

**The association between CEO characteristics and financial performance: The role of governance quality****Mohammad Azzam<sup>a\*</sup>, Marwa Bani Salameh<sup>b</sup>, Laith Abdallah Aryan<sup>c</sup> and Ayman Abu Haija<sup>d</sup>**<sup>a</sup>Accounting Department, Yarmouk University, Jordan<sup>b</sup>Independent Researcher<sup>c</sup>Accounting Department, Ajloun National University, Jordan<sup>d</sup>Accounting Department, Jadara University, Jordan**CHRONICLE****ABSTRACT***Article history:*

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This study analyses the association between CEO characteristics and financial performance as well as the role that a firm's governance system may play in enhancing financial performance in the Jordanian context. To achieve this purpose, 2251 firm-year observations were collected from firms listed on the Amman Stock Exchange from 2009-2022. Overall, the results show that there is a positive and significant association between CEO tenure and firm performance. The results also show that the CEO compensation is positively linked with firm performance. However, CEO age and ownership are found to be insignificantly associated with firm performances. Regarding the moderating role of governance quality, the result shows a positive and highly significant impact on CEO tenure and CEO age. Otherwise, whether the quality of governance is high or low, it does not affect the CEO's compensation and ownership. This study recommends firms listed on the Amman Stock Exchange changing their policy regarding CEO compensation by, for example, including stock options to enhance firm performances.

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**1. Introduction**

Users of financial statements seek to obtain accurate and relevant information regarding firms' attributes such as financial performance, long-term profitability, quality of financial reporting, governance quality and sustainability disclosure. Financial performance, however, is considered an important factor which investors and other stakeholders take into consideration when they make their decisions to invest or lend money to firms (Kawther, 2023; Ellili 2022). One of the main issues that may affect firm performance and profitability is the conflict of interest between managers and shareholders. While shareholders aim to maximize their benefits, managers (i.e. CEOs) are most likely to work to increase their privileges (Jensen and Meckling, 1976). Choosing a firm's CEO is a crucial decision that most likely has a significant impact on firm performance. This is because CEOs manage the daily operations of firms, influence the main decisions, implement policies and express the core vision (Connelly, 2022). Therefore, the board of directors employ a CEO who is expected to hold the required skills and qualifications that lead to maximizing the firm's values (Eisfeldt and Kuhnen, 2013). As a result of the vital role that CEOs play in maximizing/lowering firm value, there is increasing attention worldwide on the association between CEO characteristics and firms' financial performance. Thus, the main interest of this study is to examine this association in the Jordanian context. While CEOs may exploit the superiority of information to meet their targets (i.e. maximize compensation and enhance reputation), such practices can be controlled by the presence of strong and effective monitoring mechanisms either internal or external. One of the well-documented mechanisms in the literature that is expected to have this level of monitoring is the adoption of a solid corporate governance (CG) system. CG is defined as "procedures and processes according to which an organization is directed and controlled. The corporate governance structure specifies the distribution of rights and responsibilities among the different participants in the organization" (OECD, 2004, p.1). CG is an important part of the business and can be seen as a key component of a firm's success as well as an effective technique

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intended to reduce deviances caused by agency problems, namely moral hazard and adverse selection (Jebran & Chen, 2023). Indeed, prior research argues that firms with weak governance mechanisms are more likely subject to agency problems, exhibit poor performance and more importantly, more compensation is assigned to CEOs, especially in less developed contexts. Indeed, McGee (2010, p.1) states that “corporate governance issues are especially important in transition economies since these countries do not have the long-established financial institution infrastructure to deal with corporate governance issues”. A high-quality governance system is expected to reduce the conflict of interest between managers and shareholders, thus having a positive impact on firms’ financial performances (Tawiah, 2023). The current study, therefore, aims to contribute to the current debate in the literature regarding the role that a firm’s CG system may play in enhancing financial performance in the Jordanian context.

## 2. Literature Review and Hypotheses Development

### 2.1 CEO Tenure and Financial Performance

While several researchers have examined the relationship between CEO tenure and firm performances, two opposing views have been documented between them. The first one argues that a firm with a long-tenured CEO most likely exhibits weak financial performance. One of the early studies on this issue was conducted by Hambrick and Funktomi (1991), who found that a CEO’s impact on a firm’s performance depends on five factors: experimentation, convergence, response to mandate, dysfunction, and the selection of an enduring theme. Miller (1991) found that CEOs are more able to start risky projects and less adaptable to external environment changes in their later years of service, so they harm firms’ performance. Wu et al. (2005) posit that CEOs become risk-averse and tend to be less adaptable to the outside environment, especially in the later years of service. Similarly, Hendreson et al. (2006) and McClelland et al. (2012) show that firms, where CEOs have longer tenures, report poor financial indicators. Cucculelli and Micucci (2019) examined the Italian’s context and found a highly positive link between CEO tenures and firm performances in the early years of their service. The link, however, gradually declined over time. This result corroborates the argument in the literature that CEOs may manipulate earnings in the early years in order to send positive signals to firm stakeholders about their activities and decisions, meaning that more privileges are assigned to those CEOs. A similar conclusion was reported by Chelogoi et al.2020.

The second view posits that long-tenured CEOs have great power, knowledge and experience, and may also become more confident in applying and adopting risky strategies; thus, an improvement in firm performance is expected (Xie, 2014). Indeed, Simsek (2007), Dikolli et al. (2014) and Boling et al. (2015) argue that CEOs often acquire knowledge and skills with the passage of time, which in turn may positively enhance financial performance. Nguyen et al. (2017) reported that CEOs with long tenures are expected to effectively exploit the firm’s resources. Of equal importance, Li and Potel (2022) found that long-tenured CEOs can improve firm performance as well as reduce the fluctuations in the performance that may result from hiring a new CEO.

Based on the above discussion, it is clear that there is no general consensus regarding the association between CEO tenure and financial performance. The current study, however, follows the perspective in the literature that firm performance is expected to increase when their CEOs have a long tenure. Hence, the following hypothesis is formulated:

**H<sub>1</sub>:** *There is a positive association between CEO tenure and firm performance.*

### 2.2 CEO Compensation and Financial Performance

Compensation is considered an important incentive for CEOs to adjust financial performance. This is especially true given that most firms connect CEO pay with firm performance. Firth et al. (2006) argue that, it is better to determine a CEO’s compensation in non-state-owned firms based on the firm’s reported earnings. Based on a sample of UK firms, Ozkan (2011) found a positive and significant relationship between CEO cash compensation and firm performance. Smirnova and Zaveriaeva (2017) analysed a sample of 330 European firms for the period 2009-2013 and found that the magnitude of CEO compensations is positively linked to firm performance and vice versa. Al Farooque et al. (2019) used data from 432 Thai listed firms from 2000 to 2011 and found high levels of compensation in firms with a high ratio of return on assets. The same conclusion was reported by several studies in different contexts such as those by Fischer and Lindermoyer (2020) and Zoghلامي (2022).

In contrast, some researchers argue that in poorly governed firms and weak shareholders’ rights, CEOs may exploit their position and power to maximize their privileges at the expense of shareholders. This, in turn, negatively influences firm performances (Bertrand and Mullainathan, 2001). For example, Kuo et al. (2023) found a negative association between CEO compensation and firm performance. It is clear that the vast majority of the literature supports the positive impact of CEO compensation on financial performance, thus the current study formulates the following hypothesis:

**H<sub>2</sub>:** *There is a positive association between CEO compensation and firm performance.*

### 2.3 CEO Ownership and Financial Performance

Managerial ownership is considered one of the most effective techniques used by firms to reduce the conflict of interest between managers and shareholders (i.e. agency problem). This is because managers will most likely make investment decisions that maximize their benefits even at the expense of shareholder benefits. The results of previous research regarding CEO ownership and performance, however, are somewhat mixed. Kim et al. (2004) found a negative link with firm performance at a moderate level of CEO ownership. Interestingly, when CEOs hold a high percentage of firms' shares, their decisions and choices are aligned with shareholders' interests. Li et al. (2007) examined the association between CEO ownership and firm performance for a sample of Chinese State-owned enterprises (SOEs). The results show that firms with a high level of CEO ownership have generated high levels of financial performance. Katper et al. (2018) examined a sample of 68 firms listed on the Karachi stock exchange and showed that CEO ownership is positively linked with the firm's performance and, of equal importance, plays a vital role in reducing agency problems. The same conclusions were reported by Hameed et al. (2019), Javeed and Lefen (2019) and Chu, Liu, and Chiu (2023). Other streams of research posit that firm performances are negatively affected when their CEOs own the majority of shares. Kim and Lu (2011) showed that a high level of CEO ownership may reduce firm value by motivating managers to take more risks. Luo and Jackson (2012) stated that CEO ownership negatively influences performance in Chinese listed firms. Shan et al. (2017) found that firm performance is significantly decreased when CEO ownership is in the range of 20 to 50 %. Consistent with this view, Shan (2019) and Wu and Dong (2020) reported that managerial ownership is inversely affected by firm performance and vice versa. Based on the above discussion, the following hypothesis is developed:

**H3:** *There is a positive association between CEO ownership and firm performance.*

### 2.4 CEO Age and Financial Performance

There is great debate about whether the age of a CEO may influence the firm's financial performance. There are two different views in the literature regarding this issue. The first one states that younger CEOs may have more incentive in their early years to make more acquisition decisions and follow a more active investment style (Yim, 2013). For example, Denis et al. (1999), Barker and Mueller (2002) and Krause and Semadeni (2022) found that younger CEOs have a significant positive impact on a firm's performance because older CEOs are most likely to be risk-averse, which in turn leads to impaired firm performance by avoiding riskier investments and choosing sub-optimal strategies. Amran et al. (2014) investigated a sample of 80 Malaysian firms and found a negative relationship between CEO age and firm performance, as younger CEOs are more energetic and willing to take more risks. A similar conclusion was reported by Cline and Yore (2016) using a sample of 12,610 firm-year observations. Specifically, they found that Tobin's Q declines by 3.4 % over CEOs' service. Furthermore, Wang et al. (2016) and Belenzon et al. (2019) found that firms with older CEOs are more likely to have old management methods, low levels of profitability and a reduced level of growth.

The second view assumes that senior CEOs will reduce a firm's risk by investing in less risky investments. Additionally, CEOs age may represent their knowledge in business operations and experience in marketing and strategic management (Serfling, 2014). Indeed, Li et al. (2020) reported a positive and significant correlation between CEO age and firm performance. However, the current study follows the view in the literature that a firm's financial performance is expected to increase with older CEOs. Therefore, the following hypothesis is formulated:

**H4:** *There is a positive association between CEO age and firm performance.*

### 2.5 The Moderating Role of Governance Quality

Corporate governance systems are adopted by firms to reduce deficiencies that may arise from agency problems (i.e. adverse selection and moral hazards). Principal-agent problems arise within a firm whenever CEOs aim to achieve their benefits irrespective of whether shareholders' interests are negatively affected (Agrawal and Knoeber, 1996). In other words, firms with a weak governance system will also have more agency problems, which in turn leads to a decrease in a firm's performance.

A strong governance system may enhance the firm's performance and shareholder's wealth by monitoring CEOs' behaviors and their main decisions. Indeed, Fama and Jensen (1983, p.323) noted that "[the board of directors] ratifies and monitors important decisions and chooses, dismisses, and rewards important decision agents". For example, Frankel et al (2002) and Klein (2002) posit that a high-quality governance system will increase mandatory and voluntary disclosures, which, in turn, leads to reduced managerial fraud and earning management. Using a sample of 44 Jordanian firms, Al-Haddad et al. (2011) found that good corporate governance practices add value to firms and thus significantly influence their performance.

Najjar (2012) reported that the size of the board has a significant positive impact on firms' financial performance. Mashayekhi and Bazaz (2008) and Ahmadi et al. (2018) stated that there is a positive correlation between governance quality and firm performance. They also found that efficient boards most likely reduce agency costs and enhance firm performances, especially with the presence of independent directors on firms' boards. The same results were also reported by Murwaningsari (2019) and Khan et al. (2023).

Some researchers, however, argue that a solid corporate governance system may not lead to an improved firm performance. Indeed, Beekes et al. (2010) reported that while there is a negative relationship between board size and firm performance, no association is found between board structure and performance. Cahya and Riwayati (2016) also found that a firm's return on equity is negatively linked with its governance system. A similar conclusion was reported by Ajili and Bouri (2018) by examining 44 Islamic banks in the Gulf countries. The current study assumes that a high-quality governance system may exert more pressure on CEOs' choices, which in turn enhances financial performance. Hence, the following hypotheses are formulated:

**H<sub>5</sub>:** *High-quality governance system has a positive impact on the association between CEO tenure and firm performance.*

**H<sub>6</sub>:** *High-quality governance system has a positive impact on the association between CEO compensation and firm performance.*

**H<sub>7</sub>:** *High-quality governance system has a positive impact on the association between CEO ownership and firm performance.*

**H<sub>8</sub>:** *High-quality governance system has a positive impact on the association between CEO age and firm performance.*

### 3. Methodology

This study includes all firms listed on the ASE from 2009 to 2022. The study period began in 2009 after the regulatory bodies in Jordan issued the corporate governance code in 2008 to be implemented from January 1, 2009. Firms that had missing data were excluded from the sample; this, in turn, produced 2,251 firm-year observations as shown in Table 1. The annual reports of listed firms on the ASE were used to collect the required data. All annual reports of Jordanian firms were certified by external auditors and reviewed by the Jordan Securities Commission (JSC) to ensure their conformity with international standards. The annual reports are available on the JSC website.

**Table 1**

Sample selection criteria from 2009 to 2022

Description	Number of observations
All firms listed on the	2,369
Less: missing CEO data	-87
Less: missing financial	-31
Final sample	2,251

Return on assets (*ROA*) is used as a proxy for financial performance which is measured by the ratio of net income divided by total assets. *Tobin's Q* is used as an alternative measure of performance, which is measured by the ratio of the market value of a firm's equity divided by its book value. This study includes the following independent variables: CEO tenure (*TEN*) is the number of years served as a CEO; CEO compensation (*COPM*) is the total amount of cash received by a CEO; CEO ownership (*OWN*) is measured as the percentage of shares owned by a firm's CEO compared to the total number of shares issued; and *CEO Age (AGE)* is the CEO's age at the end of the year. This study also controls for firm size, leverage, firm age and external auditing. Firm size (*SIZE*) is measured by total assets at the beginning of a firm's year; Leverage (*LEV*) is measured as the ratio of total debt to total equity; Firm age (*F.AGE*) is the length of time that a firm has been established; and External auditing (*AUD*) is measured using a dummy variable that takes the value of one if the firm is audited by one of the Big-4 audit firms and zero otherwise. To examine the potential effect of governance quality (*GQ*) on the association between CEO characteristics and financial performance, interaction terms between governance quality and CEO tenure, compensation, ownership and age will be introduced. Governance quality will be measured using an index of three variables, namely board size, board meeting and board independence. These variables help to reflect the quality of a firm's governance system. Specifically, board size (*B.SIZE*) is measured using a dummy variable that takes the value of one if the number of directors is in the range of five to thirteen and zero otherwise; Board meeting (*B.MEET*) is measured using a dummy variable that takes the value of one if the number of a board's meetings held in a year is six or more and zero otherwise; and Board independence (*B.INDP*) is measured using a dummy variable that takes the value of one if at least one-third of a board's directors are independent and zero otherwise. The index is computed as the sum of the three variables; hence a firm with a high index reflects a high-quality governance system. Table 2 summarizes the variables and their measurements. The following regression equation is used to examine the association between CEO characteristics and financial performance:

$$PER_{it} = \beta_0 + \beta_1 TEN_{it} + \beta_2 COMP_{it} + \beta_3 OWN_{it} + \beta_4 AGE_{it} + \beta_5 SIZE_{it} + \beta_6 LEV_{it} + \beta_7 F.AGE_{it} + \beta_8 AUD_{it} + \varepsilon_{it} \quad (1)$$

To examine the potential role of governance quality on the association between CEO characteristics and financial performance, the following regression equation is used:

$$PER_{it} = \beta_0 + \beta_1 TEN_{it} + \beta_2 COMP_{it} + \beta_3 OWN_{it} + \beta_4 AGE_{it} + \beta_5 TEN_{it} \times GQ + \beta_6 COMP_{it} \times GQ + \beta_7 OWN_{it} \times GQ + \beta_8 AGE_{it} \times GQ + \beta_9 SIZE_{it} + \beta_{10} LEV_{it} + \beta_{11} F. AGE_{it} + \beta_{12} AUD_{it} + \varepsilon_{it} \quad (2)$$

**Table 2**  
Summary of variables and their measurements

Description	Variable name	Measurement	Exp. sign
<b>Dependent variable:</b>			
PER	Financial performance	The ratio of net income divided by total assets	
<b>Independent variables:</b>			
TEN	CEO tenure	The number of years being served as a CEO	-
COMP	CEO compensation	The total amount of cash received by a CEO	+
OWN	CEO ownership	The percentage of shares owned by a firm's CEO compared to the total number of shares issued	+
AGE	CEO AGE	The CEO's age at the end of the year	-
<b>Control variables:</b>			
SIZE	Firm size	Total assets at the beginning of the year the ratio of total debt to total equity	+
LEV	Leverage	The time length of a firm's establishment	-
F.AGE	Firm Age	A dummy variable that takes the value of one if the firm is audited by one of the Big-4 audit firms and zero otherwise	+
AUD	External auditing		+

#### 4. Results and Discussion

Table 3 describes the current study's variables of the listed firms in ASE from 2009 to 2022. As shown in the table, the financial performance is relatively low, where the mean ROA is about 6 % with a median of 2.8 %. The mean value recorded for CEO tenure is approximately 4 years. This mean is relatively low compared with those in developed countries like the US where the mean is 7 years (Hsieh et al., 2019). Regarding compensation, a firm's CEO receives \$US 133,000 on average. The mean value recorded for CEO age is 54 which is very close to CEO age in the US which is recorded at 55 (Vintila and Gherghina, 2012). The mean of CEO ownership is 8.1 %, indicating that firms' CEOs in Jordan do not have stock options as part of their compensation. Table 3 also shows that the mean value recorded for firm size (SIZE), leverage (LEV) and Firm age (age) are 61.6 \$US million, 72.8 % and 34.2 years respectively. Finally, the mean of external audit is 44 %, suggesting that a high proportion of listed firms on the ASE are not audited by one of the big 4-audit firms.

**Table 3**  
Descriptive statistics for dependent, independent, and control variables

Variable	No.	Mean	Std. Dev.	Min	Max
ROA	2,251	0.058	0.281	-1.950	1.987
TEN	2,251	4.167	2.930	1.000	15.00
COMP*	2,251	0.133	0.187	0.010	1.557
AGE	2,251	54.28	10.26	27.00	82.00
OWN	2,251	0.081	0.097	0.000	0.699
SIZE*	2,251	61.62	142.0	0.320	1,384
LEV	2,251	0.728	0.980	0.010	4.810
F.AGE	2,251	34.20	17.40	2.000	67.00
AUD	2,251	0.440	0.530	0.000	1.000

All variables are defined in Table2. \*(in million \$US)

Four main assumptions need to be checked before running the regression analysis. The assumptions are that there is no multicollinearity, homoscedasticity, normality and no serial correlation. Multicollinearity occurs when "some or all of the explanatory variables are highly correlated with one another" (Koop 2013, p.99). The current study checks this assumption by implementing the Spearman test. The literature argues that the problem of multicollinearity exists when the association between two variables reaches 70 % or more. As shown in Table 4, the highest correlation recorded in this study is 42.1 % between firm size and CEO compensation. Nevertheless, this correlation does not represent a threat to the regression results; it is highly expected, as large firms are most likely having the ability to pay high compensation to the CEO. Hence, multicollinearity does not create a concern for the results because none of the correlations exceed 70 %. This study also checks other assumptions and finds that normality and homoscedasticity are not met. Therefore, a fixed effect model with robust standard errors is used to avoid this issue, as suggested by prior studies such as that by Hill, Griffiths & Lim (2018).

**Table 4**  
Spearman Correlation Matrix

	ROA	TEN	COMP	AGE	OWN	SIZE	LEV	F.AGE	AUD
ROA	1.000								
TEN	0.213*	1.000							
COMP	0.324*	0.224*	1.000						
AGE	-0.100*	0.188*	0.136*	1.000					
OWN	0.036	0.117*	0.054	0.187*	1.000				
SIZE	0.281*	0.0241	0.421*	0.124*	-0.028	1.000			
LEV	-0.187*	0.014	0.0178	0.087	-0.027	0.118*	1.000		
F.AGE	0.032	0.118*	0.114*	0.149*	-0.037	-0.001	-0.087	1.000	
AUD	0.114*	0.055	0.278*	0.024	-0.071	0.287*	-0.0227	0.442*	1.000

The symbol (\*) denotes significance at 1 percent in two-tailed test. All variables are defined in Table 2.

Table 5 reports the results of fixed effect regression of the association between CEO characteristics and firm performance. Consistent with the current study's expectation, there is a positive and significant association ( $P > 0.01$ ) between CEO tenure (*TEN*) and *ROA*. A possible justification of this result is that CEOs will have more loyalty, experience and become more familiar with the firm and its activities in the later years of their service. Therefore, this study accepts  $H_1$ . This study also proposes that CEO compensation (*COMP*) is positively linked with firm performance. The results support this assumption and show a positive and significant relationship ( $P > 0.01$ ) between compensations of CEO and *ROA*. This result is consistent with the findings reported by Elsayed and Elbardan, (2018), indicating that CEO compensation is utilized to enhance the levels of firm performance. Based on the current study's results,  $H_2$  is accepted. Inconsistent with the current study's proposition, Table 5 presents that CEO age (*AGE*) does not have any impact on firm performance, suggesting that age and experience are not considered effective factors that motivate/limit the CEO's ability to enhance firm performance. In terms of the link between CEO ownership (*OWN*) and firm performance, the reported results show a positive but insignificant association between them. One possible justification for this result is that the percentage of CEO ownership in listed firms on the ASE is very small. Thus,  $H_3$  and  $H_4$  are rejected. The table also reports the results for control variables. Firm Leverage (*LEV*) is found to be negatively and significantly linked with firm performance, indicating that a high percentage of debt will have a negative impact on firm value. Other control variables, namely firm size (*SIZE*), firm age (*F.AGE*) and external auditing (*AUD*), are found to be insignificantly associated with the firm performance.

**Table 5**  
Regression results of the association between CEO characteristics and ROA

	Coef.	T-Value	P> T
TEN	0.015	2.86	<b>0.003</b>
COMP	0.224	3.01	<b>0.001</b>
AGE	-0.004	-0.68	0.550
OWN	0.272	1.55	0.115
SIZE	0.414	0.41	0.617
LEV	-0.035	-3.88	<b>0.000</b>
F.AGE	0.001	0.08	0.947
AUD	-0.018	-0.22	0.812
Cons.	0.047	0.31	0.752

No. of obs = 2,251

Adj.  $R^2 = 31.7\%$

Notes: This table presents the results of fixed effect regression of the association between CEO characteristics and firms' performance. The sample comprises 2,251 firm-year observations of listed firms on the ASE from 2009 to 2022. The dependent variable is return on assets (ROA). Independent and control variables are defined in Table 2.

To validate the current study's findings, *Tobin's Q* is used here as an alternative indicator of financial performance which is calculated by dividing the market value of a firm's equity by its book value. The findings of fixed-effect regression with robust standard errors for the relationship between CEO characteristics and *Tobin's Q* are shown in Table 6. More interestingly, they are consistent with the previously reported results in Table 5 when *ROA* is used. Specifically, while there is a positive and significant association between CEO tenure and compensation and firm performance, an insignificant association is found for CEO age and ownership. In terms of control variables, the same conclusions are also reported. Thus, after using an alternative measure of financial performance, there is good evidence that the current study's results are not biased and not affected by the selected measure of financial performance (i.e. *ROA*).

This study proposes that a high-quality governance system will have a positive impact on the relationship between CEO characteristics and firm performance. Table 7 shows that the moderating role of governance quality has a positive and highly significant impact on CEO tenure and CEO age. This result is in line with the perspective in the literature that firms with high-quality governance structure improve control over CEO performance. Based on this result,  $H_5$  and  $H_8$  are accepted. Otherwise, whether the quality of governance is high or low, it does not affect the manager's compensation. Also,

it does not have any impact on CEO ownership, which is not surprising because through the data it turns out that the ownership percentage is very small. Therefore, this study rejects  $H_6$  and  $H_7$ .

**Table 6**

Regression results of the association between CEO characteristics and Tobin's Q

Tobin's Q	Coef.	T-Value	P> T
TEN	0.025	2.71	<b>0.007</b>
COMP	0.211	2.11	<b>0.031</b>
AGE	-0.002	-0.52	0.477
OWN	0.141	1.22	0.254
SIZE	0.547	0.51	0.712
LEV	-0.038	-2.95	<b>0.002</b>
F.AGE	0.003	0.04	0.965
AUD	-0.003	-0.11	0.890
Cons.	0.044	0.31	0.779

No. of obs. =2,251

Adj.  $R^2 = 29.8\%$ 

Notes: This table presents the results of fixed effect regression of the association between CEO characteristics and firms' performance. The sample comprises 2,251 firm-year observations of listed firms on the ASE from 2009 to 2022. The dependent variable is Tobin's Q. Independent and control variables are defined in Table 2.

**Table 7**

Regression results of the impact of the governance quality on the relationship between CEO characteristics and ROA

Variables	Model One		Model Two		Model Three		Model Four	
	Coef.	T-value	Coef.	T-value	Coef.	T-value	Coef.	T-value
TEN	-0.005	-0.85	0.021	2.97***	0.018	3.21***	0.0160	2.71***
COMP	2.218	2.65***	-1.330	-0.48	-0.219	2.68***	2.510	3.14***
AGE	-0.004	-0.66	-0.005	-0.42	-0.004	-1.84***	-0.001	-0.63
OWN	0.252	1.51	0.172	1.38	0.221	1.44	0.235	0.51
TEN×index	<b>0.010</b>	<b>4.11***</b>						
COMP×index			<b>0.055</b>	<b>1.53</b>				
AGE×index					<b>0.008</b>	<b>5.14***</b>		
OWN×index							<b>-0.021</b>	<b>-0.11</b>
SIZE	8.147	0.48	8.547	0.48	7.218	0.470	8.178	0.44
LEV	-0.375	-2.88***	-0.039	-2.93***	-0.035	-2.71***	-0.041	-3.11***
F.AGE	-0.000	-0.04	0.001	0.02	-0.003	-0.120	0.001	0.06
AUD	-0.002	-0.03	-0.016	-0.21	-0.004	-0.005	-0.017	-0.22
Constant	0.407	0.28	0.055	0.34	0.375	0.26	0.483	0.32
Adjusted $R^2$	26.8%		23.6%		32.4%		27.2%	
No. of Obs.	2,251		2,251		2,251		2,251	

Notes: This table presents the results of fixed effect regression of the impact of the governance quality on the relationship between CEO characteristics and ROA. The sample comprises 2,251 firm-year observations of listed firms on the ASE from 2009 to 2022. The dependent variable is return on assets (ROA). Independent and control variables are defined in Table 2.

## 5. Conclusion

Selecting a firm's CEO is a crucial decision that most likely has a significant impact on several attributes of firms, mainly financial performance; hence, the board of directors must be vigilant in this selection. Of equal importance, a high-quality governance system is expected to reduce the conflict of interest between managers and shareholders, and thus have a positive impact on financial performance. The current study therefore aims to contribute to the ongoing debate in the literature regarding the association between CEO characteristics and firm performance in the Jordanian context. A panel data set of 2,251 firm-year observations of listed firms on the ASE is analyzed. Overall, the results show there is a positive and significant association between CEO tenure and firm performance. The results also show that the CEO compensation is positively linked with firm performance. Pertaining to CEO age and ownership, these factors are insignificantly associated with firm performance. Regarding the moderating role of governance quality, the result reports a positive and highly significant impact on CEO tenure and CEO age. Based on the previous findings, this study recommends firms listed on the ASE to change their policy regarding CEOs' compensation by, for example, including stock options in order to enhance firms' performance. As shown earlier, governance quality positively affected the association between CEO tenure and age and firm performance, meaning that firms have to improve the quality of their governance system. This study also suggests that future research could use a qualitative approach (i.e. interviews) to investigate the association between CEOs characteristics and firm performance. A qualitative approach could help to acquire information that cannot be reached using the quantitative approach.

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