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Article

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FINANCIAL ECONOMICS | RESEARCH ARTICLE

CEO attributes and firm performance: Evidence from companies listed on Ho Chi Minh Stock Exchange

Dzung Viet Nguyen^{1*}, Ngan Hoang-Kim Nguyen² and Tien Thuy Dinh¹

Abstract: This study conducted on HOSE-listed companies for the period 2016–2020 examines the influence of chief executive officer (CEO) attributes on company performance. The System GMM methodology is applied to estimate and test dynamic panel data models. We investigate a fairly large number of CEO attributes including four socio-demographic and five corporate governance-related ones. For the socio-demographic attributes, the results indicate that female gender, below postgraduate education, domestic nationality and older age are the CEO traits that contribute to improve firm performance. With regard to the corporate governance-related attributes, this study provides statistical evidence that shorter CEO tenure, CEO-chairman duality, founder CEO, insider CEO and lower CEO ownership are the characteristics that enhance firm performance. The findings may offer valuable insights to shareholders when they expect to recruit the most qualified CEO to serve their benefits and increase their company performance.

Subjects: Economics; Finance; Business, Management and Accounting



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PUBLIC INTEREST STATEMENT

A CEO is hired by the shareholders (owners of a company) to manage their firm through making strategic and operational decisions. CEOs are expected to act in the best interests of the company instead of making decisions based on their own interests. A CEO's attributes have a great influence on the way his or her decisions are made in the interests of the company, which in turn, affect firm outcomes and performance. This study examines the impact of nine CEOs' socio-demographic and corporate governance-related attributes on the performance of companies listed on Ho Chi Minh Stock Exchange, Vietnam. The results indicate that female gender, below postgraduate education, domestic nationality, older age, shorter tenure, CEO-chairman duality, founder-CEO, insider CEO and lower CEO ownership are the attributes that contribute to improve firm performance. These results might be useful to shareholders in making decisions on selecting the right CEO to manage their company.

Keywords: corporate governance; CEO attributes; firm performance; HOSE-listed companies; Vietnam

1. Introduction

Since the last century, corporate governance (CG) has become a prominent topic attracting much public and academic attention worldwide. Practically, corporate governance plays a vital role in improving economic efficiency because it poses remarkable influences on the performance of capital markets and the allocation of resources. It is defined by CFA Institute (2009) as a framework that sets up the obligations, responsibilities and roles of various parties and formulates the set of rules and procedures to control how individual firms are run. The effective application of corporate governance principles stands on the priority list of every country and institution for the development of emerging markets and sustainable economic growth (Clarke, 2004). From corporate perspective, good corporate governance contributes to operational effectiveness, efficient control procedures, higher firm value, lower insolvency risk and costs of financing (Felton et al., 1996; Hawkins, 1997). On the other hand, weak corporate governance structure results in seriously adverse consequences such as financial frauds, accounting scandals, deteriorated reputation and even bankruptcies (Daily & Dalton, 1994; Finegold et al., 2007; Weir & Laing, 2001).

In corporate governance, topics related to chief executive officers (CEOs) attract much attention since CEOs are the most powerful and visible executives in the company (Jain & Jamali, 2016; Peni, 2014). They play a key role by being responsible for making strategic decisions, for resource allocation and operational management and therefore their quality and performance significantly contribute to firms' failure or success (Bhagat & Bolton, 2008; Bigley & Wiersema, 2002; Campbell & Minguez Vera, 2010; Mintzberg, 1973; Peni, 2014). Therefore, Hambrick (2007) proposes that the most suitable method to comprehend the performance of a specific firm is to investigate the characteristics and perceptions of its top managers. The prior literature has concentrated on the association between firm performance and specific dimensions or attributes of CEO such as CEO age (Barba Navaretti et al., 2021; Yeoh & Hooy, 2020), CEO gender (Nekhili et al., 2018; Pucheta-Martínez & Gallego-Álvarez, 2020; Sun & Zou, 2021) and qualification (Bertrand & Schoar, 2003; Urquhart & Zhang, 2022). Based on different theoretical frameworks (agency, stewardship and upper echelons theories), other individual characteristics including CEO ownership (Adams et al., 2009; Bhagat & Bolton, 2013), experience (Cooper & Uzun, 2012; Khavul et al., 2010) and directorships (Ferris et al., 2003; Geletkanycz & Boyd, 2011) are proved to have diverse impacts on firm performance.

In Vietnam, corporate governance issues have been frequently discussed in institutions and government agencies since the 2008–2010 financial crisis. Since 2012, several actions have been taken to promote the adoption of international guidelines for corporate governance nationwide, beginning with the participation in the ASEAN Corporate Governance Scorecard (ACGS) assessment. In 2019, the State Securities Commission of Vietnam (SSC) established the first Vietnam Corporate Governance Code (CG Code) of Best Practices for Public Companies, marking a significant milestone in developing corporate governance practices. Though a growing literature has studied CEO characteristics and their influence on company performance, the majority of these works have only concentrated on developed countries. Gul and Tsui (2004) show that emerging markets differ significantly from developed economies in their institutional, regulatory and legal aspects as well as in their governance mechanisms. Hence, the prior results may not be applicable to emerging countries including Vietnam. Besides, domestic research mainly assessed the impact of corporate governance on performance in general (Vo & Nguyen, 2014; Vo & Phan, 2013). A limited number of research have addressed the effect of CEO attributes, but only investigated a small subset. Pham and Hoang (2020) only considered CEO duality. Jardine and Duong (2021) only examined three demographic characteristics (CEO age, gender and education) for one industry. Pham (2023) considered five attributes (duality, gender, financial background, tenure and age) but only focused on Vietnamese commercial banks. It can be seen that there is still much to be known about the impact of CEO attributes, which are quite diverse, on firm performance in Vietnam.

Therefore, this study examines how a fairly large and diverse set of CEO attributes, including four socio-demographic and five corporate governance-related ones, affect business performance. The sample comprises 1240 firm-year observations of HOSE-listed companies from 2016 to 2020. CEO tenure, duality, education, gender, ownership, nationality, age, founder status and origin are used as CEO attributes and ROA and ROE proxy for firm performance. We control the models for enterprise-specific characteristics. The results show that female gender, below postgraduate education, domestic nationality, older age, shorter CEO tenure, CEO-chairman duality, founder-CEO, insider CEO and lower CEO ownership are the characteristics that contribute to improve firm performance.

The remainder of the paper is organized as follows. Section 2 reviews related literature as well as develops our hypotheses. Section 3 shows the research methodology. Section 4 presents and discusses the results and Section 5 concludes.

2. Literature review and hypothesis development

2.1. Theoretical framework

To establish a comprehensive perception of the influence of CEO attributes on company performance, a multi-theoretical approach is adopted by taking recourse to five fundamental theories: agency, stewardship, stakeholder, upper echelons and resource dependency theories.

2.1.1. Agency theory

Agency theory is one of the most relevant theories that underlie the association between top management executives and company performance (Fama, 1980; Jensen & Meckling, 1976). To be specific, shareholders/owners are considered as principals whereas managers are agents. Advocates of the agency theory argue that agency losses are incurred when CEOs make strategic and operational decisions to the detriment of the shareholders' benefit (Jensen & Meckling, 1976). To reduce agency costs, incentive schemes for managers are recommended such as financial rewards, shareholding ownership and other valuable compensations to discourage short-sighted executive acts. However, granting CEOs significant proportion of shareholding may result in more serious agency problems as it can cause managerial opportunism. Having large managerial ownership or even participating in the Board of directors, top executives can interfere in many supervisory decisions such as board members' and management team's remuneration, selection of management positions, and other proposals requiring shareholders' approval (Zhang et al., 2016).

2.1.2. Stewardship theory

Contrarily, stewardship theory promotes organizational structures in which the highest-ranking executives are empowered and supported to develop and execute plans for highly profitable business and impressive firm performance (Donaldson & Davis, 1991). Proponents of this corporate governance theory believe that CEOs are conceived as trustworthy and responsible stewards of company resources who act in stakeholders' interest (Davis, 1991), rather than being an opportunistic seekers proclaimed by the aforementioned agency concept. Here the sources of motivation for top managers are intrinsic achievements and satisfaction resulting from successful performance of demanding tasks, functional responsibility and positional authority as well as peers and superiors' recognition (Mausner & Snyderman, 1993).

2.1.3. Stakeholder theory

Originally developed by Edward (1984), stakeholder theory presents a broader perspective on corporate governance mechanism than agency theory and is discussed as the cornerstone for many other governance theories. According to Kock et al. (2012), the theory focuses on the need for top executives to strengthen managerial accountability to other stakeholders rather than the shareholders only. Such groups of stakeholders including customers, employees, suppliers, banks, creditors, regulators, environmentalists, etc., all have legitimate organizational interests which

have inherent value (Donaldson & Davis, 1991). Therefore, CEOs' relationship management activities (for example, information disclosure) should target a variety of stakeholders because of the demand for constant access to critical resources under the stakeholders' control (De Villiers & Van Staden, 2011).

2.1.4. *Upper Echelons theory*

This theory covers a crucial sector in the realm of behavioral finance. The model suggests that organizational performance and strategic decision-making processes are profoundly influenced by the managerial background characteristics and personal traits (Hambrick & Mason, 1984; Laufs et al., 2016). As proposed by the theory, the more challenging a business mission, the more critical the personal characteristics of the senior executives (for example age, gender and qualification). Nielsen (2010) recognized that managers' distinct qualities exert significant impacts on their decisions, consequently influencing the implementation of strategic tactics and, hence, the business outcomes.

2.1.5. *Resource dependency theory*

The resource-based or resource dependency theory lays the foundation that companies own resources rather than externalities, giving firms a competitive edge over their peers (Barney, 1995). This theory was introduced by Pfeffer in 1972 with the intention of emphasising on the indispensable role of top managers in offering company an access to possessions that would foster business performance and safeguard it from environmental threats. Hillman et al. (2000) posited that directors, via their connection with the external environment, attract vital "materials" including information, technical skillset, supplying sources, customers, relationship with regulators and community to benefit the company performance. They acquire these resources through interlocking directorship (Lang & Lockhart, 1990), social networking and professional relations (Johannisson & Huse, 2000).

2.2. *Empirical evidence¹ and hypothesis development*

2.2.1. *CEO Tenure*

The top managerial executives' tenure has been widely investigated by academics due to its importance in predicting firm performance. Long-tenured CEOs are perceived to be experienced in managing the relationship with stakeholders which in turn contributes significantly to the economic growth of the company (Kaczmarek et al., 2012; Kaur & Singh, 2019; Wang et al., 2016). Liu and Jiang (2020) show that CEO tenure exerts a substantial adverse impact on high-value firms. The authors explained that during their long tenure, rather than focusing on investing in innovation and firm development, CEOs tend to consolidate their powers. Especially, the negative influence from CEO tenure is particularly pronounced when it comes to firms with high valuation. However, long tenancy can entrench the managers' authority and affect the board independence. As a consequence, this causes a disturbance in the monitoring of the board and hence company performance (Al-Matari et al., 2012; Nguyen et al., 2018). Moreover, the leader lifecycle model of Hambrick and Fukutomi (1991) demonstrated the diminishing marginal returns of the company along with the CEO tenure which was also supported by Chin et al. (2013) and Henderson et al. (2006).

H1: There is a significant relationship between CEO tenure and firm performance.

2.2.2. *CEO Duality*

As backed by the stewardship theory, the concentration of power provides executives greater authority and can reduce the conflicts between shareholders and managers. Consequently, this structure maximizes the all-encompassing benefits by encouraging CEOs to work towards a organization's targets (Davis et al., 1997). However, it can be a two-edged weapon if the managers take advantage of the ultimate control for their own sake (Brickley et al., 1997). Shen

et al. (2022) and Jermias and Gani (2014) found that CEO duality would be detrimental to the company performance and R&D investment. Recher and Dalton (1991) also recommended that separating the two most powerful positions is better for the business functioning.

H2: There is a significant relationship between CEO duality and firm performance.

2.2.3. CEO Education

Considered to be one of the most important human capital elements, educational background influences the perception and decision-making process of a CEO. The significance of the management staff's education has been proved by a list of research papers, indicating that managers with postgraduate qualifications will outperform those who experienced a lower level of education (Farag & Mallin, 2018; King et al., 2016). According to Urquhart and Zhang (2022), the influence is more valuable for a firm when the CEO graduated PhD from the top 100 universities. They believe that acquiring knowledge and skills from a research-based degree enables CEOs to perform better in problem-solving in practice. Vo et al. (2020) find that compared to untrained CEOs, CEOs receiving training or/and education tend to enjoy a better performance; yet, the firm performance managed by those who possess postgraduate degrees seemed less prominent. Shen et al. (2022) suggest that CEOs with master and PhD degrees positively impact firm performance following announcements relating to debt and equity.

H3: CEO education level significantly affects firm performance.

2.2.4. CEO Gender

Gender of the executives is also one of the most investigated managerial attributes which exert certain impacts on firm performance. Tate and Yang (2015) believe that a wealth of experience in both professional and practical perspectives gives female CEOs an edge over their male counterparts in firm management. They suggest that women are determined to boost the partnership relationship and enhance the teamwork proactivity. Normally, the business partners whose leaders are young and enthusiastic women attract more attention from investors than the other (Ewens & Townsend, 2020). Faccio et al. (2016) and Sun and Zou (2021) show evidence of how firms with female CEOs perform more outstandingly in all aspects than firms with male CEOs. In particular, for family firms, Loukil et al. (2019) demonstrate that female CEOs contribute to reduction in information asymmetry. Female executives, according to Mobbs et al. (2021), may have a mitigating effect on anomalous CEO remuneration and financial restatement risk. Consequently, women CEOs alleviate agency-related issues and promote business innovation by providing effective management (Ain et al., 2020; Chen et al., 2018).

H4: Female CEOs impact more significantly firm performance than male CEOs.

2.2.5. CEO Ownership

Managerial ownership theoretically serves as a remedy for agency problems (Jensen & Meckling, 1976). In both theoretical and practical contexts, CEO ownership is acknowledged as a significant source of power (Onali et al., 2016). Kaur & Singh (2019) argue that when a CEO owns a significant proportion of stock in a company, he may influence the decisions of other directors, thus creating the opportunity to show off his significance to the board members. In addition, having significant ownership allows CEOs to control various firm problems such as settling board member's remuneration, adjusting banishment when necessary and dominating within the organization. Adams et al. (2009) and Elsilä et al. (2013) find a positive influence of the ratio of management ownership on firm profitability. Jermias and Gani (2014) explain that managerial share ownership encourages CEOs to undertake value-maximizing activities because they would enjoy a share in these activities' proceeds. Similarly, by investigating the extent to which firm leadership influences the performance of European banks, Onali et al. (2016) indicate that managerial ownership is

a determinant of bank performance. In contrast, negative impacts of CEO ownership on business are also detected (the overexploitation of authority, and bureaucracy) (Fahlenbrach, 2009; Kaczmarek et al., 2014).

H5: CEO ownership is significantly related to firm performance.

2.2.6. *CEO Nationality*

Zalewska (2014) proves that the benefit for a firm to have foreign top executives is undeniable when they bring about the communication of global knowledge, share innovative methods and considerable business acumen. Therefore, business outcomes seem to be brighter thanks to the significant economic flexibility that foreigners offer. However, the indigenous leadership style of overseas CEOs and the fact that they are unfamiliar with the host country's norms and regulations can hamper business growth (Huang, 2013; Masulis et al., 2012). Moreover, Ruigrok et al. (2007) argue that disputes between board members from the domestic and international spheres can impede effective communication and hinder the pace of decision-making. Kaur and Singh (2019) indicate that foreign CEOs make a negative contribution when ROA proxies for firm performance. Vo et al. (2020) suggest that companies managed by domestic CEOs have better performance than those choosing foreign CEOs because of their better connections with the stakeholders.

H6: Non-nationals exert significant influences on firm performance

2.2.7. *CEO Age*

CEO's experience within the organization's environment can influence how the firm maintains and develops. Hsu et al. (2013) find that the performance of a firm is positively affected by its CEO's age. As claimed by Wang et al. (2011), older CEOs have experience and years of knowledge, hence their abundant "human capital" can be applied to run the business more efficiently. However, the older the managers get, the more conservative they might be. This can result in the reluctance to make strategic decisions at a higher level of risk, which can generate enormous profits for the corporation (Carlsson & Karlsson, 1970). Belenzon et al. (2019) find that over time, firms seem to exhibit reduced levels of investment, growth, and profitability, yet they also demonstrate a heightened likelihood of enduring over time. This indicates a trade-off between the leadership strategies employed by younger and older Chief Executive Officers.

H7: CEO age is significantly related to firm performance

2.2.8. *Founder-CEO*

A founder-CEO plays a substantial role in establishing a firm's earliest organizational framework, encompassing its culture, structure and strategic direction (Baron et al., 1999). Researchers have focused significantly on the influence of the CEO founder status on the performance of firms but their studies have generated inconsistent results. By virtue of their technical and market knowledge and a profound grasp of the business sector, the founder-run companies tend to outperform the others led by non-founders (Fahlenbrach, 2009). However, Jensen and Meckling (1976) worry that founder CEOs, with their great authority, can be driven by opportunism.

H8: There is a significant relationship between founder-CEO status and firm performance

2.2.9. *CEO Origin*

Over the last few decades, there have still been controversies with regards to the question: outsiders or insiders should be appointed? (Kesner & Dalton, 1994; Shen & Cannella, 2002; Zhang, 2008; Zhang & Rajagopalan, 2004). For example, Zhang and Rajagopalan (2003) find that while inside CEOs possess professional and experiential background knowledge and skills towards their working environment, outside CEOs are potential for their professionalism, working

experience and attitude and leadership capability. The CEO's origin can influence the process of proposing, formulating and implementing different strategic plans, hence contributing to determine the connection between strategic change and company performance. Rhim et al. (2006) indicate that CEOs who are succeeded by an insider outperform those being outsourced. However, proponents of recruiting outsider CEOs rely on the argument that they tend to bring about more innovative ideas and create necessary changes (Datta & Guthrie, 1994).

H9: CEO origin is significantly related to firm performance

3. Research methodology

3.1. Empirical models

Since different factors including CEO attributes may often have gradual effects on firm performance with different lags, we use a general dynamic panel data model as follows:

$$FP_{it} = \beta_0 + \beta_1 FP_{it-1} + \sum_{j=1}^K \beta_{1+j} CEO_characteristic_{jit} + \sum_{u=1}^L \beta_{K+u} Control_{uit} + \varepsilon_{it} \quad (1)$$

Where:

FP_{it} : performance of firm i at time t

FP_{it-1} : performance of firm i at time $t - 1$

$CEO_characteristic_{jit}$: CEO characteristics j of firm i at time t

$Control_{uit}$: control variable u of firm i at time t

ε_{it} : the disturbance term

Based on the general model, we develop two specific models in which two different variables proxying for company performance (ROA and ROE) are separately used.

Model 1:

$$ROA_{it} = \beta_0 + \beta_1 ROA_{it-1} + \beta_2 LnTEN_{it} + \beta_3 DUAL_{it} + \beta_4 EDU_{it} + \beta_5 GEN_{it} + \beta_6 OWN_{it} + \beta_7 NAT_{it} \\ + \beta_8 LnAGE_{it} + \beta_9 FOUND_{it} + \beta_{10} OUTS_{it} + \beta_{11} LEV_{it} + \beta_{12} LnSIZE_{it} + \beta_{13} LnFAGE_{it} \\ + \beta_{14} LnBSIZE_{it} + \beta_{15} TAN_{it} + \beta_{16} GROW_{it} + a_i + u_{it} \quad (2)$$

Model 2:

$$ROE_{it} = \beta_0 + \beta_1 ROE_{it-1} + \beta_2 LnTEN_{it} + \beta_3 DUAL_{it} + \beta_4 EDU_{it} + \beta_5 GEN_{it} + \beta_6 OWN_{it} + \beta_7 NAT_{it} \\ + \beta_8 LnAGE_{it} + \beta_9 FOUND_{it} + \beta_{10} OUTS_{it} + \beta_{11} LEV_{it} + \beta_{12} LnSIZE_{it} + \beta_{13} LnFAGE_{it} \\ + \beta_{14} LnBSIZE_{it} + \beta_{15} TAN_{it} + \beta_{16} GROW_{it} + a_i + u_{it} \quad (3)$$

In order to estimate the above dynamic panel models and handle the endogeneity problem, we apply the System-GMM method (Arellano & Bover, 1995; Blundell & Bond, 1998), which estimates a system of 2 versions of the above equation (1): the equation in differences (in levels) uses lagged values of the independent variables in levels (in differences) as instruments.

3.2. Measurement of variables

Table 1 details the variables included in two models (1) and (2) and describes their measurement and the data sources used.

3.3. Sample and data

The initial sample comprises 386 HOSE-listed companies as of 31 December 2020. First, we exclude banks, financial and insurance companies from the sample (35 companies). Next, companies established after 2015 were eliminated (7 companies). Finally, companies that lack data to ensure that the sample is balanced panel will also be excluded (96 companies). Thus, the final sample includes 248 firms. The data source for measuring the variables is presented in the Table 1's last column.

Table 1. Measurement of variables			
Variable	Explanation	Measurement	Source of data
Firm performance			
ROA	Return on assets	$\frac{\text{Net income}}{\text{Total assets}}$	Financial statements
ROE	Return on equity	$\frac{\text{Net income}}{\text{Equity}}$	Financial statements
CEO attributes			
LnTEN	CEO Tenure	Natural logarithm of the number of years CEO serving in the same spot	Annual report
DUAL	CEO Duality	1 if CEO is also chairperson, 0 otherwise	Annual report and Management report
EDU	CEO Education	1 if CEO has a Master degree or higher, 0 otherwise	Annual report and Management report
GEN	CEO Gender	1 if CEO is female, 0 otherwise	Annual, Management reports and CafeF
OWN	CEO Ownership	CEO's number of shares/ the number of firm's outstanding shares	Annual report and Management report
NAT	CEO Nationality	1 if CEO is a foreigner, 0 otherwise	Annual, Management reports and CafeF
LnAGE	CEO Age	Natural logarithm of (Financial reporting year – CEO's year of birth)	Annual report and CafeF
FOUND	CEO Founder	1 if CEO is also founder, 0 otherwise	Annual report and CafeF
OUTS	CEO Origin	1 if CEO is an outsider, 0 otherwise	Annual, Management reports and CafeF
Control variables			
LEV	Leverage	$\frac{\text{Total debts}}{\text{Total assets}}$	Financial statements
LnSIZE	Firm size	Natural logarithm of total assets	Financial statements
LnFAGE	Firm age	Natural logarithm of (Financial reporting year – Firm's establishment year)	Annual report and Vietstock
LnBSIZE	Board size	Natural logarithm of the number of executives serving on the Board	Annual report and Management report
TAN	Tangibility	Ratio of net fixed assets to total assets	Financial statements
GROW	Growth	Annual growth rate in sales	Financial statements

4. Results and discussions

4.1. Descriptive statistics

Table 2 presents the descriptive statistics of all the variables. The average ROA is 7.04%, which fluctuates strongly with the standard deviation of 7.41%. In line with ROA, the average ROE is 13.3%, with of 12%. Regarding CEO attributes variables, the average CEO Tenure (TEN) is 8 years. The mean of Duality variable (DUAL) is 43.9%, indicating that the two most influential positions in the majority of the companies are separated. In terms of CEO education level (EDU), almost all the top executives in HOSE listed companies graduated from universities and 37% of the CEOs have postgraduate degrees. Out of 248 companies, only 29 companies have female CEOs. The CEO share ownership (OWN) averages 4.53% with a maximum shareholding of 64.1%. The foreign CEOs (NAT) make up only 3.79% of the observations. The average AGE is 50. The proportion of founder-CEOs is 25%. In addition, almost CEOs were selected inside the company, only 7.26% were recruited from external labor markets.

4.2. Correlation analysis

Table 3 illustrates the matrix of CEO attributes-related variables' correlation. The two dependent variables are positively correlated. For explanatory variables, CEO tenure, duality, gender, age correlate positively with the dependent variables while education level, ownership, nationality, founder status and origin have negative correlations with firm performance variables. The CEO tenure variable highly correlates with CEO age and CEO founder status. For control variables,² leverage has a highly negative correlation with ROA which means that when leverage ratio of the company increases, its return on assets will decrease. The other control variables remain weakly correlated with the dependent variables. Table 3. Pearson's correlation coefficients

4.3. Regression analysis

The System GMM method is applied to estimate equations (2) (Model 1) and (3) (Model 2). Then, several tests are performed, in addition to the usual tests related to the regression coefficients: i/ Wald test to see whether the independent variables in the models are jointly non-zero, ii/Hansen

Table 2. Descriptive statistics					
Variables	Obs	Mean	Std. Dev.	Min	Max
ROA	1,240	0.0704	0.0741	-0.222	0.505
ROE	1,240	0.133	0.120	-0.441	0.691
TEN	1,240	8.154	6.949	1	38
DUAL	1,240	0.439	0.496	0	1
EDU	1,240	0.3681	0.4796	0	1
GEN	1,240	0.0871	0.282	0	1
OWN	1,240	0.0453	0.101	0	0.641
NAT	1,240	0.0379	0.191	0	1
AGE	1,240	49.92	7.985	30	76
FOUND	1,240	0.251	0.434	0	1
OUTS	1,240	0.0726	0.260	0	1
LEV	1,240	0.480	0.203	0.00267	0.971
SIZE	1,240	14.37	1.294	11.77	19.82
FAGE	1,240	26.09	13.05	2	63
BSIZE	1,240	4.111	1.840	0	13
TAN	1,240	0.289	0.287	0.002	0.9661
GROW	1,240	0.255	2.091	-1.039	6.779

Table 3. Pearson's correlation coefficients

Variables	(ROA)	(ROE)	(LnTEN)	(DUJAL)	(EDU)	(GEN)	(OWN)	(NAT)	(LnAGE)	(FOUND)	(OUTS)
ROA	1.000										
ROE	0.834***	1.000									
LnTEN	0.030	0.063**	1.000								
DUAL	0.055*	0.077***	0.177***	1.000							
EDU	-0.065**	-0.060**	-0.129***	-0.080***	1.000						
GEN	0.073**	0.038	0.078***	-0.025	-0.047*	1.000					
OWN	-0.087***	-0.056**	0.243***	0.292***	-0.066**	0.100***	1.000				
NAT	-0.031	-0.082***	0.023	0.088***	-0.115***	-0.061**	0.082***	1.000			
LnAGE	0.065**	0.056**	0.468***	0.038	-0.156***	-0.054*	0.040	0.125***	1.000		
FOUND	-0.068**	-0.036	0.469***	0.238***	-0.126***	0.046*	0.301***	0.022	0.225***	1.000	
OUTS	-0.054*	-0.113***	-0.413***	-0.041	0.025	-0.009	-0.093***	0.058**	-0.208***	-0.162***	1.000

***, **, *; significant at the 1%, 5%, 10% levels

test of overidentifying restrictions, iii/Arellano-Bond test for second order serial correlation, and iv/difference-in-Hansen tests of exogeneity of the subset of “GMM instruments for levels” which defines the difference between system estimation, which instruments levels by differences, and difference estimation, which does not.

The Wald test’s results in the 2 models indicate that H_0 (the independent variables are jointly zero) is rejected. The Arellano-Bond test reveals that H_0 (no second-order serial correlation) cannot be rejected. The Hansen tests and difference-in-Hansen tests provide statistical evidence of the instruments’ validity. The test results for the different CEO attributes as independent variables are discussed more in details below.

4.3.1. CEO Tenure

In Table 4, the regression coefficient of CEO tenure ($LnTEN$) appears to be significantly negative in both models, then the hypothesis H1 cannot be rejected. This negative influence is also found by Liu and Jiang (2020) and Al-Matari et al. (2012). During their long tenure, CEOs may tend to consolidate their powers. Long tenancy can also entrench the managers’ authority and affect the board independence, causing a disturbance in its monitoring and hence business performance.

4.3.2. CEO Duality

The results suggest that the effect of CEO duality ($DUAL$) on ROE is significantly positive, then the hypothesis H2 is accepted. The finding is inconsistent with Shen et al. (2022) and Jermias and Gani (2014). This result is also recorded by Kaur and Singh (2019) and Peni (2014), who suggest that the centralization of organizational power offers the CEO higher degree of self-determination and decisive leadership style which in turn promotes firm performance. This opinion is backed by stewardship theory encouraging organizational structures that assist CEOs in exercising their authority for the interests of different parties as well as the whole company. As a consequence, duality gains the commitment of managers to benefit firm performance in the long run.

4.3.3. CEO Education

As stated, there is a significantly negative association between EDU and firm performance based on ROE, then the hypothesis H3 is accepted. Dissimilar to Shen et al. (2022) and Vo et al. (2020), the result suggests that although graduated from prestigious universities with high degree, top executives can still generate lower profits from their investments. Education level is not a perfectly appropriate proxy for an individual’s ability (Bhagat et al., 2010; Kaur & Singh, 2019). It demonstrates that the skills of educational background of CEOs are becoming less relevant when time proceeds and environmental and business factors also play key roles for a CEO position besides education (Kaur & Singh, 2019). The intrinsic management ability of CEOs achieving honor qualification is somehow overestimated, rising to the overconfidence bias when making strategic corporate decisions (Li et al., 2006), which can lead to inaccurate financial forecasts and unprofitable investments (Malmendier & Tate, 2005).

4.3.4. CEO Gender

CEO Gender (GEN) proves to exert a positive influence on company performance in both models, indicating that female-led companies are found to have more desirable performance result than those managed by males; hence, the hypothesis H4 is accepted. This result confirms those by Faccio et al. (2016), Chen et al. (2018), and Ain et al. (2020), suggesting that firms should grant female managers more power. Women-led companies tend to make high-quality financial statements as well as to reduce breaches of financial market regulations and the hoarding of negative news (Ararat & Yurtoglu, 2021; Mobbs et al., 2021). Lückcrath-Rovers (2013) and Smith et al. (2006) advocate that females have a tendency toward the exploration of market demands and customer trends with more sensitive perception and understanding than their male counterparts, thus delivering innovative ideas in product development as well as market approach. Moreover, female managers seem to be more conservative and cautious

Table 4. Results of System-GMM estimation

	Model 1	Model 2
Dependent variable	ROA	ROE
Dependent variable (Lag1)	0.8833*** (11.36)	0.6046*** (8.09)
LnTEN	-0.0263** (-2.11)	-0.0410* (-1.69)
DUAL	0.0051 (0.26)	0.0712* (1.92)
EDU	-0.0058 (-0.29)	-0.0658* (-1.75)
GEN	0.0373*** (3.75)	0.0560*** (2.60)
OWN	-0.1841* (-1.77)	-0.5134** (-2.46)
NAT	-0.0128 (-1.00)	-0.0553** (-2.34)
LnAGE	0.0952*** (2.90)	0.1025 (1.61)
FOUND	0.0283*** (2.38)	0.0412* (1.94)
OUTS	-0.0251* (-1.72)	-0.0600** (-2.13)
LEV	0.0764 (1.61)	0.0989 (1.02)
LnSIZE	-0.0288*** (-2.88)	-0.0316 (-1.49)
LnFAGE	-0.0077 (-1.36)	0.0128 (1.24)
LnBSIZE	-0.0128 (-0.61)	-0.0232 (-0.62)
TAN	-0.0026 (-0.25)	-0.0174 (-0.90)
GROW	-0.0096 (-0.86)	-0.0143 (-0.70)
Constant	0.1153 (0.78)	0.2697 (0.90)
Obs.	990	990
Wald test (χ^2)	858.21***	693.82***
Hansen test of overid. (χ^2)	7.07	7.34
Arellano-Bond test - AR(2) (z)	-1.59	-1.43
Difference-in-Hansen tests		
Excluding group (χ^2)	1.76	2.33
Difference (χ^2)	5.32	5.01

Standard errors in parentheses

***, **, *: significant at the 1%, 5%, 10% levels

in every plan and verdict which enhance firm profitability and reduce the level of risks imposed on the company (Khan & Vieito, 2013).

4.3.5. CEO Ownership

CEO Ownership (OWN) has a significantly negative impact on performance in both models; thus, the hypothesis H5 is accepted. Our results are inconsistent Jermias and Gani (2014). The finding suggests that CEOs with large shareholding ownership can exercise their authority and control to serve their own interest while sacrificing the benefits of shareholders and other key stakeholders (Bhagat & Bolton, 2019; Fama & Jensen, 1983). These activities are considered to be extremely detrimental to business growth in the long run (Florackis, 2008). In other words, by possessing a certain proportion of company shares, executives can interfere in individual decisions made by the Board and the owners, which gives CEOs an edge over the others as a consequence of information asymmetry. This is due to the fact that management teams are closer to daily business operation and well-aware of all firm issues. Furthermore, managers can hold their position longer as share ownership hampers the appointment of successors under any circumstances without their acceptance (Becht et al., 2003).

4.3.6. CEO Nationality

The results prove that CEO nationality is negatively related to ROE, consistent with Huang (2013), Masulis et al. (2012), Ruigrok et al. (2007), indicating that directors with foreign nationalities appear to produce unappealing prospects of firm performance. According to these authors, misunderstanding between foreign and host-country members can reduce the effectiveness of communication, resulting in not only the slowdown in the process of decision-making but also fierce conflicts in management and supervision teams. Moreover, the fact that top executives from other countries are unaccustomed to national legislation and local management practices may hinder the company development (Masulis et al., 2012; Vo et al., 2020).

4.3.7. CEO Age

The influence of CEO age emerges significantly positive when ROA is dependent variable. This finding is in line with the conclusions of Wang et al. (2011) arguing that the older the CEOs get, the more knowledge and expertise as well as other human capital such as social networks they accumulate, resulting in better firm performance (resource dependency theory).

4.3.8. Founder-CEO

In terms of founder-CEO status, the coefficients in both models are significantly positive. Hence, the hypothesis H7 is accepted. These results are in line with Fahlenbrach (2009) and Adams et al. (2009) showing a strong positive effect. This finding can be explained using agency theory (Substantial equity stakes held by founders can potentially mitigate the principal-agent dilemma, long-term perspective motivates founder-CEOs to pursue the most effective strategy for maximizing shareholder value) and stewardship theory (Founder-CEOs frequently regard their companies as their life's accomplishments and show more organization-specific skills as well as are likely to be collectivistic due to stewardship (Wasserman, 2006). Tao et al. (2018) indicate that the stewardship factor has a greater impact on founder-CEOs' decision-making than the agency factor.

4.3.9. CEO Origin

According to the regression results, CEO origin appears to be significantly and negatively associated with ROA and ROE, thus, the hypothesis H8 is accepted. This result is also found by Rhim et al. (2006) who suggest that insider CEOs are well acknowledged with the organizational structure and operation, therefore quickly adapt to the new position and responsibility and bring about suitable strategies for business growth.

5. Conclusion

This paper aims to study the influence of CEO attributes on the performance of HOSE-listed companies. The study is conducted on 1240 firm-year observations from 2016 to 2020 and examines nine CEO attributes including four socio-demographic ones: education, gender, nationality, age and five corporate governance-related attributes that are tenure, duality, founder, origin and ownership. For the socio-demographic attributes, the results indicate that, consistent with many previous studies, female gender, domestic nationality and older age are the attributes that contribute to improve firm performance. However, the results also reveal that on average, the higher a CEO's degree (specifically, a master's degree or higher), the lower the performance of his or her firm. In Vietnam, this negative impact may come from the current fact that the country's graduate education still has shortcomings as well as from the phenomenon of excessive preference for degrees. With regard to the corporate governance-related attributes, the study provides statistical evidence that shorter CEO tenure, CEO-chairman duality, founder CEO, insider CEO and lower CEO ownership are the characteristics that enhance firm performance.

Our work is one of the first in Vietnam to investigate the joint influence of a fairly large number of CEO attributes (9) with hand-collected data on firm performance. It might be valuable to firm stakeholders in exploring solutions to the agency problems that a firm may encounter regarding its executives. In particular, the results might be valuable to shareholders in making decisions on appointing the qualified CEO to manage the company.

This study is not immune to several limitations. Because the Vietnamese stock market was only established more than 20 years ago, in the first decade after its establishment, the number of listed companies was still quite modest, organized financial data services were not really developed and regulations on corporate information disclosure still had many points that need to be improved, so the first limitation is related to the lack of long time series of data. Moreover, apart from the investigated attributes, there exist other CEO traits that may have certain influences on firm performance. However, due to the lack of data, we cannot perform further analysis on other attributes such as directorships, marital status, educational major, political connection, industrial experience... Another limitation that could be overcome in future studies involves the lack of strong external instruments for handling endogeneity. In addition, research works comparing the influence of CEO attributes on Vietnamese company performance across different industries also need to be carried out in the future.

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Disclosure statement

No potential conflict of interest was reported by the authors.

Data availability statement

The data that support the findings of this study are available from the corresponding author upon reasonable request.

Supplemental material

Supplemental data for this article can be accessed online at <https://doi.org/10.1080/23322039.2023.2282838>

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Notes

1. Similar to Hazaea et al. (2022), we summarize the top 10 leading papers in the sample literature in Appendix.
2. Control variables are not presented in the correlation matrix due to table space limitation.

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Appendix
Top 10 leading papers in the same literature

Author	Citations	Country/Methodology	Research focus
Smith et al. (2006)	1624	Pooled OLS estimations and fixed or random effects 2,500 largest companies in Denmark between 1993 and 2001	Analysing the association between management diversity and corporate performance concerning women occupying high-level executive positions and serving on boards of directors.
Lückerath-Rovers (2013)	891	Methods proposed by Catalyst (2007) and McKinsey (2007) 99 listed firms, Dutch Female Board Index	Investigating Dutch corporations' performance with female representation on the boards
Adams et al. (2009)	824	OLS regression 321 publicly traded companies in 1998 Fortune 500	Studying the impact of founder—CEOs on business performance
Henderson et al. (2006)	796	OLS regression Fortune 500 firms from 1992 to 1999	Studying the influence of founder—CEOs on performance
Khan and Vieito (2013)	588	2SLS regression 11315 observations from US firms—S&P 1500 Indexes during the period between 1992 and 2004	Assessing whether women-led firms demonstrate comparable performance to those helmed by male counterparts
Jayaraman et al. (2000)	362	Cross-sectional regression 94 U.S. public firms	Examining whether CEO-founder status influences financial performance
King et al. (2016)	289	Regression 172 publicly-listed U.S. banks, 1992–2011	Analysing the association CEO education/risk-taking incentives and influence on business performance
Jermias and Gani (2014)	210	OLS regression 237 firms—Compustat S&P, 1997–2004	Investigating the impact of board capital on the relationship: CEO duality/ board dependence/ managerial ownership/ performance
Nekhili et al. (2018)	152	Propensity score matching approach 394 French firms 2001–2010	Evaluating the association between the fact that women are appointed to CEO or Chair position and firm productivity, and dissimilarities between family and nonfamily firms.
Sitthipongpanich, T., & Polsiri, P. (2015)	100	t-tests and z-tests 832 observations from non-financial family businesses, Stock Exchange of Thailand (SET), 2001–2005	Investigating how CEO and board characteristics from family-owned enterprises operating within weak institution attributing to a shortage of market-based management