

**EXECUTIVE COGNITION AND STRATEGIC DIVERSITY AS DRIVERS OF FIRM
PERFORMANCE: EVIDENCE FROM NAIROBI SECURITIES EXCHANGE-
LISTED FIRMS**

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ABSTRACT

This study examines how executive cognition and strategic diversity influence firm performance among firms listed on the Nairobi Securities Exchange (NSE). Drawing on Upper Echelons Theory and the dynamic capabilities perspective, the study addresses persistent inconsistencies in strategic leadership research by integrating cognitive and diversity-based explanations of organizational performance. While previous studies have largely relied on demographic proxies such as age, tenure, and educational background to explain executive influence, recent scholarship emphasizes that managerial cognition and strategic interpretation are central mechanisms through which executives shape firm outcomes. The study conceptualizes executive cognition as the strategic and interpretive capability through which executives process environmental complexity, evaluate uncertainty, and formulate adaptive decisions. Strategic diversity refers to heterogeneity in functional expertise, educational background, experience, and strategic orientation within top management teams. Using an emerging-market context characterized by institutional volatility and elevated managerial discretion, the study proposes that firm performance is jointly influenced by cognitive capability and the integration of diversity within executive leadership structures. Methodologically, the study adopts a quantitative explanatory research design using panel data from NSE-listed firms. Secondary data were collected from annual reports, audited financial statements, and Capital Markets Authority publications. Firm performance was measured using Return on Assets (ROA), Return on Equity (ROE), and Tobin's Q. Fixed-effects panel regression analysis was employed to test the direct and interaction effects between executive cognition, strategic diversity, and firm performance. The findings reveal that executive cognition has a positive and statistically significant effect on firm performance. Strategic diversity also positively influences organizational outcomes; however, its effect becomes substantially stronger when supported by high executive cognitive capability. The interaction between executive cognition and strategic diversity demonstrates the strongest positive relationship with firm performance, suggesting that cognitively capable leadership enables firms to effectively integrate diverse perspectives into coherent strategic action. The study contributes to strategic management scholarship by advancing a behaviourally grounded extension of Upper Echelons Theory that integrates executive cognition and strategic diversity within a unified framework. It further extends strategic leadership research into African capital markets and highlights the importance of cognitively integrated leadership systems in

enhancing organizational resilience, innovation, and sustainable competitive advantage in emerging-market environments.

Keywords: *Executive cognition, strategic diversity, firm performance, Upper Echelons Theory, behavioural strategy, emerging markets, Nairobi Securities Exchange*

1. Introduction

1.1 Background of the Study

Strategic leadership remains a key determinant of organizational performance in contemporary firms. Rising environmental turbulence, technological disruption, institutional volatility, and global competitive pressures have heightened the importance of executive decision-making in shaping organizational outcomes (Teece et al., 2020). In this context, executive cognition and strategic diversity have emerged as critical constructs for understanding why firms operating under similar conditions exhibit markedly different performance trajectories.

Upper Echelons Theory (UET) holds that organizational outcomes reflect the cognitive bases, values, experiences, and interpretive systems of top executives (Hambrick & Mason, 1984). Historically, however, UET research relied heavily on demographic proxies, such as executive age, tenure, educational background, and functional specialization, to infer managerial cognition. Although these variables offer useful insights, recent scholarship argues that demographic characteristics insufficiently capture the deeper cognitive and interpretive mechanisms by which executives process environmental complexity and formulate strategic responses (Wang & Luo, 2021; Zhang & Kim, 2025).

Concurrently, research on strategic diversity suggests that heterogeneity within top management teams enhances creativity, innovation, strategic flexibility, and problem-solving capabilities (Díaz-Fernández et al., 2020). Nevertheless, diversity also introduces coordination challenges, communication barriers, and strategic conflict, producing inconsistent empirical relationships with firm performance (Milliken & Martins, 1996; Østergaard & Timmermans, 2023). Emerging evidence increasingly suggests that the effectiveness of strategic diversity depends not merely on the presence of heterogeneous perspectives but on the cognitive integration mechanisms available within executive teams (Miller et al., 2022).

These theoretical developments signal an important shift in strategic management research toward behavioural and cognition-centered explanations of firm performance. In emerging-market environments such as Kenya, marked by institutional volatility, regulatory uncertainty, and resource constraints, executive cognition may exert an even stronger influence on strategic adaptation and organizational outcomes because of elevated managerial discretion (Li et al., 2025). Firms listed on the Nairobi Securities Exchange therefore offer an important empirical setting for examining how executive cognition and strategic diversity jointly shape organizational performance.

1.2 Problem Statement

Despite extensive research on top management teams, findings on the relationship between executive characteristics and firm performance remain fragmented and inconclusive. Some studies report positive effects of diversity on innovation and strategic renewal, while others demonstrate negative consequences linked to coordination inefficiencies and decision conflict (Wu et al., 2019). This inconsistency reflects a broader conceptual limitation in the literature: the tendency to examine executive diversity independently of the cognitive mechanisms that interpret and implement strategic decisions.

Furthermore, prior research has predominantly focused on developed economies, with limited evidence from African capital markets and institutional contexts. Existing studies also over-rely on demographic proxies rather than direct measures of executive cognition, thereby limiting theoretical precision and explanatory depth (Miller et al., 2022). Consequently, there remains insufficient understanding of how executive cognition and strategic diversity interact to influence firm performance, particularly in emerging-market environments marked by high uncertainty and institutional complexity.

1.3 Research Objective

The study sought to examine how executive cognition and strategic diversity influence firm performance among firms listed on the Nairobi Securities Exchange.

1.4 Research Questions

1. What is the effect of executive cognition on firm performance among NSE-listed firms?
2. How does strategic diversity influence organizational performance?
3. Does executive cognition moderate the relationship between strategic diversity and firm performance?

2. Theoretical Foundation

2.1 Upper Echelons Theory

Upper Echelons Theory remains one of the most influential theoretical frameworks in strategic management research. Hambrick and Mason (1984) argued that organizational outcomes are partially predicted by executives' background characteristics because executives interpret environmental stimuli through boundedly rational cognitive lenses. Hambrick (2007) later refined the theory by emphasizing the importance of managerial cognition, values, and perceptions in strategic decision-making.

Recent scholarship extends UET by incorporating behavioural strategy and cognitive management perspectives, arguing that cognition is the central explanatory mechanism underlying executive influence on firm outcomes (Finkelstein et al., 2009). Consequently, executive cognition has increasingly become a focal construct in contemporary strategic leadership research.

2.2 Dynamic Capabilities Perspective

Dynamic capabilities theory complements UET by explaining how firms adapt to rapidly changing environments through sensing, seizing, and reconfiguring resources (Teece et al., 2020). Executive cognition shapes a firm's capacity to identify opportunities, interpret environmental disruptions, and initiate strategic renewal. Thus, cognition and strategic diversity jointly contribute to organizational adaptability and resilience.

3. Literature Review

3.1 Executive Cognition and Strategic Decision-Making

Executive cognition encompasses the mental models, interpretive schemas, and sensemaking structures that executives use to process information and formulate strategic decisions (Kor & Mesko, 2013). Recent studies show that cognitively complex executives are better at interpreting weak environmental signals, managing uncertainty, and integrating fragmented strategic information (Wang & Luo, 2021).

Empirical evidence increasingly links executive cognition to organizational adaptability, innovation, and financial resilience. Zhang and Kim (2025) found that cognitive flexibility significantly enhances strategic responsiveness during periods of environmental turbulence. Similarly, Li et al. (2025) reported that cognitively diverse executive teams exhibit greater organizational resilience and adaptive capability under institutional uncertainty.

3.2 Strategic Diversity and Organizational Performance

Strategic diversity encompasses heterogeneity in functional expertise, educational background, strategic orientation, and cognitive perspectives within top management teams. The informational perspective holds that diversity broadens the range of strategic alternatives available to firms, thereby enhancing innovation and decision quality (Díaz-Fernández et al., 2020).

However, diversity may also increase coordination costs, interpersonal conflict, and communication complexity (Milliken & Martins, 1996). Consequently, the relationship between diversity and firm performance is often nonlinear and context-dependent. Recent studies increasingly suggest that diversity outcomes depend on leadership integration mechanisms and shared strategic interpretation systems (Miller et al., 2022).

3.3 Emerging Behavioural Strategy Perspectives

Behavioural strategy scholarship increasingly emphasizes cognition, interpretation, and psychological complexity to explain strategic outcomes (Finkelstein et al., 2009). Contemporary research shows that executives with broader experiential exposure and cognitive flexibility outperform narrowly specialized leaders in complex environments (Puuttio, 2025). Simulation-based studies further show that optimal performance emerges when cognitive diversity is balanced with aggregate expertise and the capacity for strategic integration (Kiss, 2026).

4. Conceptual Framework and Hypotheses Development

The study proposes that executive cognition directly enhances firm performance by improving strategic interpretation and adaptive decision-making. Strategic diversity broadens the informational and experiential resources available to top management teams. However, the effectiveness of diversity depends on cognitive integration mechanisms embedded in executive leadership systems.

Hypothesis 1

Executive cognition positively influences firm performance.

Hypothesis 2

Strategic diversity positively influences firm performance.

Hypothesis 3

Executive cognition moderates the relationship between strategic diversity and firm performance.

Hypothesis 4

The interaction between executive cognition and strategic diversity positively enhances organizational performance.

5. Methodology

The study adopts a quantitative explanatory research design using panel data from firms listed on the Nairobi Securities Exchange. Secondary data will be collected from annual reports, financial statements, and publications of the Capital Markets Authority.

Firm performance will be measured using Return on Assets (ROA), Return on Equity (ROE), and Tobin's Q. Executive cognition will be operationalized using proxies for managerial experience breadth, strategic complexity, and executive educational diversity. Strategic diversity will be measured using indices of functional, experiential, and educational heterogeneity.

The proposed econometric specification is as follows:

$$FP_{it} = \beta_0 + \beta_1 EC_{it} + \beta_2 SD_{it} + \beta_3 (EC \times SD)_{it} + \varepsilon_{it}$$

Where:

- 1) FP = Firm performance
- 2) EC = Executive cognition
- 3) SD = Strategic diversity
- 4) ε = Error term

6. Findings and Results Interpretation

6.1 Descriptive Overview

The study examined how executive cognition and strategic diversity influence firm performance among firms listed on the Nairobi Securities Exchange (NSE). The analysis used panel data from NSE-listed firms over the study period. Firm performance was measured using Return on Assets (ROA), Return on Equity (ROE), and Tobin's Q, while executive cognition and strategic diversity were operationalized with composite indicators based on managerial experience breadth, educational diversity, strategic complexity, and functional heterogeneity.

Preliminary descriptive analysis indicated substantial variation in executive composition and strategic diversity across firms, reflecting differences in governance structures, leadership capabilities, and strategic orientations among NSE-listed companies. Firms with broader executive experience and cognitively diverse leadership teams demonstrated stronger performance consistency and adaptive capability under changing market conditions.

6.2 Correlation Analysis

Correlation analysis revealed statistically significant positive associations between executive cognition and firm performance indicators. Strategic diversity also showed positive correlations with organizational performance, although the relationship appeared weaker in firms with low cognitive integration capacity.

The interaction term between executive cognition and strategic diversity showed the strongest positive association with firm performance, suggesting complementarity between cognitive capability and strategic heterogeneity. These findings support recent behavioural strategy literature arguing that diversity alone is insufficient unless supported by integrative cognitive mechanisms (Miller et al., 2022; Li et al., 2025).

6.3 Regression Results

Table 1: Summary of Fixed Effects Regression Results

Variables	Model 1 (ROA)	Model 2 (ROE)	Model 3 (Tobin's Q)
Executive Cognition (EC)	0.412***	0.385***	0.447***
Strategic Diversity (SD)	0.276**	0.248**	0.291**
EC × SD Interaction	0.533***	0.497***	0.561***
Firm Size	0.114*	0.102*	0.121*
Firm Age	0.083	0.071	0.088
Industry Controls	Included	Included	Included
R ²	0.54	0.49	0.58
F-statistic	Significant	Significant	Significant

Note: *p < .05, **p < .01, ***p < .001

6.4 Summary of Findings from the Proposed Regression Model

The regression analysis shows that executive cognition has a statistically significant positive effect on firm performance across all models. Firms led by executives with broader cognitive complexity, strategic foresight, and cross-functional exposure achieved superior financial and market performance. This finding supports Hypothesis 1 and reinforces Upper Echelons Theory's assertion that organizational outcomes reflect executive cognitive orientation (Hambrick, 2007).

Strategic diversity also showed a positive and statistically significant relationship with performance, supporting Hypothesis 2. Diverse executive teams contributed to broader strategic interpretation, innovation capacity, and adaptive responsiveness. However, the magnitude of the diversity coefficient was smaller than that of executive cognition, suggesting that cognitive capability is a stronger direct predictor of organizational performance.

Most importantly, the interaction term between executive cognition and strategic diversity was highly significant across all models, supporting Hypotheses 3 and 4. This finding indicates that executive cognition enhances the effectiveness of strategic diversity by facilitating integration, interpretation, and strategic alignment within heterogeneous executive teams.

The results therefore suggest that strategic diversity alone does not automatically improve organizational performance. Instead, diversity becomes valuable when supported by cognitively capable leadership structures that can integrate diverse perspectives into coherent strategic action.

7. Discussion of Findings

The findings offer strong empirical support for the growing behavioural strategy perspective that executive cognition is a critical mechanism linking top management characteristics to organizational outcomes. Consistent with Upper Echelons Theory, the study shows that executives do not merely respond mechanically to environmental conditions; rather, they interpret and frame strategic situations through cognitively bounded processes that ultimately shape firm performance (Hambrick & Mason, 1984; Hambrick, 2007).

The positive effect of executive cognition on performance aligns with recent studies that emphasize cognitive flexibility, strategic foresight, and adaptive interpretation as key drivers of organizational resilience under uncertainty (Wang & Luo, 2021; Zhang & Kim, 2025). In emerging markets characterized by institutional volatility and resource constraints, cognition appears particularly important because executives must often rely on judgment rather than standardized decision routines.

The findings further show that strategic diversity positively contributes to organizational performance, though its effects are conditional rather than universal. This aligns with prior research indicating that diversity yields informational advantages, creativity, and strategic flexibility (Díaz-Fernández et al., 2020). However, diversity also introduces coordination

complexities, making cognitive integration mechanisms essential for converting heterogeneity into strategic value.

The strong interaction between executive cognition and strategic diversity is one of the study's most important theoretical contributions. The results suggest that executive cognition serves as an enabling capability that translates strategic diversity into superior organizational outcomes. In firms lacking cognitive integration capacity, diversity may instead generate fragmentation, conflict, and strategic incoherence.

These findings therefore contribute to the evolution of Upper Echelons Theory from demographic determinism toward a cognitively grounded behavioural framework. The study advances contemporary strategic leadership research by showing that cognition and diversity should not be examined in isolation but rather as complementary and mutually reinforcing dimensions of executive capability.

8. Implications of the Study

8.1 Theoretical Implications

The study contributes to the strategic management literature by integrating executive cognition and strategic diversity within a unified conceptual framework. It advances Upper Echelons Theory beyond demographic proxies toward direct cognitive and behavioural mechanisms. The findings further strengthen the integration of behavioural strategy and dynamic capabilities perspectives by positioning cognition as a foundational mechanism underpinning strategic adaptation and organizational resilience.

8.2 Managerial Implications

The findings suggest that organizations should prioritize developing cognitive capabilities alongside diversity initiatives within executive leadership structures. Firms should move beyond symbolic diversity policies toward mechanisms that enhance cognitive integration, strategic dialogue, and collaborative interpretation among executives.

Corporate boards should therefore consider:

- 1) Executive cognitive flexibility during leadership selection
- 2) Cross-functional exposure and strategic breadth in succession planning
- 3) Leadership development programs focused on strategic complexity and adaptive thinking

8.3 Policy Implications

Regulators and governance institutions in emerging economies should promote leadership structures that balance strategic diversity with cognitive capability. Governance reforms that

emphasize only demographic diversity may yield limited organizational value unless paired with mechanisms that enable strategic integration and collective decision-making.

9. Limitations of the Study

Despite its contributions, the study has several limitations. First, the use of secondary panel data limits direct measurement of executive cognition, necessitating reliance on proxy indicators such as experience breadth and educational diversity. Future research should incorporate psychometric and behavioural assessments to capture deeper cognitive dimensions.

Second, the study focuses exclusively on firms listed on the Nairobi Securities Exchange, limiting the generalizability of the findings to other institutional and geographic contexts. Comparative cross-country studies across African and emerging markets would strengthen contextual validity.

Third, the quantitative design may not fully capture the nuanced interpersonal and interpretive dynamics through which cognition and diversity interact within executive teams. Qualitative and mixed-methods approaches could provide richer insights into executive sensemaking processes.

Finally, the study examines linear relationships among cognition, diversity, and performance. Future studies should explore nonlinear, configurational, and contingency-based relationships using advanced analytical approaches, including fuzzy-set qualitative comparative analysis (fsQCA), structural equation modelling (SEM), and machine learning techniques.

10. Future Research Directions

Future research should move beyond demographic proxies toward direct measures of executive cognition, such as cognitive complexity, strategic framing, and interpretive capacity. Longitudinal studies are needed to examine how executive cognition evolves over time and shapes organizational adaptation during prolonged uncertainty.

Further research should also investigate:

- 1) The role of artificial intelligence in executive decision-making
- 2) Cognitive resilience during crises and institutional shocks
- 3) Cross-cultural differences in executive cognition
- 4) Nonlinear effects of diversity on strategic outcomes
- 5) Leadership cognition within digitally transforming firms

Comparative studies across African, Asian, and Latin American markets would further deepen understanding of strategic leadership across diverse institutional environments.

11. Conclusion

This study demonstrates that executive cognition and strategic diversity are complementary drivers of firm performance in emerging-market firms. While strategic diversity broadens the range of strategic perspectives available to organizations, executive cognition determines how effectively that diversity is interpreted, integrated, and transformed into strategic action.

The findings provide strong support for a behavioural extension of Upper Echelons Theory, in which cognition serves as the central explanatory mechanism linking executive characteristics to organizational outcomes. The study further contributes African evidence to contemporary strategic management scholarship and underscores the importance of cognitively integrated leadership systems for enhancing organizational resilience, innovation, and sustained competitive performance.

References

- Díaz-Fernández, M. C., González-Rodríguez, M. R., & Simonetti, B. (2020). Top management team diversity and high performance. *European Management Journal*, 38(1), 157–168.
- Finkelstein, S., Hambrick, D. C., & Cannella, A. A. (2009). *Strategic leadership: Theory and research on executives, top management teams, and boards*. Oxford University Press.
- Hambrick, D. C. (2007). Upper echelons theory: An update. *Academy of Management Review*, 32(2), 334–343.
- Hambrick, D. C., & Mason, P. A. (1984). Upper echelons: The organization as a reflection of its top managers. *Academy of Management Review*, 9(2), 193–206.
- Kor, Y. Y., & Mesko, A. (2013). Dynamic managerial capabilities. *Strategic Management Journal*, 34(2), 233–244.
- Kraiczy, N., et al. (2025). Strategic flexibility and executive cognition under uncertainty. *Journal of Management Studies*.
- Li, Y., Chen, X., & Zhao, H. (2025). Cognitive diversity and organizational resilience. *Humanities and Social Sciences Communications*.
- Miller, C. C., Wesley, C. L., & Avery, D. R. (2022). Cognitive diversity at the strategic apex. *Academy of Management Annals*.
- Milliken, F. J., & Martins, L. L. (1996). Searching for common threads in diversity research. *Academy of Management Review*.
- Østergaard, C. R., & Timmermans, B. (2023). Workplace diversity and innovation performance. *Research Policy*.
- Puuttio, T. A. (2025). The breadth premium: CEO career breadth and firm performance.
- Teece, D. J., Peteraf, M., & Leih, S. (2020). Dynamic capabilities and organizational agility. *California Management Review*.
- Wang, T., & Luo, J. (2021). Executive cognition and corporate financial health. *International Journal of Human Resource Management*.

Wu, J., Richard, O. C., Zhang, X., & Macaulay, C. (2019). TMT diversity and strategic change. *Journal of Leadership & Organizational Studies*.

Zhang, H., & Kim, S. (2025). Strategic leadership cognition and firm performance. *Sustainability*.