

The Influence of Digital Leadership and Organizational Agility on Firm Performance: Evidence from Indonesian Mid-Sized Companies

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Received: 26/09/2025 | Revised: 16/10/2025 | Accepted: 18/12/2025 | Published: 24/12/2025

Abstract : This study examines the influence of digital leadership and organizational agility on firm performance in Indonesian mid-sized companies. Rapid digital disruption forces firms in emerging economies to strengthen leadership capabilities and adaptive capacity to sustain performance. This research adopts a quantitative approach using survey data collected from managers of mid-sized firms across service and manufacturing sectors in Indonesia. Data are analyzed using structural equation modeling to test direct and indirect relationships among variables. The findings show that digital leadership has a significant positive effect on organizational agility and firm performance. Organizational agility also demonstrates a strong positive impact on firm performance and partially mediates the relationship between digital leadership and performance outcomes. These results confirm dynamic capability theory, which emphasizes leadership and agility as critical mechanisms for navigating digital transformation. The study contributes empirically by clarifying how digital leadership translates into performance advantages through agile organizational processes in the context of developing economies. Practically, the findings suggest that managers should invest in digital-oriented leadership development and agile structures to improve responsiveness, decision speed, and competitive performance. This study provides relevant insights for scholars and practitioners seeking to understand performance drivers in digitally transforming mid-sized firms in Indonesia.

Keywords : *digital leadership, organizational agility, firm performance, dynamic capability, Indonesia.*

How to Cite: Nugroho, B. P., Putri, S. R., & Hafizi, M. Z. (2025). The influence of digital leadership and organizational agility on firm performance: Evidence from Indonesian mid-sized companies. *Journal of Economics and Management*, 3(3), 114–122. <https://doi.org/10.70716/ecoma.v3i3.329>

INTRODUCTION

Digital transformation has become a central strategic agenda for firms operating in dynamic and competitive environments. In emerging economies such as Indonesia, mid-sized companies face increasing pressure to adopt digital technologies while maintaining operational efficiency and market relevance. Rapid changes in customer behavior, intensified competition, and technological disruption require firms to rethink leadership approaches and organizational capabilities to sustain performance (Kumar, 2022; Saputra & Saputra, 2020).



Leadership plays a critical role in guiding organizations through digital transformation. Traditional leadership styles often fail to address the complexity and speed of digital change. Digital leadership emphasizes the ability of leaders to articulate a digital vision, support technology adoption, foster learning, and encourage experimentation (Kumar, 2022). Empirical evidence from Indonesian firms shows that leaders who actively promote digital initiatives can improve decision quality, strategic alignment, and organizational responsiveness (Anggraeni et al., 2023; Podungge & Monoarfa, 2025).

However, digital leadership alone does not automatically translate into superior firm performance. Prior studies suggest that leadership capabilities must be supported by organizational mechanisms that enable rapid adaptation and flexible resource allocation (Fachrunnisa et al., 2020; Stoiko, 2024). Organizational agility has therefore emerged as a key construct in explaining how leadership influences performance in digitally turbulent environments. Organizational agility refers to a firm's ability to sense changes, make timely decisions, and reconfigure processes to respond effectively to environmental shifts (Octavia et al., 2023; Yusup et al., 2025).

In the Indonesian context, organizational agility is particularly relevant for mid-sized companies. These firms often operate with limited resources compared to large corporations, yet they face similar levels of market uncertainty. Studies on Indonesian SMEs and mid-sized firms indicate that agility enhances responsiveness to customer demands and improves coordination across functions during digital transformation (Dewi Rahmayanti & Pratiwi, 2023; Nurniawan & Amalia, 2025). Agile organizations can shorten decision cycles, reduce bureaucratic barriers, and improve performance outcomes.

Firm performance remains a central concern in strategic management research. Performance in mid-sized firms is multidimensional and includes financial results, operational efficiency, and market competitiveness. In digital transformation studies, performance is often assessed through managers' perceptions, as objective financial data are not always publicly available (Heksarini et al., 2024; Syarkani, 2025). Prior research confirms that subjective performance measures are reliable indicators when respondents have sufficient managerial experience.

Several empirical studies have examined the relationship between digital leadership and firm performance. Evidence from Indonesian SMEs suggests that digital-oriented leadership positively affects business performance by improving strategic flexibility and innovation outcomes (Anggraeni et al., 2023; Putra et al., 2025). Similar findings are reported in international studies, which highlight leadership as a critical driver of digital strategy execution and performance improvement (Takyi & Gavurova, 2023; Tjiendradjaja & Murwaningsari, 2023).

Nevertheless, the direct relationship between digital leadership and performance is often inconsistent. Some studies report weak or indirect effects, indicating the presence of mediating variables (Arfah Nasution, 2024; Mendo et al., 2025). Organizational agility has been proposed as one of the most important mediators in this relationship. Agile organizations are better positioned to convert leadership initiatives into actionable strategies and performance gains (Syarkani, 2025).

Empirical evidence supports the mediating role of organizational agility. Research on Indonesian SMEs demonstrates that agility mediates the effect of digitalization and leadership on competitive advantage and performance (Dewi Rahmayanti & Pratiwi, 2023; Octavia et al., 2023). Studies conducted in manufacturing and service sectors also show that agility strengthens the impact of leadership on strategic outcomes, particularly

in environments characterized by rapid technological change (Heksarini et al., 2024; Stoiko, 2024).

Despite growing interest in digital leadership and agility, several research gaps remain. First, most existing studies focus on small enterprises or large corporations, while empirical evidence on mid-sized companies remains limited. Mid-sized firms have unique characteristics that differentiate them from SMEs and large firms, including more formal structures and higher operational complexity, yet lower strategic flexibility compared to large organizations (Stoiko, 2024).

Second, prior studies often examine digital leadership, organizational agility, and performance as separate constructs without integrating them into a unified explanatory model. This limits understanding of the underlying mechanisms through which leadership influences performance. Research that explicitly tests the mediating role of organizational agility remains scarce, particularly in the Indonesian context (Syarkani, 2025).

Third, many studies emphasize digital transformation outcomes without sufficiently addressing leadership behavior and organizational processes. Digital transformation is not solely a technological issue but also a managerial and organizational challenge. Leadership orientation and agility jointly determine whether digital initiatives lead to sustainable performance improvements (Kumar, 2022; Saputra & Saputra, 2020).

This study addresses these gaps by examining the influence of digital leadership on firm performance with organizational agility as a mediating variable in Indonesian mid-sized companies. Drawing on dynamic capability theory, this research argues that digital leadership represents a managerial capability that enables firms to build and deploy organizational agility as a higher-order capability (Fachrunnisa et al., 2020; Kumar, 2022). Organizational agility, in turn, facilitates effective adaptation and performance improvement in digitally uncertain environments.

The Indonesian setting provides a relevant empirical context due to ongoing digitalization initiatives and increasing adoption of digital technologies across industries. Government programs promoting digital transformation have accelerated technology adoption among mid-sized firms, yet performance outcomes vary significantly (Anggraeni et al., 2023; Podungge & Monoarfa, 2025). This variation highlights the importance of leadership and organizational capabilities in explaining performance differences.

This study contributes to the literature in three ways. First, it extends digital leadership research by providing empirical evidence from Indonesian mid-sized companies, a context that remains underexplored. Second, it clarifies the mediating role of organizational agility in the relationship between digital leadership and firm performance. Third, it offers practical insights for managers seeking to improve performance through leadership development and agile organizational design.

Based on these arguments, this study proposes that digital leadership positively influences organizational agility, digital leadership positively affects firm performance, and organizational agility positively affects firm performance while mediating the relationship between digital leadership and firm performance. The findings are expected to enhance theoretical understanding and provide actionable guidance for firms navigating digital transformation in emerging economies.

RESEARCH METHODS

This study adopts a quantitative research design to examine the relationships between digital leadership, organizational agility, and firm performance in Indonesian

mid-sized companies. The quantitative approach is appropriate because it allows systematic testing of hypothesized relationships and supports generalization across firms.

Research Design and Sample

The population of this study consists of mid-sized companies operating in Indonesia. Mid-sized firms are defined as organizations with 50–300 employees and stable operational activities for at least three years. This criterion ensures that respondents have sufficient organizational experience with digital initiatives and performance outcomes. The unit of analysis is the firm, and the respondents are managers or supervisors who are directly involved in strategic decisions and digital transformation processes.

A purposive sampling technique is employed. Firms are selected based on their engagement in digital technology adoption, such as the use of digital platforms, information systems, or data-driven processes. Data are collected through a structured questionnaire distributed both online and offline. A total of 230 questionnaires are distributed, and 198 valid responses are obtained and used for analysis. This sample size meets the minimum requirement for multivariate analysis.

Measurement of Variables

All research variables are measured using multi-item constructs adapted from prior empirical studies to ensure content validity. Responses are recorded using a five-point Likert scale ranging from 1 “strongly disagree” to 5 “strongly agree”.

Digital leadership is measured using indicators that capture the leader’s digital vision, support for digital innovation, encouragement of continuous learning, and use of digital tools in decision making. These indicators are adapted from established digital leadership studies (Saputra & Saputra, 2020; Kumar, 2022).

Organizational agility is measured through indicators reflecting strategic responsiveness, operational flexibility, speed of decision making, and the ability to reconfigure processes in response to environmental change, in line with agility and dynamic capability research (Fachrunnisa et al., 2020; Octavia et al., 2023).

Firm performance is measured using subjective performance indicators, including financial performance, operational efficiency, and market performance relative to competitors. Subjective measures are appropriate because many mid-sized firms do not publicly disclose detailed financial data and have been widely used in prior firm-level studies (Yusup et al., 2025).

Data Analysis Technique

The data are analyzed using Structural Equation Modeling with the Partial Least Squares approach. PLS-SEM is selected because it is suitable for predictive research, complex models, and moderate sample sizes, particularly in organizational and digital transformation research (Hair et al., 2022).

The analysis is conducted in two stages. The first stage evaluates the measurement model by assessing indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. The second stage evaluates the structural model by examining path coefficients, coefficients of determination, and effect sizes. Bootstrapping with 5,000 resamples is applied to test the significance of the hypothesized relationships.

Hypothesis Testing

This study tests three main hypotheses. First, digital leadership has a positive effect on organizational agility. Second, digital leadership has a positive effect on firm

performance. Third, organizational agility has a positive effect on firm performance and mediates the relationship between digital leadership and firm performance.

Ethical Considerations

Participation in this study is voluntary. Respondents are informed about the research purpose and assured of confidentiality and anonymity. All data are used solely for academic research purposes.

This methodological approach provides a rigorous basis for examining how digital leadership and organizational agility influence firm performance in Indonesian mid-sized companies.

RESULTS AND DISCUSSION

Descriptive Statistics

The descriptive analysis provides an overview of respondents' perceptions regarding digital leadership, organizational agility, and firm performance. The results indicate that respondents generally perceive digital leadership practices and agility levels in their organizations as moderate to high. This suggests that most mid-sized firms in Indonesia have begun to integrate digital leadership behaviors and adaptive practices, although implementation depth varies.

Table 1. Descriptive Statistics of Research Variables

Variable	Mean	Standard Deviation
Digital Leadership	3.87	0.62
Organizational Agility	3.91	0.58
Firm Performance	3.85	0.64

The mean values above the midpoint indicate positive perceptions across all constructs. Organizational agility shows the highest mean score, reflecting the importance of adaptive responses in mid-sized firms operating in dynamic digital environments.

Measurement Model Evaluation

The measurement model assessment confirms that all constructs meet validity and reliability requirements. Indicator loadings exceed the minimum threshold of 0.70, indicating strong item reliability. Composite reliability and Cronbach's alpha values are above 0.70, confirming internal consistency. Average Variance Extracted values exceed 0.50, demonstrating adequate convergent validity.

Table 2. Reliability and Convergent Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
Digital Leadership	0.88	0.91	0.67
Organizational Agility	0.90	0.92	0.69
Firm Performance	0.87	0.90	0.65

Discriminant validity is also established, as the square root of AVE for each construct is greater than its correlations with other constructs. These results confirm that the measurement model is statistically sound and suitable for structural analysis.

Structural Model Results

The structural model evaluation focuses on testing the hypothesized relationships. Path coefficients, t-statistics, and p-values are obtained through bootstrapping procedures.

Table 3. Hypothesis Testing Results

Hypothesis	Relationship	Path Coefficient	t-value	p-value	Result
H1	Digital Leadership → Organizational Agility	0.61	9.42	0.000	Supported
H2	Digital Leadership → Firm Performance	0.29	3.87	0.000	Supported
H3	Organizational Agility → Firm Performance	0.48	6.75	0.000	Supported

The coefficient of determination shows that digital leadership explains 37 percent of the variance in organizational agility. Digital leadership and organizational agility jointly explain 54 percent of the variance in firm performance. These values indicate moderate to strong explanatory power.

Mediation Analysis

To examine the mediating role of organizational agility, this study tests indirect effects using a bootstrapping approach. The results indicate that organizational agility partially mediates the relationship between digital leadership and firm performance. This finding suggests that digital leadership enhances firm performance both directly and indirectly by strengthening organizational agility. Agile organizations respond faster to environmental changes, adapt digital initiatives more effectively, and translate leadership capabilities into improved operational and strategic outcomes.

Table 4. Mediation Effect of Organizational Agility

Relationship	Indirect Effect	t-value	p-value	Mediation Type
Digital Leadership → Organizational Agility → Firm Performance	0.29	5.98	0.000	Partial

The direct effect of digital leadership on firm performance remains significant after including organizational agility. This confirms partial mediation. Digital leadership improves performance both directly and indirectly by strengthening organizational agility.

Discussion

The findings demonstrate that digital leadership plays a critical role in shaping organizational agility in Indonesian mid-sized companies. Leaders who articulate a clear digital vision, encourage learning, and support technology use enable faster decision making and flexible responses. This result aligns with dynamic capability theory, which emphasizes managerial capabilities in sensing and responding to environmental change.

The positive effect of digital leadership on firm performance confirms prior studies that highlight leadership as a key driver of digital transformation outcomes. However, the effect size is smaller compared to organizational agility. This suggests that leadership alone is insufficient without agile organizational mechanisms.

Organizational agility shows a strong positive influence on firm performance. Agile firms adapt processes, reallocate resources, and respond to market changes more effectively. For mid-sized firms with limited slack resources, agility becomes a decisive factor for sustaining performance in digital environments.

The mediation analysis provides important insights. Organizational agility acts as a mechanism through which digital leadership translates into performance gains. This finding explains why some firms fail to achieve performance improvement despite strong

leadership. Without agile structures and routines, leadership initiatives may not materialize into operational outcomes.

These results enrich the empirical literature by offering firm-level evidence from an emerging economy context. They also confirm that digital leadership and organizational agility function as complementary capabilities rather than independent drivers. For Indonesian mid-sized companies, investing in leadership development without organizational redesign may limit performance benefits.

Overall, the findings underscore the strategic importance of aligning digital leadership behaviors with agile organizational practices to enhance firm performance in dynamic digital markets.

CONCLUSION

This study examines the influence of digital leadership and organizational agility on firm performance in Indonesian mid-sized companies. The findings confirm that digital leadership has a positive effect on organizational agility and firm performance. Leaders who promote a clear digital vision, support learning, and encourage technology use strengthen the organization's ability to adapt. Organizational agility also shows a strong positive impact on firm performance. Agile firms respond faster to environmental change and align resources more effectively.

The results further demonstrate that organizational agility partially mediates the relationship between digital leadership and firm performance. This indicates that leadership initiatives translate into performance gains when supported by agile structures and processes. Digital leadership alone does not guarantee superior performance. Firms must embed agility into decision making, coordination, and operational routines.

These findings support dynamic capability theory by highlighting leadership and agility as key mechanisms for managing digital transformation. In the context of Indonesian mid-sized companies, agility functions as a critical pathway through which leadership capabilities create value. This study extends prior research by providing firm-level empirical evidence from an emerging economy setting.

The study offers important managerial implications. Managers should focus on developing digital leadership competencies that emphasize adaptability, collaboration, and data-driven decisions. Firms should redesign organizational structures to reduce rigidity and improve response speed. Training programs should integrate leadership development with agile work practices. Policymakers can use these insights to design targeted support programs that enhance leadership and agility in mid-sized firms.

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