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The Effect of Internal Corporate Governance of the Firm's Performance and Firm Value in Five GCC Countries

Zahra AL Nasser

Abstract

A critical glance at the literature review of GCC countries, firm performance and firm value shows that the literature does not adequately consider the uniqueness of an institutional setting such as the presence of royal family members and government officials' members on the board. Additionally, noticeable features are not accounted for in the previous literature, such as a large involvement of relatives and the presence of a female on the board of directors. It is important to understand whether these variables matter or not in this region as this then influences the firm's performance and firm value. Thus, this study focuses on the effect of internal CG of the firm's performance and firm value in five GCC countries. The final sample consists of 220 firms (1,096 firm-year observations) for the fiscal year 2009 to 2013. The main finding is that there is a positive significant relationship is seen between expertise factors and firm performance. The expertise factor encompasses royal family members on the board as well as hiring one of the Big 4-auditing firms. This result is in line with a theoretical claim (agency theory), the research question expectation and empirical evidence.

Keywords: royal family, board of directors, corporate governance, firm performance

1. Introduction

There is agreement among scholars with regard to the limitation of CG research or studies in emerging markets. According to Nenova [1], CG in the developing countries is suffering from the effects of a number of issues including transferring the value from minority to controlling shareholders, a poor legal system, the problem of auditing practice and non-transparency disclosure. A critical glance at the literature review of GCC countries, firm performance and firm value shows that the literature does not adequately consider the uniqueness of an institutional setting such as the presence of royal family members and government officials' members on the board. Additionally, noticeable features are not accounted for in the previous literature, such as a large involvement of relatives and the presence of a female on the board of directors. It is important to understand whether these variables matter or not in this region as this then influences the firm's performance and firm value. In addition, this question considers some features of an audit committee and their effect on a firm's performance and firm value. An audit committee is an important committee within the board committee. An audit committee is not just for supporting management by giving advice for

major business decisions but also for monitoring and overseeing the management to protect shareholders' interests and to provide an independent view of corporate executives and their affairs [2]. It has been argued that an audit committee is more beneficial due to its skills and resources, which in turn affects their ability to enhance EQ, firm performance and firm value [3]. With respect to females and relatives, it is interesting to note that the region is considered a collectivistic under Hofstadte's cultural dimensions. Due to the culture and social norms, there is a fear of involving females on the board [4]. However, lately, females further engagement in the economy has grown [5]. In addition, as family ownership prevails in the region, there is a substantial involvement of relatives, which cannot be ignored [4]. Finally, the rationale of using both firm performance and firm value in the paper is that firm performance measurements (ROA and ROE) reflect performance based on historical information. This reflects previous firms' operation, and the efficiency of the firm using equity funds to generate profits [6, 7] where the firm value measurements (Tobin's Q) show performance based on firm value by market evolution of the assets [8], which in turn reflects current action [9]. In other words, firm value measurements indicate the perception of the market with respect to the firm's performance [10]. It also refers to growth and investment opportunities [11]. Firm value measurement also accounts for risk and is less likely to be manipulated as accounting measures [12]. Thus, it helps investors to estimate the growth and risk potential and shows the size of the firm. Management and investors have different interests and ways to evaluate CG; therefore, management attempt to use firm performance measurement (ROA and ROE) as the measurement to show how the wealth affects CG mechanisms. On the other hand, investors seem to prefer to value the firm structure of CG based on firm value measurement (Tobin's Q) [13].

2. GCC countries background

A brief background of GCC countries is needed to have some understanding of the institutional setting. The Gulf Cooperation Council (GCC) countries, was founded in 1981 and consists of six Arab states namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia (SA), and the United Arab Emirates (UAE), all of which are Gulf Monarchies. GCC countries are located in the Middle East. Specifically, Arabian Peninsula and their total population are 50.1 million people [14]. They also share similar Arabian culture and traditions, the faith of Islam, social structures, wealth, political development (Monarchy), and demography [15]. The primary purpose of the establishment of GCC was to enhance the cooperation and integration as well as to strengthen their economy and development through their participation in different fields such as the economy, financial affairs, education, cultural activities, social, medical, agricultural development, research development and joint projects. Between them, they can issue similar policies and regulation to achieve unity [16]. It is also worth mentioning that each country has an independent government and their own independent currencies.

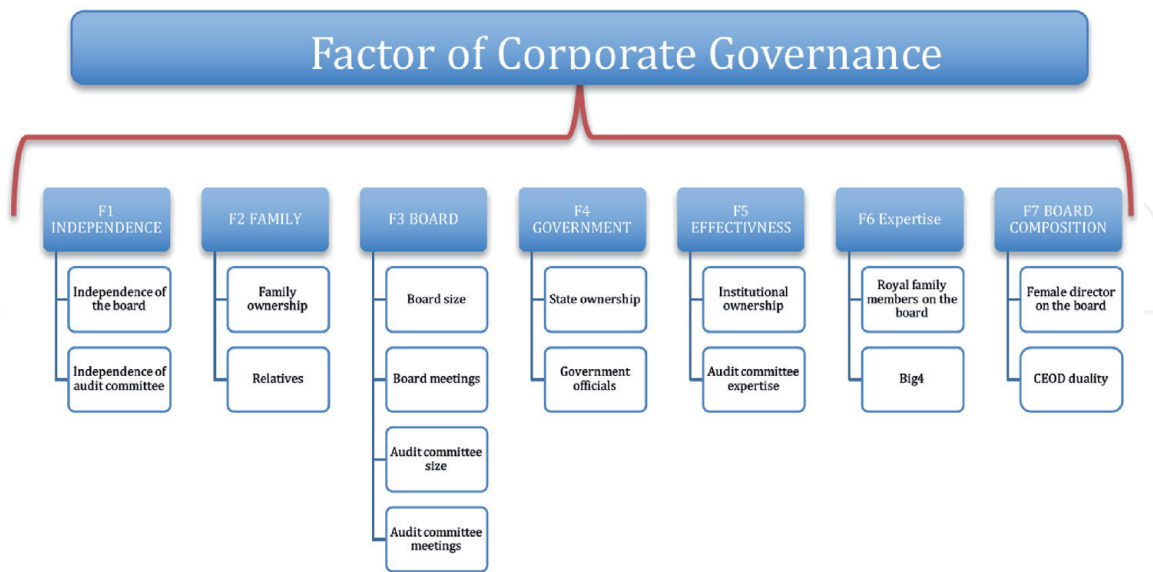
GCC countries are developing countries in Asia but enjoy prosperity due to natural resources and the rapid development of their capital market [17]. Some features make GCC countries interesting when examining the effect of CG on EQ, firm performance and firm value. Recently, the GCC countries share in the world's GDP has doubled to 2.2 percent, which refer to the development of a dynamic economy [18]. This also increases the significance and importance of GCC countries in the global economy [19]. Additionally, they have followed some global norms and standards to work with international organisations. This engagement with the world raises the status of the region, which brings more benefit and increases regarding trade and investment. This marks the region as "one of the most prosperous in the world" [19].

3. Theoretical framework

3.1 Agency theory

Agency theory focuses on the relationship between the principals (owners) and the agents (managers). Agency theory's justification for its existence is to establish appropriate and adequate incentives in order to eliminate opportunistic behaviours by the company's management and to ensure that they pursue and maximise not only the company's wealth and interests but, also, work on behalf of the company's shareholders [20]. From agency theory's perspective, a reduced agency problem leads to maximising the company's value and the returns on investments to its shareholders. Furthermore, agency theory suggests ways of reducing agency costs in order to increase the company's EQ. These are: namely, monitoring costs; bonding costs; and residual losses which stem from the company's internal CG structure [21, 22]. Monitoring costs are borne by the principals and are the basis of the company's monitoring mechanisms, such as internal CG mechanisms, which are used to monitor management behaviour. Bonding costs relate to the financial or non-financial mechanisms which are used to ensure the agents make an effort to maximise the principals' wealth. Residual losses happen despite the involvement of monitoring cost and bonding cost because either these can fail or be insufficiently effective to align the principals' (owners) interests with those of the agents (management). Consequently, the owners can reduce the incentives to look after themselves by using some tools such as monitoring managers' behaviours and by introducing a contract which provides an incentive to align their interests with those of the company's management [21, 23].

4. Literature review



4.1 Independence factor, firm performance, and firm value

The independent factor includes independent directors on the board of directors and audit committee. Arguably, a high percentage of independent directors on the board of directors and audit committee influence firm performance positively due to their effective monitoring [24]. However, others argue that independent directors

in emerging countries are not applicable as it is “symbolic” but they are more likely to follow the management [15, 25, 26]. Nevertheless, the study follows the notion of CG code in the international practice and GCC countries and the majority of findings [27, 28] and hypothesises that:

H₀₁: There is a positive association between independence factor, firm performance and firm value.

4.2 Family factor, firm performance and firm value

Family factor encompasses family ownership and relatives on the board. Based on a prior discussion on relatives and family ownership, the research argues that these two variables are prevalent in the emerging markets [29] to protect family wealth and power [30], which in turn, lead to better performance [31–33]. Thus, they would play an effective role in the company, which results in better financial performance. Accordingly, the research hypothesises that:

H₀₂: There is a positive association between family factor, firm performance and firm value.

4.3 Board factor, firm performance and firm value

Board factor contains board size, board meetings, audit committee size and audit committee meetings. Referring back to discussed literature of board size, meetings, audit committee size and meetings; even though there are few negative findings in the literature, the majority of prior studies argue that a large board and audit committee and the high frequency of board and audit committee meetings leads to better firm performance and firm value. Accordingly, despite different findings, the study follows the majority of prior studies’ findings, the recommendation of CG code and claims that the board factor leads to high firm performance and hypothesises that:

H₀₃: There is a positive association between board factor, firm performance and firm value.

4.4 Government factor, firm performance and firm value

Government factor encompasses government ownership and government officials on the board. Based on the prior discussion on these two variables, the research argues that the involvement of these two groups is common in the emerging markets [29] to retain their power on the firms. Thus, they may not play an effective role in the company, which results in poor performance. Accordingly, the study follows the majority of the studies [34–37] and hypothesises that:

H₀₄: There is a negative association between government factor, firm performance and firm value.

4.5 Effectiveness factor, firm performance and firm value

The researcher had difficulty giving a name to this factor initially. However, other researchers such as Larcker et al., [38] mention the difficulties in assigning a name to some factors. This factor captures institutional ownership and audit committee expertise and the study calls them effectiveness because both are expected to

have effective monitoring. Based on a literature review of institutional ownership and an audit committee, despite some negative findings, the majority of the studies' findings concludes that institutional ownership [39] and audit committee expertise [40, 41] lead to better firm performance and firm value. Therefore, the research follows these studies and hypothesises that:

H₀₅: There is a positive association between effectiveness factor, firm performance and firm value.

4.6 Expertise factor, firm performance and firm value

Expertise factor includes royal family members on the board and Big4 audit firms. Based on the discussion of royal family members and Big4 firms literature, the study argues that by giving the royal family members legitimacy, privileges and status, their involvement has benefits for the firms and their shareholders which result in better firm financial performance [42–47]. Additionally, despite the mixed results in the literature of Big4 firms, the majority of the studies [48–52] conclude that Big4 firms increase firm performance and firm value. Accordingly, the research hypothesises that:

H₀₆: There is a positive association between legitimacy factor, firm performance and firm value.

4.7 Board composition factor, firm performance and firm value

Board composition factor captures females on the board and CEO duality. Halawi & Davidson [4] document a low female involvement on boards, around 1.5% in the GCC. Accordingly, the research argues that since there are few female directors on the board and because of the culture in emerging markets, it is likely they have a lack of qualifications, skills and business expertise needed for directorship, which might negatively influence firm performance and firm value [5, 53–56]. With regard to CEO duality, the code of GCC countries and best practice requires separation between the two roles. In addition, this study follows the majority of literature, which finds a negative association between CEO duality and firm performance [28, 57, 58]. Therefore, the study hypothesises that:

H₀₇: There is a negative association between board composition factor, firm performance and firm value.

5. Methodology

5.1 Measurement of firm's performance and firm value

Regarding the evolution of firm performance and firm value, there is no consensus within the literature [57]. Nevertheless, the majority of prior studies have relied on return on assets (ROA) and return on equity (ROE) which are an accounting-based measure and a measure of profitability [59, 60] and Tobin's Q which is market-based measure [13, 61–64]. ROA shows performance based on historical information, which reflects previous firms' operation, where ROE reflects the efficiency of the firm using equity funds to generate profits [6, 7]. Moreover, Tobin's Q shows performance based on firm value by the market evolution of the assets [8],

which in turn reflects current action [9]. It also refers to growth and investment opportunities [11]. Tobin's Q accounts for risk and is less likely for manipulation of accounting measures [12]. Management and investors have different interests and ways to evaluate CG; therefore, management attempt to use ROA and ROE as the measurement to show how the wealth affects CG mechanisms. On the other hand, investors seem to prefer to value the firm structure of CG based on Tobin's Q and measurement [13]. Therefore, a higher ratio represents a higher return in each of these measurements.

Some studies of CG have used ROA and ROE as a measurement method (as the proxy of financial performance) [57, 65–67]. Tobin's Q is the measure used to reflect how management effectively manages assets to generate value for its shareholders and reflects the perception of a firm's financial performance by market [57]. Chung & Pruitt [68] asserts that Tobin's Q has great theoretical and practical relevance. It has been widely used in CG literature as the proxy for firm performance [61, 62, 65]. Following previous paper the author control a couple of variables as influence the analysis. These variables growth Copeland & Dolgoff [69], leverage Haniffa & Hudaib [57], Jang & Park [70], firm size performance [71, 72] and big 4 Al-Hussaini & Al-Sultan, [73] and Wang & Huang [74]. The investigation of the effect of CG on firm performance and firm value based on the principal component analysis (PCA).

5.2 Principal component analysis (PCA)

It uses the three sets of internal CG mechanisms namely: ownership structure, the board of directors and audit committee. Due to a large number of variables and the nature of CG mechanisms (variables) especially the board of directors' composition, these variables correlated with each other. Not all 16 variables of CG can be included in one regression without facing the econometric problem, which leads to difficult interpretation and involvement of measurement error. The study does not use the CG index as suggested by Larcker et al., [38]. Larcker et al., [38] argues that using CG index leads to many econometric problems. Therefore, to alleviate the measurement error and avoid multicollinearity, the principal component analysis (PCA) has been used which is a data reduction method to extract the relevant factor which is used in regression methodology to analyse the data. This method reduces the data set to a better size while continuing to hold on to the original information. PCA is identifying a parsimonious set of CG variables that affect firm performance and firm value.

6. Regression

Firm performance and firm value are a dependent variable to the explanatory variables, which include individual internal CG factors and control variables.

Table 1 summarises the CG factor and control variables investigated in this question, which include the definition of each variable and shows how they were measured.

$$Y = \alpha + \beta_1 F1 (INDEPENDENC_{it}) + \beta_2 F2 (FAMILY_{it}) + \beta_3 F3 (BOARD_{it}) + \beta_4 F4 (GOVERNMENT_{it}) + \beta_5 F5 (EFFECTIVENESS_{it}) + \beta_6 F6 (EXPERTISE_{it}) + \beta_7 F7 (BOARD COMPOSITION_{it}) + \beta_8 LN_GROWTH_{it} + \beta_9 LN_LEVERAGE_{it} + \beta_{10} LN_SIZE_{it} + \varepsilon_{it}.$$

Symbol	Name of variable	Predicted sign	
Dependent variable			
Firm performance	LN_ROA	The natural logarithm of Return on assets	
	LN_ROE	The natural logarithm of Return on equity	
Firm value	LN_TOBIN'S Q	The natural logarithm of Tobin's Q	
Independent variable			
F1 (INDEPENDENCE)	IND	Independent directors on the board	+
	AUDITIND	Independence of audit committee member	
F2 (FAMILY)	FAMC	Family ownership	+
	RELATIVE	Relatives on the board	
F3 (BOARD)	BSIZE	Board size	+
	BMEET	Board meetings	
	AUDITSIZE	Audit committee size	
	AUDITMEET	Audit committee meetings	
F4 (GOVERNMENT)	STATC	State ownership	—
	GOV	Government officials on the board	
F5 (EFFECTIVENESS)	INSTITIC	Institutional ownership	+
	AUDITEX	Audit committee expertise	
F6 (EXPERTISE)	ROYAL	Royal family member on the board	+
	BIG 4	Big 4 audit firms	
F7(BOARD COMPOSITION)	FEMALE	Female directors on the board	+
	CEOD	CEO duality	
Control variables			
LN_GROWTH	The natural logarithm of Firm growth		
LN_LEVERAGE	The natural logarithm of Leverage		—
LN_SIZE	The natural logarithm of the Firm size		
BIG 4	Big 4 audit firms		
COUNTRY	Country dummy		?
INDUSTRY	Industry dummy		?
YEAR	Year dummy		?

Table 1.
Variables definition of model: CG, firm performance and firm value.

Coefficients predict that β_1 will have positive value where β_2 will have negative value. Expected to is that β_3 has a positive influence on firm performance where β_4 has a negative association with firm performance. Predictions are that β_5 and β_6 will have a positive value where β_7 will take a negative value. Regarding control variables, predictions are that β_8 will also have a positive influence on firm performance while β_9 will have negative value. Finally, β_{10} will have a positive value.

7. Results and analysis

7.1 Descriptive statistics and correlation matrix

Table 2 presents descriptive statistics for the main model variables¹. These preliminary findings show the relationship between firm performance, firm value, ownership structure and CG. The ownership structure shows that 14 percent of shares are family owned (FOC), whereas governments own 13.8 percent of shares (STATC). Approximately 21.4 percent of shares are retained by institutional investors (INSTITC), and this indicates a high percentage of institutional ownership in the region. On average, the board of directors is composed of eight members (BSIZE). In addition, there is a small representation of females (FEMALE) on the board of approximately 0.2 percent. Not surprisingly, (RELATIVES) relatives represent 11.6 percent of the boards in the region. Among these members, 59 percent are independent directors (IND). The table also reveals that CEO duality (CEOD) is approximately 7.4 percent of sampled firms. The average number of board meetings (BMEET) in the financial year is six. There are very few royal family members (Royal) and government officials (Gov) represented on these boards. This is an average 3 percent and 1.3 percent respectively.

With regard to audit committee characteristics, the average size of the committee is three members (AUDITSIZE); of which 62.8 percent are independent (AUDITIND). This committee meets approximately five times per annum (AUDITMEET). On average, 28 percent of the audit committees have at least one member who possesses financial or accounting expertise (AUDITEX). More than half of the companies hire one of the Big4 external auditors (BIG4).

Regarding control variables, on average, the firm size (SIZE) is \$12.69 million. The mean of Leverage (LEVERAGE) is about 38 percent. The mean of the growth (GRWOTH) is 2.9 percent.

The cross-correlation matrix for the variables is reported in **Table 3**². The results show that institutional ownership is indirectly related to firm value. Family ownership shows a positive association with firm performance. Board size is positively correlated to firm performance. Contrary to the expectation, there is a negative correlation between independence of board of directors, independence of audit committee members and firm performance and firm value, which is also significant. The CEO duality has indirect association with firm performance. The presence of royal family members and government officials has a direct correlation with firm performance. Interestingly, the number of board meetings is significantly negative with firm performance. All other correlations are relatively low indicating no problem of multicollinearity. In addition, all VIF (Variance Inflation Factor) are below a reading of 10. This may indicate that there is no problem of multicollinearity among the variables. Therefore, this also indicates the validity of data [75–77].

¹ The descriptive statistics for the main variables (dependent variables, independent variables and control variables) is before using principle component analysis (PCA) to have meaningful understanding of the data.

² The correlation matrix for the main variables (dependent variables, independent variables and control variables) is before using principle component analysis (PCA) to have meaningful understanding of the data.

Variable	Mean	Median	Std. Dev.	Min	Max
TOBIN’SQ	1.542	1.274	0.951	0.283	4.657
ROA	0.063	0.054	0.073	−0.090	0.264
ROE	0.108	0.099	0.120	−0.197	0.376
FAMC	0.141	0.065	0.190	0	0.991
STATC	0.138	0	0.213	0	0.893
INSTITC	0.214	0.115	0.256	0	1
BSIZE	7.882	8	1.693	4	18
FEMALE	0.002	0	0.023	0	0.571
RELATIVE	0.116	0	0.188	0	1
IND	0.595	0.571	0.270	0	1
CEOD	0.074	0	0.263	0	1
BMEET	5.634	5	2.025	1	19
ROYAL	0.027	0	0.053	0	0.2
GOV	0.013	0	0.041	0	0.285
AUDITSIZE	3.300	3	0.804	0	6
AUDITIND	0.628	0.666	0.342	0	1
AUDITMEET	4.659	4	2.213	0	21
AUDITEX	0.280	0.333	0.098	0	0.5
BIG4	0.610	1	0.487	0	1
LEVERAGE	0.380	0.350	0.222	0.068	0.820
LN_SIZE	12.691	12.609	1.662	10.100	16.078
GROWTH	0.029	0.018	0.145	−0.441	0.458

N = 1,096.

Notes: TOBIN’S Q is market value measure. ROA, is return on assets and ROE is return on equity. FAMC is the percentage of family ownership. STATC is the percentage of state ownership. INSTITC is the percentage of institutional ownership. BSIZE is board size. FEMALE is the ratio of female to the total board directors. RELATIVE is the ratio of relative to the total board of directors. IND is the ratio of independent director to the total board of directors. CEOD a dummy variable that takes the value of one if the CEO also serve as Chairman of the board and Zero otherwise. BMEET is the number board of meetings per year. ROYAL is the ratio of royal family member to the total board of directors. GOV is the ratio of government official to the total directors. AUDITSIZE is the number of directors on the audit committee. AUDITIND is the ratio of independent director in audit committee. AUDITMEET is the number of audit committee meeting per year. AUDITEX is the ratio of member with financial or accounting expertise to the total director. BIG4 is a dummy variable that takes the value of one if the company is audited by one of the BIG4 and zero otherwise. LEVEVERGE is total liabilities divided by total assets. LN_SIZE is the natural logarithm of the total assets. GROWTH is change in net sales divided by total assets.

Table 2.
Descriptive statistics-CG and firm performance and firm value-GCC countries.

7.2 Regression analysis

The regression analysis for the variables is reported in **Table 4**. A positive significant relationship is seen between expertise factors and firm performance (LN_ROA; LN_ROE: coefficient = 0.006; 0.007 p-value <5% and 10%,, respectively). The expertise factor encompasses royal family members on the board as well as hiring one of the Big 4-auditing firms. This result is in line with a theoretical claim (agency theory), the research question expectation and empirical evidence. According to Algamdi [78], the presence of ruling family members on a

	TOBIN'S Q	ROA	ROE	FAMC	STATC	INSTITC	BSIZE	FEMALE	RELATIVE	IND		
TOBIN'S Q	1											
ROA	0.371*	1										
ROE	0.274*	0.798*	1									
FAMC	0.056	0.096*	0.137*	1								
STATC	0.022	0.038	0.030	−0.287*	1							
INSTITC	−0.112*	−0.043	0.022	−0.213*	−0.249*	1						
BSIZE	−0.048	0.087*	0.075*	−0.183*	0.067*	−0.127*	1					
FEMALE	−0.042	0.020	0.000	0.022	0.068*	−0.044	0.010	1				
RELATIVE	0.052	0.011	0.016	0.378*	−0.229*	−0.104*	−0.096*	−0.016	1			
IND	−0.059*	−0.135*	−0.067*	−0.024	−0.087*	0.168*	−0.198*	−0.060*	−0.078*	1		
CEOD	−0.004	−0.072*	−0.100*	0.051	−0.063*	−0.087*	0.034	0.068*	0.076*	−0.068*		
BMEET	−0.042	−0.139*	−0.068*	−0.067*	0.211*	−0.057	0.002	−0.040	−0.007	0.083*		
ROYAL	−0.045	0.080*	0.066*	0.033	−0.003	−0.055	0.076*	−0.020	0.111*	−0.108*		
GOV	−0.019	0.063*	0.120*	−0.139*	0.267*	−0.008	0.006	0.024	−0.126*	0.019		
AUDITSIZE	−0.052	−0.048	−0.016	−0.006	0.081*	0.029	0.158*	0.076*	−0.044	0.130*		
AUDITIND	−0.069*	−0.154*	−0.092*	0.073*	−0.123*	0.190*	−0.134*	−0.064*	0.007	0.681*		
AUDITMEET	−0.015	−0.053	0.000	−0.047	0.174*	−0.078*	0.090*	−0.075*	−0.021	0.096*		
AUDITEX	0.085*	−0.003	0.024	−0.022	−0.131*	−0.053	−0.056	−0.112*	−0.021	0.059*		
BIG4	−0.022	0.084*	0.136*	−0.093*	0.132*	0.033	0.103*	−0.000	−0.071*	−0.046		
LEVERAGE	−0.115*	−0.139*	0.105*	0.095*	−0.020	0.176*	−0.050	−0.038	0.013	0.096*		
LN_SIZE	−0.013	−0.007	−0.054	−0.076*	0.160*	−0.426*	0.279*	0.030	0.065*	−0.314*		
GROWTH	−0.076*	0.175*	0.166*	0.050	−0.060*	0.018	0.005	−0.008	0.022	−0.031		
	CEOD	BMEET	ROYAL	GOV	AUDITS-E	AUDITIND	AUDITMEET	AUDITEX	BIG4	LEVERAGE	SIZE	GROWTH
TOBIN'S Q												
ROA												

ROE												
FAMC												
STATC												
INSTITC												
BSIZE												
FEMALE												
RELATIVE												
IND												
CEOD	1											
BMEET	-0.006	1										
ROYAL	0.066*	-0.033	1									
GOV	-0.081*	0.088*	-0.004	1								
AUDITSIZE	-0.019	0.157*	-0.063*	0.054	1							
AUDITIND	-0.059*	0.062*	-0.035	-0.002	0.102*	1						
AUDITMEET	-0.020	0.311*	-0.077*	0.047	0.253*	0.083*	1					
AUDITEX	-0.025	-0.083*	-0.046	0.118*	-0.163*	0.146*	0.187*	1				
BIG4	-0.035	-0.007	0.103*	0.092*	0.019	-0.043	0.009	0.107*	1			
LEVERAGE	-0.101*	0.113*	-0.084*	0.042*	0.111*	0.090*	0.154*	-0.007	0.137*	1		
LN_SIZE	0.079*	0.053	0.158*	0.065*	0.003	-0.281*	0.078*	0.03	0.068*	-0.0304	1	
GROWTH	-0.038	-0.028	-0.040	-0.006	0.075*	-0.055	0.036	-0.005	0.090*	0.117*	-0.035	1

Notes: *, ** and *** denote significant at 10%, 5% and 1% levels respectively.
TOBIN'S Q is market value measure. ROA is return on assets and ROE is return on equity. FAMC is the percentage of family ownership. STATC is the percentage of state ownership. INSTITC is the percentage of institutional ownership. BSIZE is the board size. FEMALE is the ratio of female to the total board directors. RELATIVE is the ratio of relative to the total board of directors. IND is the ratio of independent director to the total board of directors. CEOD a dummy variable that takes the value of one if the CEO also serve as Chairman of the board and Zero otherwise. BMEET is the number board of meetings per year. ROYAL is the ratio of royal family member to the total board of directors. GOV is the ratio of government official to the total directors. AUDITSIZE is the number of directors on the audit committee. AUDITIND is the ratio of independent director in audit committee. AUDITMEET is the number of audit committee meeting per year. AUDITEX is the ratio of member with financial or accounting expertise to the total director. BIG4 is a dummy variable that takes the value of one if the company is audited by one of the BIG4 and zero otherwise. LEVEVERGE is calculated as total liabilities divided by total assets. LN_SIZE is the natural logarithm of the total assets. GROWTH is change in net sales divided by total assets.

Table 3.
Correlation Martrix-CG and firm performance and firm value-GCC countries.

	Expected sign	LN_TOBIN'SQ	LN_ROA	LN_ROE
_CONS		−0.126	0.002	0.073
		−3.42	−0.22	−0.35
INDEPENDENCE FACTOR	+	−0.032	−0.001	0
		−0.07	0	0
FAMILY FACTOR	+	−0.04	−0.001	0.007
		−0.13	−0.01	−0.01
BOARD FACTOR	+	−0.059	0.001	0.001
		−0.04	0	0
GOVERNMENT FACTOR	—	0.029	0	−0.005
		−0.09	0	−0.01
EFFECTIVENESS FACTOR	+	−0.041	0.001	0.004
		−0.06	0	0
EXPERTISE FACTOR	+	−0.022	0.006**	0.007*
		−0.08	0	0
BOARD COMPOSITION FACTOR	—	−0.049	−0.002	−0.001
		−0.04	0	0
LN_GROWTH	+	−0.052	0.013	0.002
		−0.27	−0.02	−0.04
LN_LEVERAGE	—	−0.098	−0.057	0.035
		−0.76	−0.05	−0.07
LN_SIZE	+	0.029	0.013	0.014
		−0.26	−0.02	−0.03
L.LN_TOBINQ		−0.028		
		−0.03		
L.LN_ROA			−0.164**	
			−0.08	
L.LN_ROE				−0.046
				−0.1
YEAR DUMMY		Yes	Yes	Yes
INDUSTRY DUMMY		Yes	Yes	Yes
COUNTRY DUMMY		Yes	Yes	Yes
N		408	408	408

Notes: *, ** and *** denote significant at 10%, 5% and 1% levels respectively. LN_TOBIN'S Q is the natural logarithm of market value measure. LN_ROA, is the natural logarithm of return on assets and LN_ROE is the natural logarithm of return on equity. INDEPENDENCE FACTOR includes independent of the board of directors and independent of the audit committee. FAMILY FACTOR includes family ownership and relatives. BOARD FACTOR includes of board size, board meeting, audit committee size and audit committee meeting. GOVERNMENT FACTOR includes government ownership and government officials on the board. EFFECTIVENESS FACTOR includes audit committee expertise and institutional ownership. EXPERTISE FACTOR includes royal family members on the board and Big 4 audit committee. BOARD COMPOSITION FACTOR includes CEO duality and female directors on the board. LN_GROWTH is the natural logarithm of change in net sales divided by total assets. LN_LEVEVERGE is the natural logarithm of total liabilities divided by total assets. LN_SIZE is the natural logarithm of the total assets.

Table 4.
GMM regression-CG, firm performance and firm value- model 1-GCC countries.

board increases firm performance as they may expand the company's competitive environment and therefore, benefit the companies through networking and their privileges, leading to better performance. This supports the majority of politically connected firms literature [42–47].

In relation to the Big-4, prior studies show a positive relationship between Big-4 and firm performance. This is particularly the case in weak investor protection environments where firms which hire one of the Big-4 audit firms have a better performance record [79–82]. This is because Big-4 audit firms are concerned with their brand and reputation [83–85]. Another explanation is that royals may use their influence or power to secure the expertise of Big 4 audit firms.

With respect to other factors, namely independence factor, family factor, board factor, government factor, effectiveness factor, board composition factor and control variables (growth, leverage, and firm size), My study fail to find any significance between these variables, firm performance and firm value under GMM regression.

My study first conducted OLS regression and panel data regression. Under the pool OLS regression of model 1, independence factor shows a negative and significant relationship with firm performance while the board factor indicates a negative and significant association with firm value. These results are contrary to the study expectations and also with agency theory. Government factor shows a positive relationship with firm performance and firm value. Expertise factor shows a positive association with firm performance. With regard to control variable, growth and leverage appear to have a significant association with firm performance and firm value. Most of these significant factors disappear with the study's control for endogeneity problem.

7.3 Robustness test

To check the robustness of the results, the study conducts several additional tests. First, the study runs regression models using a different measurement of firm performance (Adj ROA) and firm value (Adj Tobin's Q). The study runs the main model again using some additional variables such as period, corruption and minority shareholders. These results remain unchanged with these variables but period, corruption and minority shareholders are not statistically significant with firm performance and firm value using the GMM regression approach.

8. Discussion

The study utilises the model that is based on PAC Some point can be highlighted:

The main observations are that the results in the model are inconclusive and there needs to be further study in this area. The results reveal that royal family members on the board and Big-4 have a positive influence on firm performance and firm value. A possible explanation is that under PCA the variance of one variable influences another variable. Thus, this observation indicates that the results from PCA may not give a clear picture. However, if the expectation of the study does not support the finding under the model, the study may tell a more interesting story. According to model, CG factor has a similar impact on long term and short term firm performance. In addition, royal family influence Big4 audit firms to use their expertise to enhance firm performance and firm value.

The independence factor does not have a significant relationship with firm performance and firm value, thus, policymakers should strengthen the role of independent directors through the improvement and restriction of requirements and procedures of nominating independent directors on the board. Independent

directors are some of the most important directors on the board as they can be more accountable than an executive [86, 87] due to their independent judgement of board decisions [88, 89].

9. Conclusion


This chapter presents the results and evidence of the effect of CG on a firm's performance and firm value in GCC countries. A critical glance at the literature review of GCC countries, firm performance and firm value shows that the literature does not adequately consider the uniqueness of an institutional setting such as the presence of royal family members and government officials' members on the board. Additionally, noticeable features are not accounted for in the previous literature, such as a large involvement of relatives and the presence of a female on the board of directors. It is important to understand whether these variables matter or not in this region as this then influences the firm's performance and firm value. Thus, this study focuses on the effect of internal CG of the firm's performance and firm value in five GCC countries. The final sample consists of 220 firms (1,096 firm-year observations) for the fiscal year 2009 to 2013. The main observations are that the results of both models are inconclusive and warranting further investigation. However, if the study looks at the support of findings under these two models, the study may still tell an interesting story. Thus, some corporate governance variables have a different effect on firm performance and firm value. Finally, the study offers some recommendations to policymakers with regard to independent directors from the analysis from the model.

Author details

Zahra AL Nasser
Dar AL Uloom University, Riyadh, Saudi Arabia

*Address all correspondence to: zahra.n@dau.edu.sa

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References

- [1] Nenova, T. (2003). The Value of Corporate Voting Rights and Control: A Cross- Country Analysis. *Journal of Financial Economics*, 68(3), 325-351.
- [2] Harrison, J. R. (1987). The strategic use of corporate board committees. *California Management Review*, 30(1), 109-125.
- [3] Ismail, W., Adibah, W., Van Zijl, T., & Dunstan, K. (2010). Earnings quality and the adoption of IFRSbased accounting standards: Evidence from an emerging market. Available at SSRN 1566634
- [4] Halawi, A., & Davidson, B. (2008). Power Matters: A Survey of GCC Boards. *National Investor, Investment Research*.
- [5] Terjesen, S., Sealy, R., & Singh, V. (2009). Women directors on corporate boards: A review and research agenda. *Corporate Governance*, 17(3), 320-337. <http://doi.org/10.1111/1/j.1467-8683.2009.00742>.
- [6] Epps, R. W., & Cereola, S. J. (2008). Do institutional shareholder services (ISS) corporate governance ratings reflect a company's operating performance?. *Critical Perspectives on Accounting*, 19(8), 1135-1148.
- [7] Leng, A. C. A. (2004), 'The impact of corporate governance practices on firms' financial performance', *ASEAN Economic Bulletin*, Vol. 21, No. 3, pp. 308-18.
- [8] Tobin, J. (1969). A general equilibrium approach to monetary theory. *Journal of money, credit and banking*, 1(1), 15-29.
- [9] Kiel, G. C., & Nicholson, G. J. (2003). Board Composition and Corporate Performance: How the Australian Experience Informs Contrasting Theories of Corporate Governance. *Corporate Governance: An International Review*, 11(3), 189-205.
- [10] Weir, C., Laing, D., & McKnight, P. J. (2002). Internal and External Governance Mechanisms: Their Impact on the Performance of Large UK Public Companies. *Journal of Business Finance and Accounting*, 29(5), 579-611.
- [11] Ding, Y., Zhang, H. & Zhang, J. (2007) Private versus state ownership and earnings management: evidence from Chinese listed companies. *Corporate Governance: An International Review* 15: 223-238.
- [12] Al-Matari, E. M., Al-Swidi, A. K., & Fadzil, F. H. B. (2014). The measurements of firm performance's dimensions. *Asian Journal of Finance & Accounting*, 6(1), 24-49.
- [13] Black, B. S., Jang, H. & Kim, W. (2006). 'Does corporate governance predict firms' market values? Evidence from Korea'. *Journal of Law, Economics, and Organization*, 22 (2): 366-413.
- [14] Amico, A. (2014). Corporate Governance Enforcement in the Middle East and North Africa. *OECD Corporate Governance Working Papers*, (15).
- [15] Baydoun, N. (2013). Corporate governance in five Arabian Gulf countries. *Managerial Auditing Journal*, 28(1), 7-22.
- [16] Amico, A. (2012). The role of MENA stock exchanges in corporate governance.
- [17] IFC, international finance corporation (2008). *Family Business Governance Handbook*, <[http://www.ifc.org/ifcext/corporategovernance.nsf/AttachmentsByTitle/Family+Business_Second_Edition_English+/\\$FI LE/Englilsh_Fam-ily_Business_Final_2008.pdf](http://www.ifc.org/ifcext/corporategovernance.nsf/AttachmentsByTitle/Family+Business_Second_Edition_English+/$FI LE/Englilsh_Fam-ily_Business_Final_2008.pdf)>, pp. 23-27.

- [18] Held, D., & Ulrichsen, K. (Eds.). (2013). *The transformation of the Gulf: politics, economics and the global order*. Routledge.
- [19] Nugée, J., & Subacchi, P. (Eds.). (2008). *The Gulf Region: A New Hub of Global Financial Power*. Chatham House (Formerly Riia).
- [20] Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of financial economics*, 3(4), 305-360.
- [21] Eisenhardt, M. (1986). Agency Theory!: and Assessment Review. *Accounting Management Review*, 14(1), 57-74.
- [22] Shabbir, A. & Padgett, C. (2005). 'The UK Code of Corporate Governance: Link between Compliance and Firm Performance', Working Paper, ICMA Centre, available at: <http://ssrn.com/abstract=934313>.
- [23] Jebran, K., Chen, S., Tauni, M. Z., & Ahmad, H. (2019). Corporate Governance, ultimate owner, and target cash holdings: evidence from China. *SAGE Open*, 9(4), 2158244019894293.
- [24] Byrd, J. W., & Hickman, K. A. (1992). Do outside directors monitor managers?: Evidence from tender offer bids. *Journal of financial economics*, 32(2), 195-221.
- [25] Al-Musalli, M. A. K., & Ismail, K. N. I. K. (2012). Corporate governance, bank specific characteristics, banking industry characteristics, and intellectual capital (IC) performance of banks in Arab Gulf Cooperation Council (GCC) countries. *Asian Academy of Management Journal of Accounting and Finance*, 8(1), 115-135.
- [26] Mahadeo, J. D., Soobaroyen, T., & Hanuman, V. O. (2012). Board composition and financial performance: Uncovering the effects of diversity in an emerging economy. *Journal of Business Ethics*, 105(3), 375-388.
- [27] Gupta, M., & Fields, L. P. (2009). Board independence and corporate governance: Evidence from director resignations. *Journal of Business Finance & Accounting*, 36(1-2), 161-184.
- [28] Ho, C.A. & Williams, S.M. (2003). International Comparative Analysis of the Association between Board Structure and the efficiency of Value Added by a Firm from its Physical Capital and Intellectual Capital Resources. *The International Journal of Accounting*, 38, 465-491.
- [29] La Porta, R., LopezSDeSSilanes, F., & Shleifer, A. (1999). Corporate ownership around the world. *The journal of finance*, 54(2), 471-451.
- [30] Cruz, C. C., Gomez-Mejia, L. R., & Becerra, M. (2010). Perceptions of benevolence and the design of agency contracts: CEO-TMT relationships in family firms. *Academy of Management Journal*, 53(1): 69-89.
- [31] Kappes, I., & Schmid, T. (2013). The effect of family governance on corporate time horizons. *Corporate Governance (Oxford)*, 21(6), 547-566.
- [32] McConaughy, D.L., Matthews, C.H. & Fialko, A.S. (2001). Founding-family-controlled firms: performance risk and value. *Journal of Small Business Management* 39(1): 31- 49.
- [33] Villalonga, B., & Amit, R. (2006). How do family ownership, control and management affect firm value? *Journal of financial Economics*, 80(2), 385-417.
- [34] Gupta, N., (2005). Partial privatization and firm performance. *Journal of Finance* 60 (2), 987-1014.

- [35] Liu, G. S. & Sun, S. P. (2005). The class of shareholdings and its impacts on corporate governance: A case of state shareholdings composition in Chinese publicly listed companies. *Corporate Governance: An International Review*, 13: 46-59.
- [36] Sun, Q. & W. Tong (2003), 'China Share Issue Privatization: The Extent of its Success', *Journal of Financial Economics*, Vol. 70, pp. 182-222.
- [37] Wei, Z., Xie, F. & Zhang, S. (2005) Ownership structure and firm value in China's privatized firms: 1991-2001, *Journal of Financial and Quantitative Analysis*, 40: 87-108.
- [38] Larcker, D. F., Richardson, S. a., & Tuna, I. (2007). *Corporate Governance, Accounting Outcomes, and Organizational Performance*. The *Accounting Review*, 82(4), 963-1008.
- [39] Yan, X. & Zhang, Z., (2009). Institutional investors and equity returns: are short-term institutions better informed. *The Review of Financial Studies*, 22(2), 893-924. <http://dx.doi.org/10.1093/revfin/hhl046> Notes
- [40] Amer, M., Ragab, A., & Shehata, S. (2014). Audit Committee Characteristics and Firm Performance: Evidence from Egyptian Listed Companies. In 6th Annual American Business Research Conference on Sheraton LaGuardia East Hotel, New York, USA.
- [41] Kipkoech, S. R. (2016). Audit Committee Size, Experience and Firm Financial Performance . Evidence Nairobi Securities Exchange, Kenya, *Research Journal of Finance and Accounting*. 7(15), 87-95
- [42] Charumilind, C., Kali, R., Wiwattanakantang, Y., (2006). Connected lending: Thailand before the financial crisis. *Journal of Business* 79, 181-218.
- [43] Faccio, M. (2006). Politically connected firms. *The American economic review*, 96(1), 369-386.
- [44] Fisman, R. (2001). Estimating the value of political connections. *American Economic Review*, 91: 1095- 1102.
- [45] Johnson, S., & T. Mitton, (2003), "Cronyism and Capital Controls: Evidence from Malaysia," *Journal of Financial Economics*, 67, 351-382.
- [46] Leuz, C., & Oberholzer-Gee, F. (2006). Political relationships, global financing, and corporate transparency:Evidence from Indonesia. *Journal of Financial Economics*, 81(2), 411-439.
- [47] Siegel, J., (2005). Can foreign firms bond themselves effectively by renting US securities laws? *Journal of Financial Economics* 75, 319-359.
- [48] Van Tendeloo, B. and A. Vanstraelen. (2008). Earnings Management and Audit Quality in Europe: Evidence from the Private Client Segment Market. *European Accounting Review* 17 (3): 447-469
- [49] Van Tendeloo, B., & Vanstraelen, A. (2005). Earnings management under German GAAP versus IFRS. *European Accounting Review*, 14(1), 155-180.
- [50] Lin, J., & Hwang, M. (2010). Audit Quality, Corporate Governance, and Earnings Management: A MetaAnalysis.i *International Journal of Auditing*. Vol.10. Pp. 1099-1123.
- [51] Charles. J., Stanley, C., & Charlotte, H. (2010). The Imp act Of Audit Quality On Earnings Management to Achieve User Reference Points In EPS. *Journal of Applied Business Research*. Vol. 26 No.1, p19-30
- [52] Chen, C. J. P., Chen, S., & Su, X. (2005). Profitability Regulation, Earnings Management, and Modified

Audit Opinions: Evidences from China. *Auditing: A Journal of Practice & Theory*. Vol. 20(2), pp 9-30.

[53] Adams, R. and Ferreira, D. (2009). Women in the Boardroom and Their Impact on Governance and Performance. *Journal of Financial Economics*, 94(2) 291-309.

[54] Falato, A., Kadyrzhanova, D., & Lel, U. (2014). Distracted directors: Does board busyness hurt shareholder value?. *Journal of Financial Economics*, 113(3), 404-426.

[55] Field, L., Lowry, M., & Mkrtchyan, A. (2013). Are busy boards detrimental?. *Journal of Financial Economics*, 109(1), 63-82.

[56] Smith, N., Smith, V., & Verner, M. (2006). Do women in top management affect firm performance? A panel study of 2,500 Danish firms. *International Journal of productivity and Performance management*, 55(7), 569-593.

[57] Haniffa, R., & Hudaib, M. (2006). Corporate Governance Structure and Performance of Malaysian Listed Companies, 33(October), 1034-1062.

[58] Rutledge, R. W., Karim, K. E., & Lu, S. (2016). The effects of board independence and CEO duality on firm performance: evidence from the NASDAQ-100 index with controls for endogeneity. *Journal of Applied Business and Economics*, 18(2), 49.

[59] Baysinger, B. D., & Butler, H. N. (1985). Corporate governance and the board of directors: Performance effects of changes in board composition. *Journal of Law, Economics, & Organization*, 1(1), 101-124.

[60] De Vuyst, V., & Ooghe, H. (2001). Corporate performance and board structure in Belgian companies. *Long range planning*, 34(3), 383-398

[61] Yermack, D. (1996). Higher market valuation of companies with a small board of directors. *Journal of Financial Economics*, 40(2), 185-211.

[62] Agrawal, A. & Knoeber, C. R. (1996). Firm performance and mechanisms to control agency problems between managers and shareholders. *Journal of Financial and Quantitative Analysis*, 31: 377-397

[63] Beiner, S., Drobetz, W., & Schmid, M. M. (2006). An Integrated Framework of Corporate Governance and Firm Valuation, 12(2), 249-283

[64] Henry, D. (2008). Corporate Governance Structure and the Valuation of Australian Firms!: Is There Value in Ticking the Boxes!?, 35(October), 912-942.

[65] Gompers, P., Ishii, J., & Metrick, A. (2003). Corporate governance and equity prices. *The quarterly journal of economics*, 118(1), 107-156.

[66] Core, J., Guay, W. & Rusticus, T. (2006) Does Weak Governance Cause Weak Stock Returns? An Examination of Firm Operating Performance and Investors' Expectations, *Journal of Finance*, 61, 2, 655-687.

[67] Cui, T.Q., Evans, E., Wright, S. & Crowe, S., (2008). Have the objectives of the ASX recommendations on good corporate governance been achieved? [Online] Working Paper, Macquarie University. Available from: <http://www.newcastle.edu.au/Resources/Faculties/Faculty%20of%20Business%20and%20Law/Seminars/Business%20Seminar%20Series%202007/BusSeminarPaper18092007.pdf>

[68] Chung, K. H. & Pruitt, S. W. (1994) A simple approximation of Tobin's q, *Financial Management*, 23, 70-74

[69] Copeland, T., & Dolgoff, A. (2011). *Outperform with expectations-based*

management: a state-of-the-art approach to creating and enhancing shareholder value. John Wiley & Sons.

[70] Jang, S., & Park, K. (2011). Inter-relationship between firm growth and profitability. *International Journal of Hospitality Management*, 30, 1027-1035.

[71] Velnampy, T. (2005). A study on investment appraisal and profitability. *Journal of Business Studies*, 2(1), 23-35

[72] Amato, L. H., & Burson, T. E. (2007). The Effects of firm size on profit rates in the financial services. *Journal of Economics and Economic Education Research*, 8(1), 67-81.

[73] Al-Hussaini, A., & Al-Sultan, W. (2008). DEVELOPMENT OF ENFORCEMENT MECHANISMS FOLLOWING ADOPTION OF INTERNATIONAL ACCOUNTING STANDARDS IN THE GULF CO-OPERATION COUNCIL MEMBER STATES. *Journal of International Business Strategy*, 8(3).

[74] Wang, M. & Huang, M (2014). Which types of institutional investors constrain abnormal accruals?. *Corporate Governance: An International Review*, 22(1), 43-67.

[75] Tabachnick, B. & Fidell, L. (2001) *Using Multivariate Statistics*, 3rd edn. New York: Harper Collins College.

[76] Bowerman, B. L., & O'connell, R. T. (1990). *Linear statistical models: An applied approach*. Brooks/Cole.

[77] Myers, R. H. (1990). *Classical and modern regression with applications* (2nd edition). Boston: PWS-Kent.

[78] Alghamdi, S. A. (2012). Investigation into Earnings Management Practices and the Role of Corporate Governance and External Audit in Emerging Markets!: Empirical Evidence from Saudi Listed Companies.

[79] Choi, J. H., & Wong, T. J. (2007). Auditors' governance functions and legal environments: An international investigation. *Contemporary Accounting Research*, 24(1), 13-46.

[80] Choi, J. H., Kim, J. B., Liu, X., & Simunic, D. A. (2008). Audit pricing, legal liability regimes, and big 4 premiums: Theory and cross-country evidence. *Contemporary Accounting Research*, 25(1), 55-99.

[81] Niskanen, J., Karjalainen, J., Niskanen, M., & Karjalainen, J. (2011). Auditor gender and corporate earnings management behavior in private Finnish firms. *Managerial Auditing Journal*, 26(9), 778-793.

[82] Rodríguez, M. C., & Alegría, S. S. (2012). The value of audit quality in public and private companies: evidence from Spain. *Journal of Management & Governance*, 16(4), 683-706.

[83] Francis, J. R., & Krishnan, J. (1999). Accounting accruals and auditor reporting conservatism. *Contemporary Accounting Research*, 16(1), 135-165.

[84] Kim, H., Hoskisson, R. E., Tihanyi, L., & Hong, J. (2004). The evolution and restructuring of diversified business groups in emerging markets: The lessons from chaebols in Korea. *Asia Pacific Journal of Management*, 21(1/2), 25-48.

[85] Wiwanya, T. & Aim, J. (2008). The relationship between audit committee characteristics, audit firm size and earnings management in quarterly financial reports of companies listed in the stock exchange of Thailand. 8th Global Conference on Business & Economics, Florence Italy, 18-19th October.

[86] Fama, E. F. (1980). Agency Problems and the Theory of the Firm. *Journal of political economy*, 88(2), 288-307

[87] Sonnenfeld, J. A. (2002) What Makes Great Boards Great, Harvard Business Review, 106-113.

[88] Chhaochharia, V. & Y. Grinstein, (2009). CEO Compensation and Board Structure. Journal of Finance 64 (1):231- 261.

[89] Cadbury, A. (1992). Cadbury report: The financial aspects of corporate governance. Tech rept, HMG, London.