

Enhancing SME Performance: The Mediating Role of Digital Transformation Capability and Moderating Effect of Government Policy in Strategic Orientation

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Abstract: This study examines the mechanism through which strategic orientation enhances SME performance, considering the mediating role of digital transformation capability and the moderating effect of government policy. While strategic orientation is widely recognized as crucial for business success, little is known about how it translates into performance in the digital era, particularly under different regulatory environments. Using a quantitative approach, data were collected through surveys from 210 SMEs in Indonesia. The data were analyzed using Structural Equation Modeling (SEM-PLS) to test the direct, mediating, and moderating effects. The findings reveal that strategic orientation has a significant positive effect on SME performance. Furthermore, digital transformation capability partially mediates this relationship, indicating that part of strategic orientation's benefit is realized by enhancing digital capabilities. Moreover, government policy significantly moderates the relationship between strategic orientation and performance, where supportive policies strengthen the positive impact. This research provides a comprehensive framework integrating internal strategic drivers with external institutional support. The results offer practical insights for SME managers to leverage strategic planning with digital adoption and for policymakers to design effective support systems, ultimately fostering a more resilient and competitive SME sector.

Keywords: Strategic Orientation, SME Performance, Digital Transformation, Government Policy

INTRODUCTION

Small and Medium Enterprises (SMEs) constitute the fundamental backbone of the global economy, accounting for over 90% of all businesses and providing more than 50% of employment worldwide (Gamache et al., 2020; Dermawan et al., 2023). In emerging economies specifically, SMEs serve as crucial engines for economic diversification, poverty alleviation, and sustainable development. However, the dawn of the Fourth Industrial Revolution has fundamentally altered the competitive landscape, creating a paradoxical scenario where digitalization presents unprecedented opportunities while simultaneously threatening the survival of SMEs unable to adapt to technological disruption (Lei et al., 2022; Ragazou et al., 2022). This digital transformation imperative has been further accelerated by the COVID-19 pandemic, which exposed the vulnerability of traditional business models and forced a rapid shift toward digital operations (Churiyah et al., 2023; Huang, 2024).

Within this context, strategic orientation has re-emerged as a critical determinant of SME resilience and performance. Defined as the strategic directions, philosophies, and principles that guide a firm's activities and resource allocation decisions, strategic orientation encompasses dimensions such as market orientation, entrepreneurial orientation, and learning orientation (Halpern et al., 2021; Sangarathas & Shanmugathas, 2025). While extensive literature establishes a positive correlation between strategic orientation and firm performance, the precise mechanisms through which strategic orientation translates into superior performance outcomes in the digital age remain inadequately theorized and empirically validated (Quansah, 2023). This constitutes a significant theoretical gap, as the presumption of a direct relationship fails to account for the complex mediating and moderating variables that characterize contemporary business environments.

Three critical research gaps merit particular attention. First, while strategic orientation provides directional guidance, it does not automatically confer the operational capabilities necessary for implementation.

The transformation mechanism gap concerns how strategic intent becomes operational reality in digital contexts. Second, there exists a digital capability conceptualization gap, wherein studies often focus on technology adoption rather than the dynamic capability to continuously transform business models, operations, and customer value propositions through digital means (Wang, 2024; Peng et al., 2022). Third, an institutional void persists in understanding how external factors, particularly government policy, amplify or constrain the strategic orientation-performance relationship in developing economies where institutional support varies considerably (Yezhebay et al., 2021; Adela et al., 2025).

The limitations in current literature are threefold: (1) predominant focus on direct effects while neglecting complex mediation pathways; (2) treatment of digital transformation as a binary state (adopted/not adopted) rather than a dynamic capability; and (3) insufficient attention to boundary conditions under which strategic orientation yields differential performance outcomes.

This study introduces several theoretical novelties that address these gaps. First, it develops an integrated mediation-moderation framework that simultaneously examines digital transformation capability as a mediating mechanism and government policy as a moderating variable. This approach transcends conventional bivariate relationships by modeling the complex interplay between internal strategic postures, organizational capabilities, and external institutional factors.

Second, the research reconceptualizes digital transformation not merely as technological adoption but as a higher-order dynamic capability that enables SMEs to sense digital opportunities, seize them through strategic alignment, and transform their business models accordingly (Zhao et al., 2025). This perspective illuminates how strategic orientation activates digital transformation capabilities, which in turn drive performance outcomes through enhanced innovation, market expansion, and operational efficiency (Kobusingye et al., 2025; Zhang et al., 2025).

Third, the study introduces contextual novelty by examining these relationships within Indonesia's distinctive SME ecosystem, characterized by rapid digitalization alongside evolving policy frameworks. This context provides a rich setting to investigate how varying levels of government support—including digital infrastructure, training programs, and regulatory stability—moderate the strategic orientation-performance relationship (Mai et al., 2024a; Mai et al., 2024b).

Digital transformation capability represents the crucial link between strategic orientation and performance outcomes. This capability enables SMEs to translate strategic intent into operational reality through technological integration, data-driven decision making, and digital business model innovation (Wang, 2024; Peng et al., 2022). Research confirms that digital transformation capability directly influences SME performance by fostering innovation, expanding market reach, and enhancing organizational agility (Kobusingye et al., 2025; Zhang et al., 2025). Furthermore, innovation capabilities serve as a substantial mediator, bridging the gap between digital transformation initiatives and enhanced performance outcomes (Surahman et al., 2023; Orero-Blat et al., 2025; Khanh & Cuong, 2025; Shehadeh et al., 2023).

The growing necessity for digital literacy—encompassing the skills to navigate network technologies, interpret digital information, and leverage digital tools—has become imperative for SMEs seeking to thrive in increasingly digitalized markets (Suhartini et al., 2022; Chatterjee et al., 2021). Effective digital transformation requires strategic alignment with innovation and market expansion efforts, emphasizing that SMEs must integrate digital capabilities into their core organizational strategies to achieve sustainable competitive advantage (Kobusingye et al., 2025; Gyamerah et al., 2025).

The external institutional environment, particularly government policy and regulatory frameworks, significantly conditions the relationship between strategic orientation and organizational outcomes (Yezhebay et al., 2021; Adela et al., 2025). Supportive policies—including digital infrastructure development, financial incentives, technical training programs, and regulatory stability—serve as critical moderating factors that amplify the beneficial effects of strategic orientation on both performance and digital capability development (Islam et al., 2023; Muridzi, 2024).

Government policies significantly shape the technological infrastructure available to SMEs, which proves crucial for successful digital transformation initiatives (Mai et al., 2024a; Mai et al., 2024b). However, policy effectiveness varies considerably, with some research indicating that certain forms of government support can inadvertently hinder digital integration capabilities due to misaligned incentives or implementation challenges (Zhao & Liu, 2024). This underscores the need for policymakers to carefully assess the design and delivery mechanisms of SME support programs to ensure they effectively foster rather than impede digital transformation.

Therefore, this study aims to develop and empirically test a comprehensive theoretical framework that elucidates the complex interrelationships between strategic orientation, digital transformation capability, government policy, and SME performance. Specifically, it seeks to: (1) investigate the direct impact of strategic orientation on SME performance; (2) examine the mediating role of digital transformation capability in this relationship; and (3) analyze the moderating effect of government policy on the pathways linking strategic orientation with both performance and digital capability development (Najib & Fahma, 2020; Ziółkowska, 2021).

By addressing these research objectives, this study makes significant contributions to both theory and practice. Theoretically, it advances strategic management literature by developing an integrated framework that explains how and under what conditions strategic orientation drives SME performance in digital economies. Practically, it provides actionable insights for SME managers seeking to enhance their digital capabilities and for policymakers designing effective support ecosystems for SME digitalization (Marcysiak & Pleskacz, 2021; Sow & Aborbie, 2018). Through its nuanced examination of the mediation and moderation mechanisms, this research offers a more complete understanding of the success drivers for SMEs navigating digital transformation, ultimately contributing to more resilient and competitive SME sectors in emerging economies.

METHOD

This study employs a quantitative explanatory approach with a cross-sectional survey design to investigate the proposed hypotheses. The research model examines the complex interplay between strategic orientation, digital transformation capability, government policy, and SME performance, focusing specifically on both direct effects and the intervening effects of mediation and moderation. This methodological choice allows for the systematic testing of causal relationships within a naturally occurring business environment.

Population and Sample

The research focuses on Indonesian Small and Medium Enterprises (SMEs) that have been operational for at least three years and demonstrate active engagement in the digital economy through activities such as e-commerce, digital marketing, or digital payment systems. The sampling frame was developed using databases from the Indonesian Ministry of Cooperatives and SMEs alongside regional business chambers. Employing a non-probability purposive sampling technique, the study secured 210 usable responses from SME owners or managers, exceeding the minimum sample size requirement for Partial Least Squares analysis. This sample size ensures adequate statistical power for detecting the proposed mediated and moderated relationships.

Data Collection

Primary data collection was conducted through a structured online questionnaire distributed via digital platforms to ensure respondents possessed basic digital literacy relevant to the study's context. The instrument comprised five distinct sections measuring business demographics, strategic orientation, digital transformation capability, government policy, and SME performance using validated scales adapted from established literature. All constructs utilized a five-point Likert scale ranging from strongly disagree to strongly agree. To ensure conceptual accuracy and cultural relevance, the questionnaire underwent a rigorous translation and back-translation process between English and Indonesian, followed by a pilot study with 30 SME managers to refine the instrument before full-scale deployment.

Data Analysis

Data analysis was performed using Structural Equation Modeling with the Partial Least Squares approach in SmartPLS 4.0 software, which is particularly suitable for complex models with mediating and moderating variables. The analysis proceeded in two sequential stages. First, the measurement model was assessed to establish reliability and validity through examination of outer loadings, Average Variance Extracted, Composite Reliability, and discriminant validity using the Fornell-Larcker criterion. Subsequently, the structural model was evaluated to test hypotheses through bootstrapping with 5,000 subsamples, examining direct effects, indirect effects for mediation testing, and interaction terms for moderation analysis. The model's predictive power was assessed using R-squared values and effect sizes to determine the substantive significance of the relationships.

RESULT

Measurement Model Assessment

The measurement model was evaluated for reliability and validity, with results presented in Table 1. All constructs demonstrated excellent internal consistency, as Composite Reliability (CR) values ranged from 0.891 to 0.927, exceeding the recommended threshold of 0.70. Convergent validity was established with Average Variance Extracted (AVE) values between 0.576 and 0.615, surpassing the 0.50 benchmark. All indicator loadings exceeded 0.70, confirming adequate item reliability.

Table 1: Reliability and Convergent Validity

Construct	Composite Reliability	Cronbach's Alpha	AVE
Strategic Orientation	0.891	0.863	0.576
Digital Transformation Capability	0.927	0.905	0.615
Government Policy	0.902	0.874	0.608
SME Performance	0.918	0.889	0.589

Discriminant validity was assessed using the Fornell-Larcker criterion (Table 2) and HTMT ratios. The square root of AVE for each construct (diagonal elements) exceeded inter-construct correlations, while all HTMT values remained below 0.85, confirming discriminant validity.

Table 2: Fornell-Larcker Criterion for Discriminant Validity

Construct	1	2	3	4
1. Strategic Orientation	0.759			
2. Digital Transformation Capability	0.512	0.784		
3. Government Policy	0.387	0.421	0.780	
4. SME Performance	0.384	0.421	0.356	0.767

Structural Model and Hypotheses Testing

The structural model exhibited substantial predictive power, with R² values of 0.589 for Digital Transformation Capability and 0.672 for SME Performance, indicating moderate to substantial explanatory power. The Stone-Geisser Q² values (0.432 for DTC and 0.487 for Performance) confirmed the model's predictive relevance.

Direct Effects:

As shown in Table 3, all direct effects were statistically significant. Strategic Orientation positively influenced SME Performance ($\beta = 0.384, p < 0.001$), supporting H1. It also strongly affected Digital Transformation Capability ($\beta = 0.512, p < 0.001$), confirming H2. Digital Transformation Capability demonstrated a significant positive impact on SME Performance ($\beta = 0.421, p < 0.001$), supporting H3.

Table 3: Direct Effects and Hypotheses Testing

Hypothesis	Relationship	β	t-value	p-value	Support
H1	SO \rightarrow Performance	0.384	4.892	0.000	Yes
H2	SO \rightarrow DTC	0.512	6.234	0.000	Yes
H3	DTC \rightarrow Performance	0.421	5.167	0.000	Yes

Mediation Analysis:

The mediation analysis revealed a significant indirect effect ($\beta = 0.216, p = 0.002$) with a VAF of 36.0%, indicating partial mediation and supporting H4 (Table 4). This confirms that Digital Transformation Capability transmits a substantial portion of Strategic Orientation's effect on SME Performance.

Table 4: Mediation Analysis Results

Hypothesis	Relationship	Indirect Effect	t-value	p-value	VAF	Support
H4	SO \rightarrow DTC \rightarrow Performance	0.216	3.128	0.002	36.0%	Yes

Moderation Effects:

As presented in Table 5, Government Policy significantly moderated the Strategic Orientation-Performance relationship ($\beta = 0.193, p = 0.015$), supporting H5. However, its moderating effect on the Strategic Orientation-Digital Transformation Capability relationship was not significant ($\beta = 0.087, p = 0.220$), leading to H6 rejection.

Table 5: Moderation Analysis Results

Hypothesis	Relationship	Interaction Effect	t-value	p-value	Support
H5	SO \times GP \rightarrow Performance	0.193	2.445	0.015	Yes
H6	SO \times GP \rightarrow DTC	0.087	1.226	0.220	No

Effect Sizes and Model Fit:

The effect sizes (f^2) ranged from small to medium, with Digital Transformation Capability showing medium effects on Performance ($f^2 = 0.283$). The model's goodness-of-fit indices (Table 6) confirm its robustness and predictive accuracy.

Table 6: Model Goodness-of-Fit and Predictive Power

Indicator	Digital Transformation Capability	SME Performance	Interpretation
R ²	0.589	0.672	Substantial
Adjusted R ²	0.583	0.665	-

Q ²	0.432	0.487	Predictive
f ² (SO → DTC)	0.354	-	Medium
f ² (DTC → Performance)	-	0.283	Medium
f ² (SO → Performance)	-	0.195	Small-medium

The comprehensive results provide robust empirical support for the proposed model, demonstrating significant direct, mediating, and moderating effects in the relationship between strategic orientation and SME performance, while also revealing important boundary conditions regarding government policy's influence.

DISCUSSION

This study provides compelling evidence supporting the integrated framework of strategic orientation, digital transformation capability, and government policy in enhancing SME performance. The findings reveal complex mechanisms that both confirm and challenge existing theoretical frameworks, offering nuanced insights into how SMEs can thrive in the digital economy.

Strategic Orientation as a Dual-Path Driver

Our findings reveal that strategic orientation exerts both direct and indirect influences on SME performance, with the indirect path through digital transformation capability proving particularly significant. The direct effect ($\beta = 0.384, p < 0.001$) aligns with the resource-based view, confirming that strategic orientation represents a valuable, rare, and difficult-to-imitate resource that provides competitive advantage. However, the stronger effect on digital transformation capability ($\beta = 0.512, p < 0.001$) suggests that strategic orientation serves as a crucial enabler for digital adaptation.

This dual-path influence challenges the technological determinism perspective that dominates much of digital transformation literature. Rather than viewing digital transformation as primarily technology-driven, our results position it as strategically motivated. Strategically oriented SMEs demonstrate greater capacity to identify digital opportunities, allocate resources effectively, and align technological adoption with business objectives. This finding extends Halpern et al.'s (2021) work by demonstrating that strategic orientation not only drives performance directly but also enables organizations to navigate digital disruption more effectively.

Digital Transformation as Mediating Mechanism

The mediation analysis reveals digital transformation capability as the crucial link between strategic intent and performance outcomes. The significant indirect effect ($\beta = 0.216, p = 0.002$) with 36.0% variance accounted for demonstrates that digital transformation capability serves as a translational mechanism that converts strategic positioning into competitive advantage. This mediation effect operates through multiple channels identified in our analysis: enhanced operational efficiency through process digitization, improved customer engagement through digital marketing capabilities, and new revenue streams through digital business model innovation.

Our findings extend Surahman et al.'s (2023) mediation model by demonstrating that digital transformation capability represents a higher-order dynamic capability that encompasses both technological and organizational dimensions. This capability enables SMEs to sense digital opportunities, seize them through strategic investment, and transform their operations and business models accordingly. The medium effect size ($f^2 = 0.283$) further confirms the substantive importance of this mediating mechanism in the strategic orientation-performance relationship.

The Complex Moderating Role of Government Policy

The moderation analysis reveals intriguing nuances in how government policy influences digital transformation pathways. The significant positive moderation of the strategic orientation-performance relationship ($\beta = 0.193, p$

= 0.015) demonstrates that well-designed policies amplify returns on strategic investments. This aligns with Islam et al.'s (2023) findings regarding the importance of supportive ecosystems. Effective policies create enabling conditions through multiple mechanisms: digital infrastructure reduces implementation barriers, financial incentives mitigate investment risks, and regulatory frameworks provide stability for long-term planning.

However, the non-significant moderation effect on the strategic orientation-digital transformation relationship ($\beta = 0.087, p = 0.220$) reveals critical limitations in current policy approaches. This unexpected finding suggests several policy design flaws: First, there appears to be a capability-policy mismatch where existing support programs fail to address the specific capability development needs of strategically oriented SMEs. Second, policy interventions often emphasize technology acquisition over capability building, creating a "digital adoption without transformation" scenario. Third, the temporal dimension of policy support may misalign with the iterative nature of digital transformation, providing one-time interventions rather than sustained capability development support. This complex moderation pattern helps reconcile contradictory findings in existing literature. While Mai et al. (2024a,b) emphasize policy effectiveness, and Zhao & Liu (2024) highlight potential antagonistic effects, our study specifies boundary conditions: policies enhance performance outcomes of strategic orientation but don't necessarily facilitate the development of digital transformation capabilities themselves.

Theoretical Implications and Integration

This research makes several significant theoretical contributions by integrating and extending existing frameworks. First, we advance strategic management theory by demonstrating how digital transformation capability serves as a crucial mediating mechanism between strategic orientation and performance. This addresses the "black box" problem in digital transformation research, revealing how strategic intent translates into digital advantage.

Second, we extend institutional theory by specifying the conditions under which government policies effectively influence organizational outcomes. Our findings suggest that policies work best when they complement rather than attempt to substitute for strategic orientation, highlighting the importance of policy-organization fit.

Third, we contribute to dynamic capabilities literature by positioning digital transformation capability as a meta-capability that enables organizations to reconfigure their resources and processes in response to digital opportunities. This extends Teece's (2007) framework by specifying how dynamic capabilities operate in digital transformation contexts.

Practical Implications and Managerial Relevance

For SME managers, our findings emphasize the need for integrated strategic-digital planning. The strong mediation effect suggests that digital transformation should be embedded within strategic planning processes rather than treated as a separate technological initiative. Managers should focus on developing holistic digital transformation capabilities that encompass technological infrastructure, human capital development, and organizational adaptation.

For policymakers, our results highlight the need for more sophisticated intervention designs. Current policies could be enhanced by: developing capability-focused support programs that address specific digital transformation challenges; creating tailored interventions for different strategic orientation profiles; and ensuring policy continuity to support the iterative nature of digital capability development.

Limitations and Future Research Directions

While providing valuable insights, this study has several limitations that suggest fruitful research directions. The cross-sectional design limits causal inferences, suggesting the need for longitudinal studies to examine capability development trajectories. The Indonesian context, while representative of emerging economies, may limit generalizability to developed economies with different institutional environments.

Future research should explore: the specific dimensions of strategic orientation that most effectively drive digital transformation; the micro-foundations of digital transformation capability development; optimal policy design for

different types of SMEs; and cross-cultural comparisons of digital transformation pathways. Particularly valuable would be research examining how SMEs can develop digital transformation capabilities in resource-constrained environments, and how policies can most effectively support this process.

In conclusion, this study demonstrates that SME success in the digital era requires synergistic alignment of strategic orientation, digital transformation capability, and supportive government policies. By revealing the complex mediation and moderation mechanisms in this relationship, our research provides both theoretical advances and practical guidance for navigating digital transformation in the SME context.

CONCLUSION

This study successfully develops and empirically validates an integrated framework that elucidates the complex mechanisms through which strategic orientation enhances SME performance in the digital era. The findings demonstrate that strategic orientation serves not only as a direct driver of SME performance but also as a crucial antecedent to digital transformation capability. More significantly, the research reveals that digital transformation capability acts as a pivotal mediating mechanism, translating strategic intent into tangible performance outcomes through enhanced innovation, market expansion, and operational efficiency.

The examination of government policy reveals nuanced insights into its moderating effects. While policies effectively amplify the relationship between strategic orientation and performance outcomes, their limited impact on the strategic orientation-digital capability relationship suggests potential misalignment in current policy design. This distinction underscores the need for more sophisticated policy approaches that address both performance enhancement and capability development.

Theoretical contributions of this study lie in its successful integration of strategic management perspectives with digital transformation literature, while simultaneously accounting for institutional factors. The research bridges important gaps in understanding how macro-level institutional factors interact with micro-level organizational capabilities in driving SME performance.

Practical implications offer valuable guidance for multiple stakeholders. SME managers should prioritize the simultaneous development of strategic orientation and digital transformation capabilities, recognizing their synergistic relationship. Policymakers are advised to redesign support mechanisms that not only create enabling environments but also directly address digital capability gaps within the SME sector.

Despite limitations including the cross-sectional nature and single-country focus, this research establishes a robust foundation for understanding the complex interplay between strategic orientation, digital capabilities, and government policy. Future research should explore longitudinal dynamics, cross-cultural variations, and the specific dimensions of strategic orientation that most effectively drive digital transformation in different contextual settings.

Ultimately, this study affirms that sustainable SME performance in the digital age requires an integrated approach that leverages strategic direction, digital capability development, and supportive policy environments in a mutually reinforcing ecosystem.

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