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A Framework of Demographic Influence Mechanisms on CEO Leadership Outcomes: Development and Validation in Emerging Markets

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ABSTRACT

The study on the impact of CEO characteristics has been plagued by theoretical ambiguities that undermine consistent empirical findings. Traditional applications of Upper Echelons Theory often overlook the distinct mechanisms through which executive attributes influence organizational outcomes, treating them as interchangeable predictors. This study introduces and validates the Framework of Influence Mechanisms of CEO Demographic Characteristics, which systematically categorizes traits based on their intrinsic nature and the pathways through which they impact performance. The framework divides CEO traits into three dimensions: (1) Fundamental Characteristics (e.g., gender, age), representing inherent attributes that operate through both direct behavioral effects and indirect strategic decision-making; (2) Cognitive Characteristics (e.g., education), signifying acquired capabilities that primarily influence outcomes indirectly via strategy; and (3) Experiential Characteristics (e.g., tenure), which are context-dependent and often yield contingent or weak effects. This conceptual model is empirically tested using panel data from 280 firms in Indonesia over 10 years. Findings reveal dual direct and indirect impacts for gender and age, a fully mediated effect for education through capital investment decisions, and negligible influence of tenure, reflecting its limited theoretical significance in linear models. The proposed framework resolves key contradictions in CEO effect research, deepens the explanatory power of Upper Echelons Theory, and enhances understanding of leadership dynamics in emerging market contexts.

Keywords: CEO traits, Upper Echelons Theory, strategic mediation, firm performance, emerging markets

INTRODUCTION

What accounts for the evolution of research on the "CEO effect", the measurable impact executives exert on organizational outcomes, and why do theoretical contradictions persist? Originating in the foundational work of Hambrick & Mason (1984), the concept argues that organizations become reflections of their top managers' characteristics, a perspective grounded in bounded rationality principles. The executives, shaped by their cognitive processes, beliefs, and values, were proposed to influence strategic decision-making and organizational outcomes. While this Upper Echelons Theory triggered extensive investigations into leaders' psychological and demographic attributes, the decades of subsequent research remain plagued by inconsistencies. Findings often reveal diverging results: identical CEO traits can lead to positive, negative, or null effects across varying contexts (Ooi & Hooy, 2022). It raises fundamental questions about whether the CEO effect reflects actual causal influence or a statistical artifact (Salvi et al., 2024).

The theoretical ambiguity underlying these contradictions carries significant practical implications. The board of directors faces ambiguity when selecting CEOs, struggling to discern which traits predict performance. Executive search firms operate without a systematic model to evaluate candidates effectively. Investors, relying on leadership quality as a signal for firm performance, encounter conflicting evidence in the literature. The issue becomes even more pronounced in emerging markets, where institutional frameworks are still developing, and CEOs often wield disproportionate influence over a firm's strategic trajectory. These scenarios underscore the need for a more transparent conceptual framework to disentangle the mechanisms through which CEO traits impact organizational outcomes (Banerjee, 2025).

This study contends that the enduring inconsistencies in CEO effect research stem primarily from theoretical shortcomings rather than empirical failures. Traditional approaches in the literature often treat CEO characteristics as interchangeable variables, ignoring the inherent distinctions in how different attributes influence organizations (Oyinlola, 2025). For example, fundamental characteristics such as age are often examined alongside acquired characteristics like education or context-dependent factors such as tenure, without sufficient theoretical differentiation. Such undifferentiated treatment limits the field's ability to synthesize findings and formulate explanatory principles, leaving key questions unresolved: Why do certain traits exhibit recurring direct effects? In contrast, others operate through mediated pathways and yield inconsistent or negligible results (Boubaker et al., 2020).

To address these challenges, this study introduces and empirically validates the Framework of Influence Mechanisms of CEO Demographic Characteristics, offering a systematic classification of traits into three dimensions: fundamental characteristics, cognitive characteristics, and experiential characteristics, each linked to specific influence pathways. This framework shifts the focus from whether CEO traits affect organizational outcomes to understanding how these traits exert influence. By anchoring traits in their essential nature as inherent, acquired, or context-dependent, the study aims to clarify their behavioral and strategic performance channels. This approach imposes theoretical order on a field often characterized by empirical chaos, advancing Upper Echelons Theory and providing actionable insights for leadership selection in both developed and emerging contexts (Amin et al., 2023).

The Indonesian market serves as the empirical setting for the study, covering panel data from 280 firms between 2010 and 2019. As Southeast Asia's largest economy, Indonesia offers a unique environment in which concentrated ownership structures and emerging institutional frameworks heighten the visibility of CEO effects. The country's cultural and economic dynamics further differentiate it from Western markets, allowing us to test the robustness and generalizability of the proposed framework beyond traditionally studied contexts. This investigation clarifies contradictions in CEO effect research and offers practical tools for leadership evaluation, particularly relevant to emerging markets where CEO influence is amplified.

THEORETICAL DEVELOPMENT

Critiquing the Single-Dimensional Frameworks

Upper Echelons Theory from Hambrick & Mason (1984) posits that executive demographics reflect cognitive schemata that influence organizational outcomes. While this seminal idea catalyzed extensive empirical inquiry, its application frequently oversimplifies the relationship between executive traits and performance. Many studies test direct associations between demographic characteristics and firm outcomes without addressing the theoretical distinctions between age, education, and tenure traits. This approach implicitly treats CEO attributes as interchangeable elements within the same conceptual category, neglecting critical differences in nature and function (T. T. C. Nguyen & Nguyen, 2024).

Such methodological neutrality impedes the accumulation of coherent knowledge. Meta-analyses reveal substantial variations in effect sizes for similar traits under different contexts, with some studies reporting significant effects while others document null findings (S. I. Khan, 2024). These variations highlight the limitations of treating executive demographics as equivalent constructs. (Hambrick, 2007), reflecting on the evolution of Upper Echelons Theory, emphasized the importance of opening the “black box” connecting executive attributes with organizational outcomes. While behavioral strategy research has made strides in uncovering the cognitive and psychological mechanisms that underpin demographic proxies, empirical work remains primarily focused on testing direct effects. Mediation models, which clarify how executive traits exert influence, remain underexplored and are treated as peripheral rather than central to theoretical development (Nguyen, 2024). A deeper understanding of influence mechanisms is not a minor refinement but a fundamental advancement in leadership and strategic management theory.

The Three-Dimensional Framework

To tackle this theoretical gap, the study proposes a multidimensional framework that classifies CEO characteristics based on their essential nature and expected influence pathways. This framework delineates three distinct dimensions, each characterized by specific mechanisms through which executive traits shape organizational performance.

Fundamental Characteristics (Gender, Age)

Fundamental characteristics are inherent attributes embedded in an individual's identity, shaping long-established values, cognitive patterns, and worldviews formed during early developmental stages (S. I. Khan, 2024). Traits such as gender and age are permanent and non-acquired, influencing a CEO's behavioral tendencies, leadership style, and interpersonal dynamics (Amin et al., 2023; Mansour et al., 2025). These deep-rooted characteristics are expected to affect firm performance through dual pathways:

1. Direct Effects: Behavioral patterns linked to fundamental characteristics, such as gendered communication styles or age-associated cognitive predispositions, can directly influence leadership effectiveness. These traits impact operational management, employee motivation, and stakeholder engagement (S. I. Khan, 2024).
2. Indirect Effects: Fundamental traits also affect performance indirectly through risk and uncertainty orientations that shape strategic decision-making. For instance, age has been linked to increased conservatism, while gender correlates with differences in risk tolerance, systematically influencing decisions regarding leverage, acquisitions, and other strategic actions (Amin et al., 2023).

Cognitive Characteristics (Education)

Cognitive characteristics represent acquired intellectual abilities, analytical frameworks, and specialized knowledge from formal learning. A CEO's educational background, particularly business-related degrees, exemplifies this dimension. These characteristics derive their value not from possession but from application, as they enable leaders to formulate and execute informed strategic decisions. For example, skills in financial analysis or capital budgeting acquired through education enhance a firm's economic prospects (T. B. N. Nguyen et al., 2025). The study posits that cognitive characteristics exert their influence exclusively through indirect pathways. Their impact materializes via the quality of strategic choices rather than direct behavioral outcomes. Studies that test only direct education-performance effects often report null or inconsistent findings due to omitting the mediating role of strategic decision-making processes (Kallias et al., 2023).

Experiential Characteristics (Tenure)

Experiential characteristics refer to context-dependent knowledge, skills, and relationships accumulated through organizational immersion. CEO tenure represents this dimension, capturing firm-specific expertise, cultural understanding, and internal networks gained over time. However, experiential traits exhibit contingent and potentially non-linear effects, unlike fundamental or cognitive characteristics (James et al., 2025). While early tenure can lead to the accumulation of firm-specific capital beneficial for performance, extended tenure introduces risks such as strategic inertia, cognitive rigidity, and resistance to change. This phenomenon, known as the "liability of tenure," may neutralize positive effects over time. When tenure is measured as a linear variable, aggregating these divergent effects likely produces weak or non-significant findings. the framework anticipates such null results not as measurement failure but as inherent to experiential characteristics' complex and non-linear influence (Bhussar et al., 2025).

Hypotheses

Building on the theoretical distinctions outlined above, the study formulates the following testable propositions:

H1: Fundamental characteristics (gender, age) influence firm performance through direct behavioral and indirect pathways mediated by strategic risk-taking.

H2: Cognitive characteristics (education) influence firm performance exclusively through indirect pathways mediated by strategic decision-making, with no significant direct effects.

H3: Experiential characteristics (tenure), modeled as a linear predictor, demonstrate no significant influence on firm performance or strategic risk-taking due to their contingent and non-linear nature.

This multidimensional framework provides a robust theoretical foundation for understanding the differential mechanisms through which CEO traits affect organizational outcomes, addressing longstanding inconsistencies in the literature and advancing Upper Echelons Theory.

METHODOLOGY

Sample and Data Collection

To empirically test the propositions derived from the theoretical framework, the study utilized a panel dataset comprising 280 non-financial firms listed on the Indonesia Stock Exchange (IDX) from 2010 to 2019. This temporal window was chosen for its relative macroeconomic stability, after the 2008 global financial crisis and before the disruptions caused by the COVID-19 pandemic. This context minimizes the influence of major external shocks, allowing for a more precise examination of leadership effects. Financial firms were excluded from the sample to avoid distortions from their highly regulated environments and distinct capital structures, which could confound the analysis of strategic risk-taking behaviors. The final dataset formed an unbalanced panel with 2,003 firm-year observations, representing a substantial proportion of the Indonesian corporate sector. Data were gathered from multiple reliable public sources to ensure accuracy and consistency. Information on firm performance and strategic risk-taking was extracted from audited annual reports and financial statements on the IDX's official platform (IDX, 2025). CEO demographic data, gender, age, tenure, and education were obtained from top management profiles documented in corporate annual reports and company websites, supplemented and cross-referenced with Bloomberg Executive Profiles for verification (Bloomberg, 2025).

Variable Measurement

Firm Performance: To capture organizational performance comprehensively, the study employed three metrics: (1) Return on Assets (ROA) as a measure of operational efficiency; (2) Return on Equity (ROE) capturing profitability from the shareholders' perspective; and (3) Tobin's Q, calculated using the Chung & Pruitt (1997) approximation, to assess market-based valuation.
CEO Demographics: CEO attributes were operationalized as follows:

- Gender: A binary variable coded 1 for male and 0 for female.
- Age: Measured in years.
- Tenure: Representing the years the individual had served as the firm's CEO.
- Education: A binary variable coded as 1 for business- or economics-related educational backgrounds and 0 for other fields of study.

Strategic Risk-Taking (Mediators): Two dimensions of strategic decision-making that proxy organizational risk-taking were examined:

- Capital Expenditures: Representing investments in physical assets and used as a measure of entrepreneurial or investment-oriented risk.
- Debt Ratio: Defined as total debt divided by total assets, used as a proxy for financial risk-taking.

Control Variables: The study controlled for other factors that could influence outcomes to isolate the effects of CEO characteristics and strategic risk-taking on firm performance. These included:

- Firm Size: Measured via total fixed assets to account for scale effects.
- Industry Effects: Introduced as a set of dummy variables to control for sector-specific differences.
- Market Conditions: Represented by the year-end composite index value and annual returns to adjust for macroeconomic and market influences.

Panel Regression Modeling

The study employed panel data regression modeling to test the proposed hypotheses while accounting for unobserved time-invariant heterogeneity across firms. The study conducted systematic model selection procedures to determine the appropriate specification, including Hausman tests to choose between Fixed Effects (FE) and Random Effects (RE) models (Wooldridge, 2010). The study implemented robust estimation techniques to recognize potential econometric issues such as heteroskedasticity and autocorrelation, which are prevalent in financial panel data. For Fixed Effects models, the study applied Panel-Corrected Standard Errors (PCSE), while for Random Effects models, the study utilized Generalized Least Squares (GLS), ensuring that the parameter estimates remain robust and efficient under prevalent data irregularities (Wooldridge, 2010). To formally evaluate indirect effects, a key focus of this study, Sobel tests were employed to ascertain the statistical significance of mediation mechanisms. This analytical approach enabled rigorous testing of the central propositions of the framework, particularly the pathways through which CEO demographic characteristics influence firm performance via strategic risk-taking (Antonietti & Mondolo, 2023).

RESULTS

Table 1 presents the consolidated empirical results, structured by the distinct dimensions of the proposed framework, enabling a systematic evaluation of the core hypotheses and ensuring a straightforward validation narrative.

Table 1. Comprehensive Regression Models Validating the Framework

Variables	Mediators (Path a)		Performance Outcomes (Direct & Mediated Effects)		
	Capital Expenditures	Debt Ratio	ROA	ROE	Tobin's Q
Fundamental Characteristics	(IDR Billion)				
Gender (1=Male)	-3.40	0.0323*	-0.0104*	-0.0087	-0.0361***
Age	-0.220*	0.00162**	0.00046**	0.00032	0.00018
Cognitive Characteristics					
Education (1=Business)	7.91***	-0.0101	0.0021	0.0018	0.0089
Experiential Characteristics					
Tenure	0.1	-0.00012	-0.00008	-0.00011	-0.00023
Mediators (Path b)					
Capital Expenditures			0.0124***	0.0187***	0.0211***
Debt Ratio			-0.0873**	-0.218***	-0.473***
Controls	Yes	Yes	Yes	Yes	Yes
Observations	2,003	2,003	2,003	2,003	2,003
R-squared	0.871	0.038	0.243	0.187	0.298

*Note: Coefficients are reported. Significance levels: *** $p<0.001$, ** $p<0.01$, * $p<0.05$.*

Validating Dimension 1: Fundamental Characteristics (Gender and Age)

As proposed in the framework, fundamental characteristics exhibit dual pathways of influence, directly and indirectly impacting firm performance. The empirical results strongly support this hypothesis, demonstrating the distinct mechanisms through which gender and age affect organizational outcomes.

Gender

Consistent with the framework, Table 1 highlights significant dual pathways for gender. Male CEOs exhibit a negative and statistically significant direct effect on operational (ROA: $\beta = -0.0104$, $p < 0.05$) and market-based performance (Tobin's Q: $\beta = -0.0361$, $p < 0.001$), implying that female-led firms outperform male-led firms in terms of operational efficiency and market valuation. In addition to these direct effects, gender operates indirectly through strategic risk-taking. Specifically, male CEOs exhibit a significant positive relationship with leverage (Debt Ratio: $\beta = 0.0323$, $p < 0.05$). Higher debt usage is negatively associated with ROE and Tobin's Q within the Indonesian market context, substantiating the predicted indirect pathway. These findings confirm the hypothesized dual mechanisms of gender influence, marking distinct pathways across performance metrics.

Age

CEO age similarly exhibits dual influence channels. Directly, age demonstrates a statistically significant positive effect on ROA ($\beta = 0.00046$, $p < 0.01$), suggesting that accumulated experience enhances operational efficiency. Indirectly, age affects performance outcomes via mediating variables (Capital Expenditures and Debt Ratio). While older CEOs allocate less to capital expenditures ($\beta = -0.220$, $p < 0.05$), they employ higher levels of leverage (Debt Ratio: $\beta = 0.00162$, $p < 0.01$). These nuanced patterns of risk-taking influence mediated performance outcomes, confirming the validity of the dual influence pathway for age.

Validating Dimension 2: Cognitive Characteristics (Education)

The framework posits that cognitive traits, such as education, exert their effects through application rather than intrinsic possession, suggesting that their primary influence operates indirectly. The empirical results strongly corroborate this proposition.

Education

Table 1 indicates that business or economics-related educational backgrounds have no statistically significant direct effects on performance metrics, including ROA, ROE, or Tobin's Q. This aligns with the framework's theoretical claim that the economic value of education is not inherent to credentials but manifests through the strategic application of knowledge. However, education exhibits a robust indirect influence through capital expenditures. CEOs with a business or economics background allocate significantly more to capital investment ($\beta = 7.91$, $p < 0.001$). Such investment positively correlates with improved ROA, ROE, and Tobin's Q. Sobel test results confirm the significance of these indirect effects ($p < 0.001$), affirming that education's value arises through its impact on strategic investment decisions. These results substantiate the framework's emphasis on cognitive characteristics' indirect mechanisms.

Validating Dimension 3: Experiential Characteristics (Tenure)

The framework hypothesizes that experiential characteristics like tenure exhibit context-dependent and potentially non-linear effects. As such, it predicts weak or insignificant results in conventional linear models, reflecting the contingent nature of experiential traits rather than theoretical failures.

Tenure

Consistent with this prediction, Table 1 reports no statistically significant direct effects of tenure on firm performance or mediating variables such as Capital Expenditures or Debt Ratio. These results validate the framework's theoretical insight that tenure's influence is context-sensitive and non-linear, often neutralizing direct effects in aggregated linear analyses. The absence of significant findings for tenure is not a limitation but a necessary outcome of the trait's complex behavioral dynamics, further reinforcing the explanatory power of the multidimensional framework.

Table 2. Summary of Significant Mediation Effects (Sobel Test Results)

Path	Mediator	Outcome	Result (p-value)	Framework Prediction
Age → Performance	Capital Expenditures	ROA, ROE, Tobin's Q	Significant ($p<0.05$)	Dual Pathway Confirmed
Education → Performance	Capital Expenditures	ROA, ROE, Tobin's Q	Significant ($p<0.001$)	Indirect Pathway Confirmed
Gender → Performance	Debt Ratio	ROE, Tobin's Q	Significant ($p<0.05$)	Dual Pathway Confirmed
Age → Performance	Debt Ratio	ROA, ROE, Tobin's Q	Significant ($p<0.01$)	Dual Pathway Confirmed

Note: Summarizes the results of the Sobel tests for the significance of the indirect effects.

DISCUSSION

Theoretical Contributions to Leadership and Strategic Management

The empirical validation of the proposed multidimensional framework represents a significant theoretical advance in understanding the influence of CEO characteristics on organizational outcomes. Previous studies rooted in Upper Echelons Theory have often approached demographic traits monolithically, treating executive attributes as interchangeable and measuring their relationships with performance outcomes without considering the mechanisms mediating these effects. This approach has led to fragmented and contradictory findings in the literature, with no unified theoretical lens to explain why certain traits produce inconsistent results across contexts. The framework presented in this study overcomes these limitations by integrating dimensions of executive characteristics, fundamental, cognitive, and experiential, and articulating distinct pathways through which these traits impact performance (Khan et al., 2025).

Rather than asserting generic claims that demographics matter, the framework provides precise theoretical propositions that differentiate how and why particular characteristics exert influence. Specifically, it categorizes traits based on their essential nature and predicts whether their effects are direct, indirect, or contingent. This multidimensional lens introduces theoretical nuance into the study of leadership and offers a much-needed mechanism-based explanation for patterns observed in empirical research (Ooi & Hooy, 2022; Wai & Rindermann, 2015). Moreover, it reconciles many of the "puzzles" that have long plagued the literature, including the ambiguous effects of age, the inconsistent role of education, and the perplexing results surrounding tenure.

Addressing Empirical Inconsistencies in the Literature

Fundamental Characteristics

A persistent debate in the study of CEO age involves its purported dual influence on organizational outcomes and the positive effects associated with experience, wisdom, and accumulated judgment. Conversely, the adverse effects are often linked to conservatism, risk aversion, and cognitive rigidity. Prior research has generated conflicting interpretations, with some studies emphasizing older leaders' operational efficiency while others highlight their tendency to avoid risk and hinder innovative decisions (Amin et al., 2023). the empirical findings resolve these contradictions by employing the dual-pathway framework that explicitly accounts for direct and mediated effects. CEO age directly affects operational performance, as measured by Return on Assets (ROA). It likely reflects the accumulation of knowledge, decision-making expertise, and leadership skills developed over a prolonged career, enhancing asset management efficiency and operational execution (Banerjee, 2025). However, the study also identifies significant indirect effects where older CEOs display distinct risk-oriented behaviors, including reduced capital expenditures and increased financial leverage. These mediated effects reflect age-associated conservatism and shorter career horizons, which incline older leaders toward risk avoidance in entrepreneurial investment and risk tolerance in financial decision-making (Guo et al., 2025).

The overall impact of age becomes context-dependent, varying with the relative strength of direct and indirect influences based on organizational goals and external market conditions. For example, firms operating in highly uncertain environments or requiring significant innovation may encounter constraints from the conservatism of older CEOs (Banerjee, 2025). In contrast, firms requiring operational stability and efficient resource management may find age-associated traits advantageous. By capturing these nuanced mechanisms, the framework moves beyond the simplistic debate over whether age is "good" or "bad" for organizational outcomes. It provides a sophisticated explanation of its contingent effects.

Cognitive Characteristics

Education has long been considered a key trait in predicting executive effectiveness, with theories suggesting that formal training equips leaders with critical skills to make informed strategic decisions. However, empirical studies have repeatedly failed to detect significant direct relationships between CEO education and firm performance metrics such as ROA, ROE, or Tobin's Q. The results from this study reveal that while education itself, a business or economics background, for example, does not generate direct performance effects, its value emerges through the application of acquired competencies in strategic decision-making processes (Nguyen et al., 2025). Specifically, CEOs with business-related education exhibit significantly greater capital expenditures, demonstrating their ability to identify and execute growth-oriented investments. These investments, in turn, positively influence performance outcomes across operational, financial, and market-based measures. Sobel tests confirm the robust significance of the mediated pathways, emphasizing that education's impact is fully transmitted via strategic risk-taking rather than direct behavioral patterns or inherent traits (Boubaker et al., 2020).

This finding challenges the reductionist approach common in earlier studies that treated educational credentials as isolated identifiers of executive capability. By contrasting direct and indirect effects and emphasizing application over possession, the framework offers a deeper understanding of the mechanisms that transform education into meaningful economic value (Kallias et al., 2023). Furthermore, this insight has practical implications, indicating that firms should prioritize leaders who can effectively translate their technical knowledge into organizational strategies, rather than merely relying on degree-based qualifications as performance predictors.

Experiential Characteristics

CEO tenure has proven to be one of the most perplexing variables in leadership studies, with decades of research producing mixed and inconclusive findings regarding its relationship with firm performance. While early tenure is often associated with firm-specific knowledge acquisition and strengthening internal networks, extended tenure introduces risks such as strategic inertia, cognitive rigidity, and resistance to change. These contrasting dynamics have resulted in frequent null findings, particularly when tenure is modeled as a linear predictor (Bhussar et al., 2025). The framework provides a theoretical justification for this phenomenon. The results from this study demonstrate that tenure produces no statistically significant direct or mediated effects on performance across

ROA, ROE, or Tobin's Q, nor does it significantly influence risk-taking behaviors, such as capital expenditures or debt ratio. Far from being anomalous, these null results are predictable outcomes of tenure's highly contingent and non-linear nature. Early career contributions like developing firm-specific expertise and stakeholder trust may be neutralized or outweighed by the negative consequences of prolonged tenure, including a reluctance to innovate or adapt to environmental changes (James et al., 2025).

This theoretical perspective introduces a valuable corrective to previous studies that have struggled to interpret tenure's weak or inconsistent results. Researchers should avoid employing linear modeling techniques when studying experiential characteristics, opting for approaches that account for non-linearities and context-specific dynamics (Zhou et al., 2020). Firms, similarly, should consider tenure's dual effects, balancing the advantages of stability and knowledge gains against the liabilities of inertia and rigidity, when evaluating long-serving executives (Chen & Fan, 2025).

CONCLUSION

The persistent inconsistencies in CEO effect research, the study argues, stem from a critical theoretical oversight: the failure to systematically differentiate between leadership traits based on their fundamental nature and pathways of influence. This paper introduces the Framework of Influence Mechanisms of CEO Demographic Characteristics to resolve this issue. By categorizing CEO traits into fundamental, cognitive, and experiential dimensions and predicting their distinct influence pathways, the framework provides a more nuanced and structured approach to understanding executive influence. The empirical findings from the Indonesian market strongly support the framework's propositions, illustrating the predictability and verifiability of these theorized mechanisms (Amin et al., 2023). The framework advances upper echelons theory by adding a previously absent theoretical sophistication layer. It challenges critiques, such as those posed by Banerjee (2025) and Bhussar et al. (2025) which have argued that CEO effects are minimal or indistinguishable from chance. By uncovering complex, multi-layered mechanisms that go beyond simplistic direct-effect analyses, the framework demonstrates the substantive role of CEOs in shaping firm performance. This work highlights the importance of direct effects and sheds light on the often-overlooked mediated effects, reinforcing the significant yet nuanced contributions of executive characteristics to organizational outcomes.

The framework offers valuable guidance on leadership evaluation for practitioners, including corporate boards and investors. It underscores the importance of aligning CEOs' specific strengths, whether fundamental, cognitive, or experiential, with firms' unique strategic needs. CEOs are not interchangeable entities; their individual characteristics influence firms differently depending on organizational contexts and strategic priorities. By adopting this nuanced perspective, decision-makers can better tailor leadership selection and development processes to meet the demands of dynamic and heterogeneous business environments (Guo et al., 2025). From an academic perspective, this research advocates for moving beyond monolithic and reductionist approaches to studying executive influence. To achieve cumulative progress and establish coherent knowledge in this domain, future scholarship must recognize the multidimensional nature of executive traits and incorporate mechanisms that specify, a priori, how and why different characteristics produce distinct organizational outcomes (Banerjee, 2025). This approach requires explicitly theorizing the pathways of influence for each trait, thus moving beyond ad hoc empirical explorations toward more robust and predictive theoretical models. It is also important to note that this study represents only the beginning of a broader research agenda. While this paper introduces and validates the Framework of Influence Mechanisms in the Indonesian context, future work could test its applicability in other cultural and institutional settings. Moreover, the mediating mechanisms pinpointed in this study warrant deeper exploration and contextual analysis. In short, the study paves the way for a more structured and multidimensional understanding of CEO effects, providing fertile ground for future academic inquiry and practical application.

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