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CEO attributes and bank performance: does CEO compensation moderate?

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Abstract

Purpose – This study examines the influence of chief executive officer (CEO) attributes on bank performance and explores whether CEO compensation moderates this relationship in the listed banking companies within an emerging economy.

Design/methodology/approach – This study focuses on the 35 banking companies listed on the Dhaka Stock Exchange, the leading stock exchange in Bangladesh. Data were gathered from multiple sources over a 10-year period (2013–2022), resulting in a total of 320 firm-year observations, as data for five newly listed banks were unavailable for the entire study period. To analyze the direct and moderating effects and test the proposed hypotheses, AMOS 23 was employed for data analysis.

Findings – The study reveals a significant positive effect of CEO education and experience on return on assets (ROA) and a significant negative impact of CEO education on the TOBINQ ratio. However, the nature and strength of these relationships shift when CEO compensation interacts with the CEO attribute variables.

Originality/value – This study empirically examines how CEO attributes influence performance in publicly traded banking companies in an emerging economy. Additionally, the study explores the moderating role of CEO compensation in this relationship. While CEO compensation has been widely studied in developed markets, its influence as a moderating factor in emerging economies remains largely unexplored.

Keywords CEO characteristics, CEO compensation, Emerging economy, Developing country, Bangladesh

Paper type Research article

1. Introduction

The impact of top management team (TMT) attributes, particularly those of the chief executive officer (CEO), on firm performance has been a topic of much debate over recent decades (e.g. Quigley and Hambrick, 2015; Quigley and Graffin, 2017; Liu *et al*., 2018; Kaur and Singh, 2019; Liu and Jiang, 2020; Ali *et al*., 2022; Nguyen *et al*., 2023; Rahman and Chen, 2023; Hazzaa *et al*., 2024). Empirical studies consistently advocate that the CEO's role is central to driving firm performance, with its impact appearing to rise over time (Quigley and Hambrick, 2015; Quigley and Graffin, 2017). Under the lens of the uppers echelons theory (UET) (Hambrick and Mason, 1984), researchers have examined various CEO characteristics, such as age, tenure, experience and education and their potential to shape strategic choices that affect organizational outcomes (Hambrick and Mason, 1984; Hambrick, 2007; Zhu and Chen, 2015; Wang *et al*., 2016). Parallelly, the literature has also investigated other leadership-related

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topics, including CEO compensation (Doucouliagos *et al*., 2007; Croci *et al*., 2012; Conyon and He, 2012; Aslan and Grinstein, 2012; Shabbir *et al*., 2024), narcissism (Salehi *et al*., 2021a, b) and risk-taking behaviors (Kubick *et al*., 2024).

Despite the growing body of research, studies exploring the relationship between CEO characteristics and firm performance remain fragmented and inconclusive (Liu *et al*., 2018). While various factors such as CEO power (Kalia, 2024), CEO demographic characteristics (Farag and Mallin, 2018), CEO's educational background, economic policy uncertainty and investment-cash flow sensitivity (Gupta, 2021), managerial ability and investment decisions (Naheed *et al*., 2021) and CEO overconfidence and corporate investment (Malmendier and Tate, 2005) have been explored, there is limited consensus regarding the direct effect of CEO characteristics on organizational performance. Additionally, much of the existing literature lacks focus on the moderating role of CEO compensation in shaping this relationship, especially within the context of emerging economies where governance structures, regulatory enforcement, and disclosure practices significantly differ from those in developed economies. In Bangladesh, for instance, CEO compensation data are typically absent from the public disclosures of listed companies, except within the financial sector. This limited transparency, combined with reports of disproportionate compensation across banks, sometimes in violation of central bank guidelines (The daily new nation, 2016), raises important questions about how CEO characteristics relate to compensation and performance and whether compensation plays a mediating or moderating role in such dynamics.

Against this backdrop, the present study seeks to investigate the impact of CEO attributes, namely age, tenure, education and experience, on the performance of listed banking companies in Bangladesh. More importantly, this study aims to explore whether CEO compensation moderates the relationship between these attributes and bank performance. This dual focus allows for a deeper understanding of top executive influence within a critical sector of an emerging economy. The study is theoretically grounded in the upper echelons theory (UET), which emphasizes the role of executives' personal characteristics in shaping organizational outcomes.

To achieve these objectives, the study employs a quantitative research design using data collected from 35 listed banking companies in Bangladesh for the period starting from 2013 to 2022. The analysis is conducted using Structural Equation Modeling (SEM) via AMOS 23, a robust technique that allows for the examination of complex relationships, including moderating effects. The output of descriptive statistics showed a mean value of 13.72 m Bangladeshi Taka (BDT) as yearly CEO compensation, a mean CEO age 58.99 years, mean tenure 3.41 years and a mean CEO education of 2.03 (indicating a master's degree), alongside bank performance indicators such as ROA (mean value 0.72%) and Tobin's Q ratio (mean value 0.9821) in the Bangladeshi banking companies.

The regression results reveal a significant positive impact of CEO education and experience on ROA, signifying that more educated and experienced CEOs tend to enhance firm profitability. However, CEO education was found to have a negative effect on Tobin's Q, indicating potential differences in market valuation. More importantly, when CEO compensation is introduced as a moderating variable, the previously significant effects of CEO education and experience on ROA diminish, highlighting the complex interplay between intrinsic executive qualities and extrinsic reward mechanisms.

This study contributes to the literature in several important ways. First, it provides empirical evidence from an under-researched emerging market context, addressing the scarcity of research on executive attributes and performance dynamics in emerging market like Bangladesh. Second, by integrating the moderating role of CEO compensation, it enriches our understanding of the nuanced relationship between CEO attributes and organizational outcomes. Lastly, the study offers practical insights for policymakers and board members in aligning executive compensation with performance in a manner that promotes transparency and equity in the financial sector.

The remainder of this paper is organized as follows: Section 2 presents the research context, followed by section 3 that provides the literature review and hypothesis development. Section 4 presents the research methods, while section 5 presents the results of the study. Section 6 offers a discussion on the empirical results, followed by section 7 that provides the conclusion and implications, including the limitations of the study and avenues for further research.

2. Research context

The Bangladesh Securities and Exchange Commission (BSEC) and the central bank (Bangladesh Bank-BB) play the leading role in establishing and maintaining good governance in the financial industry. While the Corporate Governance (CG) Codes issued by BSEC are applicable to all publicly traded/listed companies, the banking companies must place utmost priority on the provisions of BB rules in case of any contradictions between the two. With respect to the appointment of CEO, the Prudential Regulations (PR) issued by BB since 1996 state the required provision which spell out that it is the responsibility of the bank's board to appoint an honest, competent, experienced and appropriate CEO (Bangladesh Bank, 2014), provided that such appointment shall be approved by the BB (Bangladesh Bank, 2014). Regarding moral integrity, the board must make sure that the (proposed) CEO has not been convicted by any criminal court of law, has not been punished for violating any rules, regulations or procedure/norms set by any controlling authority, and was not associated with any such company, registration or license of which has been canceled (Bangladesh Bank, 2014). Moreover, he/she must not be a loan defaulter, tax defaulter and has never been adjudicated an insolvent. Additionally, he/she (CEO) must have experience in banking profession for at least 15 years as an active officer and at least two year experience in a position immediate below the CEO of a bank (Bangladesh Bank, 2014). He/she must have a master's degree from any recognized university and was not dismissed from service when he was chairman/director/official of any company. More importantly, the proposed CEO must not be the director of any bank or financial institution and must not have business interest in the bank concerned. Regarding age, the PR states that no person crossing the age of 65 years shall hold the position of CEO of a bank (Bangladesh Bank, 2014). The tenure of the CEO shall be for at least three years, which is renewable (Bangladesh Bank, 2014). The PR also outlines the provisions of fixing up CEO compensation and its components, which shall be the responsibility of the bank board. Further, the PR states that CEO shall not be entitled to enjoy any direct or indirect facilities in the forms of dividend, club expense, commission, etc. other than the incentive bonus, which shall not exceed Bangladeshi Taka one million per annum (Bangladesh Bank, 2014). In addition to these regulations, the CEO of a bank shall ensure compliance with the Banking Companies Act, 1991, in discharging routine functions of the bank.

3. Literature review, theoretical framework and hypotheses development

The seminal paper presented by Hambrick and Mason (1984) that introduces upper echelons theory (UET) opens avenues for the academic researchers searching for the connection between top executives' attributes and organizational performance. UET attempts to provide an explanation concerning the choices made and actions initiated by the executives in the upper echelons in dealing with the strategic situations encountered. This theory holds that the choice of actions is largely shaped by the executives' attributes, such as their experience, education, personal values and the like (Hambrick and Mason, 1984). Further, these strategic choices considerably influence the organizational performance (Hambrick and Mason, 1984). To sum up, UET believes that organizational performance is, to a considerable extent, a depiction of its top executives' characteristics (Hambrick and Mason, 1984).

Using UET, the impact of several CEO attributes, such as CEO age, CEO experience, CEO tenure and CEO education (see, *inter alia*, Jalbert *et al*., 2002; Bhagat *et al*., 2010; Liu *et al*.,

2018; Liu and Jiang, 2020; Huang *et al*., 2023; Rahman and Chen, 2023), on organizational performance attracted many academics and practitioners in this field of study.

Salehi and Hassanzadeh (2024) found a substantial correlation between board potential and investment efficiency. The inclusion of board members possessing specific attributes conducive to enhancing the board's dynamism and potential is likely to elevate the likelihood of investment in projects with a favorable NPV. On the other hand, Burkert *et al*. (2024) found a negative impact of chief executive officer (CEO)'s compensation on firm performance. However, they rejected the proposal to incorporate additional metrics into executive compensation contracts as a means of addressing agency problems faced by firms. However, the results of these studies depicted an inconclusive and context-specific impact of CEO attributes on organizational performance.

3.1 CEO age and firm performance

The impact that a CEO's age may have on a company's performance has constantly drawn the interest of scholars. However, the findings of extant studies reveal conflicting results on how CEO age affects performance. For example, Liu and Jiang (2020) suggested no association between CEO age and organizational performance. In contrast, Bertrand and Schoar (2003), Zhang (2010), Serfling (2014), Wu (2021) and Suherman *et al*. (2023) reported a negative impact, while Peni (2014), Ali *et al*. (2022), Suherman *et al*. (2023) and Rahman and Chen (2023) reported a favorable or positive impact of CEO age on organizational performance.

Regarding the negative impact, Serfling (2014) argued that older CEOs tend to take fewer risks, which might mean they miss out on a project's long-term rewards. This view is supported by Bertrand and Schoar (2003) and Farag and Mallin (2018), which argue that older CEOs tend to be more risk-averse due to their conservative views and less ability to adjust to changes in the business environment. This might have a detrimental impact on the success of the company. Zhang (2010) reported result in favor of this view and showed a negative association between a CEO's age and the performance of US industrial enterprises. They further hold that as the CEO ages, the firm's market value and growth rate decline. The study of Wu (2021) also found a negative impact of CEO age on firm performance in Chinese firms. Suherman *et al*. (2023) also noted a negative association between CEO age and Tobin's Q, a measure of market-based performance. In the context of India, Gupta *et al*. (2018) found a negative association between CEO age and the firm's investment strategy, suggesting that younger CEOs make more investments than older CEOs. Younger CEOs invest aggressively and take bolder investment decisions.

In the opposite view, seasoned CEOs are expected to be more cautious than younger and less seasoned executives. As a competitive advantage, older CEOs are seen to have greater experience and broader professional ties, and they are more likely to do well than younger CEOs because of these advantages (Peni, 2014; Suherman *et al*., 2023). In favor of this view, Ali *et al*. (2022) reported a significant positive association between CEO age and firm performance of the nonfinancial listed firms operating in Pakistan. Rahman and Chen (2023) also supported this result for the privately listed firms in China. Gupta (2022a, b) found a positive impact of CEO age and investment-cash flow sensitivity in Indian firms. Apart from these two extremes, Jaggia and Thosar (2021) suggested a combined result and suggested that younger and older CEOs consistently outperform middle-aged CEOs in every way.

Based on the mixed outcomes, the first hypothesis does not assume a directional relationship but a significant impact. Accordingly, the first hypothesis states that,

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

3.2 CEO tenure and firm performance

CEO tenure, which is defined as the length of time the CEO has been in office, is a crucial factor that can have an effect on performance and has attracted many academics and

management experts. However, empirical evidence reveals mixed results under various contexts and, more surprisingly, conflicting results in the same context. Since CEOs are more confident in the veracity of their former vision, theorists propose that CEO longevity is correlated with tenacity and dedication to established policies (Hambrick and Fukutomi, 1991). With every year of service, an executive's power grows. Additionally, he or she has the ability to assemble a group of executives with similar backgrounds and points of view (Westphal and Zajac, 1995). Their ability to reject requests for change is improved because it gives them more autonomy and control over their actions, enabling them to reject projects that go against traditional thinking (Miller, 1991). Ghardallou *et al*. (2020) documented results in support of this view that with the number of years after the CEO appointment increasing, the financial performance of the firm improves. According to a Canadian study (Hartnell *et al*., 2016; Suherman *et al*., 2023), company performance improves with a longer CEO term, as they have the authority and confidence to make financial choices. Saleh *et al*. (2020) also documented a significant positive impact of CEO tenure on firm performance for the nonfinancial firms listed on the Palestine Security Exchange. Ali *et al*. (2022) also reported a favorable impact of CEO tenure for the nonfinancial listed firms operating in Pakistan. Rahman and Chen (2023) supported this favorable impact for the privately listed firms in China. Evidence from US corporations also indicates that an increase in CEO tenure leads to an improvement in firm performance due to the increased knowledge and abilities of the CEO (Wu *et al*., 2005).

On the opposite side of the coin, different results were reported by several other studies in the same contexts. For instance, for the publicly traded US companies, Matta and Beamish (2008) argued that aged CEOs get more reticent to take chances, become more cautious and less willing to undertake novel projects and endeavors that could compromise the company's performance. As their tenure increases, they are worried about leaving a legacy. Longer-serving CEOs may be less inclined to launch new strategic initiatives since they have more opportunity to personally select their staff members, may enjoy greater autonomy and may feel less pressure (Miller (1991). This is also supported by Liu and Jiang (2020) which reported a significant negative impact of CEO tenure for high-valuation listed firms in China. Farag and Mallin (2018) and Gupta *et al*. (2018) also supported the idea that long-tenured CEOs are less likely to consider risky decisions, as they are internally focused and much less receptive to new business ideas compared with short-tenured CEOs.

Therefore, it may be interesting to see the impact of CEO tenure in the context of an emerging economy like Bangladesh, which is characterized by a weak institutional and legal framework and market efficiency (Khan, 2003; Rashid, 2009, 2018, 2020; Muttakin *et al*., 2015). However, identical to the first hypothesis, the second hypothesis does not assume a directional relationship but a significant impact. Accordingly, the second hypothesis states that,

H2. There is a significant relation between CEO tenure and firm performance.

3.3 CEO education and firm performance

Education is important in a number of ways, including network creation, signaling and the development of skills and character. Even if these impacts are hard to separate, it is very likely that they have an impact on a person's capacity to carry out challenging tasks like managing a business. Because banks are financial organizations, the formal banking and financial education of their CEOs is essential for handling day-to-day operations and developing strategic plans. The CEO ought to have a degree that corresponds with the effectiveness of the business (Rajagopalan and Dutta, 1996).

Previous studies on the effect of a CEO's formal education on performance have produced mixed results. For instance, Saidu (2019) noted a significant positive impact of CEO education on profitability using the same context. Jalbert *et al*. (2002) also reported a significant impact

of the type of degree and the institution that it offers on the ROA and Tobin's Q ratio of the large US firms. Surprisingly, Bhagat *et al*. (2010) noted that CEO education influences short-term but not long-term performance. In contrast, Ying and Mei (2014) reported a significant inverse association between CEO education and performance for family-owned firms in Hong Kong. Nguyen and Fan (2022) examined a somewhat different dimension of CEO education and explored whether there is a difference in the performance level of CEOs who graduated from Japanese corporate universities and traditional universities. Interestingly, they reported that the productivity or performance level of CEOs graduated from corporate universities is considerably lower than the CEOs graduated from traditional universities. Their findings suggested a new insight regarding the impact of integrating corporate needs into traditional higher education. Urquhart and Zhang (2022) studied publicly listed FTSE 350 firms and explored whether CEOs holding Ph.D. degree perform better than non-Ph.D. CEOs. Their findings revealed interesting results and suggested that CEOs holding Ph.D. outperforms their peers, and such performance emerge from a greater control over costs and better cash flow management. Ali *et al*. (2022) studied the nexus between CEO attributes and firm performance of the nonfinancial listed firms operating in Pakistan and reported that the financial education of the CEO has a positive impact on firm performance. Similarly, Gupta *et al*. (2018, 2021) found a positive association between a CEO's financial education and corporate investment decisions, suggesting that CEOs with financial education are able to analyze the market condition efficiently, which helps to raise the external funds in a cost-effective manner.

The study of Ghardallou *et al*. (2020) found that the CEOs' areas of study have a big influence on the company's financial results. The results specifically demonstrate that CEOs with degrees in accounting, finance, economics or business administration improve the performance of the organization. Executive directors who have studied economics or management may, in fact, make better judgments in complicated environments, handle ambiguities and challenges and better accept new solutions (Bantel and Jackson, 1989). Further, CEOs with advanced degrees may enhance the worth of the company and are preferred by investors, as seen by superior stock market returns. CEOs with postgraduate degrees do, in fact, bring with them intangible advantages like stronger reputations and wider networks, which translate into higher market success. These findings may also be explained by the fact that the market value of the company that employs CEOs with higher levels of education represents more investment opportunities and a variety of funding sources connected to the CEOs' professional networks formed during their time in college/university (Ghardallou *et al*., 2020).

Based on the findings of the studies and arguments presented above, the present study formulates the following hypothesis in relation to the association between CEO education and firm performance.

H3. There is a positive association between CEO education and firm performance.

3.4 CEO experience and firm performance

Experience makes a person adept in his profession and a trusted leader (Gupta and Mahakud, 2020). Wegge *et al*. (2008) also conclude that a seasoned CEO can contribute to improved performance by skillfully handling the corporate environment. CEOs need to be multi-professionals to make good decisions. This allows them to apply their past experiences to the business and integrate new technologies. Ali *et al*. (2022) reported results in favor of this view in the context of nonfinancial listed firms operating in Pakistan and documented that career experience has a significant positive impact on firm performance. Saleh *et al*. (2020) also supported this favorable impact of CEO experience on firm performance for the nonfinancial firms listed on the Palestine Security Exchange. However, Huang *et al*. (2023) reported a significant negative association between a CEO's functional experience and firm performance in the Chinese listed companies.

Considering the supremacy of findings of a favorable impact of CEO experience, this study assumes a positive association between a CEO's experience and firm performance. Hence, the fourth hypothesis states that:

H4. There is a positive association between CEO experience and firm performance.

3.5 Moderating role of CEO compensation

Apart from the impact of CEO attributes on organizational performance, what determines the extent of CEO compensation (Doucouliagos *et al*., 2007; Croci *et al*., 2012; Conyon and He, 2012; Aslan and Grinstein, 2012), and whether the pay level impact organizational performance (Bhuyan *et al*., 2022), also received substantial focus from the academics and practitioners. Accordingly, the nature of association between CEO attributes and organizational performance is not so straightforward (Liu *et al*., 2018), and several other factors, such as the extent of CEO compensation, may moderate the nature and level of such a relationship. Grey *et al*. (2024) found that a rise in CEO compensation can enhance corporate performance. This relationship is moderated by chair-CEO diversity, indicating that the effectiveness of pay in enhancing performance is influenced by the diversity of the leadership.

The extant literature also demonstrates an inconclusive result regarding the impact of CEO attributes on CEO compensation and the impact of pay level on firm performance. For example, Bhuyan *et al*. (2022) noted a significant relationship between a CEO's work experience, a firm's performance and the CEO's compensation level. Ali *et al*. (2022) reported a significant impact of several CEO attributes on firm performance and that the relationship is partially and significantly mediated by the capital investment decisions. The study of Doucouliagos *et al*. (2007) in an Australian context also supports the hypothesis that there is a strong positive association between CEO remuneration and bank performance. It is in convergence with agency theory that managers' compensation should be based on observable outcomes and that contracts should be designed to motivate the agents' best performance.

The study of Aslam *et al*. (2019) in Pakistani firms over the period of 2009–2016 documented a strong relationship between company performance and the compensation packages of CEOs. Raithatha and Komera (2016) examined the relationship between executive compensation and firm performance in the Indian firms and reported a significant association between them. The study of Rahman and Muhammad (2019) in 30 listed banks in Bangladesh for the period 2013 to 2017 also supports the idea that CEO compensation highly affects the firm performance. In a seminal paper, Liu *et al*. (2018) explored the indirect effect of several variables in the relationship between CEO attributes and firm performance and reported a significant impact on several variables.

Based on the arguments and findings presented above, the present study estimates a significant moderating role of CEO compensation in the relationship between CEO attributes and firm performance.

H5. CEO compensation significantly moderates the relationship between CEO attributes and firm performance.

4. Data and methodology

4.1 Sample and data

CEO compensation data are rarely published in the annual reports of public limited companies except for the financial institutions in Bangladesh. Considering this reality, this study focused exclusively on the 35 listed banking companies (all the banks listed on the Dhaka Stock Exchange – the leading stock exchange in Bangladesh) operating in Bangladesh. While CEO compensation and performance data have been collected from the published annual reports, CEO attributes data have been collected from multiple sources, including the annual reports,

LinkedIn, newspapers and other social medias. As this study covered a 10 years period starting from 2013 to 2022, this should give a total of 350 firm-year observations. However, as data for five newly listed banks are not available for the entire study period, the final sample includes a total of 320 firm-year observations.

4.2 Variable definition and measurement

4.2.1 Dependent variables. This study uses both accounting and market-based measures of firm performance in exploring the impact of CEO attributes on banks' performance. Return on assets (ROA) is used to represent accounting or book-based performance, while Tobin's Q ratio is employed in measuring market-based performance (Ferreira and Matos, 2008; Bose *et al*., 2017; Rashid, 2020; Rashid and Kabir, 2025). Table 1 presents details on the definitions and measurements of each of the variables studied.

4.2.2 Independent variables. CEO attributes are measured by four different variables, including CEO age, education, tenure, and experience. Consistent with prior studies, CEO age is measured by the absolute age of CEO in years (Doucouliagos *et al*., 2007; Conyon and He, 2012; Liu and Jiang, 2020); CEO tenure is measured by the number of years the CEO is holding the position of CEO (Mangel and Singh, 1993; Conyon and He, 2012; Kent *et al*., 2018; Saleh *et al*., 2020); CEO experience is measured by number of years CEO is serving in the financial industry (Croci *et al*., 2012; Saleh *et al*., 2020; Huang *et al*., 2023), and CEO education is measured by assigning a value of 1 if CEO holds bachelor degree, a value of 2 for master degree, a value of 3 for professional certification (e.g. chartered accountant, certified management accountant and the like), a value of 4 for doctor of philosophy (Ph.D.) and a value of 5 for holding both Ph.D. and professional certification (King *et al*., 2016; Urquhart and Zhang, 2022).

Table 1. Variable definition and measurement

Variables	Acronyms	Definition and measurement	Reference
CEO age	CEOAGE	Absolute age of CEO in years	Doucouliagos *et al*. (2007), Conyon and He (2012), Liu and Jiang (2020)
CEO tenure	CEOTEN	Number of years the CEO is holding the position of CEO	Mangel and Singh (1993), Conyon and He (2012), Kent *et al*. (2018), Saleh *et al*. (2020)
CEO's educational qualification	CEOEDU	CEO holding a Bachelor degree is assigned with a value of 1; a value of 2 for Master degree, a value of 3 for professional certification, a value of 4 for Doctor of Philosophy (PhD), and a value of 5 for holding both PhD and professional certification	King *et al*. (2016), Urquhart and Zhang (2022) [modified]
CEO experience	CEOEXP	Number of years CEO is serving in the financial industry	Croci *et al*. (2012), Saleh *et al*. (2020), Huang *et al*. (2023)
CEO pay	CEOPAY	Gross CEO compensation or pay, measured in million Bangladeshi Taka (currency)	Capezio *et al*. (2011), Conyon and He (2012), Schultz *et al*. (2013)
Return on Assets	ROA	Net profit after tax scaled by year-end total assets	Bose *et al*. (2017), Rashid (2020), Rashid and Kabir (2025)
Tobin's Q Ratio	TOBINQ	Year-end book value of total assets plus market value of equity minus book value of equity scaled by total assets	Ferreira and Matos (2008), Bose *et al*. (2017), Rashid (2020), Rashid and Kabir (2025)
Return on Equity	ROE	Net profit after tax scaled by year-end shareholders' equity	
Market to Book Ratio	MTB	Ratio of market value to book value of equity share	

Source(s): Authors' own creation

4.2.3 Moderator. CEO compensation is used as the moderator to examine whether CEO compensation level modifies the relationship between CEO attributes and firm performance. CEO compensation is measured by the amount of Bangladeshi Taka (BDT) (currency) paid (in million) to the CEO yearly (Capezio *et al*., 2011; Conyon and He, 2012; Schultz *et al*., 2013).

4.3 Research model

In examining the direct and moderating impact, AMOS 23 is employed in analyzing data and testing the hypotheses formulated. The structural equation modelling (SEM) of AMOS 23 is employed considering several benefits of the model. First, this model can define latent variable models, enabling separate estimation of relationships between latent constructs and their observed indicators (measurement model) as well as relationships among the constructs themselves (structural model) (Tomarken and Waller, 2005). Second, the availability of fit indices offers a comprehensive assessment of complex models, even those involving several linear equations (Tomarken and Waller, 2005).

Figure 1 displays the nature of the relationship between independent and dependent variables and how the moderator moderates such a relationship.

As can be seen in the figure, this study investigates the direct impact of CEO attributes on banks' performance. Then, CEO compensation is included in the framework as a moderator to see whether the level of compensation paid to the CEO can moderate such a relationship.

5. Results

Table 2 presents descriptive statistics for the variables studied. As displayed, the mean age of CEO in the Bangladeshi banking companies is 59 years, with a maximum of 68 years and a minimum of 48 years. This result signifies the dominance of aged CEO in the banking companies. Despite the prevalence of aged CEO, the average tenure of a CEO demonstrates disappointing result, which travels around 3.41 years, with a standard deviation of 2.73 and a minimum value of zero to a maximum value of 16 years.

The mean educational level of CEO (2.03) displays the dominance of master degree holder over professionals and Ph.D. holders. The average experience value (33 years, ranging from 18 to 41 years) shows the supremacy of highly experienced CEOs. The average CEO compensation travels around 13.72 m BDT (yearly), ranging from 0.83 m to 30.47 m BDT.

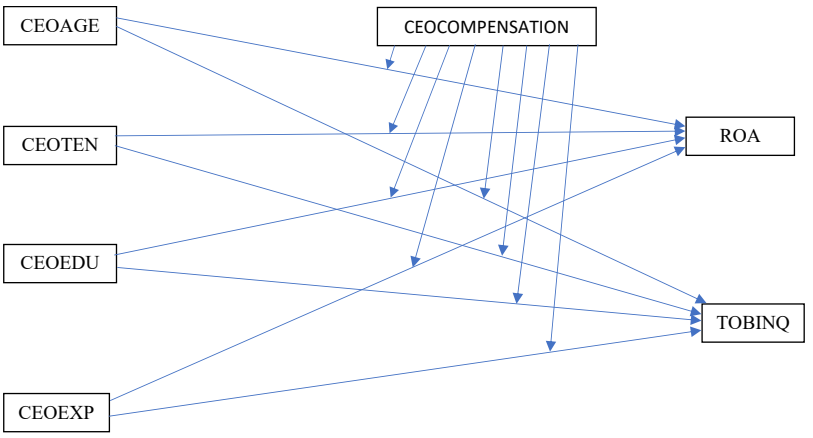

Figure 1. Relationship between CEO attributes, CEO pay and firm performance. Source: Authors' own creation

Table 2. Descriptive statistics

Variables	Mean	Median	Max	Min	Std. Dev	Observation
CEOAGE	58.9969	59.0000	68.00	48.00	4.00509	320
CEOTEN	3.4111	3.0000	16.00	0.00	2.72832	320
CEOEDU	2.0344	2.0000	4.00	2.0	0.37401	320
CEOEXP	33.0844	34.0000	41.00	18.00	4.08097	320
CEOPAY	13.7209	13.1888	30.47	0.83	4.6842	320
ROA	0.7223	0.7844	1.83	−6.30	0.72397	320
TOBINQ	0.9821	0.9800	2.28	0.00	0.18081	320

Source(s): Authors' own creation

Concerning the bank performance variables, the average ROA is 0.72%, with a minimum of −6.30% and a maximum of 1.83%, indicating the presence of losing banking companies. The mean value of Tobin's Q ratio is 0.9821, suggesting that the average market value of the bank is lower than its book value.

Table 3 displays the correlation matrix of the variables used in the models. The correlation between CEO age, tenure and performance variables is insignificant.

However, the nature of the relationship of CEO experience and education with firm performance is significant and therefore suggests a strong connection between the variables. More importantly, all the values remain below 0.60, suggesting the absence of a multicollinearity problem.

Table 4 displays the direct impact of CEO attributes on the bank's performance. Regarding the impact of CEO age and tenure, the results show an insignificant impact on both accounting-based performance (measured by ROA) and market-based performance (measured by Tobin's Q ratio). Accordingly, the first and second hypotheses are not confirmed.

However, the impact of CEO education appears to be statistically significant and positive for ROA, suggesting the level of CEO education is an important determinant of a bank's performance. Therefore, the third hypothesis cannot be rejected. Surprisingly, the direction of the relationship is negatively significant for Tobin's Q ratio. This result indicates that accounting and market-based performance do not go in the same direction.

The result also shows a significant positive impact of CEO experience on ROA, signifying the importance of experience in the financial industry in achieving excellence in performance in the banking industry. Unfortunately, the impact of CEO experience on market-based performance seems to be insignificant. Accordingly, the fourth hypothesis is accepted for accounting-based performance only.

Table 3. Correlation matrix

	1	2	3	4	5	6	7	8
1. CEOAGE	1							
2. CEOTEN	0.092	1						
3. CEOEDU	0.200**	0.040	1					
4. CEOEXP	0.581**	0.213**	0.152**	1				
5. CEOPAY	0.199**	0.512**	0.057	0.028	1			
6. ROA	0.077	0.031	0.252**	0.175**	0.064	1		
7. TOBINQ	−0.109	0.018	−0.223**	−0.070	0.019	−0.174**	1	

Note(s): **Significant at the 1% level

Source(s): Authors' own creation

Table 4. Direct impact of CEO attributes on firm performance (ROA and TOBINQ)

			Estimate	S.E.	C.R.	P
ROA	<—	CEOAGE	−0.014	0.012	−1.184	0.236
ROA	<—	CEOTENURE	−0.003	0.015	−0.208	0.835
ROA	<—	CEOEDU	0.516	0.117	4.395	***
ROA	<—	CEOEXP	0.033	0.012	2.781	**
TOBINQ	<—	CEOAGE	−0.003	0.003	−0.980	0.327
TOBINQ	<—	CEOTENURE	0.002	0.004	0.611	0.541
TOBINQ	<—	CEOEDU	−0.112	0.030	−3.769	***
TOBINQ	<—	CEOEXP	0.000	0.003	−0.104	0.917

Note(s): ***Significant at the 0.001% level, and **Significant at the 1% level
CFI = 0.979; PCFI = 0.047 and RMSEA = 0.068
Source(s): Authors' own creation

Table 5 displays the moderating impact of CEO pay in the relationship between CEO attributes and bank performance. As displayed in this table, the significant positive impact of CEO education and experience shown in Table 2 becomes weaker when they interact with CEO pay.

Accordingly, it is apparent that CEO pay can be an important moderator in the relationship between CEO attributes and bank performance. An identical result is also displayed for Tobin's Q ratio. In addition to this effect, CEO compensation seems to considerably and favorably affect ROA via its interaction with CEO tenure, while adversely impacting Tobin's Q ratio. These results suggest that CEO pay can change both the direction and magnitude of the impact of CEO attributes on bank performance.

Regarding the acceptability of the results presented, the values of comparative fit index (CFI) [0.979 in Tables 4 and 0.999 in Table 5]; parsimony comparative fix index (PCFI) [0.035

Table 5. Moderating impact of CEO Pay on the relationship between CEO attributes and firm performance (ROA and TOBINQ)

			Estimate	S.E.	C.R.	P
ROA	<—	CEOAGE	−0.059	0.029	−2.029	*
ROA	<—	CEOTENURE	−0.094	0.046	−2.037	*
ROA	<—	CEOEDU	0.755	0.455	1.657	0.098
ROA	<—	CEOEXP	0.110	0.045	2.420	*
TOBINQ	<—	CEOAGE	−0.002	0.007	−0.267	0.789
TOBINQ	<—	CEOTENURE	0.024	0.012	2.033	*
TOBINQ	<—	CEOEDU	−0.224	0.116	−1.929	0.054
TOBINQ	<—	CEOEXP	0.001	0.012	0.117	0.907
ROA	<—	PAYAGE	0.003	0.002	1.703	0.089
ROA	<—	PAYEXP	−0.005	0.003	−1.622	0.105
ROA	<—	PAYEDU	−0.014	0.031	−0.457	0.647
ROA	<—	PAYTEN	0.005	0.002	2.075	**
TOBINQ	<—	PAYAGE	0.000	0.000	−0.280	0.779
TOBINQ	<—	PAYEXP	0.000	0.001	−0.031	0.975
TOBINQ	<—	PAYEDU	0.008	0.008	1.023	0.306
TOBINQ	<—	PAYTEN	−0.001	0.001	−2.013	**

Note(s): ***Significant at the 0.001% level, **Significant at the 1% level and *Significant at the 5% level
CFI = 0.999; PCFI = 0.013 and RMSEA = 0.090
Source(s): Authors' own creation

in Tables 4 and 0.013 in Table 5]; and root mean square error of approximation (RMSEA) [0.068 in Tables 4 and 0.090 in Table 5] suggested the acceptability of the results, as the values of CFI close to one indicate a very good fit (Hu and Bentler, 1998) and a value of CFI ≥ 0.95 is taken as an excellent fit of the model (West *et al*., 2012), while a value of RMSEA between 0.05 and 0.08 is considered acceptable, and values ≤ 0.05 are considered excellent (MacCallum *et al*., 1996).

Regarding the acceptability of the results presented, the values of CFI [0.979 in Table 4 and 0.986 in Table 5], and PCFI [0.047 in Table 4 and 0.035 in Table 5], suggested the acceptability of the results, as the values of CFI close to one indicate a very good fit (Hu and Bentler, 1998) and a value of CFI ≥0.95 is taken an excellent fit of the model (West *et al*., 2012).

To validate the primary findings of the study, additional analysis was performed and presented in Table 6 and Table 7. Table 6 uses alternative measures of performance – return on equity (ROE) and market-to-book (MTB) ratio–to examine the validity of primary findings on the direct relationship between CEO attributes and performance. As displayed, the impact of several CEO attributes is found insignificant on performance.

However, while the moderating impact of CEO compensation in the relationship between CEO attributes and performance is examined using these alternative measures of performance, several CEO attributes and their interaction with compensation depicted a significant impact on performance. Table 7 presents this moderating role of compensation.

This result suggests that the direct and moderating impact of CEO attributes on alternative measures of performance are not uniform.

6. Discussion

Of the CEO attributes studied, the impact of CEO age on bank performance appears to be negative and insignificant, which is consistent with several prior studies (e.g. Liu and Jiang, 2020). However, it goes against the findings of many prior studies, such as Bertrand and Schoar (2003), Zhang (2010) Serfling (2014), Wu (2021) and Suherman *et al*. (2023), which reported significant negative impact, while Peni (2014) Ali *et al*. (2022) Suherman *et al*. (2023) and Rahman and Chen (2023) noted a significant positive impact on organizational performance. One plausible explanation could be that the median age of CEO is 59 years (which is identical to the mean age 59 years), and the age difference is very trivial. Accordingly, this variable could not fetch significant differences in bank performance in the sample banking companies. Further, as the direction of impact is negative, it seems that the arguments presented by prior studies that older CEOs tend to be more risk-averse due to their conservative views and have less ability to adjust to changes in the business environment (Bertrand and Schoar, 2003), which could have a detrimental impact on the success of the company (Wu, 2021), are valid to some extent in this context.

Table 6. Direct impact of CEO attributes on firm performance (ROE and MTB)

			Estimate	S.E.	C.R.	P
ROE	<—	CEOAGE	−0.172	0.115	−1.501	0.133
MARKETBOOK	<—	CEOAGE	−0.008	0.007	−1.150	0.250
ROE	<—	CEOTENURE	0.094	0.139	0.673	0.501
MARKETBOOK	<—	CEOTENURE	0.002	0.009	0.232	0.817
ROE	<—	CEOEDU	1.843	1.121	1.644	0.100
MARKETBOOK	<—	CEOEDU	0.035	0.072	0.484	0.628
ROE	<—	CEOEXP	0.178	0.114	1.563	0.118
MARKETBOOK	<—	CEOEXP	0.009	0.007	1.244	0.213

Note(s): ***Significant at the 0.001% level and **Significant at the 1% level
CFI = 0.897; PCFI = 0.043 and RMSEA = 0.231

Source(s): Authors' own creation

Table 7. Moderating impact of CEO pay on the relationship between CEO attributes and firm performance (ROE and MTB)

			Estimate	S.E.	C.R.	P
ROE	<—	PAYAGE	0.013	0.018	0.695	0.487
ROE	<—	PAYEXP	−0.016	0.030	−0.556	0.578
ROE	<—	PAYEDU	0.025	0.290	0.087	0.931
ROE	<—	PAYTEN	−0.007	0.023	−0.304	0.761
MARKETBOOK	<—	PAYAGE	0.004	0.001	3.088	**
MARKETBOOK	<—	PAYEXP	−0.005	0.002	−2.830	**
MARKETBOOK	<—	PAYEDU	−0.013	0.018	−0.726	0.468
MARKETBOOK	<—	PAYTEN	0.002	0.001	1.459	0.144
ROE	<—	CEOAGE	−0.433	0.281	−1.542	0.123
ROE	<—	CEOTENURE	0.043	0.443	0.097	0.923
ROE	<—	CEOEDU	1.458	4.303	0.339	0.735
ROE	<—	CEOEXP	0.473	0.420	1.127	0.260
MARKETBOOK	<—	CEOAGE	−0.062	0.018	−3.496	***
MARKETBOOK	<—	CEOTENURE	−0.041	0.028	−1.468	0.142
MARKETBOOK	<—	CEOEDU	0.233	0.273	0.854	0.393
MARKETBOOK	<—	CEOEXP	0.086	0.027	3.229	**

Note(s): ***Significant at the 0.001% level, **Significant at the 1% level and *Significant at the 5% level
CFI = 0.996; PCFI = 0.018 and RMSEA = 0.215

Source(s): Authors' own creation

The impact of CEO tenure also depicted identical results (mean 3.4 years and median 3 years), though the impact is positive and insignificant statistically. This finding goes against the results reported by Hartnell *et al*. (2016) and Suherman *et al*. (2023) for the Canadian firms, Saleh *et al*. (2020) for Palestine-listed companies, Ali *et al*. (2022) in Pakistan. Rahman and Chen (2023) for the privately listed firms in China. Consequently, the arguments that company performance improves with a longer CEO term, as this enhances their authority and confidence to make financial choices, and increased knowledge and abilities about the business environment (Wu *et al*., 2005) are less pertinent in the Bangladeshi banking companies.

As the level of education displayed a significant positive impact on bank performance (ROA), the arguments that the formal banking and financial education of CEOs can help to develop appropriate strategic plans and run daily operations more effectively (Rajagopalan and Dutta, 1996) seems to be valid for the banking companies in Bangladesh. This is also consistent with the findings of Urquhart and Zhang (2022), who reported that CEOs holding Ph.D. degree outperform their peers, and Ali *et al*. (2022) who reported a significant positive impact of financial education on firm performance. Accordingly, it can be held that CEOs having professional accounting/finance education (e.g. chartered accountants, certified management accountants and chartered financial analyst) and Ph.D. degree outperforms their counterpart in the Bangladeshi banking companies.

Regarding the impact of CEO experience, the result displayed a significant positive impact on ROA. This is consistent with the findings of Ali *et al*. (2022) and Saleh *et al*. (2020), while contradictory to Huang *et al*. (2023). This result also supports the arguments presented by Gupta and Mahakud (2020), who advocate that experience allows a CEO to become adept in his profession and become a trusted leader. Further, experienced CEO can handle corporate environment competently using their past experience, and this allow them to improve performance (Wegge *et al*., 2008). Hence, it appears that experienced CEOs outperform their counterparts in the Bangladeshi banking companies to a considerable extent. More importantly, the significant positive impact of CEO education and experience on bank performance supports the notion of upper echelons theory that advocates a strong link between

top executives' attributes and organizational performance. More specifically, the notion that the choice of actions of top executives' is highly influenced by their attributes, such as their experience and education, and this in turn affect organizational performance (Hambrick and Mason, 1984) appears to be valid for the research setting under consideration.

Concerning the role of CEO pay as a mediator, the result displayed a strong moderating role of the level of CEO pay. Consequently, CEO pay can be used in changing the direction of impact of CEO attributes on bank performance. As CEO pay wipe out the significant positive impact of CEO education and experience on performance, the decision of increasing pay with the level of education and experience may not always lead to better performance. Further, the result also suggested that an increase in pay level with tenure can result in better performance. Accordingly, the use of CEO compensation in the endeavor to influence bank performance in association with CEO attributes appears to be complicated.

7. Conclusion

This study aimed to examine whether CEO attributes can impact firm performance in the context of Bangladeshi banking companies. Further, whether CEO compensation level can moderate the relationship between CEO attributes and firm performance is also investigated. Using a dataset of 320 firm-year observations over the period of 10 years from 2013 to 2022, this study's findings reveal a significant positive impact of CEO education and experience on ROA and a significant negative impact of CEO education on the TOBINQ ratio. Moreover, the study finds a strong moderating role of CEO compensation in the relationship between CEO attributes and bank performance.

While this result supports the findings of several prior studies (e.g. Liu and Jiang, 2020; Saleh *et al*., 2020; Urquhart and Zhang, 2022; Ali *et al*., 2022) and the lens of upper echelons theory, they contradict with several other studies under diversified contexts (e.g. Zhang, 2010; Serfling, 2014; Wu, 2021; Suherman *et al*., 2023; Huang *et al*., 2023). The unique characteristics of the research setting in which Bangladeshi banking companies operate can be cited as the underlying causes for the inconsistencies of the results with that of other settings. Specifically, the level of tolerance of corporate corruption by the legal and regulatory institutions, the absence of a well-structured and strong capital market and the interference of the government and its agencies in the corporate activities (Khan, 2003; Rashid, 2009, 2020; Muttakin *et al*., 2015) can be cited as the fundamental reasons.

The findings of the study have considerable implications from theory, policy and practice perspectives. From a theoretical perspective, the findings support the notions of upper echelons theory for several CEO attributes (education and experience), providing empirical evidence in the context of an emerging and developing economy. Further, a strong moderating role of CEO compensation as a moderator in the relationship between CEO attributes and performance also adds to the extant pay-performance literature. From the practitioners' perspective, the findings can be used to develop a list of desired attributes for coming CEOs. The decision to increase CEO compensation aligning with their attributes can be made more judgmental and rational. On the other hand, the findings of this study provide significant insights for bank executives, board members and regulators within the Bangladeshi banking system. Considering the substantial beneficial influence of CEO education and experience on return on assets (ROA), banks need to emphasize the recruitment and retention of CEOs with robust educational credentials and vast industry expertise to improve financial performance. The identified inverse correlation between CEO education and the Tobin's Q ratio indicates that superior educational credentials may not always lead to increased market value. This underscores the need for a balanced methodology in evaluating CEO qualities, considering both financial and market-oriented success indicators.

The research highlights the moderating effect of CEO salary on the connection between CEO attributes and company performance. This indicates that well-designed remuneration packages may improve CEO performance by aligning their incentives with corporate objectives.

Consequently, boards must develop remuneration frameworks that not only incentivize performance but also encourage CEOs to use their knowledge for sustainable value generation. These results underscore the significance of strategic CEO selection and pay strategies in enhancing bank performance. Finally, policymakers and regulators such as Bangladesh Bank can get useful insight from the findings of this study in formulating and/or revising the existing policy in regard to the desired portfolio of minimum qualifications and apposite range of compensation for the CEO. Specifically, regulators might reform policies regarding minimum requirements for education and experience while CEOs are appointed by a bank.

The findings of the study should be explained in light of a few limitations. First, the sample covers only the listed banking companies and therefore should not be generalized for the nonbank financial institutions and nonfinancial companies. Further studies may focus on those sectors to see whether the results of this study remain valid. Second, the present study considers four attributes of the CEO, while there are a large number of attributes in this portfolio. Further studies may explore the impact of those attributes (e.g. CEO's gender and ownership). This study ignored such attributes, as the data showed an absence of female CEO and restriction on ownership by CEO in the banking companies. Finally, CEO compensation has been used as the moderator in exploring its interacting role in the relationship between CEO attributes and performance. Further studies may use other variables as moderator, such as firm and country-level governance quality. Finally, while structural equation modeling (SEM) of AMOS can provide better results than multiple regressions analysis, a dynamic panel data model using a Gaussian mixture model (GMM) can better deal with the endogeneity issue. Further studies may employ such a model to provide more valid results.

Despite these limitations, this study enhances the extant literature on top executives' characteristics, compensation and firm performance by highlighting both direct and moderating effects within the context of an emerging market.

References

Ali, R., Rehman, R.U., Suleman, S. and Ntim, C.G. (2022), "CEO attributes, investment decisions, and firm performance: new insights from upper echelons theory", *Managerial and Decision Economics*, Vol. 43 No. 2, pp. 398-417, doi: 10.1002/mde.3389.

Aslam, E., Haron, R. and Tahir, M.N. (2019), "How director remuneration impacts firm performance: an empirical analysis of executive director remuneration in Pakistan", *Borsa Istanbul Review*, Vol. 19 No. 2, pp. 186-196, doi: 10.1016/j.bir.2019.01.003.

Aslan, H. and Grinstein, Y. (2012), "CEO compensation and political connectedness", Working Paper.

Bangladesh Bank (2014), "Prudential regulations for banks: selected issues", available at: https://www.bb.org.bd/openpdf.php (accessed 10 July 2024).

Bantel, K.A. and Jackson, S.E. (1989), "Top management and innovations in banking: does the composition of the top team make a difference", *Strategic Management Journal*, Vol. 10 No. S1, pp. 107-124, doi: 10.1002/smj.4250100709.

Bertrand, M. and Schoar, A. (2003), "Managing with style: the effect of managers on firm policies", *Quarterly Journal of Economics*, Vol. 118 No. 4, pp. 1169-1208, doi: 10.1162/003355303322552775.

Bhagat, S., Bolton, B.J. and Subramanian, A. (2010), "CEO education, CEO turnover, and firm performance", available at: SSRN 1670219.

Bhuyan, R., Butchey, D., Haar, J. and Talukdar, B. (2022), "CEO compensation and firm performance in the insurance industry", *Managerial Finance*, Vol. 48 No. 7, pp. 1086-1115, doi: 10.1108/mf-04-2019-0154.

Bose, S., Saha, A., Khan, H.Z. and Islam, S. (2017), "Non-financial disclosure and market-based firm performance: the initiation of financial inclusion", *Journal of Contemporary Accounting and Economics*, Vol. 13 No. 3, pp. 263-281, doi: 10.1016/j.jcae.2017.09.006.

Burkert, S., Oberpaul, T., Tichy, N. and Weller, I. (2024), "Executive compensation complexity and firm performance", *Academy of Management Discoveries*, Vol. 10 No. 2, pp. 273-306, doi: 10.5465/amd.2022.0056.

Capezio, A., Shields, J. and Donnell, M. (2011), "Too good to be true: board structural independence as a moderator of CEO compensation-for-firm-performance", *Journal of Management Studies*, Vol. 48 No. 3, pp. 487-513.

Conyon, M.J. and He, L. (2012), "CEO compensation and corporate governance in China", *Corporate Governance: An International Review*, Vol. 20 No. 6, pp. 575-592, doi: 10.1111/j.1467-8683.2012.00935.x.

Croci, E., Gonenc, H. and Ozkan, N. (2012), "CEO compensation, family control, and institutional investors in Continental Europe", *Journal of Banking and Finance*, Vol. 36 No. 12, pp. 3318-3335, doi: 10.1016/j.jbankfin.2012.07.017.

Doucouliagos, H., Haman, J. and Askary, S. (2007), "Directors' remuneration and performance in Australian banking", *Corporate Governance: An International Review*, Vol. 15 No. 6, pp. 1363-1383, doi: 10.1111/j.1467-8683.2007.00651.x.

Farag, H. and Mallin, C. (2018), "The influence of CEO demographic characteristics on corporate risk-taking: evidence from Chinese IPOs", *The European Journal of Finance*, Vol. 24 No. 16, pp. 1528-1551, doi: 10.1080/1351847x.2016.1151454.

Ferreira, M.A. and Matos, P. (2008), "The colors of investors' money: the role of institutional investors around the world", *Journal of Financial Economics*, Vol. 88 No. 3, pp. 499-533, doi: 10.1016/j.jfineco.2007.07.003.

Ghardallou, W., Borgi, H. and Alkhalifah, H. (2020), "CEO characteristics and firm performance: a study of Saudi Arabia listed firms", *The Journal of Asian Finance, Economics and Business (JAFEB)*, Vol. 7 No. 11, pp. 291-301, doi: 10.13106/jafeb.2020.vol7.no11.291.

Grey, C., Flynn, A. and Adu, D.A. (2024), "An examination of how executive remuneration and firm performance are influenced by Chair-CEO diversity attributes", *International Review of Financial Analysis*, Vol. 94, 103290, doi: 10.1016/j.irfa.2024.103290.

Gupta, G. (2022a), "CEO's educational background, economic policy uncertainty and investment-cash flow sensitivity: evidence from India", *Applied Economics*, Vol. 54 No. 5, pp. 568-579, doi: 10.1080/00036846.2021.1967279.

Gupta, G. (2022b), "CEO's age and investment-cash flow sensitivity", *Managerial and Decision Economics*, Vol. 43 No. 6, pp. 2212-2224, doi: 10.1002/mde.3519.

Gupta, N. and Mahakud, J. (2020), "CEO characteristics and bank performance: evidence from India", *Managerial Auditing Journal*, Vol. 35 No. 8, pp. 1057-1093, doi: 10.1108/maj-03-2019-2224.

Gupta, G., Mahakud, J. and Debata, B. (2018), "Impact of CEO's characteristics on investment decisions of Indian listed firms: does crisis make any difference?", *Cogent Economics and Finance*, Vol. 6 No. 1, pp. 1-16, doi: 10.1080/23322039.2018.1439258.

Gupta, G., Mahakud, J. and Verma, V. (2021), "CEO's education and investment–cash flow sensitivity: an empirical investigation", *International Journal of Managerial Finance*, Vol. 17 No. 4, pp. 589-618, doi: 10.1108/ijmf-01-2020-0020.

Hambrick, D.C. (2007), "Upper echelons theory: an update", *Academy of Management Review*, Vol. 32 No. 2, pp. 334-343, doi: 10.5465/amr.2007.24345254.

Hambrick, D.C. and Fukutomi, G.D. (1991), "The seasons of a CEO's tenure", *Academy of Management Review*, Vol. 16 No. 4, pp. 719-742.

Hambrick, D.C. and Mason, P.A. (1984), "Upper echelons: the organization as a reflection of its top managers", *Academy of Management Review*, Vol. 9 No. 2, pp. 193-206, doi: 10.2307/258434.

Hartnell, C.A., Kinicki, A.J., Lambert, L.S., Fugate, M. and Doyle Corner, P. (2016), "Do similarities or differences between CEO leadership and organizational culture have a more positive effect on firm performance? A test of competing predictions", *Journal of Applied Psychology*, Vol. 101 No. 6, pp. 846-861, doi: 10.1037/apl0000083.

Hazzaa, O.T., Abdullah, D.F. and Sadaa, A.M. (2024), "Influence of CEO characteristics and audit committee on financial performance: evidence from Iraq", *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 10 No. 2, 100290, doi: 10.1016/j.joitmc.2024.100290.

Hu, L. and Bentler, P.M. (1998), "Fit indices in covariance structure modeling: sensitivity to under parameterized model misspecification", *Psychological Methods*, Vol. 3 No. 4, pp. 424-453, doi: 10.1037/1082-989x.3.4.424.

Huang, X., Liu, J., Min, L., Zeng, Q., Zhang, J. and Zhang, X. (2023), "CEO's functional experience and firm performance based on text mining", *PLoS One*, Vol. 18 No. 3, p. e0281866, doi: 10.1371/journal.pone.0281866.

Jaggia, S. and Thosar, S. (2021), "CEO management style: does educational background play a role", *Managerial Finance*, Vol. 47 No. 10, pp. 1465-1485, doi: 10.1108/mf-12-2020-0606.

Jalbert, T., Rao, R.P. and Jalbert, M. (2002), "Does school matter? An empirical analysis of CEO education, compensation, and firm performance", *International Business and Economics Research Journal*, Vol. 1 No. 1, pp. 83-98, doi: 10.19030/iber.v1i1.3882.

Kalia, A. (2024), "CEO power and stock price crash risk in India: the moderating effect of insider trades", *Asian Journal of Economics and Banking*, Vol. 8 No. 2, pp. 169-198, doi: 10.1108/AJEB-10-2023-0095.

Kaur, R. and Singh, B. (2019), "Do CEO characteristics explain firm performance in India?", *Journal of Strategy and Management*, Vol. 12 No. 3, pp. 409-426, doi: 10.1108/jsma-02-2019-0027.

Kent, P., Kercher, K. and Routledge, J. (2018), "Remuneration committees, shareholder dissent on CEO pay and the CEO pay–performance link", *Accounting and Finance*, Vol. 58 No. 2, pp. 445-475.

Khan, M.M. (2003), "State of governance in Bangladesh", *The Round Table*, Vol. 92 No. 370, pp. 391-405, doi: 10.1080/0035853032000111116.

King, T., Srivastav, A. and Williams, J. (2016), "*Journal of Corporate Finance*, What's in an education? Implications of CEO education for bank performance", Vol. 37 pp. 287-308, doi: 10.1016/j.jcorpfin.2016.01.003.

Kubick, T.R., Robinson, J.R. and Starks, L.T. (2024), "CEO incentives for risk-taking and compensation duration", *The Accounting Review*, Vol. 99 No. 6, pp. 247-270, doi: 10.2308/tar-2020-0784.

Liu, C. and Jiang, H. (2020), "Impact of CEO characteristics on firm performance: evidence from China listed firms", *Applied Economics Letters*, Vol. 27 No. 14, pp. 1-5, doi: 10.1080/13504851.2019.1607965.

Liu, D., Fisher, G., Chen and G (2018), "CEO attributes and firm performance: a sequential mediation process model", *The Academy of Management Annals*, Vol. 12 No. 2, pp. 789-816, doi: 10.5465/annals.2016.0031.

Maccallum, R.C., Browne, M.W. and Sugawara, H.and M. (1996), "Power analysis and de- termination of sample size for covariance structure modeling", *Psychological Methods*, Vol. 1 No. 2, pp. 130-179, doi: 10.1037/1082-989x.1.2.130.

Malmendier, U. and Tate, G. (2005), "CEO overconfidence and corporate investment", *The Journal of Finance*, Vol. 60 No. 6, pp. 2661-2700, doi: 10.1111/j.1540-6261.2005.00813.x.

Mangel, R. and Singh, H. (1993), "Ownership structure, board relationships and CEO compensation in large US corporations", *Accounting and Business Research*, Vol. 23 No. sup1, pp. 339-350, doi: 10.1080/00014788.1993.9729902.

Matta, E. and Beamish, P.W. (2008), "The accentuated CEO career horizon problem: evidence from international acquisitions", *Strategic Management Journal*, Vol. 29 No. 7, pp. 683-700, doi: 10.1002/smj.680.

Miller, D. (1991), "Stale in the saddle: CEO tenure and the match between organization and environment", *Management Science*, Vol. 37 No. 1, pp. 34-52, doi: 10.1287/mnsc.37.1.34.

Muttakin, M.B., Monem, R.M., Khan, A. and Subramaniam, N. (2015), "Family firms, firm performance and political connections: evidence from Bangladesh", *Journal of Contemporary Accounting and Economics*, Vol. 11 No. 3, pp. 215-230, doi: 10.1016/j.jcae.2015.09.001.

Naheed, R., Jawad, M., Naz, M., Sarwar, B. and Naheed, R. (2021), "Managerial ability and investment decisions:Evidence from Chinese market", *Managerial and Decision Economics*, Vol. 42 No. 4, pp. 985-997, doi: 10.1002/mde.3287.

Nguyen, H.L. and Fan, P. (2022), "CEO education and firm performance: evidence from corporate universities", *Administrative Sciences*, Vol. 12 No. 4, p. 145, doi: 10.3390/admsci12040145.

Nguyen, D.V., Nguyen, N.H.K. and Dinh, T.T. (2023), "CEO attributes and firm performance: evidence from companies listed on Ho Chi Minh Stock Exchange", *Cogent Economics and Finance*, Vol. 11 No. 2, 2282838, doi: 10.1080/23322039.2023.2282838.

Peni, E. (2014), "CEO and chairperson characteristics and firm performance", *Journal of Management and Governance*, Vol. 18 No. 1, pp. 185-205, doi: 10.1007/s10997-012-9224-7.

Quigley, T.J. and Graffin, S.D. (2017), "Reaffirming the CEO effect is significant and much larger than chance: a comment on Fitza (2014)", *Strategic Management Journal*, Vol. 38 No. 3, pp. 793-801, doi: 10.1002/smj.2503.

Quigley, T.J. and Hambrick, D.C. (2015), "Has the "CEO effect" increased in recent decades? A new explanation for the great rise in America's attention to corporate leaders", *Strategic Management Journal*, Vol. 36 No. 6, pp. 821-830, doi: 10.1002/smj.2258.

Rahman, M.J. and Chen, X. (2023), "CEO characteristics and firm performance: evidence from private listed firms in China", *Corporate Governance: The International Journal of Business in Society*, Vol. 23 No. 3, pp. 458-477, doi: 10.1108/cg-01-2022-0004.

Rahman, M.M. and Muhammad, T. (2019), "The impact of CEO's compensation on firm's performance: empirical evidence from listed banks of Bangladesh", *Journal of Banking and Financial Services*, Vol. 11 No. 1, pp. 149-170.

Raithatha, M. and Komera, S. (2016), "Executive compensation and firm performance: evidence from Indian firms", *IIMB Management Review*, Vol. 28 No. 3, pp. 160-169, doi: 10.1016/j.iimb.2016.08.005.

Rajagopalan, N. and Dutta, D.K. (1996), "CEO characteristics: does industry matter?", *Academy of Management Journal*, Vol. 39 No. 1, pp. 197-215, doi: 10.2307/256636.

Rashid, A. (2009), "Board composition, board leadership structure and firm performance: evidence from Bangladesh", in *Proceedings of the 2009 Accounting and Finance Association of Australia and New Zealand Conference (2009 AFAANZ)*. Accounting and Finance Association of Australia and New Zealand. Annual Conference, 5-7 July, Adelaide, South Australia, January.

Rashid, M.M. (2018), "What causes abrupt and massive change in the top management of a successful entity in an emerging economy", *International Journal of Managerial and Financial Accounting*, Vol. 10 No. 2, pp. 105-127, doi: 10.1504/ijmfa.2018.10012809.

Rashid, M.M. (2020), "Ownership structure and firm performance: the moderating role of board characteristics", *Corporate Governance*, Vol. 20 No. 4, pp. 719-337.

Rashid, M.M. and Kabir, M.R. (2025), "Corporate governance and corporate sustainability performance: the mediating role of CSR expenditure", *Asian Review of Accounting*, Vol. 33 No. 1, pp. 1-17, doi: 10.1108/ARA-12-2023-0350.

Saidu, S. (2019), "CEO characteristics and firm performance: focus on origin, education and ownership", *Journal of Global Entrepreneurship Research*, Vol. 9 No. 1, p. 29, doi: 10.1186/s40497-019-0153-7.

Saleh, M.W.A., Shurafa, R., Shukeri, S.N., Nour, A.I. and Maigosh, Z.S. (2020), "The effect of board multiple directorships and CEO characteristics on firm performance: evidence from Palestine", *Journal of Accounting in Emerging Economies*, Vol. 10 No. 4, pp. 637-654, doi: 10.1108/jaee-12-2019-0231.

Salehi, M. and Hassanzadeh, A. (2024), "The effect of board effectiveness on the long-term company success and comparability of financial information", *Management Research Review*, Vol. 47 No. 7, pp. 1005-1028, doi: 10.1108/mrr-11-2022-0829.

Salehi, M., Mirozadeh, M., Adibian, M.S., Nazaridavaji, H. and Irvani Qale Sorkh, F. (2021a), "The relationship between relative performance and managerial change", *Journal of Facilities Management*, Vol. 19 No. 1, pp. 80-91, doi: 10.1108/JFM-08-2020-0049.

Salehi, M., Rajaeei, R. and Edalati Shakib, S. (2021b), "The relationship between CEOs' narcissism and internal controls weaknesses", *Accounting Research Journal*, Vol. 34 No. 5, pp. 429-446, doi: 10.1108/ARJ-06-2020-0145.

Schultz, E., Tian, G.Y. and Twite, G. (2013), "Corporate governance and the CEO compensation-performance link: Australian evidence", *International Review of Finance*, Vol. 13 No. 4, pp. 447-472, doi: 10.1111/irfi.12012.

Serfling, M.A. (2014), "CEO age and the riskiness of corporate policies", *Journal of Corporate Finance*, Vol. 25, pp. 251-273, doi: 10.1016/j.jcorpfin.2013.12.013.

Shabbir, M.F., Hanaysha, J.R., Oon, E.Y.N., Asif, M. and Aslam, H.D. (2024), "Aligning CEO compensation with sustainability performance: the role of CEO duality, board size, and compensation committees", *Discover Sustainability*, Vol. 51, p. 447, doi: 10.1007/s43621-024-00491-0.

Suherman, S., Mahfirah, T.F., Usman, B., Kurniawati, H. and Kurnianti, D. (2023), "CEO characteristics and firm performance: evidence from a Southeast Asian country", *Corporate Governance*, Vol. 23 No. 7, pp. 1526-1563, doi: 10.1108/cg-05-2022-0205.

The daily new nation (2016), "As they are top bosses", *EBL's CEO gets highest salary*, available at: http://m.thedailynewnation.com/news/108880/as-they-are-top-bosses (accessed 4 January 2024).

Tomarken, A.J. and Waller, N.G. (2005), "Structural equation modeling: strengths, limitations, and misconceptions", *Annual Review of Clinical Psychology*, Vol. 1 No. 1, pp. 31-65, doi: 10.1146/annurev.clinpsy.1.102803.144239.

Urquhart, A. and Zhang, H. (2022), "PhD CEOs and firm performance", *European Financial Management*, Vol. 28 No. 2, pp. 433-481, doi: 10.1111/eufm.12316.

Wang, G., Holmes, R.M., Oh, I.S. and Zhu, W. (2016), "Do CEOs matter to firm strategic actions and firm performance? A meta-analytic investigation based on upper echelons theory", *Personnel Psychology*, Vol. 69 No. 4, pp. 775-862, doi: 10.1111/peps.12140.

Wegge, J., Roth, C., Neubach, B., Schmidt, K.H. and Kanfer, R. (2008), "Age and gender diversity as determinants of performance and health in a public organization: the role of task complexity and group size", *Journal of Applied Psychology*, Vol. 93 No. 6, pp. 1301-1313, doi: 10.1037/a0012680.

West, R.F., Meserve, R.J. and Stanovich, K.E. (2012), "Cognitive sophistication does not attenuate the bias blind spot", *Journal of Personality and Social Psychology*, Vol. 103 No. 3, pp. 506-519, doi: 10.1037/a0028857.

Westphal, J.D. and Zajac, E.J. (1995), "Who shall govern? CEO/board power, demographic similarity, and new director selection", *Administrative Science Quarterly*, Vol. 40 No. 1, pp. 60-83, doi: 10.2307/2393700.

Wu, M.L. (2021), "CEO salary, personal characteristics, and firm performance in Chinese- listed firms: a cross-sectional econometric modeling approach", *Journal of Management. Economics, and Industrial Organization*, Vol. 5 No. 3, pp. 14-30, doi: 10.31039/jomeino.2021.5.3.2.

Wu, S., Levitas, E. and Priem, R.L. (2005), "CEO tenure and company invention under differing levels of technological dynamism", *Academy of Management Journal*, Vol. 48 No. 5, pp. 859-873, doi: 10.5465/amj.2005.18803927.

Ying, C.H. and Mei, Y.C. (2014), in *CEO Education and Firm Performance: Evidence from Hong Kong*, Kong Baptist University, Hong, available at: https://libproject.hkbu.edu.hk/trsimage/hp/11017694.pdf (accessed 13 June 2024).

Zhang, Y. (2010), in *CEO Age and Firm Performance*, Concordia University, doctoral dissertation.

Zhu, D.H. and Chen, G. (2015), "CEO narcissism and the impact of prior board experience on corporate strategy", *Administrative Science Quarterly*, Vol. 60 No. 1, pp. 31-65, doi: 10.1177/0001839214554989.

Further reading

Ahmed, A.D., Bahamman, S.M. and Abdulkarim, H. (2021), "Effect of CEO characteristics on financial performance of listed insurance companies in Nigeria", *Management and Business Research*, Vol. 13 No. 4, pp. 108-115.

Al-Shammari, H.A. (2021), "CEO compensation and firm performance: the moderating effects of CEO risk taking behaviour", *Cogent Business and Management*, Vol. 8 No. 1, 1894893, doi: 10.1080/23311975.2021.1894893.

Brahma, S. and Economou, F. (2024), "CEO power and corporate strategies: a review of the literature", *Review of Quantitative Finance and Accounting*, Vol. 62 No. 3, pp. 1069-1143, doi: 10.1007/s11156-023-01231-7.

Faccio, M. and Parsley, D.C. (2009), "Sudden deaths: taking stock of geographic ties", *Journal of Financial and Quantitative Analysis*, Vol. 44 No. 3, pp. 683-718, doi: 10.1017/s0022109009990068.

International Monetary Fund (2008), in *Emerging and Developing Economies List*, *World Economic Outlook*, International Monetary Fund, Washington, DC, available at: www.imf.org/external/pubs/ft/weo/2008/02/pdf/text.pdf (accessed 10 July 2024).

Rashid, A. (2013a), "CEO duality and agency cost: evidence from Bangladesh", *Journal of Management and Governance*, Vol. 17 No. 4, pp. 989-1008, doi: 10.1007/s10997-012-9213-x.

Rashid, A. (2013b), "Corporate governance, executive pay and firm performance: evidence from Bangladesh", *International Journal of Management*, Vol. 30 No. 2, p. 556.

Rashid, A., Shams, S., Bose, S. and Khan, H. (2020), "CEO power and corporate social responsibility (CSR) disclosure: does stakeholder influence matter?", *Managerial Auditing Journal*, Vol. 35 No. 9, pp. 1279-1312, doi: 10.1108/maj-11-2019-2463.

Rouf, D.M.A. (2011), "The role of CEO, board composition and firm performance: an empirical study of listed companies in Bangladesh", *Indian Journal of Commerce and Management Studies*, No. 2, pp. 77-84.

Saeidi, S.P., Sofian, S., Saeidi, P., Saeidi, S.P. and Saaeidi, S.A. (2015), "How does corporate social responsibility contribute to firm financial performance? The moderating role of competitive advantage, reputation, and customer satisfaction", *Journal of Business Research*, Vol. 68 No. 2, pp. 341-350, doi: 10.1016/j.jbusres.2014.06.024.

Saini, D. and Singh, B. (2023), "CEO confidence and firm performance: exploring the moderating role of board independence", *Managerial Finance*, Vol. 49 No. 6, pp. 975-991, doi: 10.1108/mf-07-2022-0354.

Salehi, M., Jamalikazemini, B. and Farhangdoust, S. (2018), "Board compensation and disclosure quality: corporate governance interference", *Contaduría y Administración*, Vol. 63 No. 4, doi: 10.22201/fca.24488410e.2018.1653.

Shen, Y., Wallace, D., Reddy, K. and Ramiah, V. (2022), "An investigation of CEO characteristics on firm performance", *Accounting and Finance*, Vol. 62 No. 3, pp. 3563-3607, doi: 10.1111/acfi.12896.

The Independent (2018), "Bangladesh secures UN 'developing country' status", available at: http://www.theindependentbd.com/post/141852 (accessed 12 April 2024).

Ting, I.W.K., Tebourbi, I., Lu, W.M. and Kweh, Q.L. (2021), "The effects of managerial ability on firm performance and the mediating role of capital structure: evidence from Taiwan", *Financial Innovation*, Vol. 7, pp. 1-23, doi: 10.1186/s40854-021-00320-7.

Whittington, R., Floyd, S.W., Laamanen, T., Mantere, S. and Vaara, E. (2018), "Strategy processes and practices: dialogues and intersections", *Strategic Management Journal*, Vol. 39 No. 3, pp. 531-558, doi: 10.1002/smj.2741.

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