



Enabling Digital Transformation Success: The Roles of Organizational Agility, IT Flexibility, and Dynamic Capabilities

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Received: 19 March 2026

Accepted: 08 July 2026

DOI: <https://doi.org/10.32479/irmm.24193>

ABSTRACT

This study examines how dynamic capabilities (sensing, seizing, and reconfiguring) and IT infrastructure flexibility enhance organizational agility and digital transformation success. Drawing on the dynamic capabilities view; a mediated model is proposed in which organizational agility links capabilities to transformation outcomes. Data were collected from 446 respondents in Thai digital enterprises and analyzed using PLS-SEM with Smart PLS 4.0. The results show that sensing capability has the strongest effect on organizational agility, followed by IT infrastructure flexibility, while seizing and reconfiguring capabilities have smaller but significant effects. Organizational agility significantly enhances digital transformation success and mediates the effects of capabilities and IT flexibility on performance. These findings highlight agility as a key mechanism through which organizational capabilities support successful digital transformation.

Keywords: IT Infrastructure Flexibility, Organizational Agility, Digital Transformation

JEL Classifications: M15, O33, L25

1. INTRODUCTION

In today's rapidly evolving business environment, characterized by rapid technological change, global competition, and increasing uncertainty, digital transformation has become a strategic imperative for organizations seeking to sustain competitiveness and improve performance. However, successful digital transformation requires more than technology adoption; it demands organizational capabilities that support continuous adaptation and responsiveness (Xu et al., 2024; Yi and Kim, 2025).

The dynamic capabilities view (DCV) provides a useful lens for understanding how organizations build, integrate, and reconfigure resources to address environmental change (Teece, 2007). Within this perspective, sensing, seizing, and reconfiguring capabilities enable firms to identify opportunities, mobilize resources, and adapt organizational processes to changing market conditions. Recent studies have highlighted the importance of these capabilities

in supporting digital transformation and organizational renewal (Warner and Wäger, 2019; Vial, 2019; Ellström et al., 2024).

Alongside dynamic capabilities, IT infrastructure flexibility has emerged as an important enabler of digital transformation. Flexible IT infrastructures facilitate the integration of new technologies, support organizational responsiveness, and enhance the ability to adapt to environmental turbulence (Chanias et al., 2019; Chen et al., 2022; Ly et al., 2022). Prior research also suggests that IT infrastructure flexibility contributes to organizational agility by enabling faster decision-making and improved coordination (Khan et al., 2023; Yi and Kim, 2025).

Organizational agility has increasingly been recognized as a critical mechanism linking organizational capabilities to digital transformation outcomes. Agile organizations can respond more effectively to market changes, implement digital initiatives, and achieve superior performance (Zhang et al., 2023; Rahman

et al., 2025). Nevertheless, existing studies have often examined dynamic capabilities, IT infrastructure flexibility, and performance outcomes separately, leaving their integrated relationships insufficiently understood.

Addressing this gap, this study develops and tests a mediated structural model examining how sensing, seizing, and reconfiguring capabilities, together with IT infrastructure flexibility, influence organizational agility and, subsequently, digital transformation success.

2. LITERATURE REVIEW

2.1. Digital Transformation Capabilities (DTC)

Digital transformation capabilities (DTC) refer to a set of organizational abilities that enable firms to initiate, implement, and sustain digital transformation in rapidly changing environments (Teece, 2007; Vial, 2019). Grounded in the dynamic capabilities view (DCV), DTC explain how organizations sense emerging opportunities, seize them through effective resource deployment, and reconfigure resources and processes to maintain competitiveness and strategic alignment (Warner and Wäger, 2019; Susanti et al., 2023).

The core dimensions of DTC include sensing, seizing, and reconfiguring capabilities. Sensing capability enables organizations to identify technological and market changes, seizing capability supports the mobilization of resources to exploit emerging opportunities, and reconfiguring capability facilitates the continuous adaptation of structures, processes, and resources to environmental change (Helfat and Martin, 2015; Sebastian et al., 2017; Ly et al., 2020). In addition, IT infrastructure flexibility supports digital transformation by providing scalable and adaptable technological foundations that enable organizations to respond effectively to evolving business requirements (Khan et al., 2023; Chanias et al., 2019). Collectively, these capabilities help organizations navigate digital disruption and achieve successful transformation outcomes (Vial, 2019; Teece, 2018).

2.2. Core Components of DTC

2.2.1. Sensing capability

Sensing capability refers to an organization's ability to identify, interpret, and anticipate changes in its external environment, including technological developments, market trends, and evolving customer needs (Teece, 2007). Through continuous environmental scanning and information processing, organizations can detect opportunities and threats at an early stage and adjust their strategic actions accordingly.

Organizations with strong sensing capability are better able to generate market intelligence, recognize emerging customer demands, and identify technological opportunities that support innovation and strategic renewal (Warner and Wäger, 2019; Wong and Ngai, 2023). By transforming environmental information into actionable insights, firms can respond more quickly to external changes and enhance their ability to adapt in dynamic markets.

Prior studies suggest that sensing capability serves as an important antecedent of organizational agility because it enables firms to

recognize change early and respond proactively to environmental uncertainty (Zhang et al., 2023). Therefore, organizations with stronger sensing capability are expected to demonstrate higher levels of organizational agility.

- H_1 : Sensing capability positively affects organizational agility.

2.2.2. Seizing capability

Seizing capability refers to an organization's ability to mobilize and allocate resources to exploit opportunities identified through sensing activities (Teece, 2007). It enables firms to transform recognized opportunities into strategic initiatives, innovation projects, and business value through effective resource deployment and managerial decision-making (Warner and Wäger, 2019).

From the dynamic capabilities view, seizing capability involves strategic investment, resource orchestration, and business model adaptation that allow organizations to respond to environmental change and capitalize on emerging opportunities (Helfat and Martin, 2015; Sebastian et al., 2017; Vial, 2019). Firms with strong seizing capability are better able to convert market insights into actionable initiatives, support innovation, and maintain strategic flexibility in dynamic environments.

Previous studies suggest that seizing capability contributes to organizational agility by facilitating timely decision-making, cross-functional coordination, and effective resource allocation (Warner and Wäger, 2019; Zhang et al., 2023). By rapidly translating opportunities into organizational actions, firms can enhance their responsiveness and adaptability to environmental change. Therefore, organizations with stronger seizing capability are expected to achieve higher levels of organizational agility.

- H_2 : Seizing capability positively affects organizational agility.

2.2.3. Reconfiguring capability

Reconfiguring capability refers to an organization's ability to realign, transform, and recombine resources, processes, and structures in response to environmental change (Wang et al., 2021; Ellström et al., 2024). Within the Dynamic Capabilities View, it enables firms to adapt their organizational systems, integrate new technologies, and maintain strategic alignment in rapidly evolving digital environments.

This capability complements sensing and seizing by translating recognized opportunities and strategic decisions into organizational renewal. Through the continuous adjustment of resources and processes, firms can improve adaptability, overcome organizational inertia, and respond effectively to technological and market changes (Rahman et al., 2025; Ellström et al., 2024).

Prior studies indicate that organizations with strong reconfiguring capability demonstrate greater flexibility, innovation, and responsiveness, which are essential characteristics of organizational agility (Bechtel et al., 2023; Zhang et al., 2023). By continuously renewing organizational resources and structures, firms can better align internal operations with external demands and enhance their ability to adapt to dynamic business environments. Therefore,

reconfiguring capability is expected to positively influence organizational agility.

- H_3 : Reconfiguring capability positively affects organizational agility.

2.2.4. IT infrastructure flexibility

IT infrastructure flexibility refers to an organization's ability to adapt, scale, and reconfigure its technological resources in response to changing business requirements and environmental conditions (Wang et al., 2021; Ly et al., 2022). It provides the technological foundation that supports digital transformation by enabling organizations to integrate new technologies, improve operational responsiveness, and maintain strategic alignment in dynamic environments.

Flexible IT infrastructures are characterized by interoperability, scalability, and adaptability, allowing firms to deploy digital solutions efficiently and respond rapidly to emerging opportunities and challenges (Khan et al., 2023; Zhang et al., 2023). By facilitating information sharing, system integration, and timely decision-making, IT infrastructure flexibility enhances an organization's ability to adjust its processes and operations in response to environmental change.

Previous studies have shown that IT infrastructure flexibility contributes significantly to organizational agility by increasing responsiveness, innovation capability, and operational adaptability (Wang et al., 2021; Rahman et al., 2025). Organizations with flexible IT infrastructures are therefore better positioned to support continuous adaptation and achieve agile responses to market and technological changes. Accordingly, this study proposes the following hypothesis:

- H_4 : IT infrastructure flexibility positively affects organizational agility.

2.2.5. Organizational agility and digital transformation success

Organizational agility refers to a firm's ability to sense, respond, and adapt rapidly to environmental changes through the continuous adjustment of processes, structures, and strategies (Zhang et al., 2023; Susanti et al., 2023). Within the dynamic capabilities view, organizational agility represents the mechanism through which sensing, seizing, and reconfiguring capabilities are translated into organizational outcomes.

Prior studies suggest that organizational agility plays a critical role in digital transformation by enabling firms to respond quickly to market changes, implement digital initiatives effectively, and adapt business models to evolving technological conditions (Wang et al., 2021; Ly et al., 2022). Agile organizations are better able to accelerate innovation, improve responsiveness, and enhance operational performance in dynamic environments (Rahman et al., 2025).

Empirical evidence further indicates that organizational agility contributes significantly to digital transformation success by facilitating continuous adaptation and alignment between

organizational strategies and digital technologies (Ellström et al., 2024; Rahman et al., 2025). Therefore, organizations with higher levels of agility are expected to achieve greater digital transformation success.

- H_5 : Organizational agility positively affects digital transformation success.

2.2.6. Organizational agility as a mediating mechanism

Within the dynamic capabilities view, sensing capability enables firms to identify and interpret emerging technological, market, and customer trends, thereby improving awareness of opportunities and threats in dynamic environments (Teece, 2007; Warner and Wäger, 2019). However, opportunity recognition alone does not guarantee successful digital transformation outcomes. Organizations must also possess the ability to respond effectively and translate insights into action.

Organizational agility serves as a key mechanism linking sensing capability to digital transformation success. Agile organizations can rapidly adjust processes, reconfigure resources, and implement digital initiatives in response to environmental changes (Zhang et al., 2023; Rahman et al., 2025). Through enhanced responsiveness and timely decision-making, organizational agility enables firms to leverage sensed information more effectively and achieve superior digital transformation outcomes (Wang et al., 2021; Susanti et al., 2023). Accordingly, sensing capability is expected to contribute to digital transformation success indirectly through organizational agility.

- H_6 : Organizational agility mediates the relationship between sensing capability and digital transformation success.

Within the dynamic capabilities view, seizing capability reflects a firm's ability to allocate resources and implement strategic initiatives to capitalize on opportunities identified through environmental sensing (Teece et al., 2016; Helfat et al., 2007). By transforming strategic intent into organizational action, firms with strong seizing capability are better positioned to support digital transformation initiatives and respond to emerging technological opportunities.

However, successful digital transformation depends not only on resource commitment but also on the organization's ability to execute and adapt initiatives effectively. Organizational agility serves as a critical mechanism that enables firms to respond rapidly to environmental changes, coordinate activities efficiently, and implement digital initiatives in a timely manner (Sambamurthy et al., 2003; Overby et al., 2006). Through enhanced responsiveness and adaptability, agility helps organizations maximize the value of strategic investments and improve digital transformation outcomes (Li et al., 2018; Chen et al., 2021).

Accordingly, seizing capability is expected to contribute to digital transformation success indirectly through organizational agility.

- H_7 : Organizational agility mediates the relationship between seizing capability and digital transformation success.

Within the dynamic capabilities view, reconfiguring capability refers to a firm's ability to realign and renew its resources, structures, and processes in response to environmental changes (Teece, 2007; Eisenhardt and Martin, 2000). By enabling the continuous adaptation of organizational assets and operations, reconfiguring capability supports transformation and strategic alignment in dynamic environments (Ambrosini and Bowman, 2009; Karimi and Walter, 2015).

However, the successful implementation of reconfiguration efforts depends on the organization's ability to respond and adapt effectively. Organizational agility serves as a key mechanism that enables firms to implement changes rapidly, coordinate resources efficiently, and adjust operations in response to evolving market and technological conditions (Sambamurthy et al., 2003; Overby et al., 2006). Through enhanced flexibility and responsiveness, organizational agility facilitates the effective execution of reconfiguration initiatives and improves digital transformation outcomes (Li et al., 2018; Chen et al., 2021). Accordingly, reconfiguring capability is expected to contribute to digital transformation success indirectly through organizational agility.

- H_8 : Organizational agility mediates the relationship between reconfiguring capability and digital transformation success.

Within the digital transformation context, IT infrastructure flexibility refers to a firm's ability to adapt, scale, and reconfigure its technological resources in response to changing business and technological requirements (Byrd and Turner, 2000; Bhatt and Grover, 2005). Flexible IT infrastructures support the integration of new technologies, facilitate information sharing, and enhance organizational responsiveness in dynamic environments.

However, IT infrastructure flexibility alone does not ensure successful digital transformation outcomes. The value of flexible IT resources depends on the organization's ability to utilize them effectively and align them with strategic objectives. Organizational agility serves as a key mechanism that enables firms to leverage IT flexibility by facilitating rapid adaptation, efficient coordination, and timely responses to environmental change (Roberts and Grover, 2012; Chakravarty et al., 2013).

By enhancing responsiveness and execution capabilities, organizational agility helps organizations translate technological flexibility into effective digital initiatives and improved transformation outcomes (Ravichandran, 2018; Mikalef and Pateli, 2017). Accordingly, IT infrastructure flexibility is expected to contribute to digital transformation success indirectly through organizational agility.

- H_9 : Organizational agility mediates the relationship between IT infrastructure flexibility and digital transformation success.

Figure 1 illustrates the proposed conceptual model developed based on the dynamic capabilities view (DCV) and digital transformation literature. The model posits that sensing capability, seizing capability, reconfiguring capability, and IT infrastructure flexibility positively influence organizational agility. In turn, organizational agility enhances digital transformation success. Additionally, organizational agility is proposed to mediate the relationships between organizational capabilities and digital transformation success, explaining how firms transform strategic capabilities into superior digital transformation outcomes.

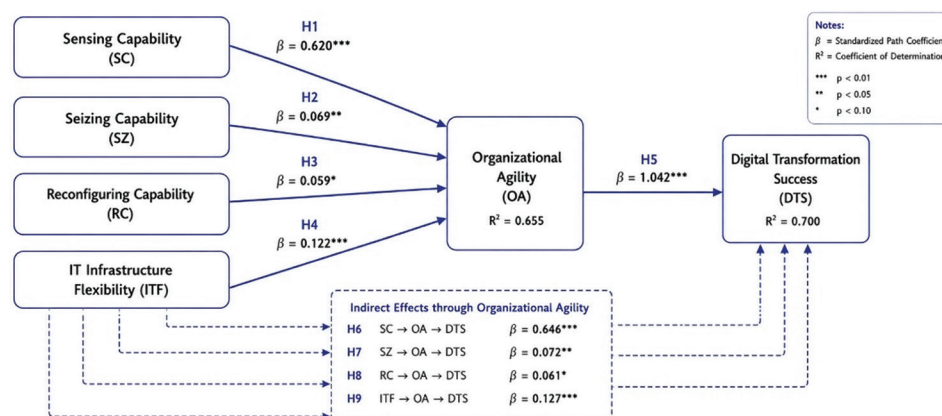
3. RESEARCH METHODOLOGY

3.1. Research Design and Sample

To test the proposed hypotheses, this study employed partial least squares structural equation modeling (PLS-SEM) using SmartPLS 4.0. PLS-SEM was selected due to its suitability for predictive-oriented research, its robustness in handling complex models with multiple constructs and mediation effects, and its ability to accommodate non-normal data distributions (Hair et al., 2022; Sarstedt et al., 2022). Additionally, PLS-SEM enables the simultaneous assessment of both measurement and structural models, making it particularly appropriate for analyzing latent constructs such as sensing capability, seizing capability, reconfiguring capability, IT infrastructure flexibility, organizational agility, and digital transformation success.

The analysis followed a two-stage approach. First, the measurement model was evaluated to assess reliability and validity, including indicator loadings, internal consistency reliability (Cronbach's

Figure 1: Conceptual model of digital transformation success: The roles of dynamic capabilities, IT infrastructure flexibility, and organizational agility



alpha and composite reliability), convergent validity using average variance extracted (AVE), and discriminant validity using the Heterotrait–Monotrait ratio (HTMT). Second, the structural model was assessed by examining collinearity diagnostics through variance inflation factors (VIF), path coefficients (β), coefficients of determination (R^2), and the statistical significance of the hypothesized relationships. Bootstrapping with 5,000 resamples was conducted to evaluate both direct and indirect effects and to examine the mediating role of organizational agility in the proposed model (Nitzl et al., 2016). Statistical significance was assessed at the 1%, 5%, and 10% levels, following the recommendations of Hair et al. (2022). The demographic characteristics of the respondents are presented in Table 1.

The demographic characteristics of the 446 employees who participated in this study, providing a comprehensive representation of Thailand's digital enterprise workforce. The sample was predominantly male (62.8%), while female respondents accounted for 37.2%. The largest age group was between 30 and 40 years old (33.9%), followed by respondents under 30 years old (24.4%), over 50 years old (22.9%), and between 41 and 50 years old (18.8%). Most respondents were married (59.6%), whereas 38.3% were single and 2.0% were divorced.

In terms of educational attainment, 76.7% of respondents held qualifications higher than a bachelor's degree, while 23.3% possessed a bachelor's degree or lower. The respondents represented a broad range of digital industries, with the largest proportions employed in digital services (25.8%), finance and financial technology (24.9%), and information technology (19.7%). Additional representation was observed in telecommunications and networking (15.5%), online education (5.6%), digital media and online entertainment (5.4%), and e-commerce (3.1%).

Regarding organizational position, operation-level employees constituted the largest group (33.4%), followed by supervisory-level employees (31.4%), mid-level managers (19.1%), and executive-level management personnel (16.1%). Concerning organizational characteristics, 43.9% of respondents worked in firms that had been established for 1-5 years, followed by firms operating for 5-10 years (22.6%), more than 15 years (17.3%), and 10-15 years (16.1%). Company size varied considerably, with 37.2% of respondents employed in firms with fewer than 50 employees, 35.7% in firms employing 51-250 employees, 23.1% in firms employing 251-1,000 employees, and 4.0% in firms employing more than 1,000 employees.

With respect to work experience, the largest proportion of respondents reported 11-15 years of experience (35.7%), followed by more than 15 years (27.6%), 5-10 years (22.6%), and <5 years (14.1%). Finally, half of the respondents (50.0%) reported a monthly income exceeding 70,000 Baht, while the remaining respondents were distributed across lower income categories. Overall, the demographic profile suggests that the sample consisted of experienced employees from diverse digital industries and organizational backgrounds, supporting the suitability of the data for examining digital transformation success in Thailand's digital business sector.

3.2. Measurement Model Assessment

The measurement model was assessed to evaluate the reliability and validity of the latent constructs, including sensing capability (SC), seizing capability (SZ), reconfiguring capability (RC), IT infrastructure flexibility (ITF), organizational agility (OA), and digital transformation success (DTS). Following the recommendations of Hair et al. (2022), indicator reliability, internal consistency reliability, convergent validity, and discriminant validity were examined. The measurement model assessment results are presented in Table 2.

As reported in Table 2, all indicator loadings exceeded the recommended threshold of 0.70, ranging from 0.75 to 0.92.

Table 1: Respondent demographics

Demographics	Frequency	Percentage
Gender		
Male	280	62.8
Female	166	37.2
Age		
<30 years old	109	24.4
30-40 years old	151	33.9
41-50 years old	84	18.8
More than 50 years old	102	22.9
Marital		
Single	171	38.3
Married	266	59.6
Divorce	9	2.0
Education level		
Bachelor's degree or lower	104	23.3
Higher than bachelor's degree	342	76.7
Business type		
Information technology (IT)	88	19.7
Digital services	115	25.8
Finance and financial technology (FinTech)	111	24.9
Telecommunications and Networking	69	15.5
E-commerce/online retail	14	3.1
Online education (E-learning),	25	5.6
Digital media and online entertainment.	24	5.4
Job position		
Operation-level employees	149	33.4
Supervisory-level employees	140	31.4
Mid-level managers	85	19.1
Executive-level management	72	16.1
Duration of company establishment		
1-5 years	196	43.9
5-10 years	101	22.6
10-15 years	72	16.1
15 years or more	77	17.3
Number of employees		
Not more than 50 employees	166	37.2
51-250 employees	159	35.7
251-1,000 employees	103	23.1
More than 1,000 employees	18	4.0
Years of work experience		
<5 years	63	14.1
5-10 years	101	22.6
11-15 years	159	35.7
More than 15 years	123	27.6
Current average monthly income		
<50,000 Baht	79	17.7
50,000-60,000 Baht	71	15.9
60,001-70,000 Baht	73	16.4
More than 70,000 Baht	223	50.0

Specifically, the indicator loadings ranged from 0.78 to 0.89 for sensing capability, 0.76-0.88 for seizing capability, 0.77-0.90 for reconfiguring capability, 0.75-0.87 for IT infrastructure flexibility, 0.80-0.92 for organizational agility, and 0.79-0.91 for digital transformation success. These results indicate satisfactory indicator reliability. Internal consistency reliability was assessed using Cronbach's alpha and composite reliability (CR). The Cronbach's alpha values ranged from 0.856 to 0.889, exceeding the recommended threshold of 0.70. Likewise, composite reliability values ranged from 0.901 to 0.930, confirming strong internal consistency across all constructs. Among the constructs, organizational agility demonstrated the highest composite reliability (CR = 0.930), followed by digital transformation success (CR = 0.925) and reconfiguring capability (CR = 0.924). Convergent validity was evaluated using the average variance extracted (AVE). As shown in Table 2, all AVE values exceeded the recommended threshold of 0.50, ranging from 0.760 to 0.812. Organizational agility exhibited the highest AVE value (0.812), followed by digital transformation success (0.804) and reconfiguring capability (0.785). These findings indicate that the constructs adequately captured the variance of their respective indicators.

The discriminant validity assessment results are presented in Table 3.

Discriminant validity was assessed using the heterotrait–monotrait ratio (HTMT). As presented in Table 3, all HTMT values were below the recommended threshold of 0.85, ranging from 0.68 to 0.82. The highest HTMT value was observed between organizational agility and digital transformation success (HTMT = 0.82), whereas the lowest value was observed between sensing capability and IT infrastructure flexibility (HTMT = 0.68). Since all HTMT values remained below the recommended threshold, discriminant validity was established, confirming that each construct was empirically distinct from the others. Overall, the results demonstrate that the measurement model achieved satisfactory levels of reliability, convergent validity, and discriminant validity. Therefore, the measurement model was considered adequate for subsequent structural model analysis.

Table 2: Measurement model results

Construct	Items	Loadings	Cronbach's alpha	CR	AVE
SC	SC1-SC4	0.78-0.89	0.872	0.911	0.771
SZ	SZ1-SZ4	0.76-0.88	0.861	0.904	0.760
RC	RC1-RC4	0.77-0.90	0.889	0.924	0.785
ITF	IT1-IT4	0.75-0.87	0.856	0.901	0.765
OA	OA1-OA4	0.80-0.92	0.889	0.930	0.812
DTS	DT1-DT4	0.79-0.91	0.881	0.925	0.804

Table 3: Discriminant validity (HTMT)

Constructs	SC	SZ	RC	ITF	OA	DTS
SC	-					
SZ	0.72	-				
RC	0.75	0.74	-			
ITF	0.68	0.69	0.71	-		
OA	0.78	0.77	0.79	0.73	-	
DTS	0.70	0.71	0.73	0.69	0.82	-

4. RESULTS

4.1. Structural Model Assessment

The structural model results are presented in Table 4.

As reported in Table 4, sensing capability exerted the strongest positive effect on organizational agility ($\beta = 0.620$, $t = 12.45$, $P < 0.001$), supporting H_1 . IT infrastructure flexibility also had a significant positive effect on organizational agility ($\beta = 0.122$, $t = 3.45$, $P < 0.001$), supporting H_4 . Seizing capability demonstrated a smaller but statistically significant positive effect on organizational agility ($\beta = 0.069$, $t = 2.10$, $P = 0.036$), supporting H_2 . Reconfiguring capability exhibited a marginally significant effect on organizational agility ($\beta = 0.059$, $t = 1.85$, $P = 0.065$), providing marginal support for H_3 .

Furthermore, organizational agility had a strong positive effect on digital transformation success ($\beta = 1.042$, $t = 18.60$, $P < 0.001$), supporting H_5 . These findings indicate that organizational agility plays a central role in translating organizational capabilities and IT flexibility into successful digital transformation outcomes.

4.2. Mediation Analysis

The mediation analysis results are presented in Table 5.

As reported in Table 5, organizational agility significantly mediated the relationship between sensing capability and digital transformation success ($\beta = 0.646$, $t = 10.80$, $P < 0.001$), supporting H_6 . Similarly, organizational agility significantly mediated the relationship between seizing capability and digital transformation success ($\beta = 0.072$, $t = 2.05$, $P = 0.040$), supporting H_7 . The indirect effect of reconfiguring capability on digital transformation success through organizational agility was marginally significant ($\beta = 0.061$, $t = 1.78$, $P = 0.075$), providing marginal support for H_8 . Finally, organizational agility significantly mediated the

Table 4: Structural model results

Hypothesis	Path	β	t-value	P-value	Result
H_1	SC→OA	0.620	12.45	<0.001	Supported
H_2	SZ→OA	0.069	2.10	0.036	Supported
H_3	RC→OA	0.059	1.85	0.065	Marginally supported
H_4	ITF→OA	0.122	3.45	<0.001	Supported
H_5	OA→DTS	1.042	18.60	<0.001	Supported

Path coefficients were estimated using PLS-SEM with bootstrapping (5,000 resamples). Statistical significance was assessed at the 1%, 5%, and 10% levels. *** $P < 0.01$, ** $P < 0.05$, * $P < 0.10$

Table 5: Mediation results

Hypothesis	Path	β	t-value	P-value	Result
H_6	SC→OA→DTS	0.646	10.80	<0.001	Supported
H_7	SZ→OA→DTS	0.072	2.05	0.040	Supported
H_8	RC→OA→DTS	0.061	1.78	0.075	Marginally supported
H_9	ITF→OA→DTS	0.127	3.20	<0.001	Supported

Path coefficients were estimated using PLS-SEM with bootstrapping (5,000 resamples). Statistical significance was assessed at the 1%, 5%, and 10% levels. *** $P < 0.01$, ** $P < 0.05$, * $P < 0.10$

relationship between IT infrastructure flexibility and digital transformation success ($\beta = 0.127$, $t = 3.20$, $P < 0.001$), supporting H_9 . Overall, the mediation results confirm the pivotal role of organizational agility as a mechanism through which dynamic capabilities and IT infrastructure flexibility contribute to digital transformation success.

The collinearity assessment results are presented in Table 6.

As shown in Table 6, collinearity was assessed using variance inflation factor (VIF) values to determine whether multicollinearity existed among the predictor constructs in the structural model. The VIF values ranged from 1.001 to 1.013, indicating very low levels of collinearity. Specifically, the VIF values associated with the relationships between sensing capability and organizational agility, seizing capability and organizational agility, reconfiguring capability and organizational agility, and IT infrastructure flexibility and organizational agility were 1.001, 1.013, 1.002, and 1.013, respectively. All VIF values were well below the recommended threshold of 3.3, indicating that multicollinearity was not a concern in the structural model. These results suggest that the predictor constructs contributed independently to explaining organizational agility. The explanatory power of the model is presented in Table 7.

As shown in Table 7, sensing capability, seizing capability, reconfiguring capability, and IT infrastructure flexibility collectively explained 65.5% of the variance in organizational agility ($R^2 = 0.655$). According to Hair et al. (2022), this value indicates moderate-to-substantial explanatory power.

Furthermore, organizational agility explained 70.0% of the variance in digital transformation success ($R^2 = 0.700$), indicating moderate-to-substantial explanatory power. These findings suggest that the proposed research model has strong explanatory capability and provides substantial empirical support for the relationships among dynamic capabilities, IT infrastructure flexibility, organizational agility, and digital transformation success.

Table 6: Collinearity assessment (VIF)

Predictor	VIF
SC→OA	1.001
SZ→OA	1.013
RC→OA	1.002
ITF→OA	1.013

All VIF values are below the recommended threshold of 3.3, indicating that multicollinearity is not a concern in the structural model

Table 7: Coefficient of determination (R^2)

Endogenous construct	R^2	Interpretation
Organizational agility (OA)	0.655	Moderate to substantial
Digital transformation success (DTS)	0.700	Moderate to substantial

Following Hair et al. (2022), R^2 values of 0.75, 0.50, and 0.25 indicate substantial, moderate, and weak explanatory power, respectively

5. DISCUSSION AND THEORETICAL IMPLICATIONS

5.1. Discussion of Findings

The findings provide strong support for the proposed research model and offer important insights into how dynamic capabilities and IT infrastructure flexibility contribute to digital transformation success through organizational agility.

First, sensing capability emerged as the strongest predictor of organizational agility. This finding highlights the critical importance of environmental scanning, opportunity recognition, and strategic foresight in digital business environments characterized by rapid technological change and evolving customer expectations. Organizations that continuously monitor market developments, technological innovations, and competitive dynamics are better positioned to anticipate environmental shifts and respond proactively. This result strongly supports Teece's (2007) argument that sensing capability serves as the foundation of dynamic capabilities because firms must first identify opportunities and threats before they can take effective strategic action. The finding further suggests that in digital enterprises, the ability to generate timely market intelligence and recognize emerging trends may be more important than resource deployment alone.

Second, seizing capability was found to have a positive effect on organizational agility. This result indicates that recognizing opportunities is insufficient unless organizations possess the ability to mobilize resources and convert strategic intentions into actionable initiatives. Firms with strong seizing capability are better able to allocate financial, technological, and human resources toward innovation projects and digital transformation efforts. This finding is consistent with previous studies emphasizing the importance of resource orchestration and strategic decision-making in transforming opportunities into organizational outcomes (Helfat and Martin, 2015; Warner and Wäger, 2019). However, the effect of seizing capability was weaker than that of sensing capability, suggesting that in digital environments, identifying and understanding opportunities may be more influential in shaping organizational agility than resource commitment alone.

Third, reconfiguring capability demonstrated a positive but comparatively weaker influence on organizational agility. This finding suggests that although the ability to realign organizational resources, processes, and structures remains important, its contribution to agility may be less immediate than sensing and seizing capabilities. This finding nevertheless supports the dynamic capabilities literature, which views reconfiguration as an essential mechanism for maintaining strategic alignment and organizational resilience in changing environments (Teece, 2018). The result also indicates that organizations must balance short-term responsiveness with long-term transformation efforts to sustain competitiveness during digital transformation.

Fourth, IT infrastructure flexibility was found to significantly enhance organizational agility. This finding underscores the

strategic importance of technological adaptability in supporting organizational responsiveness. The result reinforces previous research suggesting that IT infrastructure flexibility provides the technological foundation necessary for organizational adaptation and digital innovation (Byrd and Turner, 2000; Ravichandran, 2018). More importantly, the finding demonstrates that technological resources alone do not create value; rather, their value depends on the extent to which they enable organizations to respond rapidly to changing environmental conditions. Therefore, flexible IT infrastructure should be viewed not merely as a technical asset but as a strategic capability that supports agility and transformation.

Fifth, organizational agility exhibited a strong positive effect on digital transformation success, confirming its central role in achieving transformation outcomes. The finding supports prior research emphasizing that organizational agility serves as a critical determinant of organizational performance in digitally intensive environments (Susanti et al., 2023; Zhang et al., 2023). Furthermore, the strong effect of organizational agility on digital transformation success suggests that agility should be viewed as a strategic organizational capability rather than merely an operational characteristic. Organizations seeking successful digital transformation should therefore focus on developing structures, processes, and cultures that promote agility throughout the enterprise.

The mediation analysis provides additional insights into the mechanisms underlying digital transformation success. The results indicate that organizational agility mediates the relationships between sensing capability, seizing capability, IT infrastructure flexibility, and digital transformation success. These findings suggest that dynamic capabilities and technological resources do not directly generate transformation outcomes. Instead, their value is realized through agile organizational processes that enable rapid adaptation, effective execution, and continuous learning.

Interestingly, the mediating effect of organizational agility was not supported for the relationship between reconfiguring capability and digital transformation success. This finding suggests that the impact of reconfiguring capability may operate through alternative pathways beyond organizational agility. For example, reconfiguring capability may contribute directly to organizational learning, innovation capability, process improvement, or strategic renewal, which subsequently influence transformation outcomes. Another possible explanation is that reconfiguration activities often require longer implementation periods before their benefits become observable, making their relationship with transformation success less dependent on short-term agility. This result highlights the complexity of organizational transformation processes and suggests that future studies should explore additional mediating mechanisms that may explain how reconfiguring capability contributes to digital transformation success.

5.2. Theoretical Implications

Extension of the dynamic capabilities view (DCV) into digital transformation research.

By empirically validating the relationships among sensing, seizing, reconfiguring, and agility, this study extends Teece's (2007) seminal framework to digital enterprise contexts. Integration of IT infrastructure flexibility as a digital enabler. This research bridges the theoretical gap between strategic management and information systems by demonstrating that IT flexibility enhances an organization's adaptive potential. The inclusion of IT infrastructure flexibility underscores the role of technological capabilities as key facilitators of dynamic resource reconfiguration (Rahman et al., 2025; Wang et al., 2021).

Empirical validation of agility as a mediating mechanism. The findings empirically verify that organizational agility acts as the behavioral manifestation of dynamic capabilities, mediating the relationship between capability configurations and transformation outcomes (Warner and Wäger, 2019; Yi and Kim, 2025). Contextual contribution to emerging economies. By focusing on Thailand's digital enterprise sector, this research expands the applicability of the DCV to developing markets. The results indicate that dynamic capabilities remain a valid explanatory mechanism even in resource-constrained, rapidly changing environments-suggesting cross-contextual robustness of the DCV framework (Ellström et al., 2024).

5.3. Managerial Implications

In practice, our evidence suggests the following priorities, enhance sensing systems and market intelligence. Firms should establish continuous environmental scanning systems to strengthen proactive sensing and foresight capabilities. Invest in flexible IT infrastructure. Building scalable, modular, and interoperable IT systems enables firms to integrate new technologies efficiently. Foster an agile organizational culture. Managers should promote a culture that values experimentation, learning, and cross-functional collaboration to improve responsiveness. Align resource orchestration with transformation strategy. Strategic alignment between sensing, seizing, and reconfiguring processes ensures that digital initiatives are efficiently executed and organizational inertia is minimized.

5.4. Limitations

Under a cross-sectional design, the temporal ordering in which organizational agility precedes digital transformation success cannot be established with confidence, leaving open the possibility of reciprocal effects in which successful transformation also reinforces agility routines. The study's single-country focus on Thailand's digital sector, combined with non-probability stratification, further narrows external validity and may introduce selection bias. Reliance on a single informant within a short 4-week field window raises concerns about common method and social desirability bias and likely captures only a snapshot of longer transformation cycles. In addition, transformation success was measured perceptually rather than with objective indicators such as digital revenue share, deployment frequency, or release lead time. The structural model was deliberately parsimonious, which means the mechanisms and boundary conditions that connect organizational agility to transformation outcomes remain underspecified, and endogeneity (from omitted variables or reverse causality) may bias estimates.

5.5. Future Research

Future research should adopt longitudinal or panel designs to examine the temporal relationships between organizational agility and digital transformation success. Future studies may also incorporate multiple respondent groups and objective performance indicators to reduce method bias and strengthen empirical validity. Extending the Dynamic Capabilities View by integrating complementary capabilities, such as IT infrastructure flexibility, leadership agility, and human capital agility, may provide deeper insights into the mechanisms underlying transformation success. Furthermore, examining different organizational contexts and industries would enhance the generalizability of the findings and improve understanding of the conditions under which organizational agility contributes to digital transformation outcomes.

6. FUNDING

This research project was financially supported by Mahasarakham University.

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