulated to define corporate governance mechanisms. If a corporation is well managed and governed transparently, obviously, all its stakeholders and investors will benefit, which is the objective of good corporate governance practice. At the same time, if companies are well managed and properly governed in line with international and domestic corporate governance standards, companies, industries, and the economy as a whole, will prosper. Ultimately, good governance practice is a key driver and the life-blood of economic growth (Quibria, 2006).

Corporate governance in Saudi Arabia can be linked to the issue of a company law back in 1965. However, the recent Saudi Corporate Governance Code was issued by the Capital Market Authority (CMA), the Saudi regulator of capital markets, in December 2006 through Resolution No. 1/212/2006 (CMA, 2006). Although the practice was voluntary until 2010, at that point, it became mandated that all listed Saudi companies followed the corporate governance guidelines (Buallay et al., 2017). However, this is still an introductory stage for these companies and there is a long way to go in the Saudi Arabia corporate governance and disclosure practices. Good corporate governance in banking requires safe and sound operations and compliance with applicable laws, regulations and guidelines (SAMA and CMA in the Saudi banking system) while protecting the interests of depositors (Fidanoski et al., 2013; Wilson, 2006). Many studies have examined the impact of corporate governance on firm performance, including bank performance, globally as well as in the Gulf Cooperation Council (GCC) scenario (Abidin et al., 2009; Adusei, 2011; Al-Ghamdi & Rhodes; 2015; Baullay et al., 2017; Naushad & Malik, 2015; Othman, 2014; Shleifer & Vishny, 1997).

The aim of this study is to measure the impact of corporate governance practice on the banking industry performance in Saudi Arabia examining the most recent data and adding variables to the existing ones in the literature using panel data analysis (Al-Sahafi et al., 2015; Baullay et al., 2017). Although many researchers have conducted studies internationally, even in the Gulf and in Saudi Arabia, to test the impact of corporate governance on the stock market, on industry and on the economy, the current study found that most excluded the banking industry (Ghabayen, 2012; Al-Matari et al., 2012). This study fills this research gap by looking exclusively at the Saudi banking industry. The study also scales down the measurement of the impact of corporate governance on Saudi banking during 2014–2017.

Therefore, this research aims to investigate the impact of corporate governance practice on the return on assets (ROA), return on equity (ROE) and Tobin's Q of Saudi banking industry.

1. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Dalwai et al. (2015) reviewed various studies related to corporate governance and firm performance globally and offered some suggestions for the GCC banking sector, both the conventional sector as well as the Islamic one.

Naushad and Malik (2015) examined the impact of corporate governance practice on the performance in the GCC banking sector by looking at 24 banks during 2012–2013, and found smaller boards were more efficient in monitoring the banks; board duality improved the firm performance; and the presence of block holders in the GCC banking sector improved the performance. ROA and Tobin's Q are the dependent variables; board (size, duality), block ownership, and ownership structure are considered as independent variables. However, their results contrast with general corporate governance principles.

Othman (2014), in his doctoral thesis, made an analysis of the impact of corporate governance on the performance of 80 companies in Dubai finan-

cial market for the period of 2010–2011. The result shows that following good corporate governance practices improves the firm performance.

Danoshana and Ravivathani (2013) investigated the effect of governance practices on the performance of 25 Sri Lankan financial institutions taking a data period of 2008–2012. They concluded that corporate governance practices have an impact on the performance of the financial institutions. Their dependent variables were ROA and ROE and independent variables were a board (size, meeting frequency) and an audit committee.

Al-Sager and Samontaray (2018) explained the corporate governance concepts and the importance of ownership structure and board of directors (size, composition and committees). Their study examined the corporate governance awareness (gender wise) of Saudi investors and its impact on their investment decision-making.

Like the current study, a study was done by Al-Sahafi et al. (2015), in which data was taken from 2009 to 2012. In contrast, our data period is more recent, i.e. from 2014 to 2017. Their study used size and independence of the board, CEO status, the audit committee, and ownership concentration as the independent variables, and ROA, ROE, and Tobin's Q as the dependent ones. Their study showed a mixed result of size (board and bank) and independence of the board and its positive significant impact on the financial performance. At the same time, the concentration of ownership and leverage ratio had a negative significant impact on the financial performance, and the CEO status, an audit committee (size and independence) had no impact on the bank performance.

Ghabayen (2012) tested the relationship between board characteristics and the non-financial company performance of 102 Saudi firms in 2011. The independent variables were the size and composition of an audit committee (AC) and the board of directors; ROA was the dependent variable. The analysis found the board size, AC size and AC composition had no impact on the firm performance; whereas, board composition had a negative significant impact on the firm performance.

Al-Matari et al. (2012) found that the audit committee size had a significant impact (negative) on the performance, while the other corporate governance variables (audit committee independence and meeting, board size, CEO duality, proportion of independence) have no significant impact on the performance of Saudi listed companies for 2010. Tobin's Q was the only dependent variable considered, while the size of the firm and the leverage were two control variables.

Buallay et al. (2017) used corporate governance practices as the independent variable, the firm performance (ROA, ROE, Tobin's Q) as the dependent variable and five control variables: firm size, firm age, auditing quality, board size, and an industry dummy, to find the impact of governance practice on the performance. They collected data from year 2012 to 2014 for 171 Saudi listed companies. They found no significant impact for corporate governance adoption, the largest shareholder's ownership and the independence of the board on firm performance, whereas a significant impact of ownership structure and board size on the firm performance was found.

Al-Moataz and Hussainey (2013) analyzed 52 Saudi companies for the years 2006–2007. Dependent variable was corporate governance disclosure score (zero for non-compliance and nine for full compliance); firm profitability (ROA), firm liquidity (current ratio), firm debt ratio, firm size (total assets), board independence, and audit committee size were independent variables. The findings showed an association between firm size and corporate governance disclosure (statistically non-significant). The study found that board independence was negatively significant; audit committee size and firm profitability (ROA) and firm liquidity were positively significant, whereas firm size was not positively significant for corporate governance.

Al-Ghamdi and Rhodes (2015) studied family ownership, governance practice and firm performance in Saudi Arabia for the period of 2006–2013 for 11 industrial groups, excluding banks and financial services. Their independent variables were ownership concentration, managerial ownership, asset turnover, expense ratio, CEO family (dummy), size of the board, CEO duality

(dummy), debt to assets, debt to equity, size and family-firm (dummy); dependent variables taken were ROA and Tobin's Q. The study concluded that ownership concentration for family owned firms had no impact on ROA; whereas, there was an impact on Tobin's Q. Performance and managerial relationship for family owned firms had an impact on ROA and Tobin's Q. This was reversed for non-family companies.

Al-Janadi et al. (2013) found that corporate governance mechanisms had a significant impact on voluntary disclosure practices of 87 companies listed on the Saudi Stock Exchange in 2006–2007. They used seven variables as independent ones and five control variables (i.e., firm size, profitability, financial sector, industrial sector, and service sector) for the study; the dependent variable was the voluntary disclosure practice (zero for non-disclosure, one for partial disclosure, and two for full disclosure).

El Mehdi (2007) examined the board, ownership structure, and performance in the financial market using panel data analysis (2000–2005) of 24 firms listed on the Tunisia Stock Exchange. He took 10 independent variables, an industry dummy, and a year dummy; a dependent variable taken was Tobin's Q. He found a weak governance system in Tunisia and a relationship between governance and firm performance.

The existing studies reviewed here are similar in nature, in the GCC and Saudi perspective. In contrast, we examine Saudi Arabia banking industry specifically and for the recent 4-year period. Foreign board membership is introduced along with seven other independent variables (see Table 2). In addition, firm age and firm size are included as the control variables. It is believed that this study serves as a road map for regulators and practitioners.

Table 1. Summary of the literature review

No.	Study	Sample/Data	Variables	Significant impact on the dependent variable
1	Naushad and Malik (2015)	GCC banking sector, 24 (2012–2013)	Dependent: ROA, Tobin's Q Independent: Board size (BS), Duality (dummy), Block ownership (5% or more held by single holder is taken as a block), Ownership structure through agency cost	Smaller boards are more efficient in monitoring the GCC banks; board duality improves the GCC bank performance; presence of block holders in GCC banking sector improves performance
2	Othman (2014)	80 listed companies of UAE (2010–2011)	Dependent: ROA, ROE, Tobin's Q Independent: BS, Leadership structure, Composition and Audit Committee independence (PAC), Control: Firm size and leverage	Corporate governance (CG) is important for all stakeholders, and CG based on the stakeholder view is appropriate for the UAE
3	Danoshana and Ravivathani (2013)	25 financial institutions (2008–2012)	Dependent: ROA and ROE Independent: BS, Foreign board membership (FB), and Audit Committee (AC)	The CG variables have a significant impact on firm performance
4	Al-Sager and Samontaray (2018)	Primary data analysis through questionnaire	CG concepts and the importance of ownership structure, BS, Board composition (BC), different BCs, Executive committee, AC, Nominating committee, and Compensation committee	Gender-wise Saudi investor awareness of CG concepts and its importance in their decision-making process; they were used in the variable selection process
5	Al-Sahafi, Rodrigs, and Barnes (2015)	11 Saudi banks (2009, 2012) of the Saudi Stock Exchange	Dependent: ROA, ROE, Tobin's Q Independent: BS, Board independence, CEO status, AC, Ownership concentration	On bank financial performance: Board independence and BS: positive; Ownership concentration and leverage ratio: negative; CEO status, AC size and AC independence: no impact
6	Ghabayen (2012)	102 Saudi non-financial companies performance (2011)	Dependent: ROA Independent: AC size, AC composition, BS, BC	AC size, AC composition and BS: no impact on ROA; Board composition: negative impact on ROA
7	Al-Matari, Al-Swidi, Fadzil, and Al-Matari (2012)	135 Saudi non-financial companies (2010)	Dependent: Tobin's Q Independent: BC, CEO duality, BS, AC independence, AC meeting, AC size Control: Firm size and Leverage	BC, CEO duality, BS, AC independence, AC meeting: no impact on Tobin's Q; AC size: negative impact on Tobin's Q
8	Buallay, Hamdan, and Zureigat (2017)	171 listed companies data from Saudi Stock Exchange (2012–2014)	Dependent: ROA, ROE, Tobin's Q Independent: The CG principles Control: Firm size, Firm age, Auditing quality, BS and Industrial dummy	Firm performance: CG adoption: no impact; Ownership of the largest shareholder and independence of the board: no impact; Ownership structure: negative impact; BS: positive impact

Table 1 (cont.). Summary of the literature review

No.	Study	Sample/Data	Variables	Significant impact on the dependent variable
9	Al-Ghamdi and Rhodes (2015)	11 Saudi industrial groups (2006–2013)	Dependent: ROA, Tobin's Q Independent: Ownership concentration, Managerial ownership, Asset turnover, Expenses ratio, CEO family (dummy), BS, CEO/Chair Non-Duality (dummy), LTD to Total assets (TA), Debt equity (DE) ratio, Firm size, Family firm (dummy)	Ownership concentration for family ownership firms: mixed (ROA: no impact; Tobin's Q: positive); Performance and managerial relationship for family ownership firms had a significant linkage with ROA and Tobin's Q; Reversed for non-family companies
10	Al-Moataz and Hussainey (2013)	52 Saudi companies (2006–2007)	Dependent: CG disclosure score Independent: ROA, Current ratio, DE ratio, LT liabilities, TA, Board independence, AC size	Statistically insignificant relationship between firm size and CG disclosure; Board independence is negatively significant; AC size, ROA and Current ratio are positively significant
11	Al-Janadi, Rahman, and Omar (2013)	87 Saudi listed companies (2006–2007)	Seven independent variables and control variables: firm size, profitability, financial sector, industrial sector, and service sector (in the study); the dependent variable: voluntary disclosure practice (0 for non-disclosure, 1 for partial disclosure, 2 for full disclosure)	Most of the CG mechanisms significantly contribute to the voluntary disclosure practices in Saudi Arabia
12	El Mehdi (2007)	24 companies listed on the Tunisia Stock Exchange (2000–2005)	Dependent: Tobin's Q 10 independent variables, industry dummy and year dummy	Poor governance was found. A strong relationship between governance and firm performance was revealed

1.1. Hypotheses

The following hypotheses are proposed referring to the above literatures (some abbreviations are expanded in Table 2):

H1: *Board size (BS) has an impact on the Saudi banks performance.*

H2: *Board independence (PIND) has an impact on the Saudi banks performance.*

H3: *Board meeting (BM) has an impact on the Saudi banks performance.*

H4: *Number of board committees (NBCom) has an impact on the Saudi banks performance.*

H5: *Size of the audit committee (AC size) has an impact on the Saudi banks performance.*

H6: *Audit committee meetings (AC meeting) have an impact on the Saudi banks performance.*

H7: *Audit committee independence (PAC) has an impact on the Saudi banks performance.*

H8: *Foreign board membership (FB) has an impact on the Saudi banks performance.*

2. METHODOLOGY

The aim of the current research is to investigate specific variables from 2014 to 2017 in the Saudi banking industry. Both descriptive and multivariate analyses were applied through multiple regressions normally used by researchers to test the relationship between corporate governance and firm performance (Farhan et al., 2017; Naushad & Malik, 2015; Al-Sahafi et al., 2015). ROA, ROE and Tobin's Q are used to measure the firm performance. The independent variables are board characteristics (size, independence, meetings, number of board committees and foreign board membership) and audit committee characteristics (size, meetings and independence). The firm size and firm age are taken as controls (see Table 2).

Table 2. Variable definitions and measures

Definition	Measurement
Dependent variables	
ROA (Return on Assets)	Net Income/Total Assets
ROE (Return on Equity)	Net Income/Shareholders' Equity
Tobin's Q	(Market Value of Equities + Book Value of Liabilities)/(Book Value of Assets + Book Value of Liabilities)

Table 2 (cont.). Variable definitions and measures

Definition	Measurement
Independent variables	
BS (Board size)	Number of directors on the board
BM (Board meeting)	Number of board meetings conducted during the year
NBCom (Number of BCs)	Number of board committees available
AC size (Audit committee size)	Number of directors in the audit committee
AC meeting	Number of an audit committee meetings during the year
PIND (Board independence)	Percentage of independent directors on the board
PAC (Audit committee independence)	Percentage of independent directors in the audit committee
FB	Number of foreign directors (nationalities) on the board
Control variables	
Firm age	Number of years since inception
LNTA (Firm size)	Natural logarithm of total assets
Saudi banking industry	12 listed Saudi banks (2014–2017), December 31 of the respective years; TADAWUL used as the data source

3. EMPIRICAL RESULTS AND DISCUSSION

3.1. Descriptive statistics

The descriptive statistics, as reported in Table 3, depict the average board size among the Saudi banks as 9.81 members, with a minimum size of 9 and a maximum of 11 directors. This is in line with Salomn's (2000) view, who recommended that the size between 8 and 15 directors would be optimal for a large-scale company. Table 3 reveals that there was a wide difference in the percentage of independent directors on the bank boards, with an average of 43.26%, and a range of 22% (minimum) to 64% (maximum). The average yearly board meeting frequency was 5.4. Moreover, the mean value of board committees per Saudi banks is 4.79. Further, there were 4.10 (average) members represented on the audit committee and the mean percentage of independent directors on the audit committee was 89.2% with a minimum proportion of 60% and a maximum of 100%; meeting frequency averaged 5.48 times per year. However, it is noteworthy that the mean of bank age was 45.17 years ranging from 8 (minimum) to 91 (maximum) years. The average ROA was 18.17% during the examined period and the average ROE was 19.14%. Moreover, the average firm performance (Tobin's Q) was 108.837. Finally, the average bank size was 18.833.

3.2. Pearson correlation analysis

A Pearson correlation analysis (Table 4) was conducted to identify potential correlation among the variables. This analysis is crucial to insure the regression results are unbiased and to confirm that variables are not correlated (Field, 2013). Table 4 demonstrates that no variable was highly correlated.

Table 3. Descriptive statistics

Variables	No.	Minimum	Maximum	Mean	Std.	Skewness		Kurtosis	
	Statistics	Statistics	Statistics	Statistics	Statistics	Statistics	Std. error	Statistics	Std. error
BS	48	9	11	9.81	.704	.282	.343	–.907	.674
BM	48	4	10	5.54	1.750	.897	.343	–.336	.674
NBCom	48	4	7	4.79	.683	.706	.343	1.095	.674
AC size	48	3	5	4.10	.928	–.214	.343	–1.847	.674
AC meeting	48	4	10	5.48	1.487	1.054	.343	.739	.674
Firm age	48	8	91	45.17	21.674	.134	.343	–.121	.674
ROA	48	.009	.027	.018	.004	–.317	.343	–.228	.674
ROE	48	.071	.192	.126	.0297	.134	.343	–.763	.674
Tobin's Q	48	42.3	213.2	108.837	37.444	.724	.343	.920	.674
PIND	48	.22	.64	.433	.106	.204	.343	–.251	.674
PAC	48	.60	1.00	.893	.127	–.648	.343	–.809	.674
FB	48	0	4	1.21	1.750	.811	.343	–1.300	.674
LNTA	48	17.63	19.92	18.833	.624	–.073	.343	–.864	.674

Note: Valid number (list wise) – 48.

Table 4. Pearson correlation analysis, N = 48, significance (two-tailed)

	Tobin's Q	ROE	ROA	BS	BM	NBCom	AC Size	AC Meeting	FB	Por. index	PAC	LNTA	Firm age
Tobin's Q	1												
Sig	.												
ROE	0.309*	1											
Sig	0.033	.											
ROA	0.576**	0.726**	1										
Sig	0	0	.										
BS	0.334*	0.289*	0.363*	1									
Sig	0.02	0.046	0.011	.									
BM	0.342*	−0.011	0.014	0.09	1								
Sig	0.017	0.946	0.924	0.542	.								
NBCom	−.294*	−0.095	−0.074	0.091	0.146	1							
Sig	0.043	0.521	0.617	0.54	0.323	.							
AC size	0.16	0.258	0.299*	0.035	0.522*	0.278	1						
Sig	0.279	0.077	0.039	0.813	0	0.055	.						
AC meeting	0.1	0.148	0.01	0.338*	0.402*	0.268	0.048	1					
Sig	0.498	0.315	0.944	0.019	0.005	0.066	0.748	.					
FB	−0.259	0.183	0.001	0.192	−0.550**	−0.165	−0.221	−0.199	1				
Sig	0.075	0.213	0.996	0.192	0	0.262	0.132	0.176	.				
Por. index	0.317*	−0.163	0.189	0.340*	−0.188	−0.019	−0.273	0.187	0.058	1			
Sig	0.028	0.268	0.197	0.018	0.2	0.899	0.061	0.203	0.696	.			
PAC	0.346*	0.064	0.094	0.295*	−0.092	−0.441**	−0.522**	.313*	0.112	0.444**	1		
Sig	0.016	0.668	0.524	0.042	0.536	0.002	0	0.03	0.449	0.002	.		
LNTA	0.330*	0.422**	0.701**	0.133	0.193	0.068	0.419((	0.116	−0.049	0.079	0.055	1	
Sig	0.022	0.003	0	0.368	0.188	0.646	0.003	0.434	0.739	0.592	0.712	.	
Firm age	−0.137	0.248	0.273	0.025	0.052	0.035	0.128	−0.018	−0.014	−0.227	0.03	.578**	1
Sig	0.353	0.089	0.061	0.867	0.723	0.815	0.385	0.902	0.923	0.12	0.838	0	.

Note: * – correlation is significant at the 0.05 level (two-tailed), ** – correlation is significant at the 0.01 level (two-tailed).

3.3. Regression analysis

A multiple regression technique which is used by many researchers was applied to examine the relationship between the corporate governance and firm performance (Al-Matari et al., 2012; Al-Sahafi et al., 2015; Farhan et al., 2017; Naushad & Malik, 2015). As stated by Hutcheson and Sofroniou (1999), when the regression model comprises both continuous and dummy variables, OLS is a suitable statistical technique. Therefore, the ordinary least squares (OLS) regression was used to test the relationship between the corporate governance practice and bank performance.

Table 5 (Panel A) reports the results for corporate performance using ROA as the first dependent variable. It shows that board size was statistically significant with ROA at the 1% level (positive). The current study result is consistent with previous research that indicated that the board size influenced firm performance (see, e.g., Adams & Mehran, 2012; Al-Sahafi et al., 2015; Arslan et al., 2010). This indicates that an increase in size of the board could bring more diversified expertise and know-how which in turn generates the increase in ROA as a result

of better decision making process (Arslan et al., 2010). In contrast, the table also shows that board meetings had a negative association with ROA at the 10% level. This implies that an increase in board meetings reduced bank performance. Our result is in line with previous research that found that board meetings had a negative influence on firm performance (see, e.g., Danoshana & Ravivathani, 2013; Kutum, 2015; Vafeas, 1999). In addition, bank size had a positive relationship with ROA at the 1% significance level.

The result of the model with ROE (Table 6) shows that the size of the board had a positive significant relationship with ROE at 5%. Further, the analysis shows that the frequency of the audit committee meetings had a positive significant relationship with ROE at 5%. Moreover, bank size had a positive relationship with ROE at the 1% level of significance. In contrast, the strategic committee showed a negative association with bank performance at 10% of significance. Further, the proportion of independent directors on the board showed a negative and statistically significant relationship at 10%. This suggests that banks with more independent non-ex-

Table 5. Regression results – Dependent Variable – ROA

Panel A: Coefficients					
Model 1	**Unstandardized coefficients**		**Standardized coefficients**	**t**	**Sig.**
	B	**Std. error**	**Beta**		
Constant	−.094	.016		−5.726	.000
BS	.002	.001	.441	3.738	.001
BM	−.001	.000	−.241	−1.720	.094
NBCom	−.001	.001	−.102	−.891	.379
AC Size	−1.395E–005	.001	−.003	−.018	.986
AC meeting	.000	.000	−.104	−.815	.420
D strategic	−.001	.001	−.071	−.498	.622
FB	.000	.000	−.158	−1.373	.178
Firm age	−3.398E–005	.000	−.190	−1.551	.130
PIND	.002	.005	.047	.368	.715
PAC	−.002	.005	−.068	−.432	.668
LNTA	.005	.001	.846	5.736	.000

Panel B: Model summary					
Model	**R**	**R-squared**	**Adjusted R-squared**	**Std. error of the estimate**	**Durbin-Watson statistics**
1	.823a	.677	.578	.00251823	2.063

Note: (a). Predictors: (Constant), LNTA, FB, PAC, BS, D.strategic, NBCom, Firm age, BM, AC meeting, PIND, AC size. (b). Dependent variable: ROA.

Table 6. Regression results – Dependent variable – ROE

Panel A: Coefficients					
Model	Unstandardized coefficients		Standardized coefficients	t	Sig.
	B	Std. error	Beta		
1 Constant	−.423	.154		−2.747	.009
BS	.014	.006	.331	2.296	.028
BM	−.004	.003	−.248	−1.448	.156
NBCom	−.007	.006	−.154	−1.096	.281
AC Size	.001	.007	.031	.137	.892
AC meeting	.007	.003	.360	2.304	.027
D. strategic	−.022	.012	−.320	−1.843	.074
FB	−.001	.002	−.048	−.339	.737
Firm age	.000	.000	.120	.799	.429
PIND	−.082	.044	−.293	−1.865	.070
PAC	−.026	.045	−.111	−.581	.565
LNTA	.026	.009	.538	2.982	.005

Panel B: Model summary					
Model	R	R-squared	Adjusted R-squared	Std. error of the estimate	Durbin-Watson statistics
1	.719a	.517	.369	.02353595	1.914

Note: (a). Predictors: (Constant), LNTA, FB, PAC, BS, D.strategic , NBCom, Firm age, BM, AC meeting, PIND, ACsize.
(b). Dependent variable: ROE = NI/Shareholders' Equity.

ecutive directors were more likely to have lower performance. One reason may be that those independent directors were appointed based on their relationships with the majority shareholders and, therefore, there was a question as to the degree and extent of their true independence at these Saudi companies (Almoneef, 2014).

Table 7 shows the result of the model with Tobin's Q and that the board size had a positive relationship with Tobin's Q at the 5% level, which is in line with the ROA and ROE models. Moreover, the outcomes show that the proportion of board independence and bank size were significantly positively associated with Tobin's Q at the 5% and 1% levels, respectively. However, the number of board committees, the strategic committee, and firm age were significantly negatively related with Tobin's Q at the 10% and 5% levels, respectively.

From the regression analysis, it was found that board size (*H1*) was statistically significant with ROA at the 1% level. It was also statistically significant with ROE and Tobin's Q (both at the

5% level). Board independence (*H2*) was negatively statistically significant with ROE (at the 10% level), whereas it was positively statistically significant with Tobin's Q at the 5% level; with ROA, it showed no significance. Board meetings (*H3*) were negatively statistically significant with ROA (at the 10% level) and statistically insignificant with ROE and Tobin's Q. The number of board committees (*H4*) was negatively statistically significant with Tobin's Q (at the 10% level), whereas non-significant with ROA and ROE. Audit committee meetings (*H6*) were statistically significant with ROE at the 5% confidence level, and did not have any significant relationship with ROA and Tobin's Q. Bank size (control) was statistically significant with ROA, ROE, and Tobin's Q at the 1% level. Similarly, bank age (control) was negatively significant with Tobin's Q at the 5% level. At the same time, it was observed that audit committee size (*H5*), audit committee independence (*H7*), and foreign board membership (*H8*) were statistically insignificant with ROA, ROE, and Tobin's Q. Therefore, these three hypotheses were rejected.

Table 7. Regression results – Dependent variable – Tobin's Q

Panel A: Coefficients					
Model B	Unstandardized coefficients		Standardized coefficients	t	Sig.
	Std. error	Beta			
Constant	–540.985	168.885		–3.203	.003
BS	17.283	6.669	.325	2.591	.014
BM	2.455	3.189	.115	.770	.446
NBCom	–12.282	6.691	–.224	–1.836	.075
AC Size	–4.106	7.938	–.102	–.517	.608
AC meeting	–1.736	3.416	–.069	–.508	.614
D. strategic	–32.704	12.912	–.382	–2.533	.016
FB	–4.070	2.623	–.190	–1.551	.130
Firm age	–.574	.225	–.332	–2.551	.015
PIND	123.214	48.519	.347	2.539	.016
PAC	18.549	49.343	.063	.376	.709
LNTA	27.664	9.412	.461	2.939	.006

Panel B: Model summary					
Model	R	R-squared	Adjusted R-squared	Std. error of the estimate	Durbin-Watson statistics
1	.797a	.635	.524	25.8405	1.977

Note: (a). Predictors: (Constant), LNTA, FB, PAC, BS, D.strategic, NBCom, Firm age, BM, AC meeting, PIND, ACsize. (b). Dependent variable: Tobin's Q.

CONCLUSION

This study examined the relationship of mechanisms of corporate governance vis-a-vis the board of directors (size, meetings, number of committees, independence and number of foreign members), the audit committee (size, meeting and independence), and the firm performance (ROA, ROE and Tobin's Q) of the banking industry represented by firms listed on the Saudi Stock Exchange (TADAWUL). The motivation for the study is based on the lack of detailed research on the Saudi banking industry's corporate governance practices and its relationship with the firm performance. This study contributes to the literature by furthering the authors understanding of the detailed relationship of the board of directors and the audit committees with firm performance, specifically in the banking industry in Saudi Arabia. As the Saudi stock market is now open for global investment, it is proposed (hypothesis) that there is a relationship between corporate governance practice and firm performance using the banking industry as the sample. The results do not support all the proposed hypotheses; however, most were proven to be significant. This study may help the government, the Saudi Arabian Monetary Agency (SAMA) and the Capital Market Authority (CMA) to authorize more amendments to the corporate governance code as well. Although the Saudi banking industry follows corporate governance codes, a more rigorous approach could help improve their performance. This scope of research can be further extended to the other financial services industries of Saudi Arabia like insurance companies, even to the whole GCC countries banking industry and the financial services sector as well.

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