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The effect of digital transformation and organization agility on organizational performance: The mediating role of innovation capability

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Abstract---Digital transformation and organizational agility have become increasingly important strategic capabilities for organizations seeking to sustain competitiveness in dynamic business environments. Nevertheless, the mechanisms through which these capabilities translate into superior organizational performance require further investigation. This study aims to examine the effects of digital transformation and organizational agility on organizational performance, with innovation capability serving as a mediating variable. Drawing on Dynamic Capabilities Theory, the study proposes an explanatory quantitative research model incorporating direct and indirect relationships among four organizational constructs. The proposed research design employs a cross-sectional survey, with data intended to be collected from 250 managerial and professional respondents across business organizations. Data analysis is designed to employ IBM SPSS Statistics for descriptive statistics, instrument

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assessment, and multiple regression, complemented by PROCESS Macro Model 4 with 5,000 bootstrap samples for mediation analysis. For methodological illustration, simulated statistical findings indicate that digital transformation and organizational agility are positively associated with innovation capability and organizational performance. Innovation capability also demonstrates a positive association with organizational performance and partially mediates both relationships. These illustrative findings suggest that organizational performance may depend not only on technological integration and adaptive organizational practices but also on the ability to translate these resources into meaningful innovations. The study offers a theoretically grounded framework for examining how organizations can integrate digital transformation, organizational agility, and innovation capability to strengthen performance.

***Keywords*---**Digital Transformation, Organizational Agility, Innovation Capability, Organizational Performance, Dynamic Capabilities, Mediation Analysis.

Introduction

Digital transformation has fundamentally changed how organizations develop business strategies, manage operational processes, interact with customers, and create competitive value. The increasing integration of digital technologies into organizational activities has encouraged companies to reconsider their traditional business models and adopt more flexible approaches to achieving organizational objectives. Digital transformation is therefore no longer understood solely as the implementation of digital technologies but as a strategic organizational process involving technological, structural, and managerial changes. Verhoef et al. (2021) emphasize that digital transformation involves fundamental changes in organizational structures, business models, and value creation mechanisms, requiring organizations to develop capabilities that support long-term competitiveness.

Despite the growing adoption of digital technologies, the relationship between digital transformation and organizational performance remains complex. Investments in digital infrastructure, information systems, and technology-based business processes do not necessarily produce immediate improvements in productivity, efficiency, or competitive performance. Organizations may experience difficulties translating technological investments into measurable outcomes when their internal structures, employee competencies, and managerial practices are insufficiently aligned with their digital strategies. Consequently, understanding the organizational capabilities that complement digital transformation is essential for explaining differences in organizational performance.

Organizational agility represents one capability that may strengthen an organization's capacity to respond to technological developments and environmental uncertainty. Organizational agility refers to the ability to recognize

changes, make timely decisions, reconfigure resources, and respond effectively to emerging opportunities or threats. Teece et al. (2016) explain that organizational agility is closely associated with dynamic capabilities because organizations operating under uncertainty must continually adapt their resources and strategic responses. Organizations characterized by greater agility may therefore demonstrate stronger responsiveness, operational flexibility, and competitive resilience.

The relationship between digital transformation and organizational agility has received increasing attention in organizational research. AlNuaimi et al. (2022) highlight the importance of leadership, agility, and digital strategy in managing digital transformation. Similarly, Xu et al. (2024) demonstrate the relevance of organizational agility and information-related capabilities in explaining the relationship between digital transformation and corporate innovation performance. These studies suggest that technology and organizational adaptability operate as complementary capabilities rather than independent determinants of success.

However, organizational agility and digital transformation may not be sufficient to generate superior performance without the capability to develop and implement innovation. Innovation capability refers to an organization's capacity to generate, adopt, develop, and implement new ideas, products, services, processes, and business practices. This capability enables organizations to transform technological resources and adaptive responses into outcomes that create value for customers, improve operational processes, and strengthen competitive differentiation. Innovation capability can therefore be conceptualized as an important intermediate mechanism through which organizational resources contribute to organizational performance.

Theoretically, this relationship can be explained through Dynamic Capabilities Theory. Teece et al. (1997) argue that competitive advantage in rapidly changing environments depends on an organization's ability to integrate, build, and reconfigure internal and external competencies. Within this perspective, digital transformation provides technology-enabled organizational resources, organizational agility facilitates adaptive responses, and innovation capability enables the development and implementation of new value-creating solutions. Organizational performance represents the potential outcome of these interconnected capabilities.

Recent empirical research provides support for investigating the proposed relationships. Research on electric vehicle enterprises demonstrates that digital transformation, agility, and innovation-related capabilities are positively associated with organizational performance (2024). Studies examining digital transformation and innovation performance also indicate that organizational capabilities play important intermediary roles (Xu et al., 2024). However, the conceptual distinction between organizational agility as an adaptive capability and innovation capability as a value-creation capability deserves additional attention.

The present study addresses this issue by proposing innovation capability as a mediator of two relationships: the effect of digital transformation on organizational performance and the effect of organizational agility on organizational performance. Unlike models that position organizational agility solely as a mediator of digital transformation, the proposed framework treats digital transformation and organizational agility as parallel explanatory constructs while examining their respective indirect effects through innovation capability.

The contribution of this study is therefore twofold. Theoretically, it develops an integrated framework based on Dynamic Capabilities Theory to explain how technological transformation and organizational adaptability may contribute to organizational performance through innovation capability. Practically, the study provides a framework for identifying managerial priorities related to digital investment, organizational flexibility, innovation development, and performance improvement.

Accordingly, this study aims to examine the direct effects of digital transformation and organizational agility on innovation capability and organizational performance, investigate the influence of innovation capability on organizational performance, and assess the mediating role of innovation capability in both relationships.

Literature Review and Hypothesis Development

Digital Transformation and Organizational Performance

Digital transformation refers to the strategic integration of digital technologies into organizational processes, operational systems, customer interactions, and business models. Rather than focusing exclusively on technological adoption, digital transformation involves organizational changes that influence how resources are allocated and value is delivered. Verhoef et al. (2021) suggest that successful digital transformation requires organizations to reconsider existing capabilities and structures. Digital technologies may enhance operational coordination, information accessibility, decision-making efficiency, and service delivery.

From a dynamic capabilities perspective, digital transformation may strengthen performance by enabling organizations to recognize opportunities and reconfigure business activities. Effective digital integration can potentially reduce process inefficiencies, accelerate information flows, and improve organizational responsiveness. Therefore, the following hypothesis is proposed:

H1: Digital transformation has a positive and significant effect on organizational performance.

Organizational Agility and Organizational Performance

Organizational agility reflects the capability to respond rapidly and effectively to internal and external changes. Agile organizations typically demonstrate flexibility in decision-making, cross-functional coordination, and resource allocation. Teece et al. (2016) emphasize that organizational agility is important when organizations face uncertainty and technological disruption. By maintaining adaptive

organizational processes, organizations may improve operational continuity, customer responsiveness, and competitive performance.

Organizational agility also enables decision-makers to reduce delays between identifying changes and implementing appropriate responses. Consequently, organizations with greater agility may achieve better performance than organizations constrained by rigid operational structures.
H2: Organizational agility has a positive and significant effect on organizational performance.

Digital Transformation and Innovation Capability
Digital transformation facilitates the development of innovation capability by providing access to digital information, analytical tools, collaborative technologies, and integrated operational systems. Digital technologies can support idea generation, knowledge sharing, experimentation, and the development of innovative products or services.

Xu et al. (2024) identify important connections between digital transformation and innovation-related outcomes, particularly through organizational capabilities. Digital transformation may consequently provide an enabling foundation for organizations to develop innovative solutions and improve internal processes.
H3: Digital transformation has a positive and significant effect on innovation capability.

Organizational Agility and Innovation Capability
Organizational agility may facilitate innovation by enabling organizations to respond quickly to market developments, customer preferences, and technological opportunities. Agile organizations may be more capable of reallocating resources, coordinating employees across departments, and experimenting with new approaches.

In dynamic business environments, the ability to adapt rapidly may reduce organizational barriers to innovation. Through flexible decision-making and responsive management practices, organizations can potentially improve their capacity to introduce new products, services, and operational processes.
H4: Organizational agility has a positive and significant effect on innovation capability.

Innovation Capability and Organizational Performance
Innovation capability can contribute to organizational performance by supporting the continuous development of new solutions and improving existing organizational activities. Innovations may generate competitive advantages through product differentiation, operational efficiency, customer satisfaction, and the creation of new market opportunities.

Dynamic Capabilities Theory suggests that organizations achieve superior outcomes when they can transform internal resources and competencies into valuable strategic activities (Teece et al., 1997). Innovation capability represents one mechanism through which technological and organizational resources can become sources of competitive value.

H5: Innovation capability has a positive and significant effect on organizational performance.

The Mediating Role of Innovation Capability
Although digital transformation and organizational agility may influence organizational performance directly, their effects may also operate indirectly through innovation capability. Digital transformation provides technological resources that support experimentation and innovation development, while organizational agility enables responsive and flexible implementation. Innovation capability then transforms these resources into improved products, processes, and organizational practices.

This proposed mechanism reflects the dynamic capabilities perspective, which explains organizational competitiveness through the effective integration and reconfiguration of strategic resources. Mediation analysis enables the examination of whether innovation capability explains part of the relationships between the independent variables and organizational performance.

Methods

Research Design
This study adopts a quantitative explanatory research design to examine the proposed relationships among digital transformation, organizational agility, innovation capability, and organizational performance. A cross-sectional survey approach is proposed because the research focuses on examining associations among organizational constructs measured at a single point in time.

The explanatory design is appropriate for statistically testing hypotheses derived from Dynamic Capabilities Theory. The proposed analysis combines multiple linear regression and mediation analysis to estimate direct and indirect statistical relationships among the variables.

Although the hypotheses use directional language, the cross-sectional observational design does not independently establish causality. The interpretation of the findings must therefore consider the theoretical model and limitations of the research design.

Population and Sample
The target population comprises managerial and professional employees working in business organizations that have implemented digital technologies in their operational or managerial processes. Eligible respondents are individuals who possess sufficient knowledge of organizational practices, digital transformation initiatives, innovation activities, and performance outcomes.
The proposed study employs purposive sampling based on the following criteria:

1. Respondents are employed in organizations that have implemented digital technology in business operations.
2. Respondents have at least one year of work experience in their current organization.
3. Respondents occupy managerial, supervisory, or relevant professional positions.

4. Respondents have adequate knowledge of organizational processes and performance.

For planning purposes, the proposed sample size is 250 respondents. This target is intended to support multivariable regression and mediation analysis, although the final sample requirement should be assessed through an a priori statistical power analysis considering the anticipated effect sizes, significance level, statistical power, and number of predictors. The proposed sample characteristics and numerical results presented later are illustrative and do not represent actual respondents.

Data Collection Procedure
Primary data will be collected using a structured questionnaire distributed electronically or directly to eligible respondents. Participation will be voluntary, and respondents will receive an explanation of the study's purpose, confidentiality procedures, and intended use of the collected information.

The questionnaire will consist of two sections. The first section will collect respondent characteristics, including gender, age, educational background, employment position, and work experience. The second section will measure digital transformation, organizational agility, innovation capability, and organizational performance.

Responses will be recorded using a five-point Likert scale ranging from 1 (*Strongly Disagree*) to 5 (*Strongly Agree*). Higher scores will indicate more positive perceptions of the corresponding organizational construct.

Operational Definition and Measurement

Table 1. Operationalization of Research Variables

Variable	Operational definition	Proposed indicators	Number of items
Digital Transformation (X_1)	The extent to which digital technologies are integrated into organizational strategies and operations	Digital integration, process automation, data-driven decisions, digital collaboration, digital strategy	5
Organizational Agility (X_2)	The ability to recognize and respond effectively to organizational and environmental changes	Responsiveness, flexibility, decision-making speed, resource reconfiguration, cross-functional coordination	5
Innovation Capability (M)	The ability to develop, adopt, and implement new products, services, processes, or practices	Idea generation, experimentation, innovation implementation, process improvement, innovation support	5

Variable	Operational definition	Proposed indicators	Number of items
Organizational Performance (Y)	The perceived effectiveness of organizational operations and strategic outcomes	Operational efficiency, productivity, service quality, customer satisfaction, goal achievement	5

Primary Data, 2026

The score of each construct will be calculated using the mean of its corresponding valid questionnaire items, provided that reliability and dimensionality assessments support aggregation.

Data Analysis Techniques
Data analysis is planned using IBM SPSS Statistics and the PROCESS Macro developed by Hayes. The analytical procedures consist of descriptive statistics, instrument assessment, diagnostic testing, multiple regression, and mediation analysis.

Descriptive statistics will summarize respondent characteristics and the distribution of research variables. Internal consistency will be examined using Cronbach's alpha, with a coefficient of 0.70 or higher used as a conventional threshold. Corrected item-total correlations will be evaluated as preliminary indicators of item consistency, while exploratory factor analysis will assess the proposed measurement structure.

Regression diagnostics will include the examination of residual patterns, multicollinearity, potential influential observations, and the assumption of linearity. Variance Inflation Factor (VIF) values will be assessed to identify multicollinearity among predictors.

The proposed regression equations are:
Equation 1: Innovation Capability
$M = \alpha_0 + a_1X_1 + a_2X_2 + \varepsilon_1$
Equation 2: Organizational Performance
$Y = \beta_0 + c'_1X_1 + c'_2X_2 + bM + \varepsilon_2$
Where:
X_1 = Digital Transformation
X_2 = Organizational Agility
M = Innovation Capability
Y = Organizational Performance
a_1, a_2 = Effects of the independent variables on the mediator
b = Effect of the mediator on the dependent variable, controlling for both independent variables
c'_1, c'_2 = Direct effects of the independent variables on organizational performance
ε = Regression error

Mediation effects will be evaluated using PROCESS Macro Model 4 with 5,000 bootstrap samples and 95% confidence intervals. Each mediation pathway will be

estimated while including the other independent variable as a covariate, preserving the proposed parallel-predictor model.

The indirect effects are specified as:
Digital Transformation → Innovation Capability → Organizational Performance = $a_1 \times b$
Organizational Agility → Innovation Capability → Organizational Performance = $a_2 \times b$
A mediation effect will be considered statistically supported when its bootstrap confidence interval does not include zero. The statistical significance level for other inferential tests is set at 0.05.

Result

Important: The following results constitute a hypothetical statistical illustration for the proposed research model. They are not actual SPSS outputs and must not be presented as empirical findings until replaced with results calculated from genuine respondent data.

Respondent Characteristics
For illustration, the proposed analysis assumes a dataset consisting of 250 valid responses.

Table 2. Illustrative Respondent Characteristics (N = 250)

Characteristics	Category	Frequency	Percentage
Gender	Male	132	52.8%
	Female	118	47.2%
Age	21–30 years	68	27.2%
	31–40 years	104	41.6%
	41–50 years	56	22.4%
	Above 50 years	22	8.8%
Education	Diploma	35	14.0%
	Bachelor's degree	158	63.2%
	Postgraduate degree	57	22.8%
Work experience	1–5 years	92	36.8%
	6–10 years	87	34.8%
	Above 10 years	71	28.4%

Primary Data, 2026

In this illustrative profile, respondents aged 31–40 years constitute the largest age category, representing 41.6% of the proposed sample. Most respondents hold bachelor's degrees, while 28.4% have more than ten years of work experience. These assumed characteristics describe the intended analytical scenario rather than an observed sample. Effects of Digital Transformation and Organizational Agility on Innovation Capability.

Table 3. Regression Model Predicting Innovation Capability

Independent variable	Standardized β	t-value	p-value	Decision
Digital Transformation	0.450	7.82	<0.001	H3 supported
Organizational Agility	0.350	6.08	<0.001	H4 supported

Illustrative model summary: $R^2 = 0.490$; Adjusted $R^2 \approx 0.486$; $F(2, 247) \approx 118.7$; $p < 0.001$.
Primary Data, 2026

The illustrative regression estimates indicate positive relationships between both independent variables and innovation capability. Digital transformation demonstrates the larger standardized coefficient (β = 0.450), followed by organizational agility (β = 0.350). Both hypothetical effects are statistically significant at $p < 0.001$.

The model's illustrative R^2 value of 0.490 indicates that digital transformation and organizational agility jointly account for approximately 49.0% of the variation in innovation capability in the assumed analytical scenario. The remaining variation is attributed to other variables and unexplained factors. Accordingly, the illustrative results are consistent with H3 and H4.

Effects on Organizational Performance

Table 4. Multiple Regression Model Predicting Organizational Performance

Independent variable	Standardized β	t-value	p-value	Decision
Digital Transformation	0.220	3.47	0.001	H1 supported
Organizational Agility	0.180	2.96	0.003	H2 supported
Innovation Capability	0.400	6.12	<0.001	H5 supported

Illustrative model summary: $R^2 = 0.560$; Adjusted $R^2 \approx 0.555$; $F(3, 246) \approx 104.4$; $p < 0.001$.
Primary Data, 2026

In the illustrative regression model, digital transformation demonstrates a positive association with organizational performance (β = 0.220; p = 0.001), controlling for organizational agility and innovation capability. Organizational agility also shows a positive association with performance (β = 0.180; p = 0.003). Innovation capability exhibits the largest standardized direct coefficient (β = 0.400; $p < 0.001$), suggesting that innovation-related organizational competencies may have an important role in explaining performance differences when the other predictors are included.

The illustrative coefficient of determination ($R^2 = 0.560$) indicates that the model accounts for approximately 56.0% of the variation in organizational performance in the hypothetical scenario. These results provide illustrative support for H1, H2, and H5.

Mediation Analysis
The proposed mediation tests examine whether innovation capability indirectly links digital transformation and organizational agility to organizational performance.

Table 5. Illustrative Bootstrap Mediation Results

Mediation pathway	Indirect effect	Bootstrap SE	95% bootstrap CI	Interpretation
Digital Transformation → Innovation Capability → Organizational Performance	0.180	0.039	[0.110, 0.263]	H6 supported
Organizational Agility → Innovation Capability → Organizational Performance	0.140	0.034	[0.080, 0.215]	H7 supported

Primary Data, 2026

The illustrative indirect effect of digital transformation on organizational performance through innovation capability is 0.180. Its hypothetical 95% bootstrap confidence interval excludes zero, indicating a statistically supported positive indirect association under the assumed results. Similarly, organizational agility demonstrates an illustrative positive indirect effect of 0.140 through innovation capability. The hypothetical confidence interval also excludes zero.

Because the direct effects of digital transformation and organizational agility remain positive and statistically significant after including innovation capability, these illustrative results are consistent with complementary partial mediation. The findings illustrate how innovation capability could serve as an intermediary organizational mechanism connecting both digital transformation and organizational agility to organizational performance.

Discussion

Digital Transformation and Organizational Performance
The illustrative results indicate a positive relationship between digital transformation and organizational performance, consistent with the proposed hypothesis. This association suggests that organizations integrating digital technologies into their strategic and operational activities may achieve improved performance through greater process efficiency, information availability, and coordination.

The proposed explanation is consistent with Verhoef et al. (2021), who conceptualize digital transformation as a strategic process involving broader organizational changes rather than technological implementation alone. Digital initiatives can influence performance when organizations align their technologies with business objectives and managerial processes.

The illustrative findings are also compatible with prior empirical research examining digital transformation and firm performance, including studies

emphasizing the importance of organizational capabilities and digital orientation. Such research suggests that the value of technology depends partly on an organization's ability to use digital resources strategically.

The proposed model extends this explanation by treating digital transformation as one of several complementary predictors of organizational performance. Its positive direct coefficient suggests that digital integration may contribute to organizational outcomes independently of the innovation capability pathway.

Nevertheless, the smaller direct coefficient observed after including innovation capability illustrates how the performance-related benefits of digital transformation may be distributed across multiple organizational mechanisms.

Organizational Agility and Organizational Performance
The illustrative regression analysis also indicates a positive association between organizational agility and organizational performance. This result is conceptually consistent with Dynamic Capabilities Theory, which emphasizes an organization's ability to adapt, reconfigure resources, and respond effectively to environmental change.

Teece et al. (2016) explain that organizational agility can be particularly relevant when organizations face uncertainty and rapidly evolving competitive conditions. Agile organizational structures may facilitate timely decision-making, rapid operational adjustments, and more effective coordination among employees.

The proposed association can also be understood through the role of organizational responsiveness in managing emerging opportunities and threats. Organizations capable of adjusting their operational processes may be better positioned to maintain customer satisfaction, improve service delivery, and pursue strategic objectives.

Although the illustrative direct coefficient of organizational agility is smaller than that of digital transformation, its positive relationship with organizational performance suggests that adaptive organizational practices may remain important after accounting for technological transformation and innovation capability.

Therefore, organizational agility should be considered a complementary organizational capability rather than merely a consequence of adopting digital technologies.

Digital Transformation and Innovation Capability
The illustrative findings suggest that digital transformation is positively associated with innovation capability. This relationship reflects the role of digital technologies in enabling information integration, organizational learning, experimentation, and innovation development.

Digital information systems may facilitate knowledge exchange across departments, while digital analytics can support the identification of customer

needs and emerging business opportunities. These capabilities provide potential foundations for developing new products, services, and operational solutions.

Xu et al. (2024) demonstrate the relevance of digital transformation and supporting organizational capabilities in explaining corporate innovation performance. Their findings support the broader argument that technological transformation is connected to the development of innovation-related organizational outcomes.

Within the proposed framework, digital transformation is not conceptualized as innovation itself. Instead, digital transformation provides an organizational foundation that can strengthen innovation capability. This distinction is theoretically important because the adoption of digital technologies may not automatically produce innovative outcomes. Innovation capability requires organizations to combine technological resources with knowledge, managerial support, employee competencies, and effective implementation processes.

Organizational Agility and Innovation Capability

The illustrative positive relationship between organizational agility and innovation capability indicates that adaptive organizational practices may facilitate the development and implementation of new ideas. Organizations that respond rapidly to changing market conditions may be more capable of identifying innovation opportunities, coordinating resources, and conducting organizational experiments. Flexibility in decision-making can also reduce delays associated with developing and implementing innovative solutions.

This relationship is consistent with the argument that dynamic capabilities support organizations in responding to uncertainty through continuous adaptation and resource reconfiguration. Organizational agility may therefore provide an enabling environment for innovation. When organizational structures allow flexible coordination and rapid experimentation, new ideas may be translated into operational improvements more efficiently.

The proposed relationship also highlights a distinction between agility and innovation capability. Agility concerns the organization's ability to adapt and respond, whereas innovation capability concerns its ability to develop and implement novel, value-creating solutions. Although closely related, these constructs represent different organizational capabilities and should be measured separately.

Innovation Capability and Organizational Performance

The illustrative findings identify innovation capability as an important positive predictor of organizational performance. This association suggests that the ability to generate and implement organizational innovation may contribute to operational efficiency, product and service improvement, competitive differentiation, and the achievement of strategic goals.

From the perspective of Dynamic Capabilities Theory, innovation capability allows organizations to transform existing resources and competencies into new forms of value. Organizations that possess technological resources and adaptive structures

but lack innovation capability may encounter difficulties achieving the full potential benefits of these resources.

The relatively strong illustrative regression coefficient suggests that innovation capability may function as an important mechanism connecting strategic resources to organizational outcomes.

The practical implication is that organizations should avoid evaluating technological transformation solely through infrastructure adoption or system implementation. Innovation-related outcomes, including new processes, improved services, and organizational improvements, may provide additional indicators of whether strategic investments contribute to performance.

Mediating Role of Innovation Capability

The central contribution of the proposed study concerns the mediating role of innovation capability. The illustrative mediation results indicate that innovation capability partially mediates the relationship between digital transformation and organizational performance. This suggests that digital transformation may influence performance through two complementary pathways.

The first pathway reflects the direct contribution of digital integration to operational activities. The second pathway reflects an indirect process through which digital transformation strengthens innovation capability, which is subsequently associated with superior organizational performance.

Similarly, innovation capability partially mediates the relationship between organizational agility and organizational performance. This proposed mechanism suggests that organizational adaptability may contribute to performance not only by improving responsiveness but also by enabling innovation development and implementation.

These relationships are theoretically consistent with Dynamic Capabilities Theory. Technological transformation and organizational adaptability may provide enabling conditions, while innovation capability helps convert these conditions into valuable organizational outcomes.

The distinction between direct and indirect relationships is important because organizations may differ in their ability to translate technological and adaptive resources into innovation. Two organizations possessing comparable digital infrastructures may achieve different performance outcomes depending on their innovation capabilities.

The proposed model therefore advances an integrated interpretation of organizational performance by emphasizing the complementary roles of technological transformation, organizational flexibility, and innovation capability. However, the proposed mediation should be interpreted as a statistical indirect association rather than definitive causal evidence. Establishing the temporal sequence of the relationships would require longitudinal or otherwise causally informative research designs.

Theoretical Implications

The proposed research contributes to organizational management literature by integrating digital transformation, organizational agility, and innovation capability within a single framework grounded in Dynamic Capabilities Theory.

First, the model extends the application of Dynamic Capabilities Theory by simultaneously considering technology-enabled transformation and organizational adaptability as distinct explanatory constructs.

Second, it conceptualizes innovation capability as a mechanism through which digital and adaptive organizational resources may be associated with organizational performance.

Third, the model provides a framework for assessing whether innovation capability explains part of the performance differences associated with digital transformation and organizational agility.

Finally, by examining two separate indirect pathways, the study can potentially clarify the relative contributions of technological and adaptive organizational capabilities.

These contributions remain theoretical propositions until empirical testing confirms the proposed relationships.

Managerial Implications

The proposed research framework suggests several priorities for organizational management.

Organizations should align digital transformation initiatives with strategic objectives rather than emphasizing technology adoption alone. Digital investments should be accompanied by employee capability development, information-sharing processes, and organizational coordination.

Management should also develop organizational agility by simplifying decision-making procedures, supporting cross-functional collaboration, and facilitating timely responses to changes in customer needs and business conditions.

Furthermore, innovation capability should be strengthened through structured idea-generation activities, organizational learning, employee participation, experimentation, and the implementation of new solutions.

The proposed mediation model suggests that organizations may obtain greater value from digital technologies and adaptive practices when these capabilities are connected to innovation processes. Accordingly, digital transformation, organizational agility, and innovation capability should be considered mutually reinforcing components of organizational development strategies.

Research Limitations and Future Research

The proposed research design has several limitations.

First, the use of a cross-sectional survey restricts the ability to establish causal relationships. Although the proposed model specifies directional hypotheses, temporal precedence cannot be confirmed through single-period observational data.

Second, reliance on self-reported questionnaires may introduce common method bias and subjective evaluation errors, particularly when the same respondents assess both organizational capabilities and performance.

Third, purposive sampling may limit the generalizability of the findings beyond organizations with characteristics similar to those included in the study.
Fourth, the proposed measurement of organizational performance relies on perceived outcomes rather than independently verified financial or operational records. Future studies could incorporate objective indicators such as revenue growth, productivity, profitability, service quality, or operational efficiency.
Fifth, the proposed model does not incorporate contextual factors such as organizational size, industry characteristics, leadership style, competitive intensity, or environmental uncertainty.

Future research could employ longitudinal designs, collect data from multiple organizational sources, compare industry sectors, and examine moderating variables that may affect the relationships between digital transformation, innovation capability, and organizational performance.

Conclusion

This study develops a quantitative research framework to examine the effects of digital transformation and organizational agility on organizational performance, with innovation capability serving as a mediating variable. Drawing on Dynamic Capabilities Theory, the proposed model explains how technology-enabled organizational transformation and adaptive organizational practices may contribute to performance through both direct and indirect relationships.

The hypothetical statistical illustration demonstrates a scenario in which digital transformation and organizational agility are positively associated with innovation capability and organizational performance. Innovation capability also exhibits a positive association with organizational performance and partially mediates both proposed relationships.

These illustrative results should not be regarded as empirical confirmation of the hypotheses. Actual conclusions regarding statistical significance, effect sizes, and mediation must be established through analysis of genuine respondent data.

Conceptually, the proposed study highlights that organizational performance may depend not only on digital technology adoption and adaptive capacity but also on the ability to convert these capabilities into innovation. The framework provides a foundation for future empirical research examining how organizations integrate technological, adaptive, and innovation-related resources to achieve improved organizational performance.

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