

The Mediating Role of Dynamic Capabilities in Emerging Market Firms in Digital Transformation and Organizational Performance

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Abstract

Digital transformation has emerged as one of the most disruptive strategic imperatives confronting organizations in the twenty-first century. Despite a burgeoning body of literature linking digitalization to competitive advantage, the mechanisms through which digital transformation translates into superior organizational performance remain theoretically underspecified, particularly in emerging market contexts. Drawing on Dynamic Capability Theory (DCT), this study investigates whether dynamic capabilities—specifically sensing, seizing, and reconfiguring capabilities—mediate the relationship between digital transformation intensity and organizational performance among manufacturing firms in India. A survey-based cross-sectional design was employed, yielding 412 valid responses from senior managers across 16 manufacturing sectors. Partial Least Squares Structural Equation Modeling (PLS-SEM) was used for hypothesis testing. The findings confirm that digital transformation intensity exerts a significant direct effect on organizational performance ($\beta = 0.31, p < .001$) and that this relationship is fully

mediated by sensing capabilities ($\beta = 0.19, p < .01$) and seizing capabilities ($\beta = 0.22, p < .001$), while reconfiguring capabilities yield partial mediation. Multi-group analysis further reveals that the mediation pathways differ significantly between large enterprises and SMEs. The study contributes a nuanced mediating framework to digital transformation research, advancing DCT into the domain of digitalization in emerging economies, and offers actionable guidance for managers seeking to leverage digital investments strategically.

Keywords: digital transformation, dynamic capabilities, organizational performance, PLS-SEM, emerging markets, manufacturing firms, mediation analysis

1. Introduction

The acceleration of digital technologies—spanning cloud computing, artificial intelligence, big data analytics, the Internet of Things, and blockchain—has fundamentally altered the competitive landscape across industries worldwide (Vial, 2019). Organizations that fail to strategically integrate these technologies into their value chain and business model architecture risk

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obsolescence, while those that successfully execute digital transformation initiatives report enhanced operational efficiency, market responsiveness, and innovation capacity (Fitzgerald et al., 2014; Warner & Wäger, 2019). Yet the organizational journey toward digital maturity is neither linear nor universally predictable; it is mediated by a constellation of internal capabilities that determine whether digital investments yield commensurate performance returns (Teece, 2018).

The academic discourse on digital transformation has expanded considerably over the past decade. Researchers have examined its antecedents—including leadership commitment, organizational culture, IT infrastructure, and resource endowments—as well as its consequences, including financial performance, innovation outcomes, customer satisfaction, and competitive positioning (Verhoef et al., 2021; Yeow et al., 2018). However, despite this proliferation of empirical work, the field suffers from a critical theoretical gap: the mechanisms or mediating pathways through which digital transformation creates value remain poorly understood, particularly in the context of emerging economies where institutional environments, resource constraints, and competitive dynamics diverge substantially from developed-market settings (Parviainen et al., 2017).

Dynamic Capability Theory (DCT), originally articulated by Teece et al. (1997) and subsequently refined by Teece (2007, 2018), provides a compelling theoretical lens for addressing this gap. DCT posits that sustained competitive advantage in rapidly changing environments is not merely a function of resource possession but of an organization's capacity to sense emerging

opportunities and threats, seize those opportunities through strategic resource commitments, and reconfigure existing assets and organizational routines to align with evolving competitive imperatives. These three meta-capabilities—sensing, seizing, and reconfiguring—collectively constitute the dynamic capability construct and have been theorized to translate resource-based advantages, including digital resource endowments, into superior performance outcomes (Eisenhardt & Martin, 2000; Teece, 2018).

The relevance of DCT to digital transformation research is well-grounded. The deployment of digital technologies is not a passive process; it demands active organizational sensing of technological trajectories and market signals, deliberate seizing through investment decisions and platform architecture, and continuous reconfiguration of legacy processes and human capital (Warner & Wäger, 2019). Nevertheless, empirical studies that rigorously test the mediating role of all three dynamic capability dimensions between digital transformation and performance are conspicuously scarce, particularly those drawing on manufacturing sector data from emerging economies such as India—the world's third-largest manufacturing economy by output (World Bank, 2023).

India presents a particularly valuable empirical setting for this inquiry. The country's manufacturing sector is undergoing a profound structural transformation driven by the government's 'Make in India' and 'Digital India' policy initiatives, combined with intensifying global competitive pressures (NASSCOM, 2022). Indian manufacturing firms vary enormously in digital maturity, from highly

digitalized multinational subsidiaries to resource-constrained domestic SMEs, providing a rich heterogeneous sample from which to examine differential mediation effects. Furthermore, the institutional environment—characterized by regulatory uncertainty, infrastructure variability, and talent market imperfections—creates unique contingencies that may amplify or attenuate the sensing-seizing-reconfiguring pathways identified in developed-market studies.

This study is organized as follows. Section 2 presents a comprehensive literature review covering digital transformation, dynamic capabilities, and organizational performance. Section 3 identifies the research gap and positions the study's theoretical contribution. Section 4 articulates the research objectives and hypotheses. Section 5 describes the research methodology, including sampling strategy, measurement instruments, and analytical procedures. Section 6 presents the data analysis and findings. Sections 7, 8, and 9 discuss the theoretical and practical implications, and Section 10 concludes with limitations and future research directions.

The central contribution of this study is threefold. First, it advances DCT by empirically validating all three dynamic capability dimensions as simultaneous mediators in the digital transformation–performance nexus. Second, it provides emerging-market-specific evidence, challenging the implicit universalism of DCT as developed in North American and European contexts. Third, it offers a multi-group comparison between large enterprises and SMEs, revealing important boundary conditions in the mediation model that carry direct implications for managerial practice and policy design.

2. Literature Review

2.1 Digital Transformation: Conceptual Foundations and Scope

Digital transformation has been variously defined in the academic literature, reflecting its multidimensional nature. Vial (2019, p. 118) offers a widely cited definition: "a process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies." This definition underscores the process-oriented, entity-level nature of transformation, distinguishing it from narrower concepts such as digitization (converting analog information to digital format) and digitalization (using digital technologies to change business processes). Verhoef et al. (2021) further distinguish digital transformation as a strategic and organizational phenomenon that encompasses business model innovation, not merely process automation.

Empirically, digital transformation is typically operationalized along dimensions including digital strategy formulation, technology deployment breadth, digital leadership, data-driven decision-making, and customer-facing digital engagement (Fitzgerald et al., 2014; Westerman et al., 2014). Studies using these multidimensional operationalizations consistently find positive associations between digital transformation intensity and performance outcomes including revenue growth, market share, operational efficiency, and innovation output (Bughin & Woetzel, 2019; Li et al., 2021).

The organizational antecedents of successful digital transformation are well-documented. Bharadwaj et al. (2013) identify digital business strategy as a key enabler, while Hess et al. (2016) emphasize the importance of top management commitment and a clearly defined digital transformation strategy. Kane et al. (2019) highlight organizational culture—particularly ambidexterity, risk tolerance, and collaboration norms—as a critical determinant of transformation success. Resource-based factors, including IT infrastructure quality and digital talent endowment, are also consistently implicated (Nwankpa & Roumani, 2016).

Yet the consequences of digital transformation, particularly the mechanisms linking digital investment to performance, are less clearly delineated. A systematic review by Hanelt et al. (2021) identifies three dominant theoretical mechanisms in the literature: efficiency gains through process automation, value creation through new digital products and services, and competitive repositioning through digital ecosystem participation. However, these mechanisms are rarely tested simultaneously in a single integrative model, nor are they consistently linked to established theoretical frameworks such as DCT.

2.2 Dynamic Capability Theory: Origins and Development

Dynamic Capability Theory traces its intellectual lineage to the Resource-Based View (Barney, 1991; Wernerfelt, 1984) and evolutionary economics (Nelson & Winter, 1982). While the RBV emphasizes the role of valuable, rare, inimitable, and non-substitutable (VRIN) resources in generating competitive advantage, it has been criticized

for its static character—it explains how advantages are sustained but not how they are created or renewed in turbulent environments (Ambrosini & Bowman, 2009). DCT emerged to address this limitation by foregrounding the dynamic processes through which organizations build, integrate, and reconfigure internal and external competencies in response to rapidly changing environments (Teece et al., 1997).

Teece (2007) operationalizes dynamic capabilities through three micro-foundations: sensing, defined as the ability to identify and assess opportunities and threats in the external environment; seizing, defined as the mobilization of resources to capture value from identified opportunities; and reconfiguring, defined as the continuous alignment and realignment of intangible and tangible assets to respond to changing market conditions. These three dimensions are now the dominant operationalization of dynamic capabilities in empirical research (Barreto, 2010; Di Stefano et al., 2014).

Empirical applications of DCT span numerous domains including innovation management (Pavlou & El Sawy, 2011), international expansion (Luo, 2000), supply chain management (Brusset & Teller, 2017), and digital strategy (Warner & Wäger, 2019). In general, studies find positive relationships between dynamic capabilities and performance, though the magnitude and significance of effects are moderated by environmental dynamism, industry munificence, and organizational size (Ambrosini et al., 2009; Wang & Ahmed, 2007).

2.3 Digital Transformation and Dynamic Capabilities

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The intersection of digital transformation and dynamic capabilities has attracted growing scholarly attention. Warner and Wäger (2019) argue that digital transformation is itself a manifestation of dynamic capabilities, as it requires organizations to continuously sense digital disruptions, seize opportunities through digital platform investments, and reconfigure legacy assets. Li et al. (2021) empirically demonstrate that digital transformation positively influences dynamic capabilities, which in turn enhance innovation performance in Chinese manufacturing firms.

Studying South Korean firms, Park and Kim (2020) find that digital sensing capabilities—the ability to monitor digital technology developments and customer digital behavior—partially mediate the relationship between digital investment intensity and market performance. Analogously, Teece (2018) argues that the artificial intelligence revolution demands an upgrading of all three dynamic capability micro-foundations, as AI fundamentally transforms sensing (through real-time data analytics), seizing (through algorithmic decision-making), and reconfiguring (through autonomous process adaptation).

Despite these advances, empirical studies testing the full three-dimensional mediation model—sensing, seizing, and reconfiguring simultaneously—between digital transformation and performance are conspicuously absent from the literature, especially in emerging market contexts. Studies conducted in developed economies may not translate to contexts characterized by lower digital infrastructure maturity, higher environmental volatility, and more

pronounced resource constraints (Luo & Tung, 2007; Peng et al., 2008).

2.4 Organizational Performance in the Digital Era

Organizational performance is a multidimensional construct that encompasses financial outcomes (profitability, revenue growth, return on assets), operational outcomes (efficiency, quality, delivery speed), and strategic outcomes (market share, innovation rate, customer satisfaction) (Combs et al., 2005; Richard et al., 2009). In the digital transformation literature, performance is increasingly conceptualized to include digital performance dimensions such as digital revenue proportion, e-channel effectiveness, and data monetization capability (Verhoef et al., 2021).

Empirical studies consistently find that digital transformation enhances organizational performance, but with considerable variance attributable to industry context, implementation quality, and organizational readiness (Fitzgerald et al., 2014; Nwankpa & Roumani, 2016). Meta-analytic evidence from Queiroz et al. (2021) confirms a moderate positive effect size ($r = .38$) between digital transformation and performance across 87 primary studies, with significant moderation by national technological infrastructure and firm size.

2.5 Firm Size as a Moderating Boundary Condition

The relationship between digital transformation, dynamic capabilities, and performance may vary systematically between large enterprises and SMEs. Large enterprises possess greater financial

resources for digital investment, more formalized IT governance structures, and deeper talent pools, but may suffer from inertia and bureaucratic rigidity that impedes dynamic reconfiguring (Teece, 2018). SMEs, conversely, exhibit greater organizational flexibility and entrepreneurial orientation, but face resource constraints that may limit the breadth and depth of digital transformation initiatives (Mikalef & Pateli, 2017). Multi-group analysis provides a methodologically rigorous approach to detecting such differential effects (Hair et al., 2019).

3. Research Gap

Despite the substantial body of literature reviewed above, three critical gaps motivate the present study. First, while individual dimensions of dynamic capabilities—sensing, seizing, or reconfiguring—have been examined as mediators between digital transformation and performance, no study to date has simultaneously tested all three as parallel mediators within a single integrative model. This omission is theoretically unsatisfying, given that DCT explicitly conceptualizes these three dimensions as co-equal components of a single higher-order construct (Teece, 2007). Disaggregating their individual mediating effects offers a more granular and actionable understanding of the value-creation mechanisms embedded in digital transformation.

Second, the vast majority of empirical research on digital transformation and dynamic capabilities is conducted in developed-economy contexts—principally the United States, Western Europe, and East Asia—with limited generalizability to

emerging market environments characterized by distinctive institutional voids, infrastructure heterogeneity, and resource constraints (Luo & Tung, 2007). India's manufacturing sector represents an understudied yet globally significant empirical setting that can yield theoretically generative insights.

Third, while firm size is frequently invoked as a control variable in digital transformation research, rigorous multi-group analysis comparing the mediation pathways across large enterprises and SMEs is virtually absent from the literature. The presumed universality of DCT-grounded mediation models remains empirically untested across firm-size categories in the Indian manufacturing context.

4. Research Objectives

This study pursues four interconnected objectives:

1. To examine the direct effect of digital transformation intensity on organizational performance among Indian manufacturing firms.
2. To empirically test whether sensing, seizing, and reconfiguring capabilities simultaneously mediate the relationship between digital transformation intensity and organizational performance.
3. To assess the relative magnitude and significance of each dynamic capability dimension as a mediating mechanism, thereby identifying the most influential pathway in the digital transformation-performance nexus.

4. To conduct multi-group analysis comparing the mediation model across large manufacturing enterprises and SMEs, thereby establishing boundary conditions for the theoretical model.

5. Hypotheses Development

Drawing on Dynamic Capability Theory and the reviewed literature, the following hypotheses are advanced:

H1: Digital transformation intensity is positively associated with organizational performance in Indian manufacturing firms.

Rationale: Consistent with Verhoef et al. (2021) and Li et al. (2021), digital transformation investments are expected to generate direct performance gains through process efficiency and market responsiveness.

H2: Sensing capabilities mediate the relationship between digital transformation intensity and organizational performance.

Rationale: Digital transformation enhances environmental scanning and market intelligence capabilities, which in turn enable more informed strategic decisions that improve performance (Warner & Wäger, 2019).

H3: Seizing capabilities mediate the relationship between digital transformation intensity and organizational performance.

Rationale: Digitalized organizations are better positioned to rapidly mobilize resources and exploit identified opportunities, improving competitive

responsiveness and performance (Teece, 2018).

H4: Reconfiguring capabilities mediate the relationship between digital transformation intensity and organizational performance.

Rationale: Digital transformation enables asset flexibility and organizational reconfiguration, facilitating adaptation to dynamic market conditions and enhancing performance outcomes (Eisenhardt & Martin, 2000).

H5: The mediation effects of sensing, seizing, and reconfiguring capabilities differ significantly between large enterprises and SMEs.

Rationale: Structural and resource differences between large firms and SMEs create differential pathways through which dynamic capabilities translate digital investments into performance (Mikalef & Pateli, 2017).

6. Research Methodology

6.1 Research Design and Sample

This study adopted a quantitative, cross-sectional survey design. The target population comprised senior managers (Director level and above) responsible for digital strategy or operations in Indian manufacturing firms. Purposive sampling was employed to ensure respondents possessed adequate knowledge of their organizations' digital transformation initiatives and performance metrics. A structured questionnaire was administered via email and a professional networking

platform over a five-month period (January–May 2023). Of 680 questionnaires distributed, 439 were returned and 412 were deemed valid after screening for missing data and common method bias indicators (response rate: 60.6%).

6.2 Measurement Instruments

All constructs were measured using validated multi-item scales anchored on 5-point Likert scales (1 = Strongly Disagree, 5 = Strongly Agree). Digital transformation intensity was measured using 8 items adapted from Fitzgerald et al. (2014) and Verhoef et al. (2021). Dynamic capabilities—sensing (6 items), seizing (5 items), and reconfiguring (5 items)—were operationalized using Teece's (2007) micro-foundations scale, adapted by Eriksson (2014). Organizational performance was assessed using 7 items covering financial, operational, and strategic dimensions (Richard et al., 2009).

6.3 Analytical Approach

PLS-SEM was employed using SmartPLS 4.0 (Ringle et al., 2022), consistent with the study's exploratory theoretical extension goals and the formative nature of the digital transformation construct (Hair et al., 2019). The mediation hypotheses were tested using the bootstrapping procedure with 5,000 resamples to generate bias-corrected confidence intervals. Multi-group analysis (MGA) was conducted using the permutation-based approach in SmartPLS to compare path coefficients across large enterprises (n = 238) and SMEs (n = 174).

7. Data Analysis and Findings

7.1 Demographic Profile of Respondents

Table 1 Demographic Profile of Respondents (N = 412)

Characteristic	Category	Frequency	Percentage
Gender	Male	289	70.1%
	Female	118	28.6%
	Non-binary/Other	5	1.2%
Age	25–34 years	67	16.3%
	35–44 years	158	38.3%
	45–54 years	134	32.5%
	55+ years	53	12.9%
Education	Bachelor's degree	89	21.6%
	Master's degree	243	59.0%
	Doctoral degree	80	19.4%
Firm Size	SME (< 250 employees)	174	42.2%
	Large (≥ 250 employees)	238	57.8%
Industry Sector	Automotive	78	18.9%
	Pharmaceuticals	65	15.8%
	Electronics	71	17.2%

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Characteristic	Category	Frequency	Percentage	Construct	Item Loadings	Cronbach's α	CR	AVE
	Textiles	53	12.9%	Operational Performance (OP)	0.91	0.91	0.61	0.61
	FMCG	61	14.8%					
	Others	84	20.4%					
Experience	< 5 years	42	10.2%					
	5-10 years	121	29.4%					
	11-20 years	179	43.4%					
	> 20 years	70	17.0%					

Note. CR = Composite Reliability; AVE = Average Variance Extracted. All Cronbach's $\alpha > 0.80$ and AVE > 0.50 , confirming convergent validity (Hair et al., 2019).

Table 3 Discriminant Validity: HTMT Ratios

	DT	SC	SZ	RC	OP
DT	—				
SC	0.712	—			
SZ	0.698	0.731	—		
RC	0.683	0.694	0.718	—	
OP	0.754	0.741	0.762	0.708	—

Note. SME = Small and Medium Enterprise; FMCG = Fast-Moving Consumer Goods.

7.2 Measurement Model Evaluation

Table 2 Reliability and Validity Analysis

Construct	Item Loadings	Cronbach's α	CR	AVE
Digital Transformation (DT)	0.71-0.89	0.912	0.927	0.612
Sensing Capabilities (SC)	0.74-0.87	0.891	0.903	0.601
Seizing Capabilities (SZ)	0.76-0.88	0.879	0.895	0.628
Reconfiguring Capabilities (RC)	0.69-0.85	0.863	0.882	0.597
Organization (OP)	0.72-	0.924	0.93	0.64

Note. HTMT = Heterotrait-Monotrait ratio. All values < 0.85 , confirming discriminant validity (Henseler et al., 2015).

Table 4 Correlation Matrix with Square Roots of AVE (Diagonal)

	DT	SC	SZ	RC	OP
DT	0.782				
SC	0.541	0.775			
SZ	0.524	0.567	0.793		

	DT	SC	SZ	RC	OP
RC	0.513	0.548	0.559	0.773	
OP	0.598	0.592	0.614	0.571	0.800

Note. Bold diagonal values = $\sqrt{\text{AVE}}$. Off-diagonal values = Pearson correlations. Discriminant validity confirmed as $\sqrt{\text{AVE}} >$ inter-construct correlations (Fornell & Larcker, 1981).

7.3 Structural Model and Hypothesis Testing

Table 5 Structural Model Results: Direct and Mediation Effects

Path	β	SE	t-value	p-value	95% CI	Decision
Direct Effects						
DT \rightarrow OP	0.312	0.048	6.50	< .001	[0.21, 0.406]	H1 Supported
DT \rightarrow SC	0.489	0.041	11.93	< .001	[0.40, 0.569]	—
DT \rightarrow SZ	0.463	0.043	10.77	< .001	[0.37, 0.547]	—
DT \rightarrow RC	0.441	0.045	9.80	< .001	[0.353, 0.529]	—

Path	β	SE	t-value	p-value	95% CI	Decision
SC \rightarrow OP	0.241	0.052	4.63	< .001	[0.13, 0.343]	—
SZ \rightarrow OP	0.283	0.049	5.78	< .001	[0.18, 0.379]	—
RC \rightarrow OP	0.189	0.055	3.44	.001	[0.08, 0.297]	—

Indirect Effects (Mediation)						
DT \rightarrow SC \rightarrow OP	0.118	0.031	3.81	< .001	[0.05, 0.178]	H2 Supported
DT \rightarrow SZ \rightarrow OP	0.131	0.029	4.52	< .001	[0.07, 0.188]	H3 Supported
DT \rightarrow RC \rightarrow OP	0.083	0.028	2.96	.003	[0.028, 0.138]	H4 Supported

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Note. β = standardized path coefficient; SE = standard error; CI = confidence interval (bias-corrected, 5,000 bootstrap resamples). DT = Digital Transformation; SC = Sensing Capabilities; SZ = Seizing Capabilities; RC = Reconfiguring Capabilities; OP = Organizational Performance.

Table 6 Model Fit Indices

Index	Value	Acceptable Threshold
SRMR	0.063	< 0.08
NFI	0.912	> 0.90
R ² (OP)	0.584	—
R ² (SC)	0.239	—
R ² (SZ)	0.214	—
R ² (RC)	0.194	—
Q ² (OP)	0.341	> 0
f ² (DT → OP)	0.148	Medium

Note. SRMR = Standardized Root Mean Square Residual; NFI = Normed Fit Index; Q² = predictive relevance (blindfolding procedure); f² = effect size (Cohen, 1988).

7.4 Multi-Group Analysis

Table 7 Multi-Group Analysis: Path Coefficients by Firm Size

Path	Large Enterprises (β)	SMEs (β)	Difference	p-value
DT → OP	0.289	0.341	0.052	.213

Path	Large Enterprises (β)	SMEs (β)	Difference	p-value
DT → SC	0.143	0.089	0.054	.041*
DT → SZ	0.158	0.098	0.060	.028*
DT → RC	0.071	0.101	0.030	.381

Note. *p < .05. Permutation-based MGA with 5,000 permutations. Significant differences in sensing and seizing mediation pathways across firm size groups.

The multi-group analysis reveals that sensing and seizing mediation pathways are significantly stronger in large enterprises than SMEs (p < .05), while reconfiguring mediation does not differ significantly across groups. This suggests that resource-endowed large enterprises leverage digital transformation more effectively through environmental intelligence and opportunity exploitation capabilities, whereas SMEs may derive digital performance benefits through different mechanisms not fully captured in the current model.

8. Discussion

The findings of this study carry several important implications for our understanding of the digital transformation–performance nexus. The confirmation of H1 aligns with

meta-analytic evidence (Queiroz et al., 2021) and reinforces the strategic imperative of digital investment. More significantly, the simultaneous mediation of sensing, seizing, and reconfiguring capabilities (H2–H4) provides the first integrative empirical test of all three DCT micro-foundations as parallel mediators, advancing beyond prior studies that examined these pathways in isolation (Warner & Wäger, 2019; Li et al., 2021).

Notably, seizing capabilities emerge as the strongest mediating pathway ($\beta = 0.131$), suggesting that the primary value-creation mechanism of digital transformation is not environmental intelligence per se, but rather the organizational capacity to rapidly mobilize resources and execute on digitally-identified opportunities. This finding resonates with Teece's (2018) argument that artificial intelligence and big data analytics fundamentally enhance organizational seizing capabilities by accelerating and improving opportunity-evaluation processes.

The multi-group analysis contributes a critical boundary condition: sensing and seizing mediation pathways are significantly more pronounced in large enterprises, potentially reflecting their superior IT governance structures and more formalized dynamic capability routines. SMEs' weaker sensing and seizing mediation effects suggest that resource constraints may prevent these firms from fully institutionalizing digital intelligence and opportunity-exploitation routines, despite investing in digital technologies.

9. Theoretical Implications

This study makes three principal theoretical contributions. First, it advances Dynamic Capability Theory by providing the first simultaneous empirical test of all three micro-foundation dimensions as parallel mediators in the digital transformation–performance relationship, resolving a longstanding theoretical ambiguity about whether sensing, seizing, and reconfiguring operate as independent pathways or as a unified mechanism (Teece, 2007; Barreto, 2010). The finding that all three pathways are individually significant but differ in magnitude enriches the theoretical architecture of DCT.

Second, the study contributes to the emerging literature on digital dynamic capabilities (Warner & Wäger, 2019) by establishing that digital transformation investments strengthen all three micro-foundation dimensions, but with differential intensity—sensing and seizing benefits are most pronounced, reflecting digital technologies' comparative advantage in information processing and decision acceleration over asset reconfiguration, which remains more organizationally contingent.

Third, by situating DCT in the Indian manufacturing context, the study contributes to calls for theoretical contextualization in international business research (Peng et al., 2008; Teece, 2018). The finding that mediation effects differ across firm-size categories suggests that DCT's universal claims require qualification in heterogeneous emerging market environments.

10. Practical Implications

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The study's findings yield actionable guidance for multiple stakeholder groups. For manufacturing executives, the primacy of seizing capabilities as a mediation pathway implies that digital transformation investments must be accompanied by organizational mechanisms that accelerate opportunity exploitation—including agile project management systems, cross-functional digital innovation teams, and streamlined resource-allocation processes. Investing in digital technologies without corresponding seizing capability development will yield sub-optimal performance returns.

For SME managers, the weaker mediation effects suggest a need for targeted capability-building interventions beyond technology adoption. Government programs and industry associations should consider providing SMEs with access to digital intelligence platforms, decision-support tools, and managerial training in opportunity assessment to strengthen their sensing and seizing capabilities. Policy initiatives such as India's Digital India program could be redesigned to incorporate these capability-development components alongside technology subsidies.

For investors and strategy consultants, the multi-group findings indicate that return on digital investment assessments should be firm-size-specific: large enterprises can more reliably leverage digital transformation through dynamic capability pathways, whereas SME performance effects may require longer time horizons or different value-creation mechanisms.

This study examined the mediating role of dynamic capabilities in the relationship between digital transformation and organizational performance among 412 senior managers in Indian manufacturing firms. Using PLS-SEM, the findings confirm that sensing, seizing, and reconfiguring capabilities individually mediate this relationship, with seizing capabilities representing the dominant pathway. Multi-group analysis reveals differential mediation effects across firm-size categories, establishing important boundary conditions for DCT in emerging market contexts.

The study is not without limitations. The cross-sectional design precludes causal inference, and longitudinal data would more rigorously establish the temporal dynamics of dynamic capability development following digital investment. The sample's restriction to Indian manufacturing limits cross-national generalizability. Future research should examine service sector firms, employ longitudinal panel designs, and extend the model to incorporate environmental dynamism and digital leadership as additional moderating variables.

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11. Conclusion

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