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ICFAA 2025

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Hanoi, 2025

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PART III: FINANCE & BANKING

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Does CEO Age Matter? Nonlinear Insights from Vietnam

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Abstract

This study investigates the effect of CEO age on the performance of 401 non-financial listed firms in Vietnam over the period 2013–2022, employing a panel dataset and Feasible Generalized Least Squares (FGLS) estimation to account for heteroscedasticity and autocorrelation. The results reveal a positive initial impact of CEO age on firm performance, followed by an inverted U-shaped relationship, with a turning point at approximately 67.4 years. These findings provide both theoretical insights and practical implications for corporate governance in the Vietnamese context.

Keywords: CEO age, firm performance, non-linear.

JEL code: G11.

1. Introduction

The corporate governance mechanism encompasses various aspects, and one of the key mechanisms is the role of the CEO. The CEO is the most powerful person, benefiting from the top position in terms of salary as well as power in the company (Bouaziz et al., 2020; Rahman & Chen, 2023). Upper Echelons Theory suggests that the leadership behavior of senior executives is influenced by both demographic characteristics, such as background, expertise, tenure, and age, as well as psychological and personality characteristics (Hambrick & Mason, 1984). CEO traits influence strategic choices, which, in turn, impact corporate reputation and performance (Hambrick & Mason, 1984). Previous literature has confirmed that CEO characteristics can serve as a proxy for corporate governance, influencing performance not only in theory but also in practice. Theoretically, Upper Echelons Theory suggests that various managerial attributes, such as age, can directly or indirectly influence the choice of business strategies, including acquisitions, mergers, innovation, financial leverage, risk management,

and ultimately influence the profitability, growth, and long-term survival of the firm (Hambrick & Mason, 1984). Indeed, many successful leaders have achieved remarkable milestones during middle age or later, when they have amassed substantial experience, cultivated extensive networks, and developed a strong strategic vision. For instance, Warren Buffett continued to lead Berkshire Hathaway well into his 90s, Mai Kieu Lien effectively managed Vinamilk as CEO for several decades, and Elon Musk reached the height of his influence after turning 50. These examples illustrate that advanced age does not necessarily lead to diminished effectiveness; instead, in many cases, it can enhance stability and leadership performance. Nevertheless, beyond a certain age threshold, there may be a decline in the ability to innovate, take risks, or adapt to new changes, which can adversely impact performance (Cline & Yore, 2016; Wang et al., 2016). Thus, it is essential to determine an optimal age range for CEO roles to strike a balance between experience and innovation in corporate governance.

Empirical results indicate that the relationship between CEO age and corporate performance is a highly debated issue. Some studies suggest that older CEOs possess more life experience and are more likely to handle unexpected situations, resulting in better performance for their companies (Peni, 2014). On the contrary, there are views that older CEOs are more risk-averse and tend to be more stable and less disruptive, which affects the company's growth opportunities (Cline & Yore, 2016; Pham, 2023). However, many documents suggest that the impact of CEO age is not always linear (Richard & Shelor, 2002).

In Vietnam, the unique characteristics of market structure, policies, and culture create a unique context for studying the impact of CEO age on business performance. With a rapidly growing and deeply integrated economy, Vietnam stands out in the Asia-Pacific region as a market that warrants separate study. The ownership structure of enterprises is unique, with the dominance of family and state-owned enterprises, leading to different governance dynamics compared to joint stock companies in developed economies (Freeman & Van Lan, 2006; Kaur & Singh, 2019). At the same time, the legal framework for corporate governance is still being finalized, which increases institutional uncertainty, a characteristic of developing economies (Al-Mamun & Seamer, 2021). In this context, there are currently no specific regulations on the minimum or maximum age for the position of CEO.

Determining the optimal age for ensuring sufficient executive capacity is a crucial question that has yet to be fully explored, particularly in emerging economies such as Vietnam. This study utilizes data from non-financial enterprises listed on the Vietnam Exchange, including Hanoi Exchange and Ho Chi Minh Exchange, from 2013 to 2022, and offers several significant contributions:

First, while prior studies in Vietnam have typically examined linear effects, studies on nonlinear age-performance relationships remain limited. The discovery of a nonlinear, inverted U-shaped relationship between CEO age and firm performance provides both theoretical and practical contributions to Vietnam’s governance literature.

Second, while international research suggests that the optimal CEO age varies across countries, Vietnam presents a distinct context where such benchmarks remain underexplored.

This study identifies a turning point at approximately 67.4 years old. Beyond this age, performance tends to decline, underscoring the importance of considering age-related factors in executive appointments. These findings contribute to addressing a key research gap and offer practical implications for enhancing corporate governance in Vietnamese enterprises.

The remainder of this paper is structured as follows: Section 2 reviews the literature and develops the hypotheses. Section 3 describes the data and methodology. Section 4 presents the empirical results, and Section 5 concludes the study.

2. Literature review and hypothesis development

2.1. Theoretical Framework

The effect of CEO age on firm performance can be understood through two contrasting streams of theoretical perspectives.

The Upper Echelons Theory, formulated by Hambrick and Mason (1984), posits that the characteristics of senior executives, particularly CEOs, have a significant impact on organizational outcomes. This theory suggests that the values, cognitive biases, and experiences accumulated throughout a CEO's life shape their strategic decisions and, consequently, the firm's performance. It highlights the importance of understanding CEO characteristics, such as age, in predicting firm behavior and performance (Wang et al., 2016). Similarly, Stewardship Theory (Donaldson & Davis, 1991) suggests that managers do not act purely in their own interests but rather as loyal "stewards" of the organization, prioritizing the interests of the business and shareholders. From this perspective, age is positively associated with performance. Older CEOs are often perceived as possessing more industry experience and a deeper understanding of the organization, which fosters organizational commitment, social responsibility, and a long-term orientation. They are also considered wiser and more capable of making prudent strategic choices that lead to improved business results (Peni, 2014; Sholatia Dalimunthe & Sal Sabila, 2023). Taken together, these arguments emphasize the potential benefits of CEO age for firm outcomes.

Conversely, the critical side is illustrated by Agency Theory (Jensen & Meckling, 1976), which argues that a fundamental conflict of interest exists between owners (shareholders) and managers (CEOs), potentially leading to increased agency costs if not adequately addressed. From this perspective, the age of CEOs plays a role in shaping their risk preferences. Older executives are generally more risk-averse, often favoring safer strategic options that reduce the likelihood of excessive risk-taking and agency costs. However, such conservatism may also hinder the company's growth potential by limiting innovation and reducing adaptability to dynamic market conditions (Cline & Yore, 2016; Zhang, 2010). In this sense, CEO age may negatively affect firm performance by constraining entrepreneurial initiatives and long-term competitiveness.

Taken together, these contrasting perspectives suggest that CEO age may influence firm performance in both positive and negative ways through accumulated experience, wisdom, and stewardship on the one hand, and through heightened risk aversion and conservatism on the other.

2.2. Hypothesis development

CEO characteristics are likely to change with age (Yim, 2013). According to the Upper Echelons Theory proposed by Hambrick and Mason (1984), CEO age serves as a significant indicator of life experience, influencing managerial thinking and strategic decision-making. However, research results on the link between CEO age and company performance have been inconsistent.

On the one hand, older CEOs are often viewed as possessing more industry experience and a deeper understanding of the organization, which can lead to improved strategic choices and better company results. As CEOs age, they tend to gain wisdom, adopt long-term perspectives, and better understand market trends, which can lead to improved internal performance. Empirical studies have lent partial support to this view. For instance, Peni (2014), using a sample of 305 S&P 500 firms from 2006 to 2010, found that CEO age was positively and significantly associated with return on assets (ROA), but had no significant effect on Tobin's Q. This suggests that while older CEOs may improve internal operational efficiency, their influence on market valuation is limited. Similarly, Sholatia Dalimunthe and Sal Sabila (2023), analyzing data from 40 Indonesian banks listed on the IDX between 2010 and 2018, reported a positive and statistically significant relationship between CEO age and net interest margin (NIM), indicating that accumulated experience enhances credit performance. In the Vietnamese context, Pham (2023) found that CEO age had a positive impact on both ROA and ROE among 30 commercial banks from 2012 to 2020. Tran and Pham (2020) extended this line of research by highlighting the influence of CEO age on environmental performance, suggesting that age may also shape sustainability-related leadership outcomes. Furthermore, Nguyen et al. (2023), using panel data from firms listed on the Ho Chi Minh Stock Exchange during 2016–2020, demonstrated that CEO age positively and significantly affects ROA, ROE, and Tobin’s Q. These findings collectively suggest that, particularly in emerging markets, older CEOs may be associated with stronger financial performance and improved market valuation, likely due to their accumulated experience, stability in leadership, and institutional knowledge.

On the other hand, several studies have shown that increasing the age of CEOs may have adverse effects on firm performance. According to Hambrick and Mason (1984), younger CEOs are often more growth-oriented and contribute more significantly to firm expansion and strategic development than their older counterparts. Supporting this view, Huang et al. (2012) have found that older CEOs tend to invest less in research and development, engage in fewer diversified acquisitions, manage more complex organizational structures, and maintain lower operating leverage factors, which collectively hinder firm growth. Cline and Yore (2016), using data from 12,610 firm-year observations of 2,143 companies in the S&P 1500 index, found a significant negative relationship between CEO age and firm value, suggesting that older CEOs are less likely to engage in strategic, value-enhancing activities. Wang et al. (2016), based on a meta-analysis of 308 primary studies comprising over 120,000 observations, demonstrated that older CEOs are less likely to pursue product innovation, risk-taking, and international diversification, all of which are associated with future firm performance. Their findings suggest

that reduced strategic investment and innovation among older CEOs may contribute to a decline in long-term performance. Zhang (2010) also reported a significant negative relationship between CEO age and firm performance, as measured by revenue growth, asset growth, and Tobin's Q. This suggests that firms led by older CEOs tend to grow more slowly and experience a decline in market value over time. Belenzon et al. (2019), analyzing 157,996 privately owned firms across France, the UK, and Italy during 2002–2012, found that CEO age negatively correlates with investment, revenue growth, and ROA, particularly among CEOs aged 60 and above. Compared to CEOs under 34 years old, firms led by older CEOs had 45% lower investment, 13% lower ROA, and 28% slower revenue growth over nine years. In the Vietnamese context, Minh Ha et al. (2021) utilized data from 110 companies listed on the HOSE and HNX from 2012 to 2018 to demonstrate that older CEOs tend to adopt more conservative financing strategies, possibly due to increased risk aversion and a stronger preference for stability over aggressive growth. In contrast, Vu et al. (2019) found no statistically significant relationship between CEO age and firm performance, as measured by ROA and ROE.

In the context of Vietnam, the findings from the VNR500 report by Vietnam Report indicate that the majority of CEOs are aged 45 and above. This trend reflects the cultural values of Vietnamese society, where older individuals are often revered and trusted due to their life experiences, wisdom, and personal prestige. At this stage in their careers, business leaders are seen as being in their "mature" phase, having amassed extensive knowledge, honed solid management skills, developed a profound strategic vision, and cultivated a vast network of professional relationships. Consequently, drawing upon theories of authority, management principles, and empirical research, as well as the unique characteristics of the Vietnamese market, the following hypothesis is proposed:

H1: The age of the CEO has a positive impact on firm performance.

Additionally, several studies have found a nonlinear relationship between the age of CEOs and firm performance. Zhao et al. (2021), through a meta-analysis of 102 independent samples comprising 65,753 entrepreneurs, found a **U-shaped** relationship between age and entrepreneurial success: performance tends to be lower at younger ages (under 40 years old). However, it increases as individuals grow older, likely due to accumulated experience and strategic maturity. Similarly, Richard and Shelor (2002), using data from 1,305 U.S. firms during 1996–1997, observed an **inverted U-shaped** relationship between age diversity within top management teams and revenue growth. Their findings indicated that moderate age diversity enhances performance, but excessive differences can lead to generational conflict and reduced coordination, ultimately harming firm outcomes. These results suggest that the relationship between CEO age and performance is not strictly linear, but may vary depending on the age range and organizational context. Based on this, the following hypothesis is proposed:

H2: The relationship between CEO age and firm performance is non-linear.

3. Data and methodology

3.1. Data

The data utilized in this study were gathered through two primary methods: manual collection and extraction from FinPro software. Information regarding corporate governance and CEO characteristics was manually compiled from annual reports and management reports available on the official websites of publicly listed companies, as well as from reputable financial portals like cafef.vn and finance.vietstock.vn. Financial data, on the other hand, was sourced from the FinPro database. According to the State Securities Commission, as of 2022, there were 400 firms listed on the HOSE, 341 on the HNX. After excluding firms in the finance, insurance, and banking sectors, as well as companies established after 2013 or those with incomplete data, the final sample consisted of 401 non-financial firms listed on the Vietnam Exchange, resulting in a total of 4,010 firm-year observations from 2013 to 2022.

3.2. Variable measures

Dependent variable: Firm performance

This study employs the adjusted return on average assets (ROAA) as a key accounting-based measure of firm performance, following the approach of Cornett et al. (2008). While traditional studies frequently rely on return on assets (ROA) due to its popularity and reliability in capturing a firm's ability to convert assets into profits, ROA may still be subject to managerial discretion and accounting manipulation. Compared to market-based indicators such as Tobin's Q or ROE, which are more sensitive to fluctuations in stock prices and capital structure, ROA offers greater stability and is particularly effective in assessing internal operational efficiency (Peni, 2014). It is especially appropriate in emerging markets or industries characterized by high market volatility, as it is less influenced by external factors such as market sentiment or ownership concentration. However, as noted by Siddiqui (2015), ROA can be distorted by managerial choices in accounting practices, including assumptions about revenue recognition, receivables, and depreciation. To mitigate such distortions and provide a more objective measure of performance, this study adopts the adjusted ROA (ROAA), calculated as EBIT (earnings before interest and taxes) divided by total assets. This approach reduces the influence of discretionary accounting and provides a more accurate reflection of the firm's true operational performance (Cornett et al., 2008).

Independent variable: Age serves as a proxy for a leader's accumulated life experience, typically measured by the number of years they have lived (Yim, 2013).

Control Variables: To accurately estimate the impact of CEO age on firm performance, it is essential to account for several control variables that may also influence performance outcomes. These control variables fall into two main categories: corporate governance factors and firm-specific characteristics. The corporate governance controls include board size (BS), board gender diversity (FIB), CEO gender (GEN), and the proportion of non-executive directors (IND). Firm-specific controls consist of leverage (LEV) and firm size (FS).

Table 1. Variable measures

Variable	Measures	Sources
ROAA	EBIT divided by total assets	Cornett et al. (2008)
CEO age (AGE)	The number of years they have lived	Yim (2013)
Board size (BS)	The number of directors on the board	Tang et al. (2020)
Leverage (LEV)	Total debt over total assets	Zhou et al. (2021)
CEO gender (GEN)	Dummy variable: 1 if CEO is male, 0 otherwise	Faccio et al. (2016)
Female in the board (FIB)	Dummy variable: 1 if the number of females on the board is equal to or over 1, 0 otherwise	Orazalin (2019)
The proportion of non-executive directors (IND)	Ratio of non-executive directors to total board members	Shen et al. (2020)
Firm size (FS)	Ln(total assets)	Mashayekhi and Bazaz (2008)

3.3. Research model

This study employs multiple regression analysis, which requires the inclusion of two or more explanatory variables. To examine the linear relationship, CEO age is quantified by the total number of years that the CEO has lived, and firm performance is measured using an accounting-based indicator (EBIT/assets). The general form of the regression model is specified as follows:

$$\mathbf{PER_{i,t} = \beta_0 + \beta_1\, AGE_{i,t} + \sum \theta_j\, (Control)_{i,t} + \varepsilon_{i,t}} \quad \mathbf{(1)}$$

PER is the dependent variable representing operational efficiency, while CEO age is the independent variable.

The study also explores the possibility of a non-linear relationship between CEO age and firm performance. Plassmann and Khanna (2007) noted that the quadratic regression model is a straightforward and commonly applied approach for capturing non-monotonic relationships. The general form of the model is expressed as follows:

$$\mathbf{PER_{i,t} = \beta_0 + \beta_1\, AGE_{i,t} + \beta_2\, AGE^2_{i,t} + \sum \theta_j\, (Control)_{i,t} + \varepsilon_{i,t}} \quad \mathbf{(2)}$$

3.4. Research Approaches and Data Analysis Techniques

Initially, the research data underwent a meticulous review to ensure both reliability and appropriateness for regression analysis. To manage extreme outliers, the winsorization technique was employed, trimming values at the 5th and 95th percentiles. Within the dataset, the ROAA variable displayed significant skewness and kurtosis, which could have biased the results. Following the application of winsorization, the adjusted ROAA values became more normally distributed, allowing the dataset to be retained for further analysis.

To evaluate the proposed hypotheses, the study first utilized a base regression model using Ordinary Least Squares (OLS), then both fixed-effects and random-effects models were

estimated. The Hausman test and the F test were subsequently employed to determine the most appropriate model specification (Shrivastav & Kalsie, 2016).

Model diagnostics were conducted to identify common issues in panel data, including multicollinearity, heteroskedasticity, and autocorrelation. Heteroskedasticity, characterized by non-constant variance of the error term across observations, was assessed using the Likelihood Ratio (LR) test. Serial correlation within the panels was evaluated using the Wooldridge (2002) test. Multicollinearity was examined through the Variance Inflation Factor (VIF), with a VIF value below 10 suggesting no significant multicollinearity concerns (Shrivastav & Kalsie, 2016). In instances where heteroskedasticity and autocorrelation were identified, the Feasible Generalized Least Squares (FGLS) method was employed. FGLS is suitable when the model exhibits panel-specific heteroskedasticity and first-order autocorrelation, as it yields more efficient and unbiased parameter estimates under such conditions (Shrivastav & Kalsie, 2016).

4. Empirical results

4.1. Descriptive statistics

Descriptive statistics in Table 2 reveal that the average firm performance, measured by ROAA, is 9%, with a standard deviation of 6.4%, suggesting substantial variation in profitability across firms. The average age of a CEO is 49.6 years, ranging from 24 to 80, indicating notable diversity in leadership tenure. Male CEOs dominate the sample, accounting for approximately 92.7%. The average board comprises 5.456 members, with a proportion of non-executive directors at 66.6%, reflecting a relatively strong governance structure. Firm size ranges from 23.3 to 32.8, with a mean of 27.2. Financial leverage averages 47.6%, with some firms exhibiting levels as high as 137.6%, indicating extensive use of debt financing in some instances. Lastly, the FIB variable has a mean of 0.515, suggesting that nearly half of the firms in the sample have at least one woman on the board of directors.

Table 2. Descriptive statistics

Variable	N	Mean	Std. dev.	Min	Max
ROAA	4,010	0.090	0.064	0.004	0.244
AGE	3,970	49.588	8.448	24	80
GEN	4,010	0.927	0.260	0	1
BS	4,010	5.456	1.245	3	11
IND	4,010	0.666	0.176	0.143	1.00
FS	4,010	27.230	1.563	23.330	32.814
LEV	4,010	0.476	0.226	0.003	1.376
FIB	4,010	0.515	0.500	0	1

The correlation matrix in Table 3 indicates that the relationships between variables in the model are generally weak, with most correlation coefficients falling below 0.6. The low

correlation values suggest that multicollinearity is unlikely to pose a significant issue in the model (Tabachnick & Fidell, 2001).

Table 3. The variable correlation matrix

	ROAA	**AGE**	**GEN**	**BS**	**IND**	**FS**	**LEV**	**FIB**
ROAA	1							
AGE	0.197	1						
GEN	-0.093	-0.024	1					
BS	0.122	0.109	-0.028	1				
IND	-0.011	-0.176	0.013	0.089	1			
FS	-0.016	-0.001	-0.069	0.307	0.096	1		
LEV	-0.392	-0.093	0.067	-0.030	-0.131	0.335	1	
FIB	0.125	-0.003	-0.239	0.129	0.019	0.017	-0.138	1

The Variance Inflation Factor (VIF) test was conducted to verify the absence of multicollinearity, as shown in Table 4. All VIF values fall within the acceptable threshold (VIF < 5), confirming that multicollinearity is not a concern among the explanatory variables (Gujarati, 2002).

Table 4. The Variance Inflation Factor (VIF)

Variable	**VIF**	**1/VIF**
FS	1.31	0.761
LEV	1.23	0.811
BS	1.16	0.859
FIB	1.09	0.914
IND	1.09	0.917
GEN	1.07	0.931
AGE	1.06	0.940
Mean VIF	1.15	

4.2. Regression model results

The study initially employs OLS regression, fixed effects (FEM), and random effects (REM) models to account for unobserved heterogeneity across firms over time. Model selection tests indicate that the FEM model is the more appropriate specification. Additionally, the Wooldridge test confirms the presence of first-order autocorrelation (p-value < 0.05), while the Wald test reveals group-wise heteroscedasticity (p-value = 0.000). To address these issues, the Feasible Generalized Least Squares (FGLS) estimator is employed to obtain efficient and unbiased estimates.

Table 5. Regression results of OLS, FEM, and REM models

	OLS	**FEM**	**REM**
AGE	**0.001*****	**-0.000**	**0.000***
	(0.000)	(0.964)	(0.066)
GEN	-0.011***	-0.000	-0.002

	OLS	FEM	REM
	(0.003)	(0.999)	(0.513)
BS	0.003***	0.002	0.002***
	(0.000)	(0.102)	(0.007)
IND	-0.012**	-0.018***	-0.018***
	(0.023)	(0.001)	(0.000)
FS	0.004***	-0.002	0.002*
	(0.000)	(0.285)	(0.093)
LEV	-0.114***	-0.108***	-0.113***
	(0.000)	(0.000)	(0.000)
FIB	0.006***	0.004**	0.005**
	(0.002)	(0.042)	(0.015)
_cons	-0.021	0.191***	0.082***
	(0.252)	(0.000)	(0.008)
N	**3970**	**3970**	**3970**
R^2	0.2015		
F test	Prob > F = 0.0000		
Hausman test	Prob > chi2 = 0.0000		
Modified Wald test	Prob > chi2 = 0.0000		
Wooldridge test	Prob > F = 0.0000		

T-statistics (*, **, ***) indicate statistical significance at the 1%, 5%, and 10% levels, respectively

Linear Model

The regression results from the linear model in Table 6 show that the CEO age has a positive coefficient (0.001) and is statistically significant at the 1% level. This means hypothesis H1 is accepted. This implies that CEO age has a positive impact on the firm's financial performance (ROAA). This finding is consistent with the view that older CEOs tend to accumulate more management experience, decision-making maturity, and a vast network of relationships, thereby helping to improve the company's financial performance (Penni, 2014; Pham, 2023). Moreover, in the Vietnamese context, this factor is further reinforced by the cultural characteristics of respecting elders, where the prestige and experience of the leader play an important role in creating trust among employees, partners, and stakeholders.

Nonlinear Model

When examining the nonlinear impact of CEO age on firm performance, the study added the age-squared variable (AGE^2) to the model. The results showed that the relationship was more complex: the AGE variable still had a positive coefficient (0.002). It was statistically significant at the 1% level, while AGE^2 had a negative coefficient (-0.000) and was statistically significant at the 10% level. This reflects an inverted U-shaped nonlinear relationship between CEO age and firm financial performance. Specifically, firm performance increased with CEO age, reaching an optimal level at a "mature age threshold," and then declined as the CEO

continued to age. This result suggests that in addition to the benefits of experience and prestige, older CEOs may have limitations in their ability to innovate, adapt to change, and be proactive, thereby reducing the positive impact on firm performance. Furthermore, although respect for elders helps strengthen leadership positions, generation gaps can also lead to conflicts, reduce internal coordination, and ultimately be detrimental to corporate performance (Richard & Shelor, 2002).

Table 6. Regression results of FGLS models

	Linear	**Non-linear**
	ROAA	ROAA
AGE	**0.001*** **	**0.002*** **
	(0.000)	(0.004)
AGE^2		**-0.000** **
		(0.040)
GEN	-0.006**	-0.007***
	(0.015)	(0.009)
BS	0.002***	0.002***
	(0.001)	(0.001)
IND	-0.011***	-0.011***
	(0.000)	(0.000)
FS	0.004***	0.004***
	(0.000)	(0.000)
LEV	-0.128***	-0.129***
	(0.000)	(0.000)
FIB	0.003**	0.003***
	(0.012)	(0.009)
_cons	0.004	-0.030
	(0.813)	(0.210)
N	**3970**	**3970**

T-statistics (*, **, ***) indicate statistical significance at the 1%, 5%, and 10% levels, respectively

5. Conclusion

This study investigates the impact of CEO age on the performance of non-financial listed companies in Vietnam over the period from 2013 to 2022. The findings reveal that CEO age initially has a positive effect on firm performance, but this relationship displays an inverted U-shaped nonlinear pattern, reaching its peak at around 67.4 years. This indicates that the benefits gained from accumulated managerial experience and strategic insight increase with CEO age, but begin to decline beyond a certain point.

In the context of Vietnam, the majority of CEOs are middle-aged, typically ranging from 45 to 55 years old, with those above 67 being relatively rare. Therefore, the identified

threshold of 67.4 years should be viewed as a theoretical guideline rather than a reflection of common practice. From a managerial standpoint, companies can benefit from the expertise of their current CEOs while proactively planning for leadership succession before reaching this threshold to maintain organizational performance. Furthermore, the findings emphasize the necessity of integrating individual CEO expertise with strong governance mechanisms, rather than solely relying on age, to optimize corporate outcomes.

Nevertheless, several limitations of this study should be acknowledged. While the FGLS model effectively addresses issues of heteroscedasticity and autocorrelation, it does not fully resolve potential endogeneity concerns, which may affect the robustness of the results. In addition, this study focuses solely on a single individual characteristic, CEO age, without considering other potentially influential factors such as education, international experience, and gender, which may also shape corporate strategy and performance. Accordingly, future research should broaden the scope to incorporate additional CEO characteristics and examine possible interaction effects to provide a more comprehensive understanding of the relationship between CEO age and firm performance.

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