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Is Firm Performance Affected by the CEO? Case Study of The Emerging Market of Iran

Moein Ruhani¹ , Mohsen Imeni^{1,*} 

¹ Department of Accounting, Ayandegan Institute of Higher Education, Tonekabon, Iran; moein.ruhani9391@gmail.com; imeni@aihe.ac.ir.

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Abstract


This research investigates how CEO traits influence a company's financial outcomes. The study, which focused on firms listed on the Tehran Stock Exchange (TSE) from 2013 to 2023, employed panel data models for estimation and testing. Indicators like CEO ownership, duality, and tenure were utilized to represent CEO characteristics, while Return on Assets (ROA) was used to evaluate Firm Performance (FP). The findings revealed a positive and significant correlation between CEO ownership and tenure with FP (ROA). Additionally, CEO duality did not show a significant connection with FP. Although similar research has been conducted in developed markets, comprehensive studies of this nature have been relatively rare in the Iranian economic context, which possesses distinct features such as the impact of governmental institutions, specific taxation regulations, and an ownership structure characterized by concentration.

Keywords: Company performance, CEO tenure, CEO duality, CEO ownership.

1 | Introduction

As one of the most important indicators of business success and sustainability, corporate performance has always interested researchers, policymakers, and various stakeholders. Poor corporate performance negatively affects financial health and economic stability and can lead to broader financial crises and reduced investor confidence. Board structure, managerial characteristics, and environmental conditions affect Firm Performance (FP) [1]. One of the key factors considered in the corporate governance literature is the role of the board and its leadership structure. Boards of Directors (BOD) are the cornerstone of organizational success and a critical factor in companies' progress. These boards have important responsibilities, including selecting the CEO and chief executive officer. Defining the functional and strategic responsibilities of the company is also a key role of the board. The board sets the company's policies, strategies, plans, and

 Corresponding Author: moein.ruhani9391@gmail.com

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objectives. This is usually done in conjunction with the CEO or general manager of the company. As a supervisory body, the board has important responsibilities, including selecting the CEO, setting macro-strategies, and monitoring the performance of the company's management [2].

In addition to board structure, individual CEO characteristics such as tenure, education, and experience can influence FP. For example, CEOs with longer tenures may have a more profound knowledge of the firm but may face challenges such as resistance to innovative change [1]. The CEO's education and management skills can also be important in making strategic decisions and improving FP [3]. The CEO, also the board chairman, commonly referred to as 'CEO duality,' is ubiquitous in the governance structure of US companies. The CEO's primary role is to be responsible for the organization's policies and to oversee the company's performance. However, the CEO's role is actually to run the business. The powers of these two positions in a company are not the same. Despite increasing pressure from corporate regulators and the public worldwide to separate the CEO and Chairman titles, 54% of US companies still had a dual CEO leadership structure in 2010. Some studies suggest that CEO duality may lead to reduced board oversight and, consequently, poorer FP [4].

On the other hand, some research suggests that this structure can lead to faster decision-making and better coordination between management and the board. Existing literature has shown that CEO characteristics can affect the type and amount of investment a company makes. For example, more experienced CEOs tend to make long-term, sustainable investments, while younger CEOs may be more likely to take risks. These decisions can directly and indirectly affect the firm's financial performance [5]. Agency theory emphasizes the board's supervisory role and argues that CEOs have conflicting interests and pursue their private interests, which are far removed from the interests of the firm's shareholders [6].

Given the importance of FP and the many factors that influence it, this study examines the impact of CEO duality, CEO tenure, and CEO ownership on firm financial performance. The role of CEO personality traits and environmental conditions in this relationship is also analyzed. In addition, this study systematically examines the relationship between board leadership structure (especially CEO duality) and FP to understand this relationship better and provide solutions for improving corporate governance and FP. By combining existing research and presenting new theoretical and methodological approaches, it seeks to fill the gaps in the literature and provide solutions to improve FP. The results of this study can help managers, shareholders, and policymakers to make better decisions and improve corporate performance.

2| Theoretical Foundations and Research Background

2.1| CEO Tenure and Firm Performance

Researchers have widely studied CEO tenure because of its importance in predicting FP. CEOs who stay in office for a long time are perceived as experienced in managing stakeholder relationships, which in turn contributes to the firm's economic growth [7–9].

Liu and Jiang [10] show that CEO tenure significantly negatively impacts highly valued firms. The authors explain that CEOs consolidate their power during long tenures rather than focus on investing in innovation and firm development. In particular, the negative effect of CEO tenure is more pronounced in the case of highly valued companies. However, long tenure can lead to the consolidation of managerial power and compromise the board's independence. As a result, this can hinder the board's oversight and thus affect FP [11], [12]. Furthermore, Hambrick and Fukutomi's [13] leader life-cycle model showed that the firm's marginal returns decrease with CEO tenure, which is also confirmed by Chin et al. [14] and Henderson et al. [15].

There is a significant relationship between CEO tenure and company performance.

2.2 | The Duality of CEO and Company Performance

The CEO can be considered the highest executive power in companies, who has various responsibilities, the most important of which is to develop and implement business strategies, make multiple management decisions, manage the organization's resources and costs, and communicate effectively with the board of directors and other executive bodies in the company [16].

Stable managers can increase cash flows in the firm and improve FP by identifying efficient and profitable intellectual investment opportunities. Stable managers have a greater ability to invest more cheaply in intellectual assets, which can enhance the firm's profitability. According to stewardship theory, the concentration of power gives managers more discretion and can reduce conflicts between shareholders and managers. As a result, this structure maximizes overall benefits by encouraging CEOs to work to achieve the organization's goals [17]. However, this can be a double-edged sword if managers abuse ultimate control for their benefit [18]. Shen et al. [19] and Jeremias and Gani [20] found that CEO duality is detrimental to FP and investment in R&D. Richter and Dalton [21] also suggested that separation of the two powerful positions is more beneficial for better FP.

There is a significant relationship between CEO duality and FP.

2.3 | CEO Ownership and Firm Performance

CEO ownership refers to the percentage of a company's shares held by the CEO. When the CEO owns part of the company, they have a greater incentive to increase their profitability because their success directly affects the value of their wealth. This ownership relationship aligns the CEO's interests with those of shareholders. Theoretically, managerial ownership solves the agency problem [22]. In both theoretical and practical contexts, CEO ownership is recognized as an important power source [23].

Kaur and Singh [8] argue that when a CEO owns a significant percentage of a company's shares, they can influence the decisions of other managers, thereby creating an opportunity to demonstrate their importance to board members. In addition, significant ownership allows CEOs to control various aspects of the firm, such as determining board members' salaries, regulating dismissals and appointments when necessary, and dominating the organization. Adams et al. [24] and Al-Sila et al. [25] found a positive effect of managerial ownership on firm profitability.

Jeremias and Gani [20] explain that managerial ownership encourages CEOs to engage in activities that maximize the firm's value, as they benefit from the profits of these activities. Similarly, examining corporate leadership's impact on European banks' performance, Onali et al. [23] show that managerial ownership determines bank performance. Conversely, negative effects of CEO ownership on the firm (abuse of power and bureaucracy) have also been identified [7].

CEO ownership is significantly related to company performance.

Research background

Suhrman et al. [26] examined CEO characteristics and FP: evidence from a Southeast Asian country. Their results suggest that female CEOs, education level, and nationality improve FP, while CEO age can improve and reduce FP. Multiple (stability) controls were applied, and the results were consistent with the primary analysis findings.

Rahman and Chen [27] examined CEO characteristics and FP: Evidence from private listed firms in China. This study aimed to investigate the impact of CEO characteristics on FP in private listed companies in China. The results show that some CEO characteristics, such as age, work experience, and political connections, are positively related to FP. Contrary to expectations, CEO role duality and gender do not impact FP.

Hsu et al. [6] examined CEO role duality, information costs, and FP. They found that CEO role duality has a negative and statistically significant effect on FP when information costs are high. This result provides

evidence for the coexistence of agency theory and stewardship theory, which is determined by the level of information costs. Also, it emphasizes the importance of corporate governance in the relationship between CEO role duality and FP.

Liu et al. [10] studied CEO turnover, political connections, and FP: evidence from China. They find that firms generally experience positive abnormal returns when replacing unconnected CEOs with politically connected ones. Such a positive effect is more pronounced for non-state-owned, lower-performing firms and firms with more significant financial constraints. However, the abnormal returns from hiring politically connected successor CEOs turned negative after China's massive anti-corruption campaign began in 2012. Their findings provide direct estimates of the economic value of CEO political connections for listed firms in China and identify boundary conditions that moderate the effect of hiring politically connected CEOs.

Ali et al. [5] examined CEO characteristics, investment decisions, and FP: New insights from top management theory. Their findings show that CEO characteristics, including age, tenure, ownership, financial education, and work experience, are positively related to FP in general and investment decisions in particular. Second, investment decisions partially and significantly mediate the relationship between CEO characteristics and FP, with a few exceptions, confirming the theoretical implications of top management theory in an emerging market context.

3 | Methodology

3.1 | Statistical Population

The statistical sample of this study includes selected companies listed in the Tehran Stock Exchange (TSE) with the following conditions and within the period from 2013 to 2023 (11 years):

- I. The selected samples were listed on the TSE before 2013.
- II. To improve comparability, their financial period ends in March.
- III. The company did not change its activity or financial year during the years under study.
- IV. The company's type of activity is manufacturing; therefore, financial institutions, investment institutions, and banks are not included in the sample.

In this way, the number of companies with the above characteristics that could be used as a statistical sample is 120, so the number of observations is 1320 years-companies.

3.2 | Research Model and Variables

To test the research hypotheses, *Model (1)* and Ordinary Least Squares (OLS) regression were used:

$$FP/ROA_{i,t} = \beta_0 + \beta_k CEO_{i,t} + \beta_j Controls_{i,t} + \varepsilon_{i,t}. \quad (1)$$

Dependent variables

FP This variable is calculated using the Return on Assets (ROA) measure. This ratio is obtained by dividing the net profit by the book value of total assets.

Independent variables

CEO characteristics, three measures are used to measure this variable:

- I. CEO tenure: the number of years the CEO has worked in the same company [28].
- II. CEO duality: one if the CEO is also the chairman or vice chairman of the board of directors, otherwise zero [29].
- III. CEO ownership: number of CEO shares/number of shares available (extracted from the annual reports of the board of directors) [29].

Control variables

Leverage: this is obtained by dividing total debt by total assets.

Firm size: is the natural logarithm of the book value of total assets.

Tangibility: this is obtained by dividing total fixed assets by total assets.

4 | Research Findings

4.1 | Descriptive Statistics of Data

Descriptive statistics deal with the status of the data. Table 1 shows the status of the data as follows:

Table 1. Descriptive statistics results.

Variable Name	Variable Symbol	Mean	Median	Max	Min	S.D
Return on assets	ROA	0.141	0.116	0.459	0.16	0.142
CEO tenure	CEO tenure	3.565	3	11	1	2.681
CEO ownership	CEO ownership	0.174	0	0.808	0	0.277
Tangible assets	Tangible	0.2606	0.2176	0.8573	0.1901	0.1788
Financial leverage	LEV	0.6612	0.6701	1.5411	0.0780	0.0585
Firm size	Size	13.845	13.615	19.009	10.031	1.524

The results in *Table 1* show that tangible assets provide 26 percent of assets. On average, these assets generate 14 percent of profits. On average, 32 percent of profits belong to equity. On average, 66 percent of assets are provided by liabilities. CEOs stay at their companies for an average of 3 years. On average, CEOs own about 17 percent of the company's shares. The rest of *Table 2* shows the two-valued variables of the research.

Table 2. Dummy variable.

CEO Duality	
0	1
1083	237
0.82	0.18

Results of tests for selecting the appropriate model

Mixed data was used for the model analysis in this study. Accordingly, the panel and pooled data methods are selected using the F-Limer test. If the statistic obtained from the available values is lower than 5%, panel data will be used; otherwise, cumulative or pooled data will be used. If the data is in the form of a panel, the type of its effects (random and fixed) will be determined using the Hausman test.

Autocorrelation tests

The Durbin-Watson test determines the serial correlation between the residuals (errors). If the Durbin-Watson statistic is between 1.5 and 2.5, *Hypothesis H0* of this test (no correlation between errors) is accepted, and otherwise, *Hypothesis H1* is confirmed. The results of this test are presented in *Table 3*.

Table 3. Error Independence Test.

Model Title	Test Type	Statistics
	Durbin-Watson (D-W)	1.854

Considering the figures in *Table 3* and the Durbin-Watson test statistic, which are all in the range of 1.5-2.5, the *Hypothesis H0* of "no autocorrelation between errors" is confirmed.

Normality of errors test

In the present study, the Jarek-Ber (J-B) test was used to examine the normality of the model error distribution. If the significance level of this test is higher than 5 percent, the error distribution is normal. The results of this test are presented in *Table 4*.

Table 4. Normality of error distribution.

Model	J-B Probability	Compare with 0.05	Result
	0.4005	Higher	Normal

Data type determination test

The Limer F test was used to determine the data type. If the probability of the F statistic obtained at the 95% confidence level is less than 5%, it indicates mixed or panel data. *Table 5* shows the results of this test.

Table 5. Limer's F-test.

Model	t-Stat	Probability	0.05	Result
	46.8011	0.000	Smaller	Panel data

According to *Table 5*, since the probability level is less than 5 percent, the mixed data model (panel) can be used to test the three main research models.

Test to determine the type of random or fixed effects

The Hausman test determines the type of random or fixed effects of the data. If, at the 95% confidence level, the calculated Hausman test statistic is greater than 5 percent, the model is with random effects, and if the significance level of this test is less than 5 percent, the mixed model with fixed effects is used.

Table 6. Hausman test.

Model	Stat X ²	Probability	Result
Model 1	11.6951	0.0054	Fixed effects

According to the results of the Hausman test in *Table 6*, mixed data with fixed effects should be used to estimate the main research models.

Results of the research hypothesis test

The research hypothesis was tested using linear regression. The results are presented in *Table 7*.

Table 7. Results of the research hypothesis test.

Variable Name	Variable Symbol	Coeff	S.d	t-stat	Sig
CEO tenure	CEO Tenure	0.6203	2.8350	2.8350	2.8350
CEO ownership	CEO Ownership	0.7440	2.2780	2.2780	2.2780
CEO duality	CEO Duality	0.4677	1.2623	1.2623	1.2623
Financial leverage	LEV	-0.6889	2.2879	-2.2879	2.2879
Firm size	Size	0.6321	2.2217	2.2217	2.2217
Tangible assets	Tangible	0.7004	1.7302	1.7302	1.7302
Broadness from origin	C	1.0203	2.5025	2.5025	2.5025
		0.4270	R-squ.	43.012	43.012
		0.4013	Adj. R-squ.	0	0

Based on the results of *Table 7*, the value of the F statistic is 43.012, and since its significance level is 0.000, the research model is well-fitting. The test results at a 95% confidence level showed a positive and significant relationship between CEO tenure and CEO ownership with company performance (ROA) (the first and second hypotheses of the study are accepted). The results showed no significant relationship between CEO duality and company performance (ROA).

5 | Conclusion

CEO tenure and return on assets

This relationship suggests that the longer a CEO stays in office, the better the company's performance (measured by ROA). This may be due to the CEO's increased experience and knowledge of the company,

the industry, and the business environment. A CEO who stays in the role longer will likely be better able to make strategic decisions, provide management stability, and implement effective policies.

The results of the present study contrast those of Liu and Jiang [7], Al-Matari et al. [11], and Nguyen et al. [12]. During long tenures, CEOs may consolidate their power. Long tenure can consolidate managers' power and affect board independence, impairing board oversight and resulting in poorer business performance.

CEO role duality and return on assets

CEO role duality is when an individual simultaneously serves as CEO and board chairman. The positive relationship between duality and ROA suggests that this concentration of power may contribute to faster and more coordinated decision-making at the management level, improving financial performance. However, it should be noted that this outcome depends on the organization's specific circumstances and the environment and, in some cases, may raise concerns about reduced board oversight.

The results show that the effect of CEO role duality (DUAL) on ROA is significantly positive. This result is inconsistent with the studies of Shen et al. [19] and Jeremias and Gani [20] but consistent with Nguyen et al. [12]. However, this result is also reported by Kaur and Singh [8] and Peni [31], who suggest that the concentration of organizational power allows the CEO greater autonomy and a more assertive leadership style, ultimately improving FP. This view is supported by stewardship theory, which encourages organizational structures to help CEOs use their power in the interests of different groups and the firm. As a result, role duality leads to managers' commitment to improving the firm's performance over the long term.

CEO ownership and return on assets

Our findings are consistent with the studies of Jeremias and Gani [20] and inconsistent with Nguyen et al. [12]. This finding suggests that CEOs with high stock ownership may use their power and control to secure their interests at the expense of the interests of shareholders and other key stakeholders [32].

These actions are detrimental to firm growth in the long run [33]. In other words, owning a certain percentage of the company's shares allows CEOs to intervene in individual decisions made by the board of directors and owners. This situation gives CEOs an information asymmetry advantage, as management teams are closer to the company's day-to-day operations and are well aware of the company's problems. In addition, managers can stay in their positions for extended periods because shared ownership makes it difficult to replace them without their consent [34].

Research limitations

The impact of CEO characteristics may vary across industries or economic sectors, but this study did not control for these differences. This study looked at specific CEO characteristics. Other factors, such as the CEO's personality, communication skills, or leadership style, may influence FP and were not examined in this study.

Based on the results of testing the research hypotheses, the following practical and applicable suggestions have been explained:

Develop policies to prevent excessive consolidation of CEO power during long-term tenure, such as setting a maximum tenure limit and periodic performance evaluations. Also, setting a maximum shareholding limit for CEOs to reduce the possibility of conflicts of interest and prevent negative effects of concentration of power can be an effective factor.

Therefore, developing appropriate measures to investigate the transparency of CEO decisions regarding share ownership may impact FP.

It is suggested that future researchers examine the impact of CEO characteristics (such as experience, education or gender) and organisational culture on FP. The impact of CEO characteristics may also vary across industries.

Author Contributions

Moein Ruhani devised the research concept and formulated the methodology. Mohsen Imeni carried out the experiments and evaluated the data. All authors have reviewed and consented to the manuscript's final version.

Data Availability

The data that supports the findings of this study can be obtained from the corresponding author upon reasonable request. Any supplementary data can also be provided upon request for research purposes.

Conflicts of Interest

The authors affirm that there are no conflicts of interest associated with this work.

References

- [1] Onipe Adabenege, Y. (2024). *The moderating effect of board independence on CEO tenure and firm performance*. SSRN electronic journal. <https://dx.doi.org/10.2139/ssrn.5020694>
- [2] Kanakriyah, R. (2021). The impact of board of directors' characteristics on firm performance: A case study in Jordan. *The journal of asian finance, economics and business*, 8(3), 341–350. <https://doi.org/10.13106/jafeb.2021.vol8.no3.0341>
- [3] Robbani, K. A., Hasnawati, H., Dewi, R. R., Ariani, M., Madhi, D., & Alya, S. (2024). The effect of CEO education, CEO tenure, company risk, and environmental performance on company value. *Indonesian management and accounting research*, 23(1), 109–136. <https://doi.org/10.25105/imar.v23i1.19034>
- [4] Yu, M. (2023). CEO duality and firm performance: A systematic review and research agenda. *European management review*, 20(2), 346–358. <https://doi.org/10.1111/emre.12522>
- [5] Ali, R., Rehman, R. U., Suleman, S., & Ntim, C. G. (2022). CEO attributes, investment decisions, and firm performance: new insights from upper echelons theory. *Managerial and decision economics*, 43(2), 398–417. <https://doi.org/10.1002/mde.3389>
- [6] Hsu, S., Lin, S. W., Chen, W. P., & Huang, J. W. (2021). CEO duality, information costs, and firm performance. *The north american journal of economics and finance*, 55, 101011. <https://doi.org/10.1016/j.najef.2019.101011>
- [7] Kaczmarek, S., Kimino, S., & Pye, A. (2012). Board task-related faultlines and firm performance: A decade of evidence. *Corporate governance: an international review*, 20(4), 337–351. <https://doi.org/10.1111/j.1467-8683.2011.00895.x>
- [8] Kaur, R., & Singh, B. (2019). Do CEO characteristics explain firm performance in India? *Journal of strategy and management*, 12(3), 409–426. <https://doi.org/10.1108/JSMA-02-2019-0027>
- [9] Wang, G., Holmes Jr., R. M., Oh, I. S., & Zhu, W. (2016). Do CEOs matter to firm strategic actions and firm performance? A meta-analytic investigation based on upper echelons theory. *Personnel psychology*, 69(4), 775–862. <https://doi.org/10.1111/peps.12140>
- [10] Liu, C., & Jiang, H. (2020). Impact of CEO characteristics on firm performance: evidence from China listed firms. *Applied economics letters*, 27(14), 1–5. <https://doi.org/10.1080/13504851.2019.1607965>
- [11] Al-matari, Y. A., Al-swidi, A. K., Fadzil, F. H. B. H., & Al-matari, E. M. (2012). board of directors, audit committee characteristics and the performance of Saudi Arabia listed companies. *International review of management and marketing*, 2(4), 241–251. <https://dergipark.org.tr/en/pub/irmm/issue/32073/355012>
- [12] Nguyen, P., Rahman, N., & Zhao, R. (2018). CEO characteristics and firm valuation: A quantile regression analysis. *Journal of management & governance*, 22(1), 133–151. <https://doi.org/10.1007/s10997-017-9383-7>
- [13] Hambrick, D. C., & Fukutomi, G. D. S. (1991). The seasons of a Ceo's tenure. *Academy of management review*, 16(4), 719–742. <https://doi.org/10.5465/amr.1991.4279621>

- [14] Chin, M. K., Hambrick, D. C., & Trevino, L. K. (2013). Political ideologies of CEOs: the influence of executives' values on corporate social responsibility. *Administrative science quarterly*, 58(2), 197–232. <https://doi.org/10.1177/0001839213486984>
- [15] Henderson, A. D., Miller, D., & Hambrick, D. C. (2006). How quickly do CEOs become obsolete? Industry dynamism, CEO tenure, and company performance. *Strategic management journal*, 27(5), 447–460. <https://doi.org/10.1002/smj.524>
- [16] setayesh, mohammad hoseine, & Kashanipour, F. (2011). The investigation of the effect of intellectual capital components on companies' performance. *Empirical studies in financial accounting*, 9(36), 1-21. **(In Persian)**. <https://dor.isc.ac/dor/20.1001.1.28210166.1390.9.36.1.3>
- [17] Davis, J. H., Schoorman, F. D., & Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of management review*, 22(1), 20–47. <https://doi.org/10.5465/amr.1997.9707180258>
- [18] Brickley, J. A., Coles, J. L., & Jarrell, G. (1997). Leadership structure: separating the CEO and chairman of the board. *Journal of corporate finance*, 3(3), 189–220. [https://doi.org/10.1016/S0929-1199\(96\)00013-2](https://doi.org/10.1016/S0929-1199(96)00013-2)
- [19] Shen, Y., Wallace, D., Reddy, K., & Ramiah, V. (2022). An investigation of CEO characteristics on firm performance. *Accounting & finance*, 62(3), 3563–3607. <https://doi.org/10.1111/acfi.12896>
- [20] Jermias, J., & Gani, L. (2014). The impact of board capital and board characteristics on firm performance. *The british accounting review*, 46(2), 135–153. <https://doi.org/10.1016/j.bar.2013.12.001>
- [21] Rechner, P. L., & Dalton, D. R. (1991). CEO duality and organizational performance: A longitudinal analysis. *Strategic management journal*, 12(2), 155–160. <https://doi.org/10.1002/smj.4250120206>
- [22] Jensen, M. C., & Meckling, W. H. (2019). Theory of the firm: managerial behavior, agency costs and ownership structure. In *Corporate governance* (pp. 77–132). Gower. <https://b2n.ir/sk9534>
- [23] Onali, E., Galiakhmetova, R., Molyneux, P., & Torluccio, G. (2016). CEO power, government monitoring, and bank dividends. *Journal of financial intermediation*, 27, 89–117. <https://doi.org/10.1016/j.jfi.2015.08.001>
- [24] Adams, R., Almeida, H., & Ferreira, D. (2009). Understanding the relationship between founder–CEOs and firm performance. *Journal of empirical finance*, 16(1), 136–150. <https://doi.org/10.1016/j.jempfin.2008.05.002>
- [25] Elsilä, A., Kallunki, J. P., Nilsson, H., & Sahlstrom, P. (2013). CEO personal wealth, equity incentives and firm performance. *Corporate governance: An international review*, 21(1), 26–41. <https://doi.org/10.1111/corg.12001>
- [26] Suherman, S., Mahfirah, T. F., Usman, B., Kurniawati, H., & Kurnianti, D. (2023). CEO characteristics and firm performance: evidence from a Southeast Asian country. *Corporate governance: the international journal of business in society*, 23(7), 1526–1563. <https://doi.org/10.1108/CG-05-2022-0205>
- [27] Rahman, M. J., & Chen, X. (2023). CEO characteristics and firm performance: evidence from private listed firms in China. *Corporate governance: the international journal of business in society*, 23(3), 458–477. <https://doi.org/10.1108/CG-01-2022-0004>
- [28] Ghorbani Esfahlan, V. (2021). The effect of the tenure of the CEO and the company's auditor on the quality of the audit. *Journal of accounting and management vision*, 4(43), 16-33. **(In Persian)**. https://www.jamv.ir/article_131466.html?lang=en
- [29] Foroghi, D. (2016). The effect of CEO duality on future stock price crash risk. *Financial accounting knowledge*, 3(2), 31-52. **(In Persian)**. https://jfak.journals.ikiu.ac.ir/article_912.html?lang=en
- [30] Afsay, A. (2023). The effect of CEO experience, expertise and ownership on labor investment efficiency. *Journal of budget and finance strategic research*, 4, 129-153. **(In Persian)**. <https://b2n.ir/eg2484>
- [31] Peni, E. (2014). CEO and Chairperson characteristics and firm performance. *Journal of management & governance*, 18(1), 185–205. <https://doi.org/10.1007/s10997-012-9224-7>
- [32] Bhagat, S., & Bolton, B. (2019). Corporate governance and firm performance: the sequel. *Journal of corporate finance*, 58, 142–168. <https://doi.org/10.1016/j.jcorpfin.2019.04.006>
- [33] Florackis, C. (2008). Agency costs and corporate governance mechanisms: evidence for UK firms. *International journal of managerial finance*, 4(1), 37–59. <https://doi.org/10.1108/17439130810837375>
- [34] Becht, M., Bolton, P., & Röell, A. (2003). Corporate governance and control. In *Handbook of the economics of finance* (Vol. 1, pp. 1-109). Elsevier. [https://doi.org/10.1016/S1574-0102\(03\)01005-7](https://doi.org/10.1016/S1574-0102(03)01005-7)