THE ROLE OF CORPORATE GOVERNANCE MECHANISMS IN SUPPORTING THE FINANCIAL PERFORMANCE OF LISTED FIRMS IN IRAQ

Affaq Thanoon Ibrahem, Tikrit University
Marwa Saad Mohamed Elshanawany, Mansoura University

ABSTRACT

The relationship between corporate governance and financial performance has received wide attention of researchers in the last decade. However, numerous researches have been conducted to investigate this linkage in the past, the mixed findings of these researches cast doubt on the notion of a direct and universal relationship between corporate governance mechanisms and financial performance. Therefore, using a contingency theory perspective to address this issue can explain the mixed results in the literature. The issue was addressed through examining the effect of compliance with the corporate governance on Financial Performance of 58 Listed firms in Iraq. The results proved that corporate governance mechanisms have positive and significant effect on corporate financial performance. But like any other research, the present research is also subject to certain limitations, which should be considered while using the results of this research and the future researchers should attempt to overcome these limitations.

Keywords: Role of Corporate, Governance Mechanisms, Financial Performance

INTRODUCTION

Too much attention has been paid to corporate governance since the latest financial crisis. That was attributed to self-interest behavior of firms which had altered the traditional behavior of investors in equity investment. This self-interest behavior was tagged by Howard (1997) as “tragedy of maximization”, which implies that firm tends to act in self-interest that could lead to misuse of shareholders’ funds. Hence, there is a global renewed call for ethics, accountability, transparency and responsibility in the conduct of firms’ activities (Pocius et al., 2013; Ghazali, 2016).

Corporate governance reforms have been proposed to safeguard shareholders’ rights and reinstate investors’ confidence in the capital market. These reforms have significantly contributed to the evolution of a number of corporate governance mechanisms to mitigate agency conflicts resulting from the separation of ownership from control (Dey, 2008; Adams et al., 2010). However, the recurring and cyclic nature of these crises raised concerns over the efficacy of these reforms in controlling management behavior, as well as motivating their entrepreneurial behavior towards improving performance. Therefore, there is a need for a wider perspective of corporate governance that addresses the accountability and enterprise aspects of governance and its role in supporting corporate financial performance (Keaseyet al., 2005; Elgharbawy & Abdel-Kader, 2016). This issue was addressed through examining the effect of compliance with the corporate governance on financial performance in this research.

The remainder of this research is organized in four sections. Next section reviews the relevant literature related to corporate governance and financial performance and hypotheses development. Section 3 summarizes the research methods. The last sections explain the results and conclude the research.

LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Corporate Governance

There are various definitions of corporate governance, but these are broadly classified into two main groupings: the narrow definition and the broad definition, and these differ in terms of the firm obligations perceived.

In the narrow definition, the objective of the firm is viewed so as to maximize shareholder-wealth, that is, the firm exists to serve the interests of its shareholders. According to this definition, corporate governance can be defined as 'the way (system or a set of rules) in which companies are governed and controlled' (Aggarwal, 2013; Wanyama & Olweny, 2013; Abdulazeez et al., 2016), with an emphasis on the relationship between the board and shareholders. This approach to corporate governance is driven by agency theory and has been used for a long time. However, the approach has been criticized as very narrow by some authors arguing that firms have a wider range of stakeholders than just shareholders (Chen, 2019).

The other approach to corporate governance, underpinned by stakeholder theory takes the view that the obligation of firms is to a wider group of stakeholders, other than just shareholders, and is defined as any individual or group who could impact on the achievement of the firm's objectives, for example, employees, suppliers, customers, creditors, and even the wider community and competitors. To this extent, corporate governance can be defined as the firm itself being a grouping of stakeholders and the purpose of the firm should be to manage their interests, viewpoints, and needs (Wanyama & Olweny, 2013; Abdulazeez et al., 2016; Chen, 2019).

Corporate governance mechanisms can be either internal or external mechanisms. Internal corporate governance focus on the priority of shareholders' interest, engage with the board of directors to oversee top management (Apadore & Zainol, 2014). It includes management ownership, independent board of directors, board committees and the separation of CEO and chair positions (Keay & Loughrey, 2015; Elgharbawy & Abdel-Kader, 2016), which could be achieved through ownership structural design concerning voting rights and shareholding concentration; and board of directors 'effective monitoring and controlling roles aimed at protecting the stakeholder's interests (Babatunde & Olaniran, 2009; Ghazali, 2016).
Whereas, external corporate governance engages on force and external regulations in order to control and oversee managers' behavior (Apadore & Zainol, 2014). It also involves external regulatory control mechanism, compliance to corporate codes, products and factor market (Babatunde & Olaniran, 2009; Ghazali, 2016). In another word, External mechanisms include competitive labor market, market for corporate control, external auditor, stakeholder activism, legal environment, rating organization and media (Aguilera et al., 2015; Elgharbawy & Abdel-Kader, 2016).

Corporate Governance Mechanisms

Board Composition & Functioning

Several studies (Samaha et al., 2012; Aggarwal, 2013; Wanyama & Olweny, 2013; Apadore & Zainol, 2014; Raithatha & Bapat, 2014; Abdulazeez et al., 2016; Ghazali, 2016) have focused on board size, Board Independence, CEO duality or separation of CEO & Chairman, Board members (Paniagua et al., 2018), frequency of board meetings as an effective criteria to monitor board activities (Aggarwal, 2013), and well-functioning board which may also lead to good corporate governance. Board Activeness & Busyness (Raithatha & Bapat, 2014).

We considered Board Independent in particular as proxy variables for board structure. It represented by the number of non-executive directors on the board and it is measured by the percentage of outside directors (non-executive directors) on the total board members (Abdulazeez et al., 2016). The trend in practice focus on independent director that is free from business interest or any form of relationship that is perceived to be materially interfering or curtail his independent judgment in the discharge of his duties (Opara & Alade, 2014).

Outside directors play an important role in ensuring firm's survival, especially in time of crisis as it enhance greater access to external resources and specific competence. Actually, It was observed that the efficiency of the board depend on high number of outsiders on the board of directors (Ghazali, 2016). Wanyama & Olweny (2013) study established that various aspects of composition of the board affect the financial performance to a great extent. The study thus concludes that composition of the board positively influence the financial performance of listed companies to a great extent.

H1: The proportion of Independent directors on the board is positively associated with financial performance.

Ownership Structure

Various aspects of ownership structure like Number of shareholders (Samaha et al., 2012), Director ownership (Samaha et al., 2012), Blockholder ownership (Samaha et al., 2012), Ownership Concentration (Apadore & Zainol, 2014; Ghazali, 2016), Foreign Ownership (Apadore & Zainol, 2014; Raithatha & Bapat, 2014; Ghazali, 2016), Institutional Ownership (Raithatha & Bapat, 2014), ownership dispersion & cost (Paniagua et al., 2018) have been considered in previous studies. However, Ownership Concentration represents the key ownership-related feature that affects financial performance.

Ownership concentration refers to block of shares of at least 5% common stock belonging to a single shareholder. Large block holders are usually mutual funds, investment banks, government, pension funds among others. They often have expertise and motivation to monitor the management, especially in firm that are going through difficult business period (Ciampi, 2015). Therefore they serve as an effective internal control capable of checking the excesses of managers and members of directors (Ghazali, 2016). According to Ghazali (2016) ownership concentration has a significant and positive relationship with accounting performance. This implies that it can be used to enhanced account performance in time of economic down turn.

H2: Ownership Concentration is positively associated with financial performance.

It should be noted that CEO duality exists when a single person holds both the position of chairman and MD/CEO of the company, and some researchers address it as an aspect of ownership structure such as Raithatha & Bapat (2014).

Committees of the Board

Board committees add to effectiveness of board by exercising better control over management decisions. These include Nomination committee which evaluates the skills, knowledge, and expertise needed to identify the suitable candidates for the director position. Remuneration committee which helps in deciding the suitable amount of remuneration for the top level executives like CEO (Aggarwal, 2013). Audit committee also plays an important role so we will address it in more detail below.

Audit Committee

It represented by the total number of members in the audit committee. It is expected that the higher the number though within the limit set by code of corporate governance, the better the performance (Abdulazeez et al., 2016). On the other hand, audit quality is an essential attribute required from audit committee members to achieve the effective discharge of their duties. The best measure of an audit committee quality lays on their knowledge of accounting and financial principles, not on the level their numbers (Ghazali, 2016). High-profile corporate scams have heightened the need for an effective audit committee, so frequent meetings and independence of audit committee should be required to ensure credibility of corporate reports (Aggarwal, 2013). The functions of audit committee are primarily aim at helping the directors to carry out their responsibilities, increase the credibility of financial statements and accounts, and enhance audit independence (Okenwa, 2015).

H3: The audit committee quality is positively associated with financial performance.

Disclosure

Financial reporting involves providing stakeholders with financial information. Within a corporate context, financial reporting includes set of accounting statements which includes Balance Sheet, Income Statement and Cash Flow Statement. These statements are also required to fulfill statutory requirements of various regulatory authorities. Other financial statements prepared by companies based on the requirements are Consolidated Financial Statements, Segment Reporting, and Environmental reporting etc (Raithatha & Bapat, 2014).
Adequate disclosure could be defined as the extent (number of items) to which important information is presented in annual reports of companies and the degree of intensity by which a company discloses those items in its annual report (Raithatha & Bapat, 2014; Abdallah & Ismail, 2016). The disclosure component of corporate governance is related to the transparency of financial reporting which reduces the information asymmetry between managers and shareholders and leads to more informative results (De Almeida & Dalmácio, 2015). According to Ararat, et al., (2017) the principal sub-index which predicts higher market value and profitability, and drives the results for Turkey Corporate Governance Index (TCGI) as a whole, is disclosure sub-index.

H4: Disclosure is positively associated with financial performance.

The Relationship between Corporate Governance Mechanisms & Corporate Financial Performance

Previous studies examined the relationship between corporate governance mechanisms and performance. However, the mixed findings of these studies cast doubt on the notion of a direct and universal relationship between both of them. Such inconsistency in the findings can be explained by the fact that the relationship between governance and performance differs with respect to organizational contexts and the level of conflict of interest within them. Some corporate governance mechanisms also show opposite effects in different countries or even in the same country from one period to another. This may be due to the inability of companies to convoy with change or inadequate risk-adjustment and the endogenity problems (Aguilera et al., 2008; Bhagat & Bolton, 2008; Dey, 2008; Chen & Nowland, 2010).

The results of Gürbüz et al., (2010) analyzes showed the positive impact of corporate governance and institutional ownership on financial performance. The results of the Aggarwal (2013) study also confirmed the positive impact of corporate governance on financial performance.

In this regard, the study of (Wanyama & Olweny, 2013) found a strong relationship exist between the Corporate Governance practices and the firms' financial performance. There was a positive relationship between board composition and firm financial performance. However, the most critical aspect of board composition was the experience, skills and expertise of the board members as opposed to whether they were executive or non-executive directors. Similarly, leverage was found to positively affect financial performance. On CEO duality, the study also found that separation of the role of CEO and Chair positively influenced the financial performance. Meanwhile Board size has a negative effect on the financial performance.

El-Chaarani (2014) study revealed the positive impact of independent boards and the concentration of ownership on financial performance, while it also found a negative relationship between the CEO duality and financial performance. However, Shahwan (2015) study showed that the quality of governance practices in Egyptian listed companies was relatively low, and the results did not support the positive correlation between corporate governance practices and financial performance. Whereas (Abdulazeez et al., 2016; Paniagua et al., 2018) studies confirmed the positive correlation exists between compliance with corporate governance and financial performance.

In contrast, Hassan CheHaat, et al., (2008) investigated the relationship between corporate governance practices and corporate transparency and performance among Malaysian PLCs. The results of their research show a negative association between audit quality and performance of Malaysian companies.

Meanwhile Hassan & Halbouni (2013) examined the relationship between audit type and firm performance by taking into consideration of 95 financial and non-financial corporations. However, the result shows that there is no significant relationship between audit type and firm performance due to the fact that the operational decision of the client is not affected by the external auditor.

H4: Compliance with Corporate Governance Mechanisms has an effect on financial performance of listed firms in Iraq

RESEARCH METHOD

This study adopted a cross-sectional survey methodology, which is very common in the corporate governance literature (Elgharbawy & Abdel-Kader, 2016). This methodology permits collecting a large amount of data from a considerable population economically and allows more control over the research process to reach generalizable findings (Saunders et al., 2015).

Research Context

To address the research problem of this study, Iraq was selected as a context for a number of reasons. First, the research problem rests on the existence of the agency problem, which makes Iraq an appropriate context where the agency problem is persistent.

Second, most of previous studies have been conducted in other countries and little is known about these practices in Iraq. Although there are some similarities between them, significant differences still exist such as the regulatory framework of corporate governance and the listing rules, the concentration of institutional ownership and the balance of insiders and outsiders in board structures. These differences may make the results of empirical studies conducted in these countries not applicable to Iraq.

The Sample and Data Collection

The medium and large companies in Iraq were the target sample for this study. Small companies were eliminated, as they are unlikely to adopt strong corporate governance structure. Only listed companies were used where the agency problem is persistent. Financial institutions were excluded from the sample, as they are more regulated and are subject to more scrutiny in terms of information disclosure, governance and other legal requirements, especially after the financial crisis.

The study used a convenience sample of 58 companies which positively responded to the survey questionnaire. However, the survey has targeted the entire population of the study to improve the response rate and to obtain a representative sample.

Multiple methods have been used for data collection. The main method used was a postal questionnaire to collect data about research variables. Archival data were collected from databases about listed companies. Further, content analysis was used to identify the level of compliance with the corporate governance.

The Questionnaire

The questionnaire measured was used to measure corporate governance mechanisms, and corporate financial performance. As corporate governance is a multi-dimensional construct and different typologies have been used in the literature to capture its dimensions, a comprehensive instrument containing four dimensions of corporate governance was used (Table I for more details). A semantic differential instrument was used to derive the attitude of the CFOs towards corporate governance mechanisms on a five-point rating scale.

Table 1
VARIABLES MEASUREMENTS

Construct	Dimensions	Measurement Source
	Ownership Structure	Cited in (De Almeida & Dalmácio, 2015; Ararat et al., 2017).
Corporate governance	Board Composition & Functioning	Cited in (De Almeida & Dalmácio, 2015; Chauhan et al., 2016; Ararat et al., 2017).
	Disclosure	Cited in (De Almeida & Dalmácio, 2015; Chauhan et al., 2016; Ararat et al., 2017).
	Audit Committee	Cited in (Chauhan et al., 2016).
Financial Performance	Unidimensional	Cited in (Wanyama & Olweny, 2013).

RESULTS

Reliability Analysis

Reliability of the questionnaire was evaluated through Cronbach's Alpha which measures the internal consistency. Cronbach's alpha was calculated by application of SPSS for reliability analysis. The value of the alpha coefficient ranges from 0-1 and may be used to describe the reliability of factors extracted from dichotomous and or multi-point formatted questionnaires or scales. A higher value shows a more reliable generated scale. Cooper and Schindler (2008) have indicated 0.7 to be an acceptable reliability coefficient.

Table 2 shows that Board Composition & Functioning had the highest reliability (α=0.853) followed by Audit Committee (α=0.848), then Ownership Structure (α=0.829) and Disclosure (α=0.817), while Financial Performance (α=0.806). This illustrates that all the five scales were reliable as their reliability values exceeded the prescribed threshold of 0.7.

Table 2
RELIABILITY COEFFICIENTS

Scale	Cronbach's Alpha
Ownership Structure	0.829
Board Composition & Functioning	0.853

Audit Committee	0.848
Disclosure	0.817
Financial Performance	0.806

Correlation Analysis

Correlation analysis is the statistical tool that can be used to determine the level of association between two variables (Levin & Rubin, 1998). This analysis can be seen as the initial step in statistical modeling to determine the relationship between the dependent and independent variables. Prior to carrying out a multiple regression analysis, a correlation matrix was developed to analyze the relationships between the independent variables as this would assist in developing a prediction multiple model. Correlation analysis also helped to detect any chance of multicollinearity. Correlation values were interpreted between 0 (no relationship) and ±1.0 which means perfect positive or negative relationship (Hair et al., 2010). The relationship considered small when r=±0.1 to ±0.39, while the relationship considered medium when r=±0.4 to ±0.69, and when r= ±0.7 and above, the relationship considered to be strong.

Table 3
PEARSON CORRELATIONS

	Ownership Structure	Board Composition & Functioning	Audit Committee	Disclosure	Financial Performance
Ownership Structure	1				
Board Composition & Functioning	0.491**	1			
Audit Committee	0.520**	0.381**	1		
Disclosure	0.460**	0.707**	0.546**	1	
Financial Performance	0.505**	0.698**	0.585**	0.726**	1

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

The results in table 3 illustrate the significant correlations between the dependent and independent variables. Higher positive correlations (0.726**) have been found between disclosure and financial performance, followed by (0.698**) between board composition & functioning and financial performance, then (0.585**) between audit committee and financial performance, and finally (0.505**) between ownership structure and financial performance. Therefore H1, H2, H3, H4 were accepted.

Regression Analysis

Table 4
REGRESSION COEFFICIENTS

Model (1)	Beta	T	(Sig.)	F (Sig.)
Ownership Structure	0.059	2.93	0.571	
Board Composition & Functioning	0.352	0.57	0.005	24.484
Audit Committee	0.249	2.373	0.021	0
Disclosure	0.314	2.47	0.017	
R= (.806) R^2= (.649) Adjusted R^2= (.622)				

From observation of data given in table 4 we could illustrate the results below;

- F value was less than 0.01; it considered to be an indication that the model was statistically significant, which means that the model fit was good.
- All beta coefficients were positive and significant, except for ownership structure, which mean that all corporate governance mechanisms (board composition & functioning, disclosure, and audit committee respectively) have a positive and significant effect on financial performance, except ownership structure. Therefore H5 was partially accepted.
- R is the correlation coefficient which shows the relationship between the study variables. The findings show that there was a strong positive relationship between the study variables as shown by 0.806.
- R2 value was 0.649, which mean that 64.9% of changes in the financial performance of Iraq companies could be accounted for board composition& functioning, disclosure and audit committee at 95% confidence interval.

CONCLUSION, RECOMMENDATION AND LIMITATIONS

The result of the summary statistics revealed that the proportion of non-executive director serving in the boards of Iraq Listed firms are high and this is in compliance with the specification of corporate governance code which specifies that the number of non-executive directors should be higher than the executive directors. The results also confirmed the significant and positive effect of board composition & functioning on financial performance, actually all corporate governance mechanisms have significant and positive effect on financial performance, except ownership structure.

The results of this research may support Companies decision to improve its governance structure. Companies should strive to improve its performance along indicators of good governance – Leadership Ethics, Board Composition & Independence, Executive Compensation, Transparency and Reporting, Stakeholder Engagement, and Compliance with law in true letter and spirit. Companies should understand that improving governance and sustainability performance is as important as improving the financial performance.

However, this research reflects the general situation of heterogeneous firms; it is limited to a sample of Iraq Listed firms, which may result in the findings being applicable only to this context. Future research can benefit from conducting comparative studies in different contexts with different regulatory frameworks, to develop a better understanding of the relationship between corporate governance mechanisms and financial performance.

Further research would be needed to adapt corporate governance mechanisms to another specific sectors or regions with other dependent variables such as corporate reputation. Our study also captures the variation of around 64.9% of financial performance. Therefore, further studies should be developed to explain the unknown variation of financial performance.

Finally, Studies which embrace a longitudinal perspective and panel data for a number of years would help to see how the dynamics of compliance with corporate governance and financial performance develop and change over time.

FUNDING

This study received no specific financial support.

COMPETING INTERESTS

The authors declare that they have no competing interests.

ACKNOWLEDGEMENT

All authors contributed equally to the conception and design of the study.

CONTRIBUTION

This study contributes to supporting the Iraqi companies listed in the Iraqi Stock Exchange to improve their management structure, and that improving the performance of governance and sustainability in these companies is no less important than improving the financial performance.

REFERENCES

Abdallah, A.A.N., & Ismail, A.K. (2017). Corporate governance practices, ownership structure, and corporate performance in the GCC countries. *Journal of International Financial Markets, Institutions and Money, 46*, 98-115. https://doi.org/10.1016/j.intfin.2016.08.004

Abdulazeez, D.A., Ndibe, L., & Mercy, A.M. (2016). Corporate governance and financial performance of listed deposit money banks in Nigeria. *Journal of Accounting and Marketing, 5*(1), 1-6. http://dx.doi.org/10.4172/2168-9601.1000153

Adams, R.B., Hermalin, B.E., & Weisbach, M.S. (2010). The role of boards of directors in corporate governance: A conceptual framework and survey. *Journal of economic literature, 48*(1), 58-107. http://dx.doi.org/ 10.1257/jel.48.1.58

Aggarwal, P. (2013). Impact of corporate governance on corporate financial performance. *IOSR Journal of Business and Management, 13*(3), 1-5. http://dx.doi.org/ 10.9790/487X-1330105

Aguilera, R.V., Desender, K., Bednar, M.K., & Lee, J.H. (2015). Connecting the dots: Bringing external corporate governance into the corporate governance puzzle. *The Academy of Management Annals, 9*(1), 483-573. https://doi.org/10.1080/19416520.2015.1024503

Aguilera, R.V., Filatotchev, I., Gospel, H., & Jackson, G. (2008). An organizational approach to comparative corporate governance: Costs, contingencies, and complementarities. *Organization science, 19*(3), 475-492. https://doi.org/ 10.1287/orsc.1070.0322

Apadore, K., & Zainol, S.S.B. (2014). Determinants of corporate governance and corporate performance among consumer product industry in malaysia: A theoretical model. International *Journal of Academic Research in Accounting, Finance and Management Sciences, 4*(2), 159-165. https://doi.org/ 10.6007/IJARAFMS/v4-i2/836

Ararat, M., Black, B.S., & Yurtoglu, B.B. (2017). The effect of corporate governance on firm value and profitability: Time-series evidence from Turkey. *Emerging Markets Review, 30*, 113-132. https://doi.org/ 10.1016/j.ememar.2016.10.001

Babatunde, M.A., & Olaniran, O. (2009). The effects of internal and external mechanism on governance and performance of corporate firms in Nigeria. *Corporate ownership & control, 7*(2), 330-344. https://doi.org/ 10.22495/cocv7i2c3p1

Bhagat, S., & Bolton, B. (2008). Corporate governance and firm performance. *Journal of corporate finance, 14* (3), 257-273. https://doi.org/10.1016/j.jcorpfin.2008.03.006

Chauhan, Y., Lakshmi, K.R., & Dey, D.K. (2016). Corporate governance practices, self-dealings, and firm performance: Evidence from India. *Journal of Contemporary Accounting & Economics, 12*(3), 274–289. https://doi.org/ 10.1016/j.jcae.2016.10.002

Chen, E.T., & Nowland, J. (2010). Optimal board monitoring in family-owned companies: Evidence from Asia. Corporate Governance: *An International Review, 18*(1), 3-17. https://doi.org/10.1111/j.1467-8683.2009.00778.x

Chen, X. (2019). Corporate governance structures, corporate entrepreneurship and firm performance: A study of Chinese listed firms Doctoral dissertation, Nottingham Trent University. http://irep.ntu.ac.uk/id/eprint/36174

Ciampi, F. (2015). Corporate governance characteristics and default prediction modeling for small enterprises. An empirical analysis of Italian firms. *Journal of Business Research, 68*(5), https://doi.org/1012-1025. 10.1016/j.jbusres.2014.10.003

Cooper, D., & Schindler, P. (2008). *Business research methods (10th Edition)*. New York, McGraw-Hill/Irwin.

De Almeida, J.E.F., & Dalmácio, F.Z. (2015). The effects of corporate governance and product market competition on analysts' forecasts: Evidence from the Brazilian Capital Market. *The International Journal of Accounting, 50*(3), 316 - 339. https://doi.org/ 10.1016/j.intacc.2015.07.007

Dey, A. (2008). Corporate governance and agency conflicts. *Journal of Accounting Research, 46*(5), 1143-1181. https://doi.org/10.1111/j.1475-679X.2008.00301.x

El-Chaarani, H. (2014). The impact of corporate governance on the performance of Lebanese banks. *The International Journal of Business and Finance Research, 8*(5), 35-46. RePEc:ibf:ijbfre:v:8:y:2014:i:5:p:35-46

Elgharbawy, A., & Abdel-Kader, M. (2016). Does compliance with corporate governance code hinder corporate entrepreneurship? Evidence from the UK. *Corporate Governance, 16*(4), 765-784. http://dx.doi.org/10.1108/CG-12-2015-0169

Ghazali, A.O.D.Z.B. (2016). Corporate governance mechanisms: The determinants of listed firm performance in Nigeria. *Corporate Governance, 7*(8), 68- 84. https://core.ac.uk/download/pdf/234631343.pdf

Gürbüz, A.O., Aybars, A., & Kutlu, Ö. (2010). Corporate governance and financial performance with a perspective on institutional ownership: Empirical evidence from Turkey. *Journal of Applied Management Accounting Research, 8*(2), 21-37. https://doi.org/10.4236/me.2016.710111

Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., & Tatham, R.L. (2010). Multivariate data analysis, *(7th Edition).* Upper Saddle River, New Jersey. Prentice Hall.

Hassan CheHaat, M., Abdul Rahman, R., & Mahenthiran, S. (2008). Corporate governance, transparency and performance of Malaysian companies. *Managerial Auditing Journal, 23*(8), 744-778. http://dx.doi.org/10.1108/02686900810899518

Hassan, M.K., & Halbouni, S.S. (2013). Corporate governance, economic turbulence and financial performance of UAE listed firms. *Studies in Economics and Finance, 30*(2), 118-138. https://doi.org/10.1108/10867371311325435

Keasey, K., Short, H., & Wright, M. (2005). The development of corporate governance codes in the UK. Corporate governance: Accountability, enterprise and international comparisons, 21- 44.

Keay, A., & Loughrey, J. (2015). The framework for board accountability in corporate governance. *Legal Studies, 35*(2), 252-279. https://doi.org/10.1111/lest.12058

Levin, R.I., & Rubin, D.S. (1998). *Statistics for Management, (7th Edition)*. Prentice Hall.

Opara, L.C., & Alade, A.J. (2014). The legal regime of corporate governance in Nigeria: A critical analysis. *Journal of Law Policy and Globalization, 26*, 38- 58. https://www.iiste.org/Journals/index.php/JLPG/article/view/13785

Paniagua, J., Rivelles, R., & Sapena, J. (2018). Corporate governance and financial performance: The role of ownership and board structure. *Journal of Business Research, 89,* 229-234. https://doi.org/10.1016/j.jbusres.2018.01.060

Pocius, V., Stungurienė, S., & Paškevičius, A. (2014). The factors of the attractiveness of the capital market of Lithuania. *Procedia-Social and Behavioral Sciences, 110*, 1052-1062. http://dx.doi.org/10.1016/j.sbspro.2013.12.952

Raithatha, M., & Bapat, V. (2014). Impact of corporate governance on financial disclosures: Evidence from India. *Corporate Ownership and Control, 12*(1), 874-889. https://doi.org/10.22495/cocv12i1c9p10

Samaha, K., Dahawy, K., Hussainey, K., & Stapleton, P. (2012). The extent of corporate governance disclosure and its determinants in a developing market: The case of Egypt. *Advances in Accounting, 28* (1), 168-178. https://doi.org/10.1016/j.adiac.2011.12.001

Saunders, M., Lewis, P., & Thornhill, A. (2015). *Research methods for business students, (7th Edition)*. Pearson Education, London.

Shahwan, T.M. (2015). The effects of corporate governance on financial performance and financial distress: evidence from Egypt. *Corporate Governance, 15*(5), 641-662. https://doi.org/10.1108/CG-11-2014-0140

Wanyama, D.W., & Olweny, T. (2013). Effects of corporate governance on financial performance of listed insurance firms in Kenya. *Public policy and administration research, 3*(4), 96-120. https://iiste.org/Journals/index.php/PPAR/article/view/5340

Hamad, A.A., Al-Obeidi, A.S., Al-Taiy, E.H., Khalaf, O.I., & Le, D. (2021). Synchronization phenomena investigation of a new nonlinear dynamical system 4d by gardano's and lyapunov's methods. *Computers, Materials & Continua, 66*(3), 3311-3327.

Khalaf, O.I., Ajesh, F., Hamad, A.A., Nguyen, G.N., & Le, D.N. (2020). Efficient dual-cooperative bait detection scheme for collaborative attackers on mobile ad-hoc networks. *IEEE Access, 8*, 227962-227969.

Thivagar, L.M., Hamad, A.A., & Ahmed, S.G. (2020). Conforming dynamics in the metric spaces. *Journal of Information Science and Engineering, 36*(2), 279-291.

Maria Antony, L.T., & Abdullah Hamad, A. (2020). A theoretical implementation for a proposed hyper-complex chaotic system. *Journal of Intelligent & Fuzzy Systems, 38*(3), 2585-2590.

Thivagar, M.L., & Hamad, A.A. (2019). Topological geometry analysis for complex dynamic systems based on adaptive control method. *Periodicals of Engineering and Natural Sciences (PEN), 7*(3), 1345-1353.

Thivagar, M.L., Ahmed, M.A., Ramesh, V., & Hamad, A.A. (2020). Impact of non-linear electronic circuits and switch of chaotic dynamics. *Periodicals of Engineering and Natural Sciences (PEN), 7*(4), 2070-2091.

Jha, S., Seo, C., & Yang, E.. (2021). Real time object detection and tracking system for video surveillance system. *Multimedia Tools and Applications, 80*, 3981–3996 (2021). https://doi.org/10.1007/s11042-020-09749-x

Jha, S., Prashar, D., Long, H.V., & Taniar, D. (2020). Recurrent neural network for detecting malware. *Computers & Security, 99*, 102037.

Prasad Joshi, G., & Jha, S. (2020). A Novel clustering scheme for heterogeneous cognitive radio wireless sensor networks. *Solidarity Engineering, 16*(3). https://doi.org/10.16925/2357-6014.2020.03.04

Jha, S., Yang, E., Almagrabi, A.O., Bashir, A.K., & Joshi, G.P. (2020). "Comparative analysis of time series model and machine testing systems for crime forecasting". *Neural Computing and Applications*

Jha, S., Nkenyereye, L., Joshi, G.P., & Yang, E. (2020). Mitigating and monitoring smart city using internet of things. *Computers, Materials & Continua*, *65*(2), 1059-1079.

Sudan, J., Deepak, P., & Ahmed, A. (2020). 'A novel approach using Modified Filtering Algorithm (MFA) for effective completion of cloud tasks'. 8409 – 8417.