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Corporate Governance and Financial Performance: An Empirical Study on Cement Companies Listed in Saudi Stock Market

حوكمة الشركات والأداء المالي: دراسة تطبيقية على شركات الاسمنت السعودية المدرجة

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Abstract

This paper investigates the impact of corporate governance on financial performance by cement firms listed in Saudi stock market during the period of 2012-2016. Many studies have examined the association between corporate governance mechanisms, ownership structure and firm performance, the most of them conducted in the developed countries, produced diverse findings, influenced by the nature of the dominant governance system for each country. Using the Least Ordinary Square (OLS), the results of the current study revealed that managerial ownership and firm size have a positive and significant impact on firm performance. However, board independence, board size, board meeting and audit type have no effect on the financial performance.

Keywords: corporate governance, board structure, ownership structure, performance, Saudi Arabia.

ملخص

تبحث هذه الورقة في تأثير حوكمة الشركات على الأداء المالي لشركات الاسمنت السعودية المدرجة خلال الفترة 2012-2016. عدة دراسات، معظمها من البلدان المتقدمة، درست العلاقة بين آليات حوكمة الشركات وهيكل الملكية وأداء الشركة. تلك الدراسات اسفرت عن نتائج مختلفة تأثرت بطبيعة نظام الحوكمة في كل بلد. باستخدام الانحدار الخطي المتعدد، أظهرت نتائج الدراسة الحالية أن الملكية الإدارية وحجم الشركة لهما تأثير ذو دلالة إحصائية على أداء شركات الاسمنت المدرجة بسوق المال السعودية. في حين توصلت الدراسة الى عدم وجود علاقة بين الأداء المالي وكلاً من: استقلال مجلس الإدارة، حجم مجلس الإدارة، عدد اجتماعات مجلس الإدارة، ونوع مكتب المراجعة.

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Introduction

Nowadays, corporate governance has become a priority for the economic growth of any nation (Bansal & Sharma, 2016). It has become a concern in developing economies since the financial scandals in the past, which have resulted in demands for improved corporate governance practices (Baydoun et al., 2013). In fact, good corporate governance has become essential for improving firm performance, ensuring investor rights, enhancing the investment atmosphere and encouraging economic development (Braga-Alves & Shastri, 2011; Price, Roman & Rountree, 2011).

Good corporate governance also enables management to recognize corporate objectives, meet legal requirements, and protect shareholder rights. The impact of internal corporate governance on the performance of Saudi listed Cement firms is worthy of study for several reasons. Firstly, Saudi Stock Exchange is the 24th largest exchange out of the 76 stock exchanges worldwide, and the Saudi Stock Exchange's Market Capitalization is \$442.46 Billion adjusted US Dollars as of March 2017; therefore, evaluating Saudi market performance and variables affecting this performance are important to investors.

Secondly, since the launching of Saudi Corporate Governance Code in the late 2006, there has been no study investigated the relationship between firm performance and internal corporate governance of Saudi listed Cement firms. Thirdly, the results of this study about the impact of internal corporate governance on firm performance may help potential investors to grasp the importance of good corporate governance practices in protecting their interests. Finally, the study may add to the existing body of literature of corporate governance and contribute particularly to a better understanding of the potential components of internal corporate governance in the Saudi context.

Accurately, the present paper studies the determinant of firm performance and provides additional evidence on the influence of internal corporate governance on firm performance in the Saudi context where corporate governance is still in the early stage. This paper found that managerial ownership has a significant positive impact on the financial performance among Saudi cement firms listed in stock market, other corporate governance factors such as board independence, board size, and board meeting are not related to the financial performance. The reminder of this present study proceeds as follows. The following section provides a detailed discussion concerning the literature review and hypotheses development. Following a discussion on the methodology, the results of the study are reported. The final section concludes the research.

Literature Review and Hypothesis Development

Corporate Governance

The Cadbury Report (1992) defines corporate governance as the system by which companies are directed and controlled. This report claims that the duty for corporate governance lies with the board of directors whom appointed by shareholders to ensure that a proper governance structure is in place. The responsibilities of the board include setting the company's strategic aims, providing the leadership to put them into effect, supervising the management of the business and reporting to shareholders on their stewardship. The board's actions are subject to laws, regulations and the shareholders in general meeting.

OECD (2004) suggests corporate governance engages a set of relationships between management, boards, shareholders and other stakeholders of the firm. Based on this definition, the corporate governance framework should ensure the strategic guidance of the company, the effective monitoring of management by the board, and the board's accountability to the company and the shareholders. Moreover, the board is not only responsible to the company and its shareholders but also has a duty to act in their best interests and expected to take due regard of, and deal fairly with, other stakeholder interests such as employees, creditors, customers, suppliers and community. In order for boards to effectively fulfill their responsibilities, they must be able to exercise objective and independent judgment.

Furthermore, Saudi Capital Market Authority (SCMA, 2017) defines the corporate governance as rules to lead and guide the Company that includes mechanisms to regulate the various relationships between the Board, Executive Directors, shareholders and Stakeholders, by establishing rules and procedures to facilitate the decision making process and add transparency and credibility to it with the objective of protecting the rights of shareholders and Stakeholders and achieving fairness, competitiveness and transparency on the Exchange and the business environment. The main objective of this study is to examine the impact of corporate governance on financial performance among Saudi cement companies. Board independence, board size, board meeting, and managerial ownership are utilized to measure corporate governance in the current study.

Financial Performance and Board Independence

According to (Habbash & Bajaher, 2015) agency theory assumes the more mix between inside and outside directors sitting in the board; the more effectiveness of a board and better performance. The corporate governance codes issued by Saudi Capital Market Authority (2017) imposed on all listed

companies including the cement companies that the composition of the board must include independent members' not less one-third of the members.

Empirical studies regarding the association between the board independence and financial performance found inconclusive results. Some studies found a positive and significant relationship between the board independence and financial performance (Palaniappan, 2017; Habbash & Bajaher, 2015; Vintila & Gherghina, 2012; Nuryanah & Islam, 2011). Others, however, found a negative relationship between outside directors and firm performance (E.g. Sheikh, Wang, & Khan, 2013; Shukeri, Shin & Shaari, 2012, Bhagat & Bolton, 2008; Abdullah, 2006; Klein, Shapiro & Young, 2005). Other researchers have shown no evidence of a significant relationship with performance (Habbash 2017; Sheikh et al., 2013; Haniffa & Hudaib, 2006; Kula, 2005). Owing to the mixed findings documented in previous researches, the hypotheses are stated below in the form of a positive relationship as the agency theory assumes the more mix between inside -and outside directors sitting in the board; the more effectiveness of a board and better performance accordingly.

H1: There is a significant positive association between the board independence and financial performance.

Financial Performance and Board Size

It is argued that the agency problems associated with larger boards is more higher compare to small boards ones (Habbash & Bajaher, 2015). In fact, the board of directors leads and controls a company and an effective board is fundamental to the success of a company. Lipton & Lorsch (1992) suggest that larger boards are less effective than smaller boards because some directors may free-ride on the efforts of others. Similarly, Jensen (1993) states that when boards get larger, they are less likely to function effectively.

Alternatively, resource dependence theory suggests that larger boards with high levels of links to the external environment improve the company's access to various resources and leads to better performance (Sheikh et al., 2013). Several studies have been done in this area. For example, Sheikh et al., (2013) and Jackling & Johl (2009) found a positive relationship between board size and financial performance, which is consistent with the predictions of the resource dependence theory.

However, Shukeri, et al., (2012) found a negative association between company performance and board size. Finally, Nuryanah & Islam (2011) found no association between board size and performance proxies. From the above-mentioned discussion, there is a mixed result with respect to the association

between board size and company performance. Therefore, the study examines this relationship based on the following hypothesis:

H2: There is a significant positive association between board size and financial performance.

Financial Performance and Board Meetings

Board meetings is considered one of the important factors of corporate governance. Lipton & Lorsch (1992) assert that board members have insufficient time to achieve their duties and board meetings enhance the effectiveness of board. A higher frequency of board meeting could result to directors in carrying out their duties in line with shareholders' expectations and monitor management more efficiently (Lipton & Lorsch, 1992).

Regarding empirical studies, there is a mixed result. Some studies found a positive and significant relationship between number of board meetings and firm's financial performance (Palaniappan, 2017; García-Ramos & García-Olalla, 2011). On the other hand, Rodriguez Fernandez et al. (2014) reported negative relationship between number of board meetings and firm's financial performance. Jackling & Johl (2009) found no association between board meetings and firm's financial performance. Based on these views, the current study hypothesized that:

H3: There is a significant positive association between board meetings and financial performance.

Financial Performance and Managerial Ownership

According to Jensen & Meckling (1976), the greater the percentage of stocks owned by top managers, the more likely they will make decisions consistent with maximizing stockholders' wealth since that will maximize their own wealth. Therefore, managerial ownership serves as an important means of controlling agency problems.

Researchers have studies the relationships between the managerial ownership and performance in different countries. Drakos & Bekiris (2010) provided evidence that managerial ownership has a positive impact on corporate performance. On the other hand, Ehikioya (2009) has shown that managerial ownership is negatively related to the return on assets. Further, Mousa (2010) found no statistically significant relation between managerial ownership and corporate performance. Hence, based on the above arguments, the present study hypothesized that:

H4: There is a significant positive association between managerial ownership and financial performance.

Methodology

Research Design

This study was relying on quantitative design. Statistical analysis, table or graph was typically applied in this study. The evaluation and assessment of the firm performance was according to the data gathered from the company's annual report.

Sample selection and Data Collection

This research is limited to the listed cement firms in Saudi stock market, covering the period from 2012 to 2016. There were 14 cement firms listed in Saudi stock market. After excluding one firm that have incomplete data, the total sample of study becomes 13 cement firms with 65 observations. The purpose of this study is to examine the influence of internal corporate governance (independent variables) on financial performance (dependent variable) for listed cement firms in Saudi stock market. Secondary source is used to collect required data. In fact, all the data of dependent variable and independent variables are manually collected from the annual reports of the sampled firms for the period of study.

Data Analysis

Statistical Package for Social Sciences (SPSS) was used to assess and analyze the collected data to examine the relationship between corporate governance variables and firm performance. There are two methods of analysis used in this study, which are descriptive and inferential Statistics analysis. These methods were used as the underlying statistical tests to describe the original characteristics of a data set and are the key to summarizing variables, examining the impact of independent variables on dependent variable. The following model will be used to test the study's hypotheses:

$$FPER_{it} = \alpha_0 + \alpha_1 BIND_{it} + \alpha_2 BSIZE_{it} + \alpha_3 BMTG_{it} + \alpha_4 MOWN_{it} + \alpha_5 FSIZE_{it} + \alpha_6 AUTY_{it} + e$$

where,

- **FPER** the company financial performance indicator which is represented by the Return On Assets as the main dependent variable of the study for firm (i) and period (t).
- **BIND** represents Board Independence for firm (i) and period (t).
- **BSIZE** represents Board Size of firm (i) and of period (t).
- **BMTG** represents Board Meeting of firm (i) and for period (t).
- **MOWN** represents Managerial Ownership of firm (i) and for period (t).

- **FSIZE** represents natural logarithm of Total Asset
- **AUTY** represents a dummy variable for Audit Type of the company, 1 if the firm audited by one of the big4, 0 otherwise
- **e** represents error term.

Measurement of Variables

Dependent Variable

The dependent variable of this study is the firm's financial performance. To measure this variable, the study uses Return on Assets (ROA). According to Habbash & Bajaher (2015) ROA is one of the best performance measures used to address the relationship with corporate governance. Therefore, the study uses ROA to find out the relationship of this measure with independent variables. Likewise, Habbash & Bajaher (2015), the study measures ROA as a percentage of profit before interest and tax divided by total assets.

Independent Variables

Independent variables of this study are corporate governance variables, namely; board independence, board size, board meeting, and managerial ownership. The measure of these variables in this study is based on earlier corporate governance studies. Table1 shows the measurement of independent variables used in this study.

Control Variables

Beside the dependent and independent variables, some firm specific characteristics such as firm size) and audit size are used as control variables in this study (Table1 shows the definitions of these two variables). The using of these variables as control variables is due to their impact as firm specific characteristics on firms' performance.

Table 1: Measurement of Variables

Variable	Measurement
Financial performance(FPER)	The percentage of profit before interest and tax divided by total assets
Board independence (BIND)	The percentage of independent directors to total directors on the board
Board size(BSIZE)	Number of directors sitting on the board
Board meetings (BMTG)	Number of meetings held by the board in the year
Managerial ownership(MOWN)	The percentage of number of shares hold by directors and executive's managers to the total shares.
Firm size (FSIZE)	Log of total assets
Audit type (AUTY)	1 if the firm audited by one of the big4, 0 otherwise

Results

Descriptive Statistics

Descriptive statistics for all dichotomous and continuous variables are provided in Table2. Table2 shows that the highest performance of sampled companies is 0.33% and the minimum performance as measured by ROA is 0.00% with a mean of 13.3%. Furthermore, the present study found that the cement firms listed in Saudi stock market comply with corporate governance requirements regarding the board independence. It found that 0.51% of such companies are independent directors. This is in line with the guidelines of Saudi Governance Code that proposed that the composition of the board must be not less than one-third of the members.

Another interested finding of this paper is the board size has a mean of 8.7% and ranges from 6 to 11. This finding is in line of the Saudi corporate governance codes, which stated that the listed firms must have directors not less than 3 and not more than 11. The same table also shows that, on average, companies meets five times a year. Companies are also found to have managerial ownership on average about 19%. Descriptive statistics for other control variables (firm size and audit type) are also shown in Table2.

Table 2: Descriptive Statistics

	N	MINIMAM	MAXIMAM	MEAN	SD
FPER	65	.00	.33	.1331	.08230
BIND	65	.00	.86	.5106	.16172
BSIZE	65	5.00	11.00	8.7846	1.74546
BMTG	65	2.00	13.00	5.2462	2.09934
MOWN	65	.00	.70	.1964	.17683
FSIZE	65	9.05	9.67	9.4458	.16322
AUTY	65	.00	1.00	.5538	.50096

Bivariate Correlations

Table 3 reports Pearson product-moment correlations among all variables. The purpose of this test to see whether there is multicollinearity between independent variables, which represents by high correlation between any two variables. According to Lind, Marchal, & Wathen (2012) highly correlated independent variables make it difficult to make inference about the individual regression coefficients and their individual effects on dependent variables. A critical value that represents the high correlation between two variables is between -0.70 and 0.70 if less, multicollinearity between variables does not exist (Lind et al., 2012).

As indicated in Table3, the correlation among variables is between -0.27 and 0.54. The higher level of correlation found is between managerial ownership and financial performance as dependent variable which is 0.54 which is found to be significant at 0.01 level. This indicates that managerial ownership and financial performance has a strong positive and significant association among cement firms in Saudi listed stock market. The findings are in line with Drakos & Bekiris (2010). However, Mousa (2010) reported no significant association between managerial ownership and financial performance.

Table 3: Correlations Coefficients

	FPER	BIND	BSIZE	BMTG	MOWN	FSISE	AUTY
FPER	1						
BIND	-.192-	1					
BSIZE	.414**	-.140-	1				
BMTG	.276*	-.270-*	-.237-	1			
MOWN	.546**	.020	.255*	.359**	1		
FSISE	.378**	-.212-	.349* *	.246*	-.016-	1	
AUTY	.102	-.170-	.139	.151	.105	.028	1

** . Correlation is significant at the 0.01 level (2-tailed). * . Correlation is significant at the 0.05 level (2-tailed).

The multicollinearity problems are checked through correlation matrix. The higher level of correlation among independent variables is 0.35 between managerial ownership and board meetings. By comparing the findings in table3 with level (0.70) of multicollinearity suggested by Lind et al., (2012), it can be concluded that the serious multicollinearity is not exist among independent variables.

Furthermore, the existence of multicollinearity is tested by calculated the Variance Inflation Factor (VIF). According to Gujarati & Porter (2009), VIF value of less than 10 shows there is no multicollinearity problem. The VIF's for all individual variables were also very low supporting the previous conclusion that independent variables included in the model are not substantially correlated with each other. The results of the VIF and Tolerance test during multiple regression analysis are shown in Table 4.

Table4: Regression Results

Model	Unstandardized Coefficients		Stand. Coef. Beta	T-value	Sig.	VIF
	B	Std. Error				
(Constant)	.009	.143		0.061	0.951	1.210 1.855
BIND	-.103	.104	-0.103	-0.996	0.323	1.968 1.581 1.489
BFSIZE	.188	.128	0.188	1.465	0.148	1.082 1.210 1.855
BMTG	.049	.132	0.049	0.370	0.713	1.968 1.581 1.489
MOWN	.488	.118	0.488	4.116	0.000	1.082 1.210 1.855
FBSIZE	.286	.115	0.286	2.488	0.016	1.968 1.581 1.489
AUTY	-.016	.196	-0.008	-0.081	0.936	1.082
Adj. R Square	0.432	F-value: 9.098	Durbin-Watson: 1.807	sig F:0.00		

Regression Results

The main objective of this paper is to examine the relationship between the internal corporate governance as independent variables and profitability as dependent variable. To achieve this objective, the multivariate analysis was run. In fact, Ordinary Least Square analysis (OLS) is used to test the hypothesis. OLS regression is a powerful technique especially when the model contains continuous and dummy variables (Hutcheson & Sofroniou, 1999).

The findings of regression analysis is shown in Table4. As indicated in Table4, the

F-value of the model is highly significant at the 1 percent level and the adjusted R-squared is 43%. Thus, it can be concluded that the independent variables explain (47%) of the variability in financial performance of Saudi cement listed firms. This value is higher than adjusted R-squared obtained by

Habbash & Bajaher, (2015) and Cheng (2008) who reported only 17% and 28% respectively.

AS shown in Table4, board independence is negatively, related to the financial performance, but the relationship is insignificant. This finding is opposite to H1, which predict a significant positive association between financial performance and board independence. However, the result is line with such prior studies performance (Habbash 2017; Sheikh et al., 2013; Haniffa & Hudaib, 2006). However, the results contradict the agency theory argument that the presence of independent directors improves firm performance. Such a contradiction stems from the lack of business knowledge and the lack of true independence as large shareholders are the only ones responsible for appointing independent directors (Al-Saidi & Al-Shammari, 2013).

In the board size, the finding reported insignificant positive association with firm performance. Hence, H2 cannot be accepted. In fact, the results indicate that larger boards are ineffective in enhancing financial performance. The lack of association between large boards and financial performance is similar to Habbash & Bajaher, (2015) and Nuryanah & Islam (2011). Another finding of the current study is a positive relationship between firm financial performance and board meetings, but not significance. Thereby, H3 is rejected. This finding is in line with Jackling & Johl (2009). However, this result is in contrast with result of studies done by Palaniappan, (2017) and García-Ramos & GarcíaOlalla, (2011).

Regarding the fourth hypothesis which predicts significant positive association between the financial performance and managerial ownership. The finding reported a significant positive relationship between the financial performance and managerial ownership. Therefore, H4 is accepted. This result is in line with results of study conducted by Drakos & Bekiris (2010), they found that managerial ownership is related to financial performance. In contrast, Mousa (2010) found no statistically significant relation between managerial ownership and financial performance.

For control variables, in terms of firm size, the result reported a significant positive relationship between the financial performance and firm size. The larger firms the more investment they have and leading to better performance. The results consistent with the findings of Ehikioya (2009) and Habbash & Bajaher (2015). On the other hand, the current study found a negative association between the financial performance and audit type but no significance. This result, however, is in contrast of findings of Habbash & Bajaher (2015).

Conclusion

This study explores the impact of corporate governance on the financial performance of cement companies listed in Saudi stock market during the period of 2012-2016. Empirical studies indicate that managerial ownership has significant positive affect on the financial performance. Board independence is found to be not related to the financial performance among Saudi listed cement companies. However, the results contradict the agency theory argument that the presence of independent directors improves firm performance.

Further, board size and board meetings appear to be insignificant association to the financial performance. Board meetings appear to be insignificant related to the financial performance. With respect to the control variables, the finding demonstrates that firm size has a significant positive impact on the financial performance. However, audit type has no impact on the financial performance.

Limitations and Future Research

Like all studies the present study has some limitations that need to be acknowledged and addressed when assessing the findings of the study. First, the data was collected through publicly available data sources such as annual reports and other databases. Other data could be helpful to gain more of an insight. Second, while the study focuses only on a limited number of corporate governance variables (four variables), this study opens avenues for future research by considering the impact of corporate governance using other variables such as competence of the directors, CEO tenure, and directors' qualifications for several years. Moreover, there is a room for further research to compare the firm performance before and after the adoption of new governance code to see whether this adoption makes any change in Saudi firms' performance.

Third, the sample size is small. In fact, this study has only covered the period from 2012 to 2016, with a sample of 13 firms out of Saudi listed firms; hence, the validity of the findings interpreted in this study is limited to the scope of the data and the condition of economics for the period of the data. For future research, the sample size could be increased by including a longer period and different sectors or different countries such as members of the Gulf Cooperation Council (GCC).

References

- Abdullah, S. (2006). Directors' remuneration, firm's performance and corporate governance in Malaysia among distressed companies. *Corporate Governance: An International Review*, 6(2): 162-174.
- Al-Saidi, M. and Al-Shammari, B. (2013). "Board composition and bank performance in Kuwait: an empirical study", *Managerial Auditing Journal*, 28 (6): 472 – 49.
- Bansal, N. and Sharma, A. K. (2016). Audit committee, corporate governance and firm performance: empirical evidence from India. *International Journal of Economics and Finance*, 8 (3):103-116.
- Bhagat, S. and Black, B. (2002). The non-correlation between board independence and long-term firm performance. *Journal of Corporation Law*, 27: 231-273.
- Bhagat, S. and Bolton, B. (2008). Corporate governance and firm performance. *Journal of Corporate Finance*, 14: 257–273.
- Braga-Alves, M.V. and Shastri, K. (2011). Corporate governance, valuation, and performance: evidence from a voluntary market reform in Brazil. *Financial Management*, 40 (1): 139-157.
- Cadbury Committee. (1992). Report of the Committee on the Financial Aspects of Corporate Governance, Gee, London, UK.
- Cheng, S. (2008). Board size and the variability of corporate performance. *Journal of Financial Economics*, 87: 157–176.
- Drakos, A.A. and Bekiris, F.V. (2010). Corporate performance, managerial ownership and endogeneity: A simultaneous equations analysis for the Athens stock exchange. *Research in International Business and Finance*, 24(1): 24-38.
- Ehikioya, I. B. (2009). Corporate governance structure and firm performance in developing economies: *evidence from Nigeria*. *Corporate Governance*, 9(3): 231-243.
- García-Ramos, R. and García-Olalla, M. (2011). Board characteristics and firm performance in public founder- and nonfounder-led family Business. *Journal of Family Business Strategy*, 2(4): 220-231.
- Gujarati, D.N. and Porter, D.C. (2009). *Basic Econometrics*. 5th Edition, McGraw Hill Inc., New York

- Habbash, M. (2017). Corporate social responsibility disclosure, financial performance and firm value: the case of Saudi Arabia. *Arab Journal of Administrative Sciences*, 24(1): 81-105.
- Habbash, M. and Bajaher, M. (2015). An empirical analysis of the impact of board structure on the performance of large Saudi firms. *Arab Journal of Administrative Sciences*, 22 (1): 91-105.
- Haniffa, R. and Cooke, T.E. (2002). Culture, corporate governance, and disclosure in Malaysian corporations. *Abacus*, 18 (3): 317-349.
- Haniffa, R. and Hudaib, M. (2006). Corporate governance structure re and performance of Malaysian listed companies. *Journal of Business, Finance and Accounting*, 33, (7): 10341062.
- Hermalin, B. and Weisbach, M. (1991). The effects of board composition and direct incentives on firm performance. *Financial Management*, 20(1): 101-112.
- Hutcheson, G. and Sofroniou, N. (1999). *The multivariate social scientist*. London: Sage.
- Jackling, B. and Johl, S. (2009). Board structure and firm performance: evidence from India's top companies. *Corporate Governance: An International Review*, 17(4): 492-509.
- Jensen, M. C. and W. Meckling. (1976). Theory of the firm: managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*. Vol. 3. (4): pp. 305-360.
- Jensen, M.C. (1993). The modern industrial revaluation, exit, and the failure of internal control system. *Journal of Finance*, 48 (3): 831-880.
- Klein, P., Shapiro, D. and Young, J. (2005). Corporate governance, family ownership and firm value: the Canadian evidence. *Corporate Governance*, 13 (6): 769-784.
- Kula, V. (2005). The Impact of the roles, structure and process of boards on firm performance: evidence from Turkey. *Corporate Governance*, 13 (2): 265-276.
- Lipton, M. and Lorsch, J.W. (1992). A modest proposal for improved corporate governance. *The Business Lawyer*, 48(1): 59-77.
- Lind, D. A., Marchal, W. G. and Wathen, S. A. (2012). *Statistical techniques in business and economics*. (15th edition). New York: McGraw-Hill Irwin.

- Mousa, G.A. (2010). An empirical analysis of the effect of managerial ownership and board characteristics on corporate performance: evidence from Egypt. *Journal of Commerce and Finance*, 2: 21-52.
- Nuryanah, S. and Islam, S.M.N. (2011). Corporate governance and performance: evidence from an emerging market. *Malaysian Accounting Review*, 10(1): 17-42.
- OECD. (2004). *OECD Principles of Corporate Governance*, 2nd Edition, Organisation for Economic Co-operation and Development (OECD), Paris, France.
- Palaniappan, G. (2017). Determinants of corporate financial performance relating to board characteristics of corporate governance in Indian manufacturing industry: An empirical study. *European Journal of Management and Business Economics*, 26 (1): 67-85
- Price, R., Roman, F.J. and Rountree, B. (2011). The impact of governance reform on performance and transparency. *Journal of Financial Economics*, 99 (1): 76–96.
- Rodriguez-Fernandez, M., Fernandez-Alonso, S. and Rodriguez-Rodriguez J., (2014). Board characteristics and firm performance in Spain. *Corporate Governance*, 14(4): 485-503.
- SCMA. (2017). Corporate governance code for companies listed on stock market. https://cma.org.sa/en/RulesRegulations/Regulations/Documents/CGRegulations_en.pdf. Accessed on 2 November 2018.
- Sheikh, N.A., Wang, Z. and Khan, S. (2013). The impact of internal attributes of corporate governance on firm performance: Evidence from Pakistan. *International Journal of Commerce and Management*, 23(1): 38-55.
- Shukeri, S.N., Shin, O. and Shaari, M.S. (2012). Does board of directors; characteristics affect firm performance: evidence from Malaysian public listed companies. *International Business Research*, 5(9): 120-127.
- Vintila, G. and Gherghina, S. C. (2012). An empirical investigation of the relationship between corporate governance mechanisms, CEO characteristics and listed companies' performance. *International Business Research*, 5(10): 175-191.