

Print ISSN: 2288-4637 / Online ISSN 2288-4645
doi:10.13106/jafeb.2021.vol8.no2.0243

The Effect of Board of Directors and CEO on Audit Quality: Evidence from Listed Manufacturing Firms in Jordan

Qasim Ahmad ALAWAQLEH¹, Nashat Ali ALMASRIA², Jafer Maroof ALSAWALHAH³

Received: November 05, 2020 Revised: December 30, 2020 Accepted: January 08, 2021

Abstract

This study aims to examine (1) the association between the chief executive officer tenure and audit quality, (2) the relationship between chief executive officer duality and audit quality, (3) the association between board independence and audit quality, (4) the relationship between board size and audit quality, and (5) the role of controlling variables (client size, leverage debt, and business complexity) in controlling these relationships. The research sample includes 325 financial reports from manufacturing firms listed in Amman Stock exchange over the 2014-2018 period. The study relationships are tested by using logistic regression. The results revealed a negative relationship, but not significant between CEO tenure and independent directors with audit quality. In addition, the results showed there is a negative effect of CEO duality on audit quality; also the results revealed that there is a statistically significant effect on the board of directors (board size) on the AQ. In general, the coefficient estimates of controlling variables show that client size and leverage debt positively affect audit quality, and on the contrary, business complexity has an insignificant positive relationship with audit quality. The summary of the study findings play an active role to external auditor opinion on business practice in towered the corporate governance system.

Keywords: Audit Quality, Corporate Governance, Chief Executive Officer Tenure, Chief Executive Officer Duality, Board Independence, Board Size

JEL Classification Code: M41, M42, M49

1. Introduction

The recent audit studies suggest that conducting more research about the corporate governance and audit quality (Shan, 2014; Zaman et al., 2011; Beisland, 2015; Amir, 2017; Garrow, 2018) will positively reflect on investments in Jordan by the financial report quality improve and inspire investors to invest in the Jordanian companies (Alzoubi, 2016; Al-Farah & Al Shaar, 2015).

Additionally, many developed countries conducted research related to audit quality (Hoos & Lesage, 2018;

Oladejo et al., 2020). According to the researchers' knowledge, this study is the first in Jordan about the effect of chief executive officer tenure, chief executive officer duality, board independence, and board size on audit quality. This study responds to the scandals in the many public shareholding companies in Jordan because the failure of the opinion issued by external auditors about these companies (Alzoubi, 2016). This study was conducted on Jordanian manufacturing companies based on many recommendations from former studies on audit quality (Carcello et al., 2011).

As earlier literature suggests that high audit quality will enhance the confidence of investors in the financial reporting issued by external auditors (Oladejo et al., 2020). Habib et al. (2019) confirmed that empirical evidence is lacking and unclear of the nature of the relationship between corporate governance and audit quality. The demand for audit quality has been emphasized considering the corporate scandals caused by a failure of audit service (Niskanen et al., 2011). This phenomenon (collapse of economic and financial distress in many companies because audit fail) was appeared in the western countries, Russia, and in Latin America in the 1990s

¹First Author and Corresponding Author. Accounting Department, College of Business, Philadelphia University, Jordan [Postal Address: Amman, Jordan] Email: qawaqleh@philadelphia.edu.jo

²Accounting Department, College of Business, Philadelphia University, Jordan. Email: nalmasria@philadelphia.edu.jo

³Accounting Department, College of Business, Philadelphia University, Jordan. Email: jsawalhah@philadelphia.edu.jo

© Copyright: The Author(s)

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

(Karaibrahimoglu, 2013; Shan, 2014; Anafiah, 2017). Also, we saw the same case (financial collapses) in the USA especially in 2001 (Adeyemi et al., 2012; Soliman & Abdel Salam, 2013; Oladejo & Yinus, 2020). Confirmation of that, Abdullah et al. (2016) showed there were many companies that had failed due to the fall of audit in many corporations in the world. As the result of audit failure and existence of business crisis the world goes to encourage the researchers and policymakers to seek the act for resolve the problem, in addition to the interests also by investors and professionals in that, many from them focusing on the corporate government for find solution to improve audit quality for increase the users' confidence in financial reports (Karaibrahimoglu, 2013). Furthermore, many reasons were appeared about impair of financial reports quality due to system deteriorates in corporate governance and failure of audit (Adeyemi et al., 2012).

Jordanian economy is suffering from financial distress because the failure of many of companies; the main reason was an audit in Jordan where the external auditor issued a clean report, but next day the company failed. There is no warning by an external auditor in Jordan about companies' bad health (Marashdeh, 2014; Almomani, 2015, Alzoubi, 2016). Therefore, this study examines the effect of corporate governance (chief executive officer tenure, chief executive officer duality, board independence, and board size) on audit quality in Jordan to help policymakers to improve the professional audit. Due to some audit firms' non-commitment to due professional care the public shareholding companies lost about 40% of their capital because there is no early warning about the financial distress and information to most investors abroad (Acito, 2015; Abu Qa'dan & Suwaidan, 2019). Therefore, external auditors play an active role in the corporate governance system (Knechel, 2016). This study relied on prior research to design a framework about variables regarding Jordanian manufacturing companies. Other studies confirmed that the auditors were answerable for being unable the detect of materiality errors or unable in the execution of the audit practice, and as a result of well-known cheats in the business world and failures of audit make policymakers interested to improve quality of audit for getting fit role to the auditor for control on managerial procedures (Christensen, 2015).

2. Literature Review and Hypotheses Development

2.1. Agency Theory and The Relationship Between Board of Directors and CEO with Audit Quality

This study is based on agency theory, which explained the relationship between the shareholders and managers (Bosse, 2016), how corporate governance and audit come in to

manage this relationship, and how audit quality can be used as an affirmation on corporate governance as a solution of agency conflicts and information irregularity. Likewise, the literature on audit showed the importance of agency theory to show the value of external auditor work (Watkins et al., 2004). Consequently, this study used agency theory because there are accounting dimensions of corporate governance to improve the control level and prevent management fraud to forget high audit quality to protect the stakeholders' interests (Knechel, 2016). The external auditor's independence is vital to examine the financial information reliability and confirm fairly by the management (Victoria Adekanye, 2019; Cohen & Wright, 2017). Additionally, this study examined the audit quality as an essential requirement for agency problem solution because agency theory provides a direct relationship between audit quality and dimensions of corporate governance.

According to Makni, et al. (2012), corporate governance has different responsibilities such as tasks between internal audit and external audit, so the quality of external audit is necessary to develop the corporate governance quality (Oladejo et al., 2020). However, external and internal audits are playing a vital role in monitoring the financial reporting system (Beisland et al., 2015).

2.2. Interactions Between Auditing and CEO and Board

Because of agency costs, Watts and Zimmerman (1986) emphasized the necessity to solve the interest conflict between shareholders and managers through governance instruments, which appear through all the CEOs and boards. The researcher sees that the CEO and board of corporate governance and audit quality required a proper solution to economic crises due to the failure of companies and due to weak trust in auditor's report, which negatively affect most of the world markets. This study focuses on increasing the shareholders confidence in financial reports issued by an external auditor (Ben-Hassoun, 2018; Kwon, 2018).

The Jordanian economy is facing financial problems due to the financial corruption and collapse of many companies, due to management cheating and weakness. For these reasons the investors are losing confidence in management activities because the weakness in external auditors reports. This problem was confirmed by Holt and Eccles (2003), which leads to discouraging most investors to invest in Jordanian companies (Dwekat et al., 2018; Karaibrahimoglu, 2013).

2.3. Hypothesis Development

The literature on corporate governance examines the association between dimensions of corporate governance (CEO and board) and audit quality (Chizema et al., 2015;

Ben-Hassoun, 2018). This literature on corporate governance indicates that audit committee and directors board became a vital part from the system of corporate governance; those researchers recommend the effective boards performance as these boards play a critical role in processes of managing and controlling, also director's board plays a significant role in decision-making (Alzeban, 2015; Chizema et al., 2015; Levit & Malenko, 2016). Khalil and Ozkan (2016) asserted there is a positive relationship between directors' board effectiveness and audit quality; this indicates the effectiveness of board of directors is effective for protecting the owners' interest. For formulating the study hypotheses, the researchers depend on agency theory and empirical evidence to examine the effects of independent variables on the dependent variable (audit quality). Low quality of audit might lead to impair the quality of the financial report (Pham et al., 2020). Thus, the researcher developed the following hypotheses.

2.3.1. The Tenure Period of Chief Executive Officer (CEO)

The literature on corporate governance discusses the importance of the tenure period of the CEO mainly regarding the companies' financial performance (Baatwah et al., 2015; Du, 2019; Hoang et al., 2020). Similarly, previous studies underlined the positive relationship between CEO tenure and quality of auditor report; this meaning the increase in CEO tenure lead to the high quality of auditor report. In addition, the length of a CEO tenure impacts on the fraud in financial statements (Baatwah et al., 2015; Zhang & Wiersema, 2009). A study conducted by Luo, Kanuri, and Andrews (2014) confirmed that the longer period of a CEO tenure can allow connection with company achievements. In that case, Francis et al. (2008) showed a positive relationship between the quality of financial reporting and CEO tenure. This reality refers to the CEO who struggles to construct his or her reputation with time, and safeguard this reputation through high quality of the financial reporting process. Other research asserts that the increase in CEO tenure will lead to an increase of knowledge with the company and its process of financial reporting (Baatwah, 2015; Katmon & Farooque, 2017). Furthermore, Hazarika et al. (2012) found a negative relationship between earning management and CEO tenure, therefore the CEO will be mindful of the company practices to avoid misstatement or fraud because of the reputations of CEO is connected with the company (Abdullah et al., 2016).

Indeed, Zhang and Wiersema (2009) showed that the tenure leads to improve knowledge of the CEO in the company and increases skills in practical experience in accounting systems and financial operation; these skills will improve CEO's capability to determine misreported financial information and avoid any irregular activities. Besides, they suggested that CEO tenure helps the external auditor

to provide financial reporting of high quality. According to the above findings, the following non-directional hypothesis was formulated:

H1: There is statistically significant effect of the CEO tenure period on audit quality in the listed manufacturing firms in Jordan.

2.3.2. Role of CEO Duality and Audit Quality

Agency theory expects that CEO duality reinforces the CEO's power to support their own interest rather than the owner's interest, and will seize the authority of other directors, thus weakening the board (Baatwah et al., 2015). Fama and Jensen (1983) showed that his result was due to combining the control decision with the management decision. Another study shows that some directors are incapable of emphasizing practices and performance of the CEO (Dalton & Dalton, 2010). In contrast, the stewardship theory states that the CEO duality positively effects company performance. In this respect, Makni et al. (2012) showed that the separation between CEO and chairperson will avoid the conflict of interest and improve the control level. Wan and Ong (2005) confirm that the performance of the board depends on the top position role, for example, the chairman in management. Sometimes the same person occupies the dual position of chairperson and CEO in some firms. However, it is better to have a separation between the chief executive officer (CEO), who runs the daily activities of the firm, and the chairperson, who heads meetings of board to avoid conflicts of interest. The argument of separation between them is confirmed by research as the combination between them will lead to lower audit quality (Oladejo et al., 2020). Nonetheless, some studies found there is no significant relationship between audit quality and CEO duality (Harjoto, 2015). Consequently, depending on previous discussion, the following hypothesis was formulated:

H2: There is a significant influence of the CEO duality role on audit quality in the listed manufacturing firms in Jordan.

2.3.3. Board Independence and Audit Quality

Many studies confirm when the board independent is combined with board structure it will increase the level of the board in monitoring (Bettinelli, 2011; Adeymi & Udofia, 2015; Jizi & Nehme, 2018). Consequently, corporate governance suggests knowledge, the experience of outside directors, and their independence from the management, are essential for the role of monitoring (Fama & Jensen, 1983; Khalil & Ozkan, 2016). Carcello et al. (2011) indicated that outside directors have more impact with high audit quality

than executive directors because the executive directors are facing more conflicts of interest. Oladejo et al. (2020) point out the independent directors in the board required higher audit quality for the effective monitoring of corporate management and, in this respect, this study showed there exists a positive relationship between audit quality and directors' independent. Because of audit quality importance, Karaibrahimoglu (2013) confirms that there is a positive relationship between directors' independent and audit quality and board decision. Moreover, Fama and Jensen (1983) asserted that the independence of directors combined with the company board will lead to effective monitoring of the firm. In contrast, Makni et al. (2012) found no relationship between audit quality and independent board. In fact, a large number of independent directors may decrease the demand for an external audit because of enhanced monitoring by the board (Cerasela et al., 2013; Jiraporn et al., 2018). According to the above discussion, the following hypothesis was formulated:

H3: *There is a statistically significant influence of board independence on audit quality in the listed manufacturing firms in Jordan.*

2.3.4. Board Size and Audit Quality

The corporate governance literature examined the roles of board size of companies, since previous studies offered mixed findings for the role of board size. Some previous studies propose that a big board size is linked with various perceptions, which relates to human resources available in the meeting room (Minichilli et al., 2012; Mustafa et al., 2018). The arrival of human capital leads to providing the board with diverse perceptions, skills, and ideas, which help in discussions and improve the decision quality (Khalil & Ozkan, 2016). Makni et al. (2012) found a significant positive relationship between audit quality and board size. In reality, some studies show that some firm-appointed variables determine the board size like the size of firm and profitability (Elsayed, 2011; Khudhair et al., 2019). Wintoki (2007) showed that the performance of company negatively affects the size of the board; to check this, the researcher used a comprehensive technique of moment's estimator that allows board size to regulate the previous performance that there is no relationship between the size of the board and company performance. Coles et al. (2008) noted that the size of the board affects positively large companies, consequently, the large board size may be maximizing companies' outcomes. Previous studies showed that the minimal board size will lead to more efficient communication and prevent communication failure; this will make for better decision-making and make the monitoring of companies financial reporting more efficient (Abbott et al., 2012; Chintrakarn

et al., 2017). Depending on this discussion, the following hypothesis is formulated:

H4: *There is a significant relationship between board size and audit quality in the listed manufacturing firms in Jordan.*

3. Research Methodology and Design

The methodology in this study depended on panel data gathered with time series for five years from 2014 to 2018 in 65 Jordanian manufacturing companies listed in Amman Stock Exchange. The researchers used logistic regression for testing the hypotheses and collinearity (multicollinearity) among the independent variables to check high correlation among them. Also, the study used the regression model to examine the association between IVs and DV. The data collected were from the annual financial reports of manufacturing companies listed in Amman stock exchange totaling 325 observations.

3.1. Logistic Regression Model

This model is used to test the relationship between IVs and DV, formulated as followed:

$$AQ(AFS) = \alpha + \beta_1 BO_IND_{i,t} + \beta_2 BO_S_{i,t} + \beta_3 CEO_D_{i,t} + \beta_4 CEO_T_{i,t} + \beta_5 F_LE_{i,t} + \beta_6 C_S_{i,t} + \beta_7 B_CO_{i,t} + \varepsilon_{i,t}$$

Note: Consistent with prior studies and internal classification, Big Four audit firms in this research study are Ernst & Young, KPMG, Deloitte Touche Tohmatsu, and PricewaterhouseCoopers (PWC).

AFS= the AQ is binary variable coded (1) when the company is audited by one of the Big Four audit firms And zero (0) otherwise.

$BO_IND_{i,t}$ $BO_IND_{i,t}$ = The percentage of non-executive directors on the board of directors.

$BO_S_{i,t}$ $BO_S_{i,t}$ = Total number of years of directors on the board.

$CEO_D_{i,t}$ $CEO_D_{i,t}$ = A dummy variable, which equals 1 if the CEO is the chairman of the board, and 0 otherwise.

$CEO_T_{i,t}$ $CEO_T_{i,t}$ = The number of years the current CEO holds this position.

$F_LE_{i,t}$ $F_LE_{i,t}$ = Measured by using this equation (total debts divided by total assets) (Control variable)

$C_S_{i,t}$ $C_S_{i,t}$ = Measured by the total assets owned by the company (Control variable)

c = Sum of inventory and accounts receivable divided total assets (Control variable)

$\varepsilon_{i,t}$ $\varepsilon_{i,t}$ = Error terms

3.2. Sample of the Study and Variables Measurements

The researchers used quantitative methods. The financial reports issued by the Jordanian Manufacture companies listed in the Amman Stock Exchange are the sample to this research, consisting of 325 financial reports for five years from 2014 for 2018 issued by 65 companies.

3.2.1. Measuring the Independent and Control Variables

The researchers utilize the following measurements according to the previous studies:

- Board independence; many researchers measured this variable by using the percentage of non-executive directors (outside directors) on the board of directors (Oladejo et al., 2020; Almasria, 2018). This variable is measured by the percentage of non-executive members in the board of directors.
- Board size; according to Karaibrahimoglu (2013) and Beisland et al. (2015), this variable is measured by the total number of directors on the board.
- CEO duality; previous studies confirmed that the measure of this variable was by using a dummy variable, 1 if the CEO is the chairman of the board, and 0 if the CEO is not the chairman of the board (Dwekat et al., 2018; Gaur et al., 2015).
- CEO turnover; (tenure period of chief executive officer), for measuring this variable, the researcher search in financial reports issued by manufacturing companies in Jordan for the information about the dates of CEO change announcements. This approach is used by Goyal and Park (2002) who located the CEO turnover sample from CEO history report.

This research uses some control variables consistent with prior studies, since these variables are likely to impact on findings and the relationship between CGM and AQ because some control variables affect the level of AQ. The key reason for using control variables is to avoid biases in estimating AQ, because these variables control any omitted variable biases. Simunic and Stein (1987) highlight that leverage influence external audit work, therefore, selecting control variables was to control leverage, client size, and complexity.

3.2.2. Measuring the Dependent Variable (Audit Quality)

The measure of audit quality still faces a lack of unanimity among researchers. Many studies used audit firms (Big Four/Non-Big Four) as a representative for audit quality (Hoseinbeglou et al., 2013). Consequently, the measure of this concept relies on numerous elements like audit firm size (Azibi & Rajhi, 2013). Other studies measured audit quality by the reputation of auditors (Badieli et al., 2019; Makni et al., 2012). Furthermore, Nwobodo (2017) investigated audit quality by using auditor’s specialization. In reality, previous studies measured the audit quality with many approaches such as estimated discretionary accruals, auditor’s opinion about companies’ going concern, and non-audit fees. Other studies used auditor’s independence, auditor’s competence, auditor’s experience, and professional due care to measure audit quality (Alqudah et al., 2019). According to the above discussion, this study measured audit quality with audit firm size by using dummy variable: 0 if the manufacturing company in Jordan audited its financial statements by using Non-Big Four or 1 if the audit firm is a Big Four.

Table 1: Descriptive finding

	CEO_D	CEO_T	BO_S	BO_IND	B_CO	C_S	F_LE
N (Valid)	325	325	325	325	325	325	325
Mean	.34	7.61	8.21	.078	.37	64523269	.40
Median	.00	6.00	7.00	.8100			
Std. Deviation	.475	5.421	2.242	.2071	.27	183920755	.24
Minimum	0	1	5	.17	.02	1192383	.05
Maximum	1	23	13	.68	4	121146600	1.97
	Observed			Audit firm size			
				Number of firms		Percentage	
Step 0	Audit firm size	No-big four	182		56%		
		Big four	143		44%		
	Overall Percentage				100		

4. Results and Discussion

4.1. Descriptive Analysis

Table 1 presents descriptive statistics for the observations including standard deviation, median minimum, and maximum and means value of all variables. According to the findings, 44% of sample companies were audited by Big Four audit firms, 56% of them were audited by Non- Big Four auditors.

According to the findings, the number of observations was 325 from financial reports. The value of board size is between 5.00 and 13.00, indicating that the sample companies have on average eight members on the board. This is consistent with the Jordanian code, which recommends a minimum board size of five and a maximum of 13 members. On the other hand, the percentage of the board independence (outside directors) came between 0.17 and .68, and the average was 0.078. This result indicates that some of the manufacturing companies listed in Amman Stock Exchange

are completely independent from the executive group; also this result confirmed that most boards came under the control of the non-executive team.

4.2. Correlation among Independent Variables

Correlation analysis is performed to investigate the correlation between CEO and board and AQ; the correlation coefficients for the variables of research in the following table No (2).

Table 2 explains the correlation findings for the research variables. As recommended by Hair et al. (2006) the Pearson's R coefficient between each pair of variables should not go beyond 0.80, otherwise, a coefficient with value in excess of 0.80 may demonstrate multicollinearity issues. According to the results of Pearson's correlation there is no high value of more than .80, which means the absence of multicollinearity issues between the independent variables.

Table 2: Correlation coefficients between the variables of the study

Variable name	Pearson correlation coefficients	BO_S _{i,t} BO_S _{i,t}	BO_IND _{i,t} BO_IND _{i,t}	CEO_D _{i,t} CEO_D _{i,t}	CEO_T _{i,t}	F_LE _{i,t}	B_CO _{i,t} B_CO _{i,t}	C_S _{i,t} C_S _{i,t}
BO_S _{i,t} BO_S _{i,t}	Pearson Correlation	1.00						
	Sig.	0.55						
BO_IND _{i,t} BO_IND _{i,t}	Pearson Correlation	0.03	1.00					
	Sig.	0.54						
CEO_D _{i,t} CEO_D _{i,t}	Pearson Correlation	0.07	0.17**	1.00				
	Sig.	0.21	0.00					
CEO_T _{i,t}	Pearson Correlation	0.02	0.07	0.03	1.00			
	Sig.	0.72	0.24	0.60				
F_LE _{i,t}	Pearson Correlation	0.21**	0.01	0.04	0.01	1.00		
	Sig.	0.00	0.76	0.45	0.93			
B_CO _{i,t} B_CO _{i,t}	Pearson Correlation	0.08	0.09	0.03	0.05	-0.13	1.00	
	Sig.	0.17	0.11	0.59	0.40	0.01		
C_S _{i,t} C_S _{i,t}	Pearson Correlation	0.24**	0.15**	0.15**	0.13*	0.10-	0.12*	1.00
	Sig.	0.00	0.01	0.01	0.02	0.07	0.03	

Notes: n=325 firm-year observations.

There is no high multicollinearity between variables

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

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

Table 3: Summary of the results of the Logistic regression of CEO and Board on audit quality proxy (audit firm size)-

Variables in the Equation						
Logistic model Variables	Coefficients β	S.E.	Wald	Df	Sig.	Exp(B)
CEO_T _{i,t}	-.002	.027	.004	1	.071*	.998
CEO_D _{i,t} CEO_D _{i,t}	-.095	.321	.087	1	.076*	.909
BO_S _{i,t} BO_S _{i,t}	.206	.094	4.856	1	.028**	.814
BO_IND _{i,t}	-.432	.741	.339	1	.056*	.650
F_LE _{i,t} F_LE _{i,t}	0.07	2.58	.001	1.2	0.01***	1.017
B_CO _{i,t}	0.12	0.49	13.750	1.1	0.62	25.772
C_S _{i,t} C_S _{i,t}	0.90	34.14	22.261	1.2	0.00***	1.000
Constant	-4.317	1.219	12.547	1	.000***	.013
R=0.61, R Square =0.38						
Chi-square = 96.138						

The multivariate regression model was controlled for firm size, leverage debt, and business complexity. The coefficient estimates of controlling variables show that client size positively affects audit quality (audit firm size). Also, the leverage debt has a significant positive relationship with audit firm size; on the other hand, business complexity has an insignificant positive relationship with choosing an audit firm size like Big Four. This model has been used to examine empirical data about the relationship between the CEO and board and AQ. Thus, theoretically, for the efficiency of the financial reporting system and to diminish agency problems in the firm, a request for a higher audit quality is predicted in terms of hiring a Big Four or non-Big Four firm. Practically, the level of the control of the company is influenced by different bodies inside and outside the companies, such as the board of directors and CEO, which include the external auditor and regulators.

The results show that the logistic regression models, which are the multiple binary logistic regression with audit quality measured by audit firm size non-Big Four and Big Four, as a dependent variable, illustrate company level of internal corporate governance (CEO and board) and control variables in the model explain 38% of Big Four auditor choice. This study used inferential statistics to examine the relationship between CEO and board and AQ and to generalize the findings from the selected sample to the whole population.

As showed in the table, the effect is statistically significant at the significance level $\alpha \leq 0.05$ to the board of directors (board size) on the AQ in listed manufacturing firms in Jordan, as the value of the overall correlation coefficient

(R) (0.61) indicating the degree of function correlation statistically between independent variables of the dependent variable. The value R-square, 0.38, is statistically significant and explains the ability of independent variables to impact the dependent variable. The test value (Chi-square) (96.138) in terms of statistical (0.00), a statistically significant value at the significance level ($\alpha \leq 0.05$), which shows that there is variation in the ability of independent variables in influencing the dependent variable, which already accepts the major premise.

The independent directors had a negative relationship, but was not significant with AQ. The value of estimated parameters was -.432. The coefficient of CEO duality -.095, significant at the 10% level, implying that the presence of CEO duality decreases the demand for Big Four auditor choice by .095. CEO duality leads a power concentration and this power concentration and the overlapping of the management and controlling roles are more likely to lead to existing agency problems. For the effectiveness of financial reporting audit and to mitigate problems of agency, it is expected there is a demand for a higher quality audit in terms of industry specialist auditors. This is consistent with the study by Mitra et al. (2007) and Rahman (2019) who found that audit quality was negatively related to CEO duality. Results for CEO tenure showed a negative relationship, but it was not significant with audit quality. The CEO Chairman showed a negative relationship with audit quality.

5. Conclusion and Further Research

The purpose of this research is to examine the role of the corporate governance system in auditing quality. The

external auditors have played a key role in monitoring within a framework of accountability, self-regulation, and information for the stakeholders, in examining the current role of the auditor about, the overall company consideration of “good” corporate governance (Shahzad & El-Temtamy, 2018). Some of the previous results confirmed that the agency theory explains and organizes the relationship between the CEO and board and AQ. Thus, this research is significant for policymakers to understand how the CGM (chief executive officer tenure, chief executive officer duality, board independence, and board size) affect AQ and to build a conceptual framework that explains the effect of corporate governance mechanisms (CEO and board) on the level of audit quality to identify which mechanisms are really important for audit quality.

The external auditor plays vital role in the corporate governance system (Kassem & Higson, 2016; Kwon, 2018). This study employed an agency framework to understand the relationship between CGM (CEO and board) and AQ. For analysis, panel data were collected with time series for five financial years, from 2014 to 2018 from annual financial reports of companies listed on the ASE database. Audit service and corporate governance have been perceived to play a vital role in reducing information asymmetry and improving the level of control (Oladejo & Yinus, 2020). The overall results reveal that some board characteristics affect audit quality such as board size and board independence. These two elements will improve the decision-making process to be more transparent and objective and enhance the independence in selecting the quality of the external auditors. These criteria should be taken seriously by companies’ top management as well as regulators to increase the audit quality and then the quality of financial reporting. This study recommends that the composition of non-executive directors in the board of directors should be increased to raise the level of board effectiveness to choose high audit quality.

The study findings illustrated that independent boards of directors plays a vital role in the audit process as their responsibility in terms of discussing and review the external auditor report and the external auditor evaluation of control procedures and they are independent of the management of the firm. The study findings illustrated that the most important responsibilities of the board of directors are the members of the board play an effective role in selecting, monitoring, and replacing the external auditor and ensure the independence of the external auditor. The study findings illustrated that internal corporate governance (chief executive officer tenure, chief executive officer duality, board independence, and board size) is an important mechanism, which that can improve the quality of the audit process.

Thus, the auditors and internal corporate governance mechanisms should be especially vigilant when there is

a heightened threat of failure to meet or beat significant earnings targets, such as financial analysts’ expectations, and under such conditions, they should engage in focused communications to ensure that financial reporting quality is not compromised (Khan et al., 2016). Auditors should discuss the implications of a weak tone at the top with the internal corporate governance mechanism. The reliance of the external auditor on effective internal control mechanisms helps in conducting effective audit service in terms of cost and time, allowing the auditor to improve the quality of the audit process.

References

- Abbott, L. J., Parker, S., & Peters, G. F. (2012). Internal Audit Assistance and External Audit Timeliness. *Auditing: A Journal of Practice & Theory*, 31(4), 3–20. doi:10.2308/ajpt-10296
- Abdullah, W. Z. W., Ismail, S., & Jamaluddin, N. (2016). The impact of board composition, ownership and CEO duality on audit quality: The Malaysian evidence. *Management Accounting Review*, 7(2), 17–28. doi:10.24191/MAR.V7I2.266
- Abu Qa’dan Mohammad, B., & Suwaidan Mishiel, S. (2019). Board composition, ownership structure and corporate social responsibility disclosure: the case of Jordan. *Social Responsibility Journal*, 15(1), 28–46. doi:10.1108/SRJ-11-2017-0225
- Acito, A., Hogan, C., & Imdieke, A. (2015). *Integrated auditing standards and financial reporting quality*. Working paper, Michigan State University.
- Adeyemi, S. B., Okpala, O., & Dabor, E. L. (2012). Factors affecting audit quality in Nigeria. *International Journal of Business Social Science*, 3(20).
- Adeyemi, S. B., Akinteye, S. A., & Udofia, I. E. (2015). Corporate governance: Board of directors’ independence in emerging economies. *European Journal of Applied Business and Management*, 1(2).
- Al-Farah, A., Abbad, S., & Al Shaar, E. (2015). The accounting and auditing profession in Jordan: Its origin and development. *Developing Country Studies*, 5(8), 167–179.
- Almomani, M. A. (2015). The impact of audit quality features on enhancing earnings quality: The evidence of listed manufacturing firms at Amman stock exchange. *Asian Journal of Finance & Accounting*, 7(2), 255-280.
- Alzeban, A. (2015). Influence of audit committees on internal audit conformance with internal audit standards. *Managerial Auditing Journal*, 30(6/7), 539-559.
- Alzoubi, E. S. S. (2016). Audit quality and earnings management: evidence from Jordan. *Journal of Applied Accounting Research*.
- Amir, E., Danziger, S. & Levi, S. (2017). Business corruption and economic prosperity. *Journal of Accounting, Auditing & Finance*, pp.0148558X17732249.

- Anafiah, V. A., Diyanty, V., & Wardhani, R. (2017). The effect of controlling shareholders and corporate governance on audit quality. *Jurnal Akuntansi dan Keuangan Indonesia*, 14(1), 1–19.
- Almasria, N. A. (2018). *The relationship between internal corporate governance mechanisms and the quality of external audit process-empirical evidence from Jordan*. University of Bedfordshire, UK.
- Alqudah Hamza, M., Amran Noor, A., & Hassan, H. (2019). Factors affecting the internal auditors' effectiveness in the Jordanian public sector: The moderating effect of task complexity. *EuroMed Journal of Business*, 14(3), 251–273. doi:10.1108/EMJB-03-2019-0049
- Alzeban, A. (2015). Influence of audit committees on internal audit conformance with internal audit standards. *Managerial Auditing Journal*, 30(6/7), 539–559. doi:10.1108/MAJ-12-2014-1132
- Azibi, J., & Rajhi, M. T. (2013). Auditor's choice and earning management after Enron scandals: empirical approach in French context. *International Journal of Critical Accounting*, 5(5), 485–501. doi:10.1504/IJCA.2013.058690
- Baatwah Saeed, R., Salleh, Z., & Ahmad, N. (2015). CEO characteristics and audit report timeliness: do CEO tenure and financial expertise matter? *Managerial Auditing Journal*, 30(8/9), 998–1022. doi:10.1108/MAJ-09-2014-1097
- Badiei, H., Hasas Yeganeh, Y., Saghafi, A., & Babajani, J. (2019). The Effect of Corporate Governance Mechanisms on Audit Quality by Explaining the Intermediary Function of Auditor's Behavioral Components. *International Journal of Finance Managerial Accounting*, 4(15), 73–82.
- Bettinelli, C. (2011). Boards of Directors in Family Firms: An Exploratory Study of Structure and Group Process. *Family Business Review*, 24(2), 151–169. doi:10.1177/0894486511402196
- Beisland, L. A., Mersland, R. & Strøm, R. Ø. (2015). Audit quality and corporate governance: Evidence from the microfinance industry. *International Journal of Auditing*, 19(3), 218–237.
- Ben-Hassoun, A., Aloui, C. & Ben-Nasr, H. (2018). Demand for audit quality in newly privatized firms in MENA region: Role of internal corporate governance mechanisms audit. *Research in International Business and Finance*, 45, 334–348.
- Bosse, D. A., & Phillips, R. A. (2016). Agency theory and bounded self-interest. *Academy of Management Review*, 41(2), 276–297.
- Carcello, J. V., Hollingsworth, C., & Mastroli, S. A. (2011). The effect of PCAOB inspections on Big 4 audit quality. *Research in Accounting Regulation*, 23(2), 85–96. https://doi.org/10.1016/j.racreg.2011.10.001
- Cerasela, S. E., Crina, S., & Alina, C. M. (2013). Internal Audit and Added Value for Companies. *Ovidius University Annals, Series Economic Sciences*, 13(2).
- Chizema, A., Liu, X., Lu, J. & Gao, L. (2015). Politically connected boards and top executive pay in Chinese listed firms. *Strategic Management Journal*, 36(6), 890–906.
- Chizema, A., Kamuriwo, D. S., & Shinozawa, Y. (2015). Women on corporate boards around the world: Triggers and barriers. *The Leadership Quarterly*, 26(6), 1051–1065. https://doi.org/10.1016/j.leaqua.2015.07.005
- Coles, J. L., Daniel, N. D., & Naveen, L. (2008). Boards: Does one size fit all? *Journal of Financial Economics*, 87(2), 329–356. doi:https://doi.org/10.1016/j.jfineco.2006.08.008
- Christensen, B. E., Glover, S. M., Omer, T. C., & Shelley, M. K. (2015). Understanding audit quality: Insights from audit professionals and investors. *Contemporary Accounting Research*, 33(4), 1648–1684.
- Cohen, J., Krishnamoorthy, G., & Wright, A. (2017). Enterprise risk management and the financial reporting process: The experiences of audit committee members, CFOs, and external auditors. *Contemporary Accounting Research*, 34(2), 1178–1209.
- Dalton, D. R., & Dalton, C. M. (2010). Integration of Micro and Macro Studies in Governance Research: CEO Duality, Board Composition, and Financial Performance. *Journal of Management*, 37(2), 404–411. doi:10.1177/0149206310373399
- Du, X. (2019). Does CEO-auditor dialect sharing impair pre-IPO audit quality? Evidence from China. *Journal of Business Ethics*, 156(3), 699–735.
- Dwekat, A., Mardawi, Z., & Abdeljawad, I. (2018). Corporate governance and auditor quality choice: Evidence from Palestinian corporations. *International Journal of Economics Financial Issues*, 8(2), 47.
- Elsayed, K. (2011). Board size and corporate performance: the missing role of board leadership structure. *Journal of Management & Governance*, 15(3), 415–446. doi:10.1007/s10997-009-9110-0
- Fama, E. F., & Jensen, M. C. (1983). Agency problems and residual claims. *The Journal of Law Economics*, 26(2), 327–349. doi:10.1086/467038
- Francis, J., Huang, A. H., Rajgopal, S., & Zang, A. Y. (2008). CEO reputation and earnings quality. *Contemporary Accounting Research*, 25(1), 109–147.
- Garrow, N., & Awolowo, I. F. (2018). Palmer & Harvey: A case of governance and audit failure. *Journal of Modern Accounting and Auditing*, 14(7), 390–398.
- Gaur Sanjaya, S., Bathula, H., & Singh, D. (2015). Ownership concentration, board characteristics and firm performance: A contingency framework. *Management Decision*, 53(5), 911–931. doi:10.1108/MD-08-2014-0519
- Goyal, V. K., & Park, C. W. (2002). Board leadership structure and CEO turnover. *Journal of Corporate Finance*, 8(1), 49–66. doi:https://doi.org/10.1016/S0929-1199(01)00028-1
- Habib, A., Bhuiyan, M. B. U., Huang, H. J., & Miah, M. S. (2019). Determinants of audit report lag: A meta-analysis. *International Journal of Auditing* 23(1), 20–44. doi:10.1111/ijau.12136

- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2006). *Multivariate data analysis* (6th ed.). Upper Saddle River, NJ: Prentice Hall.
- Harjoto, M. A., Laksmana, I., & Lee, R. (2015). The impact of demographic characteristics of CEOs and directors on audit fees and audit delay. *Managerial Auditing Journal*, 30(8/9), 963–997.
- Hazarika, S., Karpoff, J. M., & Nahata, R. (2012). Internal corporate governance, CEO turnover, and earnings management. *Journal of Financial Economics*, 104(1), 44–69.
- Hoang, L. X., Dang, D. Q., & Tran, T. D. (2020). The Role of Overconfident CEO to Dividend Policy in Industrial Enterprises. *Journal of Asian Finance, Economics and Business*, 7(7), 361–367. <https://doi.org/10.13106/jafeb.2020.vol7.no7.361>
- Hoos, F., Saad, E. B., & Lesage, C. (2018). Why are auditors blamed when something goes wrong? Experimental evidence. *International Journal of Auditing*, 22(3), 422–434.
- Hoseinbeglou, S., Masrori, R., & Asadzadeh, A. (2013). The effect of corporate governance mechanisms on audit quality. *Journal of Basic Applied Scientific Research*, 3(1), 891–897.
- JACPA Website. (2018). Jordanian Association Certified Public Accountant. Available at <http://jacpa.org.jo/en-us/membership/memberslist.aspx> (Accessed: January 2018).
- Kassem, R., & Higson, A. W. (2016). External auditors and corporate corruption: Implications for external audit regulators. *Current Issues in Auditing*, 10(1), 1–10.
- Khan, A., Mihret, D. G., & Muttakin, M. B. (2016). Corporate political connections, agency costs and audit quality. *International Journal of Accounting & Information Management*, 24(4), 357–374.
- Knechel, W. R. (2016). Audit quality and regulation. *International Journal of Auditing*, 20(3), 215–223. <https://doi.org/10.13106/jafeb.2016.vol20.no3.215>
- Khalil, M., & Ozkan, A. (2016). Board independence, audit quality and earnings management: Evidence from Egypt. *Journal of Emerging Market Finance*, 15(1), 84–118. <https://doi.org/10.13106/jafeb.2016.vol15.no1.84>
- Jiraporn, P., Chintrakarn, P., Tong, S., & Treepongkaruna, S. (2018). Does board independence substitute for external audit quality? Evidence from an exogenous regulatory shock. *Australian Journal of Management*, 43(1), 27–41. <https://doi.org/10.13106/jafeb.2018.vol43.no1.27>
- Jizi, M., & Nehme, R. (2018). Board monitoring and audit fees: the moderating role of CEO/chair dual roles. *Managerial Auditing Journal*, 33(2), 217. <https://doi.org/10.13106/jafeb.2018.vol33.no2.217>
- Karaibrahimoglu, Y. Z. (2013). Is Corporate Governance A Determinant of Auditor Choice? - Evidence from Turkey. *Ege Akademik Bakis*, 13(2), 273. <https://doi.org/10.13106/jafeb.2013.vol13.no2.273>
- Katmon, N., & Farooque, O. A. (2017). Exploring the Impact of Internal Corporate Governance on the Relation Between Disclosure Quality and Earnings Management in the UK Listed Companies. *Journal of Business Ethics*, 142(2), 345–367. doi:10.1007/s10551-015-2752-8
- Khudhair, D., Al-Zubaidi, F., & Raji, A. (2019). The effect of board characteristics and audit committee characteristics on audit quality. *Management Science Letters*, 9(2), 271–282. <https://doi.org/10.13106/jafeb.2019.vol9.no2.271>
- Kwon, S. Y., & Yi, H. S. (2018). Do social ties between CEOs and engagement audit partners affect audit quality and audit fees? *Auditing: A Journal of Practice & Theory*, 37(2), 139–161. <https://doi.org/10.13106/jafeb.2018.vol37.no2.139>
- Levit, D., & Malenko, N. (2016). The Labor Market for Directors and Externalities in Corporate Governance. *The Journal of Finance*, 71(2), 775–808. doi:10.1111/jofi.12287
- Luo, X., Kanuri, V. K., & Andrews, M. (2014). How does CEO tenure matter? The mediating role of firm-employee and firm-customer relationships. *Strategic Management Journal*, 35(4), 492–511. doi:10.1002/smj.2112
- Makni, I., Kolsi, M. C., & Affes, H. (2012). The impact of corporate governance mechanisms on audit quality: evidence from Tunisia. *IUP Journal of Corporate Governance*, 11(3), 48. <https://doi.org/10.13106/jafeb.2012.vol11.no3.48>
- Marashdeh, Z. M. S. (2014). *The Effect of Corporate Governance on Firm Performance in Jordan*. University of Central Lancashire, UK.
- Minichilli, A., Zattoni, A., Nielsen, S., & Huse, M. (2012). Board task performance: An exploration of micro- and macro-level determinants of board effectiveness. *Journal of Organizational Behavior*, 33(2), 193–215. doi:10.1002/job.743
- Mitra, S., Hossain, M., & Deis, D. R. (2007). The empirical relationship between ownership characteristics and audit fees. *Review of Quantitative Finance and Accounting*, 28(3), 257–285. doi:10.1007/s11156-006-0014-7
- Mustafa, A. S., Che-Ahmad, A., & Chandren, S. (2018). Board diversity, audit committee characteristics and audit quality: The moderating role of control-ownership wedge. *Business and Economic Horizons*, 14, 587–614. <https://doi.org/10.13106/jafeb.2018.vol14.no4.587>
- Niskanen, M., Karjalainen, J., & Niskanen, J. (2011). Demand for audit quality in private firms: evidence on ownership effects. *International Journal of Auditing*, 15(1), 43–65. <https://doi.org/10.13106/jafeb.2011.vol15.no1.43>
- Nwobodo, A. T. (2017). Audit Quality in the Nigerian-Banking Sector: Implications of the 2006 Code of Corporate Governance for Banks in Nigeria. *Journal of Business Ethics*, 142(2), 345–367. <https://doi.org/10.13106/jafeb.2017.vol142.no2.345>
- Oladejo, M. O., Jk, O., & Yinus, S. O. (2020). External Audit Quality and Users Confidence in Financial Reports: Evidence from Nigeria Deposit Money Banks. *International Journal of Technology and Management*, 5(1), 16. <https://doi.org/10.13106/jafeb.2020.vol5.no1.16>
- Pham, C. B. T., Vu, T. M. T., Nguyen, L. H., & Nguyen, D. D. (2020). Audit Quality and Stock Return Co-Movement: Evidence from Vietnam. *Journal of Asian Finance, Economics and Business*, 7(7), 139–147. <https://doi.org/10.13106/jafeb.2020.vol7.no7.139>
- Rahman, M. M., Meah, M. R., & Chaudhory, N. U. (2019). The impact of audit characteristics on firm performance: an empirical study from an emerging economy. *Journal of Asian Finance, Economics and Business*, 6(1), 59–69. <https://doi.org/10.13106/jafeb.2019.vol6.no1.59>
- Shan, Y. G. (2014). The impact of internal governance mechanisms on audit quality: a study of large listed companies in China. *International Journal of Accounting, Auditing and Performance Evaluation*, 10(1), 68–90. doi:10.1504/IJAPE.2014.059183

- Shahzad, K., Pouw, T., Rubbaniy, G., & El-Temtamy, O. (2018). Audit quality during the global financial crisis: The investors' perspective. *Research in International Business and Finance*, 45, 94–105.
- Simunic, D. A., & Stein, M. T. (1987). *Product differentiation in auditing: Auditor choice in the market for unseasoned new issues*. Canadian Certified General.
- Soliman, M., & Abdel Salam, M. (2013). Corporate governance practices and audit quality: An empirical study of the listed companies in Egypt. *World Academy of Science, Engineering and Technology*, 71(2012). doi:10.2139/ssrn.2257815
- Victoria Adekanye, A. O. (2019). *Impact of Audit Quality on Earnings Management of Listed Manufacturing Companies in Nigeria*. Kwara State University (Nigeria),
- Wan, D., & Ong, C. H. (2005). Board Structure, Process and Performance: evidence from public-listed companies in Singapore. *Corporate Governance: An International Review*, 13(2), 277–290. doi:10.1111/j.1467-8683.2005.00422.x
- Watkins, A. L., Hillison, W., & Morecroft, S. E. (2004). Audit quality: A synthesis of theory and empirical evidence. *Journal of Accounting Literature*, 23(2004), 153–193.
- Watts, R., & Zimmerman, J. (1986). *Positive theory of accounting*. Englewood Cliffs, NY: Prentice-Hall.
- Wintoki, M. B. (2007). Corporate boards and regulation: The effect of the Sarbanes–Oxley Act and the exchange listing requirements on firm value. *Journal of Corporate Finance*, 13(2), 229–250. <https://doi.org/10.1016/j.jcorpfin.2007.03.001>
- Zaman, M., Hudaib, M., & Haniffa, R. (2011). Corporate Governance Quality, Audit Fees and Non-Audit Services Fees. *Journal of Business Finance & Accounting*, 38(1–2), 165–197. doi:10.1111/j.1468-5957.2010.02224.x
- Zhang, Y., & Wiersema, M. F. (2009). Stock market reaction to CEO certification: the signaling role of CEO background. *Strategic Management Journal*, 30(7), 693–710. doi:10.1002/smj.772