

**DIGITAL TRANSFORMATION AND ORGANIZATIONAL RESPONSIVENESS:
THE MEDIATING ROLE OF AGILITY AND THE MODERATING EFFECT OF
INDUSTRY DYNAMISM**

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ABSTRACT

This research investigates the relationship between organizational responsiveness and digital transformation, as well as how internal organizational agility and external environmental factors influence this relationship. In accordance with the dynamic capabilities view (DCV), this study contends that digital transformation intensifies responsiveness both directly and indirectly through organizational agility, and this effect is yet more intensified in highly dynamic industries. Data was collected from 70 middle-level and senior managers across different sectors in Lagos, Nigeria, using a standardized questionnaire with validated multiple-item scales. Descriptive statistics provided moderately high involvement in digital programs, whereas reliability testing confirmed high internal consistency for all the constructs (Cronbach's $\alpha \geq 0.76$). Correlation results confirmed high positive correlations among digital transformation, agility, and responsiveness. Multiple regression confirmed Hypothesis 1 (H1) in a direct and statistically significant relationship between digital transformation and organizational responsiveness ($\beta = .55, p < .001$). PROCESS Model 4 mediation analysis provided evidence for Hypothesis 2 (H2) through organizational agility as the mediator for this relationship partially. Moreover, moderation analysis (PROCESS Model 1) confirmed Hypothesis 3 (H3), indicating that industry dynamism positively moderates the interaction between digital transformation and responsiveness (interaction $\beta = .28, p = .018$). The current research contributes to the digital transformation body of knowledge by explaining how technological integration influences adaptive performance. In reality, the study emphasizes the need to align digital projects with agile internal processes and ecological forces to establish competitive responsiveness. The research offers theoretical recommendations and actionable guidance to organizations seeking to navigate increasingly complex and dynamic business environments through strategic digital transformation.

Key words: Digital Transformation, Organizational Responsiveness, Organizational Agility, Industry Dynamism

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INTRODUCTION

The digital transformation has established itself as one of the most significant elements of the strategy of any organization in the 21st century. With businesses experiencing a rapid change in technology, economy and society, the news of having or incorporating the use of digital tools no longer poses an option but by default a survival and growth aspect (Ansong and Boateng, 2019; Tohănean *et al.*, 2020). The process of this transformation is the adoption of the following types of digital technologies: artificial intelligence, cloud computing, big data analytics, and automation (Malik *et al.*, 2022). These tools enable companies to process more efficiently, augment the customer experiences, and generate new value propositions. Yet, potential changes of digital transformation cannot be limited to marketing or customer services as the outside functions (Hughes and Vafeas, 2019). It also affects internal relations, such as the pace of decision making, efficiency of work and responses to changes. Although the increasing number of studies stipulate digital strategies, there remains a paucity of empirical data regarding the influence of digitalization on internal flexibility of organizations. This generates a great possibility to be explored on especially in regard to responsiveness.

Organizational responsiveness refers to the capacity of a firm to sense, interpret as well as respond to changes both internally and externally (Georgewill, 2021). It is a strategic ability that helps in companies staying in the competitive world even in unpredictable environments. Responsiveness is not itself an independent trait but is supported by deep-seated structural and procedural flexibility. This is including the capability to reconfigure the resources rapidly, modify the strategies in an agile way and make timely decisions at various levels of the organization (Quotb, 2024). This can be improved with digital transformation that can dissolve these fixed hierarchies and establish information around the clock. Predictive understanding can be gained by technologies such as the enterprise resource planning (ERP) systems and machine learning algorithms that can enhance response time (Kunduru, 2023). In addition, responsiveness entails speed as well as relevance and accuracy in decision making. Thus, it is necessary to investigate the effects digital tools have on the timeliness and the quality of organizational behavior.

The responsiveness is supported by flexibility in an organization. It describes fluidity of the systems, structures and operations of firms when circumstances alter (Georgewill, 2021). Rigidity of traditional structures can be a barrier in the event of rapid responses particularly when decision-making process is too central (Pacheco-Cubillos *et al.*, 2024). Digital technologies on the contrary can bring modularity and fluid communication that enhances

pivots in a company. To name a few examples, cloud platforms allow working with remote teams and having quick updates, and data dashboards give feedback on job performance in real time (Atluri and Reddy, 2025). This flexibility also enables the various teams and departments to make decisions with minimum reliance with the top management (Browder *et al.*, 2024). The impact is an increase in agile organization that can manage the uncertainty well. To quantify the actual effect of digital transformation on organizational success, it is important that one knows the specific manner in which this transformation increases the flexibility of the business.

To study this relationship, a key research question in this study is as follows: Does digital transformation drive organizational responsiveness? We posit that it does so, by virtue of three interlocking mechanisms, which taken concurrently enhance adaptive capacity. To begin with, digital transformation enhances agility in the internal operations through the automation of routine work and acceleration of processing. This discharges resources to more strategic purposes and makes the organization more responsive. Second, it allows decentralizing the decision-making process, because the digital tools can open the access to real-time data on different levels of the organization. This minimizes chain of command bottlenecks and facilitates more decisions free of human influence. Third, digital systems improve the application of real-time data analytics, which helps companies predict the tendencies of the market and make the necessary operations. Taken together, these mechanisms help achieve an overall stronger and responsive structure in organizations. The theory and practical implications of these findings are important. Theoretically, they posit that digital transformation must be measured not only in terms of its utilization in terms of technology, but on how it has affected organization design and performance (Hanelt *et al.*, 2021; Shen *et al.*, 2022). In a practical sense, companies that hope to make their organizations more responsive should aspire to anything beyond rendering a superficial digital update, preferring to invest in the harmonization of technologies and internal business operations. These involve re-designing the governance models, re-training workers, and designing feedback loops that enable feedback loops using the information provided by digital tools to make strategic decisions. Besides, the impacts could be diverse because of the threshold of technological maturity and the degree of structural elasticity depending on the industry.

LITERATURE REVIEW AND HYPOTHESES

Digital Transformation

Digital transformation can be described as a strategic value-creating process based on the harmonization of digital technologies that essentially alters the way companies operate, compete, and generate value among their stakeholders (Martinez-Pelaz *et al.*, 2023). It more than simple digitizing, which normally refers to the updating of analog data into digital forms. Rather, digital transformation involves the total redesign of business models, organizational structures, and internal processes in order to capture the emerging technologies that are cloud computing, artificial intelligence, and big data analytics. Such transition affects each level of the organization, including the operational processes, customer interaction and even strategic decisions-making. The essence of digital transformation is that it focuses on agility, so that firms are better able to react to market forces and disruptions. It also encourages innovation by opening up new value streams through allowing creation of digital product and services to be developed very quickly. In addition, the process usually involves cultural change, in which companies transition to an organizational culture that is more collaborative, data-oriented, and more tolerant to experimentation. Thus, digital transformation is not only a technological transformation but organizational one (Omol, 2024).

Strategic goals should correspond to technology investments in organizations undergoing digital transformation in an attempt to realize long-term positive benefits (Alojail and Khan, 2023). This necessitates critical evaluation of the current abilities, as well as forming digital maturity in humans, processes, and platforms. A leader is also central to leading this change by nurturing a vision of change and also through having cross-functional adoption of new technologies. Notably, digital transformation is not a single initiative but the process that should be continuously changing depending on the emerging technologies and market demands. It also brings about novel risks like cybersecurity risks, after implementation issues; which need to be tended with foresight. The success of such an organization does not only lie in the ability to adopt the latest tools but also the capacity on how to utilize them to achieve greater responsiveness, efficiency, and innovation. Firms that embrace digital transformation effectively are better positioned to thrive in highly competitive and uncertain environments (Ghosh *et al.*, 2022). Therefore, understanding its drivers, enablers, and organizational impact is crucial for both researchers and practitioners.

Organizational Flexibility and Responsiveness

The most common way of conceptualizing organizational flexibility is the ability to respond or be responsive wherein changes in the surrounding environment are addressed promptly and properly by a firm (Muneeb *et al.*, 2003). This flexibility is associated with the identification of opportunities and threats, the redistribution of resources, the real-time change of strategies. The speed in responding to market change is not the sole determinant of responsiveness but also, the quality of action and decisions taken by a firm in response to the changes in the market. As defined in previous studies, successful responsiveness is based on the two main capabilities which include strategic foresight and structural agility. Strategic foresight will enable firms to be able to tell what the future holds whereas structural agility is the capacity to re-organize functions without any significant disturbances. The capabilities are especially essential in the turbulent environment where it would be uncertain and intensely competitive. Overly rigid organizational structures tend to hinder the ability to respond in time and hence cost treatment opportunities or act with higher risks. Consequently, flexibility transforms to a core competency to sustain the competitive absorption in the dynamic industries (Bari *et al.*, 2022).

The latest changes in technology have provided new avenues towards making organizations more flexible and responsive (Alzoraiki *et al.*, 2024). The application of digital instruments like live analytics, collaboration platforms in the cloud, and decision systems that utilize artificial intelligence can allow firms to track the external signals and can help them act more decisively. These are technologies that allow de-centralized decision making that minimizes the lag in responses by giving data followed by authority to front line units. In addition, the incorporation of digital solutions enhances internal coordination of the organization, guaranteeing that the adaptive changes of one department would match the large-scale strategies. Responsiveness also depends on aspects of culture and leadership that facilitate receptivity to the change and existence within a fast implementation. Companies that foster the culture of learning and quickness are more apt to use the technology to be able to take responsive actions. Thus, issues related to the digital transformation and organizational flexibility is a perspective area of theoretical research and practical implementation. Understanding how digital tools enhance or hinder responsiveness is essential for designing organizations that can thrive in the face of rapid change (Ononiwu *et al.*, 2024).

Theoretical Framework and Hypotheses

This research uses the dynamic capabilities view (DCV) as the general theoretical framework to describe the process of firms establishing and maintaining competitive advantages in the highly dynamic conditions (Cavusgil, and Deligonul, 2025). Dynamic capabilities An organizational capability to assemble, create and rearrange internal and external competencies in light of altering market circumstances. In this context, digital transformation may be perceived as one of the strategic resources, which strengthen the capability of a firm to sense, seize, and transform opportunities. The functions allow the companies to react to environmental changes but more importantly enable them to take the initiative of defining their competitive environments. By so doing, we postulate that digital transformation can cause a direct change in the responsiveness of an organization due to enhanced decision-making that is quicker and more informed. On the basis of this reasoning we shall establish our first hypothesis

H₀₁: Digital transformation and organizational responsiveness is not positively correlated.

This theory represents the feeling that digital solutions enhance capability of a firm to promptly and successfully move. There is however, a need to study more on the pathways that this relationship functions. In our effort to understand the process that connects digital transformation with responsiveness, we provide the mediating variable called organizational agility. The organizational agility is a characteristic of an organization whereby the firms, structures, and strategies are quickly adaptable in relation to new information or the unanticipated changes. Decentralization, automation, and faster flow of data that follow digital transformation make this agility even more effective, which, in its turn, results in responsiveness. Hence, the second hypothesis in our case is that:

In hypothesis two (H2) the researchers suggest that:

H₀₂: organizational agility does not mediate the correlation between digital transformation and organizational responsiveness.

Also, we are aware that the strategic relationship strength is determined largely by the environmental context. Particularly, responsiveness is more urgent in the industries with high activity levels due to dynamic nature, and the benefit of digital transformation will possibly be furthered. This causes a need to postulate a third hypothesis:

*H₀₃: Industry dynamism does not moderate the relationship between
digital transformation and responsiveness*

This is such that the relationship is stronger in high-dynamism environments. Together, these hypotheses form the foundation for our empirical model and guide the subsequent analysis.

METHODOLOGY

This research used the structured questionnaire to collect data based on a sample population of 70 managers at the mid or even higher levels within the various sectors in Lagos in Nigeria, such as technology, manufacturing, services, and retail. The selection of these participants was strategic because it allowed covering a wide range of industries that were at different levels of digital transformation and, therefore, allowing this research to achieve better generalizability of findings. To measure constructs that ascribed to digital transformation, organizational agility, and responsiveness, a questionnaire used validated multi-items scales that were adapted to previous sources. In order to optimize the quality of answers, the survey was held online and face-to-face and the follow-up reminders were sent to enhance the participation efficiency. All the answers were clean and acceptable to analysis after data cleaning and validation. This response rate contributes to the fact that the research topic is relevant to the populations of all managerial professionals and provides a certain level of statistical power to perform hypothesis testing. There was also a diversity of the respondent demography in terms of functional area and the size of organization, thus, addressing the problem of sampling bias. In general, the data gathering exercise gave a credible and multidimensional record to analyze the envisaged theoretical associations. The variables representing the independent and dependent variables were measured as follows:

- i. **Digital Transformation (DT):** Measured using a validated 5-item scale adapted from Qiao *et al.*, (2024), covering digital infrastructure, technology integration, and platform usage.
- ii. **Organizational Responsiveness (OR):** Measured using 6 items assessing speed of decision-making, ability to reallocate resources, and reaction to customer or market changes (e.g., Haeckel, 1999).
- iii. **Organizational Agility (AG):** A 4-item mediator assessing flexible processes and decentralized structures (Ciampi *et al.*, 2021).
- iv. **Industry Dynamism (ID):** Measured with a 3-item scale reflecting market volatility and technological turbulence (Dess & Beard, 1984).

All variables are measured using 5-point Likert scales (1 = strongly disagree, 5 = strongly agree).

To define the general picture of the sample and the distribution of the constructs, the descriptive statistics was used and calculated, which summarized the central tendencies and dispersion of the important variables. To evaluate the reliability of the measurement scales, Cronbach alpha (α) was used to determine the reliability analysis where all the constructs were found out to be below the standard reliability of 0.70, which implies a satisfactory reliability test. Correlation charts were also created to see the extent and direction of correlation among the variables, which can give preliminary information about a possible relationship before the tests of hypotheses. In the primary analysis, the regression analysis, as multiple linear regression, was utilized to analyze the direct effects that were hypothesized by H1, and the relationships between digital transformation and organizational responsiveness could be estimated as predictive. In order to explore mediation (H2) and moderation (H3), the PROCESS macro of SPSS created by Hayes (2017), Model 4 related to mediation and Model 1 related to moderation, were used.

DATA ANALYSIS AND RESULTS

Reliability and Validity

As indicated in Table 1, the reliability analysis performed on the constructs showed that all four constructs have a good level of internal consistency as represented by Cronbach alpha (α) value, thereby confirming the reliability of the scales adopted in the study. Digital Transformation item group, which consisted of five items, had a Cronbach alpha of 0.84, meaning it is good with a rating on the scale of measuring construct of technological integration and strategic digital adoption consistently. Likewise, Organizational Responsiveness which also uses five items attained the alpha of 0.81 that is considered good which implies that the indicators of responsiveness to external change are consistent with one another. Organizational Agility, with the two-item measure, exhibited a Cronbachs alpha of 0.78, which is an acceptable degree of internal consistency with a limited item number, a circumstance that normally lowers the alpha values. Industry Dynamism had a three item scale that is concerned with technological turbulence and market volatility where the alpha value came to 0.76 and it was within the acceptable range. All in all, these findings evidenced the fact that all constructs meet the conventional criterion of 0.70 or above the accepted norm

(Nunnally, 1975) thus giving substantial robust factual considerations in moving ahead with other statistical testing like, correlation, regression, and mediation/moderation analysis.

Table 1: Reliability Analysis — Cronbach's Alpha

Construct	No. of Items	Cronbach's Alpha (α)	Reliability Status
Digital Transformation	5	0.84	Good
Organizational Agility	2	0.78	Acceptable
Organizational Responsiveness	5	0.81	Good
Industry Dynamism	3	0.76	Acceptable

Descriptive Analysis

Table 2 findings on descriptive statistics give a concise view of the overall perception of the respondents on different dimensions of digital transformation and organizational responsiveness in their respective companies. The results of the mean scores show moderate to high levels of participation in digital initiatives and the highest value (4.10) is showed in the statement Our organizational structure facilitates rapid adaptation to change that shows that the structure may provide good support to agility. A general positive orientation toward the use of digital tools strategically is expressed through such items as Digital transformation is a central component of our business strategy ($M = 3.69$) or We use real-time data to make strategic decisions ($M = 3.62$). The tendency of the relatively high range of the median and the 75th percentiles of a number of the items is indicative of the tendency of the respondents to agree or strongly agree. Nevertheless, the mean reaches the minimum (2.23) in "Our firm is able to adapt operations swiftly with regard to external shocks," which is a possible sign of discrepancy between strategy digital integration and how fast organization can adapt its operations to the external shocks. Standard deviations of 0.77 to 1.49 imply that there is a different degree of the consensus, with higher variabilities regarding decisions like, we implement decisions fast across units, and we have integrated the majority of business functions with digital technology. Such differences emphasize possible discrepancies in practice or viewpoints within various organizational environments.

Table 2: Descriptive Statistics

Variable	Mean	Std. Dev	Min	25%	Median	75%	Max
We have integrated digital technologies into most business functions.	3.10	1.34	1.00	2.00	3.00	4.00	5.00
We use digital tools to support customer interaction and engagement.	3.43	1.25	1.00	2.00	3.00	5.00	5.00
Our organization has adopted a digital platform for operations.	3.54	1.16	1.00	3.00	4.00	5.00	5.00
We use real-time data to make strategic decisions.	3.62	1.21	1.00	3.00	4.00	5.00	5.00
Digital transformation is a core part of our business strategy.	3.69	1.17	1.00	3.00	4.00	5.00	5.00
Our firm adapts operations quickly in response to external shocks.	2.23	1.08	1.00	1.00	2.00	3.00	5.00
We monitor environmental changes and adjust strategies in real time.	2.90	1.04	1.00	2.00	3.00	4.00	5.00
Our organizational structure supports fast response to change.	4.10	0.77	2.00	4.00	4.00	5.00	5.00
We implement decisions quickly across units.	3.36	1.49	1.00	2.00	3.00	5.00	5.00

Hypothesis Testing

The table 3 shows the correlation matrix that there were some significant and meaningful relationships between the key constructs of this study. Digital Transformation is strongly and positively correlated with Organizational Agility ($r = .60$) and Organizational Responsiveness ($r = .55$), indicating that the greater the investment in digital technologies by an organization, the higher the likelihood of agile behaviours exhibited and the better the responsiveness to any changes in the environment. Moreover, the positive relationship of Organizational Agility and Organizational Responsiveness ($r = .65$) raises the potential of the mediating role of agility, as the organizations that are sufficiently agile stand in a better place to convert the digital capabilities into concrete, flexible outcomes. Industry Dynamism is only moderately related to Digital Transformation ($r = .35$) and Organizational Agility ($r = .40$), indicating that a dynamic industry which is fast-changing might be the cause of firms to implement digital innovations and agile practices. Its lower association with Organizational Responsiveness ($r = .30$) should be interpreted to indicate that although environmental volatility does contribute to the development of responsiveness, it can serve more of a contextual modifier rather than actor; making it less of a driver. All these correlations confirm the theoretical model and generally prove the initial support of hypotheses H1, H2, and H3, which creates a solid basis of regression and conditional process observations.

Table 3: Correlation Matrix

Variable	1. Digital Transf.	2. Org. Agility	3. Org. Responsiveness	4. Industry Dynamism
1. Digital Transformation	1.00	.60	.55	.35
2. Organizational Agility	.60	1.00	.65	.40
3. Organizational Responsiveness	.55	.65	1.00	.30
4. Industry Dynamism	.35	.40	.30	1.00

Table 4 indicates positive outcomes of the multiple regressions analysis, which support Hypothesis 1 (H1) that digital transformation has a positive relationship with organizational responsiveness. The regression equation predicts a large percentage of organizational responsiveness variance with the values of the R square and adjusted R square of .30 and .28 respectively. It implies that the digital transformation initiatives can explain 30 percent of the organizational responsiveness variability. The coefficient in digital transformation ($B = 0.50$, 0.55) is significant ($t = 5.00$, $p < .001$) and the impact is moderately strong and positive. This means, the organizations, the more they adopt and integrate digital technologies, the better they can respond to the changes in the environment in one way or the other and in a more timely and effective manner. The robustness of the predictive relationship is further confirmed by the constant term ($B = 1.10$), and overall significance of the model ($F = 25.00$, $p < .001$). The accounts of this confirms that digital transformation cannot be considered merely a top-level strategic priority but a pragmatic manifestor of responsiveness in the dynamic business environments.

Table 4: Multiple Regression Analysis (H1)

Dependent Variable: Organizational Responsiveness

Predictor	B	SE	β	t	p
Constant	1.10	0.25	—	4.40	.000
Digital Transformation	0.50	0.10	.55	5.00	.000
R² = .30					
Adjusted R² = .28					
F (1, N-2) = 25.00					
					.000

The findings of the mediation analysis presented in Table 5 provide strong results to support Hypothesis 2 (H2) that argues that organizational agility mediates the relationship between digital transformation and organizational responsiveness. The effect of Digital Transformation To Organizational Agility (a-path) is statistically significant and with a strong effect ($B = 0.60$, $SE = 0.09$, $t = 6.67$, $p < .001$), which means that the higher the degree of

digital transformation, the more agile the organization gets. The b-path, that is the Organizational Agility to Organizational Responsiveness path ($B = 0.45$, $SE = 0.08$, $t = 5.63$, $p < .001$) is also marked and indicates the direct contribution of agility to the quick and effective responsiveness of the organization. The direct influence of the Digital Transformation on the levels of Organizational Responsiveness (c-path) is significant ($B = 0.26$, $SE = 0.11$, $t = 2.35$, $p = .021$) despite the considerations on the agility as a mediator ($B = 0.03$, $SE = 0.02$, $t = 1.43$, $p = .158$), and thus partially mediates the relationship. More importantly, the magnitude of indirect effect ($ab = 0.27$) is significant at the 95 percent confidence level (boot estimate is 0.27) and its 95 percent bootstrap confidence interval indicated no overlap with zero (95 percent boot comparisons [.18,.38]). These results indicate that the impact of digital transformation on responsiveness is, at least partially, direct, although a substantial part of its impact on responsiveness runs via the facilitation of organizational agility.

Table 5: Mediation Analysis (H2)

PROCESS Model 4 — Mediator: Organizational Agility

Path	B	SE	t / Z	p	95% CI
a: DT → Agility	0.60	0.09	6.67	.000	[.42, .78]
b: Agility → Responsiveness	0.45	0.08	5.63	.000	[.30, .60]
c': DT → Responsiveness (direct)	0.25	0.11	2.27	.027	[.03, .47]
ab: Indirect Effect	0.27		—	—	[.18, .38]

Moderation analysis summed up in Table 6 offers sufficient evidence to support Hypothesis 3 (H3), the industry dynamism moderates the relationship between digital transformation and organizational responsiveness. The entire model is significant, with 35 percent of the variances concerning the organizational responsiveness explained ($R^2 = .35$) and the interaction term adds further 7 percent of the variances which are explained ($\Delta R^2 = .07$) proving the enhanced predictability of the addition of the moderator. The statistical significance of the main effect is positive ($B = 0.30$, $2 = .35$, $t = 3.00$, $p = .003$) and there is also a general plus direction of the influence of digital transformation on organizational responsiveness. It has also been found that industry dynamism has strongly significant positive impact ($B = 0.20$, 025 , $t = 2.50$, $p = .015$), implying that a more dynamic industry makes the firm more responsive. More importantly, the interaction term (DT by Industry Dynamism) is significant ($B = 0.22$, (Beta = .28, $t = 2.44$, $p = .018$), and it can be seen that the impact of digital transformation on responsiveness is stronger in cases of a high

environmental dynamism. It can endorse the claim that the advantages of digital transformation are even stronger in fast-paced markets, where companies have to continuously respond to dynamics in technologies, consumer wants, and market rivals.

Table 6: Moderation Analysis (H3)

PROCESS Model 1 — Moderator: Industry Dynamism

Predictor	B	SE	β	t	p
Constant	1.20	0.30	—	4.00	.000
Digital Transformation	0.30	0.10	.35	3.00	.003
Industry Dynamism	0.20	0.08	.25	2.50	.015
DT $\times$ Industry Dynamism	0.22	0.09	.28	2.44	.018
$R^2 = .35$					
ΔR^2 (interaction) = .07					

Discussion of Findings

According to the observations of this research, it can be seen that digital transformation exhibits an inordinately positive influence on the responsiveness of an organization which can be realized without mediation by organizational agility as well as through organizational agility. This coincides with the literature addressing the strategic use of digital transformation in increasing adaptive capacity of a firm (Atobishi *et al.*, 2024; Mo *et al.*, 2022). Companies with customized digital technologies allows them to be able to sense, interpret and respond to changes in the environment. And the partial mediation effect of organizational agility also found in this study helps to make further research support to the theoretical argument put forward by Yildiz and Aykanat, (2021), who emphasize agility as one of dynamic capabilities by which the firms can make a quick changeover of the resources through reconfiguration in a changeful environment. Agility is a pathway through which the operation of digital capabilities is transferenced to be a responsive action and hence advancing the reasoning to the argument that technology cannot be effective without a flexible organizational structure and a culture.

Further, the aspect of moderation via industry dynamism has helped to enrich our knowledge on the way external conditions define the performance of digital strategies. The fact that the positive interaction effect of digital transformations on responsiveness is present in this study allows organizing the assumption that the beneficial effect in this case is exceptionally high in turbulent settings, which is proven by earlier claims by Li, (2022) and Eisenhardt and

McCann and Selsky, (2012), who stipulate that dynamic capabilities matter more in high-change industries. In that regard, companies need not only be technologically prepared but also have strategic insight and flexibility in terms of utilizing new opportunities and addressing threats. Consequently, the study brings novelty to the body of digital transformation literature because it affirmed the importance of environmental dynamics in increasing the need to be responsive and make digital transformation a fundamental contributor to achievement of competitive advantage in any uncertain market. It further brings into focus the need to adjust digital strategies to external environment where firms conduct their business, in line with the views of contingency theories.

Implications and Contributions

The study provides significant theoretical and practical contributions as it further clarifies the effects on digital transformation and its role in the greater responsiveness of the organization; specifically, by having the mediational role of agility and moderating effect of industry dynamism. In theory, it adds to the body of knowledge on dynamic capabilities and digital strategy in approaching them empirically through the validation that, not only does digital transformation contribute directly to enhanced responsiveness, but is more effective in situations where organizations are agile and perform in a dynamic environment. In practice, the results convey to managers and policymakers that it is not worth enough to invest in digital technologies but, rather, an agile structure and digital strategy flexibility are determinants of success. This study highlights the strategic importance of ensuring the synergy between the digital transformation efforts and the shape of the organization and its environment in order to realize the high level of responsiveness and long-term competitiveness.

CONCLUSION AND RECOMMENDATIONS

To sum up, this paper contributes to defining that digital transformation is a major driver of responsiveness in an organization not only directly but also via the mediating effect of organizational agility, and the intensity of this association is subsequently moderated by industry dynamism. These studies reinforce the importance of agility as a dynamic capability that allows companies to convert digital efforts to timely and responsive improvements, particularly, with high-velocity settings. A combination of digitalization, the development of agile practices, and the coordination of the strategies with the environmental situation will help organizations to become more responsive to the conditions, and stay competitive. Not only does the research confirm several important theoretical propositions, it provides practical

guidance to the businesses interested in succeeding in a world where technology and markets are changing rapidly.

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