



The Role of Value Creation Innovation in Mediating the Relationship Between Digital Transformation, Strategic Agility, and Organizational Performance

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Abstract

The objectives of this study are to examine the mediating role of value creation innovation in the relationship between organizational performance and the independent variables digital transformation and strategic agility. This study employs a quantitative research method using a nonprobability sampling approach and a purposive sampling technique, targeting first-level and middle-level managers as the unit of analysis. The final sample consists of 156 respondents, with data collected cross-sectionally. The collected data was analyzed using SmartPLS version 4. The results indicate that value creation innovation fully mediates the relationship between digital transformation, strategic agility, and organizational performance, as the estimated mediation effect exceeds the direct effect. The theoretical implications of this research highlight that incorporating value creation innovation as a mediating variable strengthens the impact of digital transformation and strategic agility on organizational performance. This study has some limitations. The respondents are exclusively from companies in bonded zones, limiting the generalizability of the findings. Additionally, the variables and research methods used remain constrained. Future research should consider expanding the sample to include companies outside bonded zones, integrating additional exogenous variables into the research model, and employing qualitative or mixed method approaches to gain deeper insights.

Keywords: digital transformation, strategic agility, value creation innovation, organizational performance, bonded zone

1. Introduction

Organizational performance is a crucial factor in achieving economic stability, innovation, and national competitiveness. High-performing organizations not only strengthen a country's economic position through contributions to Gross Domestic Product (GDP) but also drive innovation and global competitiveness. Effective performance is characterized by an organization's ability to utilize resources, knowledge, and technology efficiently. According to Georgia et al. (2024), organizational performance significantly enhances national economic efficiency. Therefore, improving organizational performance is essential, as it serves as a fundamental driver of organizational sustainability and long-term development (Medne & Lapiņa, 2019).

As a developing country with a rapidly growing economy, Indonesia plays a significant role in the global economic landscape. Various industrial sectors contribute substantially to national economic growth by generating employment opportunities and fostering domestic innovation. However, many Indonesian companies struggle to compete at regional and global levels. This challenge is reflected in the increasing number of layoffs in recent years. Data from the Ministry of Manpower indicate that in 2022, 25,114 workers were laid off, a figure that rose to 64,855 in 2023 and 46,240 as of August 2024. This alarming trend highlights significant challenges in Indonesia's organizational performance.

The textile industry has been under considerable pressure. BPS data indicate that the sector's contribution to GDP declined from 1.4% in 2015 to 0.98% in 2023. Moreover, the industry experienced a -7.08% production contraction, exacerbated by shrinking export demand and a surge in imported goods in the domestic market, leading to factory closures and widespread layoffs (Yanti et al., 2023).

Given these conditions, it is evident that organizational performance in Indonesia is deteriorating, particularly in the textile sector. The high number of layoffs and the decreasing contribution of the textile industry to GDP underscore the urgent need for strategic interventions to enhance industrial competitiveness. Furthermore, the declining PMI suggests that Indonesia's manufacturing sector is facing serious challenges that threaten its long-term sustainability.

Organizational performance plays a vital role in a nation's economy, as it directly affects key macroeconomic indicators such as employment levels, GDP growth, and overall economic stability (Banker et al., 2021). It contributes to the economic structure by driving innovation, productivity, and competitiveness, which are essential for sustainable economic development.

Previous research highlights various external and internal factors that influence organizational performance, one of which is digital transformation. According to Zhao et al. (2024), digital transformation significantly enhances organizational performance. Similarly, Merin-Rodrig   ez et al. (2024) demonstrating that business model innovation mediates the positive relationship between digital transformation and organizational performance. Other studies further support the argument that digital transformation fosters efficiency, innovation, and competitiveness (Ammar & Tamzini, 2024; Hermanto et al., 2024; Mulyana et al., 2024; Xu et al., 2024).

However, the impact of digital transformation on organizational performance is not always positive. Studies by Culot et al. (2024) and Ali et al. (2023) indicate that in some cases, digital transformation does not lead to significant improvements in organizational performance. These discrepancies highlight the need for further research into the mechanisms through which digital transformation affects performance across different industries.

Another critical factor influencing organizational performance is strategic agility. Dayioglu et al. (2024), revealing that strategic agility and business model innovation significantly enhance organizational performance. A similar study by Clauss et al. (2019) on German industries supports this finding. Nevertheless, some research suggests that strategic agility does not always yield positive outcomes. Alkandi & Helmi (2024) found that strategic agility had no significant impact on organizational performance. Likewise, Purwanto et al. (2023) concluded that strategic agility had no direct influence on organizational performance. These mixed findings indicate the need for further investigation into industry-specific factors that may moderate this relationship.

Value creation innovation has been widely recognized as a key driver of organizational performance. Ort  z et al. (2023) found that value creation innovation positively influences organizational performance across multiple sectors. This is further supported by Ekakitie (2023) in the Nigerian telecommunications sector and Clauss et al. (2019) in the German electronics industry, where business model and managerial innovations played a significant role in enhancing organizational performance.

Based on previous research, several key gaps have been identified inconsistent findings regarding the relationship between digital transformation, strategic agility, and organizational performance. Moreover, there is limited research exploring value creation innovation as a mediating variable in the relationship between digital transformation and organizational performance. Furthermore, lack of studies focusing specifically on the textile industry and bonded zone enterprises.

To address these gaps, this study examines the impact of digital transformation and strategic agility on organizational performance, with value creation innovation as a mediating variable. The research focuses on textile industry firms operating within Indonesia's bonded zones, aiming to provide empirical insights into how adaptive and innovative strategies can enhance firm performance amid growing global competition.

2. Literature Review

In this study, it will be discussed using the dynamic capability theory, developed by Teece et al. (1997), emphasizes the importance of an organization's ability to respond to rapidly changing business environments. Dynamic capability refers to a firm's ability to integrate, build, and reconfigure internal and external competencies to address dynamic market conditions (Teece et al., 1997). This theoretical perspective highlights the necessity for organizations to develop strategic adaptability to sustain competitive advantage.

Organizational performance is a multidimensional concept that encompasses financial and non-financial performance indicators. According to Venkatraman & Ramanujam (1986), it consists of three key components: financial performance, business performance, and overall organizational effectiveness. Financial performance includes measures such as Return on Investment (ROI) and Return on Equity (ROE), whereas business performance is assessed through customer satisfaction and market share. The organizational performance variable consists of five indicators, based on the instrument developed by Venkatraman & Ramanujam (1986).

Digital transformation is defined as a process aimed at enhancing an entity by driving significant changes through the integration of information technology, computing, communication, and connectivity (Vial, 2019). This definition underscores the transformative and integrative nature of digital technologies in reshaping business models and organizational structures. The digital transformation variable is measured using eight indicators based on the study by Agostino & Costantini (2022).

Strategic agility is the ability of an organization to swiftly alter its strategic direction, responding effectively to environmental changes while maintaining a balance between stability and flexibility (Doz & Kosonen, 2008). The strategic agility variable is assessed using five indicators, referring to the research by Queiroz et al. (2018).

Meanwhile, value creation innovation refers to the process by which firms develop new products, services, or business models that generate benefits for customers, thereby establishing competitive advantages (Bowman & Ambrosini, 2000). The value creation innovation variable is measured with eight indicators, following the study by (Clauss, 2017).

Research by Zhao et al. (2024) on 22,672 companies in China found that digital transformation significantly enhances organizational performance. Similarly, Merín-Rodríguez et al. (2024), in a study of 434 SMEs in Spain, demonstrated that business model innovation (BMI) partially mediates the positive relationship between digital transformation and organizational performance. A study in Tunisia by Ammar & Tamzini (2024) on 70 firms also confirmed the positive relationship between digital transformation and organizational performance, with BMI as a mediator.

A study by Clauss et al. (2019) on 432 electronics firms in Germany found that strategic agility positively influences business model innovation (BMI). Dayioglu et al. (2024) examined 410 companies in Turkey, applying dynamic capability theory, and found that strategic agility and BMI significantly impact organizational performance. Similarly, Shaban (2024), in a study of 438 university managers in Jordan, found that strategic agility has a positive impact on organizational performance.

Merín-Rodríguez et al. (2024) demonstrated that digital transformation directly influences value creation innovation. Meanwhile, Matarazzo et al. (2021) studying SMEs in Italy operating in the food, fashion, and furniture design sectors, found that digital transformation fosters new distribution channels and enhances value creation innovation for customers.

Research by Clauss et al. (2019) on 432 electronics firms in Germany found that strategic agility is positively related to business model innovation, particularly in volatile market conditions. Michelini (2024) conceptualized strategic agility as a combination of speed and flexibility, which must align with stakeholder expectations to improve value creation innovation in business models.

A study by Ortiz et al. (2023) confirmed that value creation innovation has a positive impact on organizational performance. Similarly, Ekakitie (2023) found that value creation innovation significantly enhances organizational performance in the Nigerian telecommunications sector.

Research by Wang et al. (2022) on manufacturing firms in China demonstrated that digital transformation enhances organizational performance. Matarazzo et al. (2021) also found that digital transformation fosters value creation innovation among Italian SMEs by reshaping distribution and production processes.

A study by Al Al Taweel & Al-Hawary (2021) on 224 senior managers in industrial sectors indicated that strategic agility not only directly influences organizational performance but also impacts innovation capabilities. Similarly, Purwanto et al. (2023), in a study of 208 firms in Indonesia's motorcycle industry, found that innovation capabilities strengthen the relationship between strategic agility and organizational performance.

Based on the previous studies discussed above, the following hypotheses are proposed in this study:

H1: Digital transformation influences organizational performance.

H2: Strategic agility influences organizational performance.

H3: Value creation innovation influences organizational performance.

H4: Digital transformation influences value creation innovation.

H5: Strategic agility influences value creation innovation.

H6: Value creation innovation mediates the relationship between digital transformation and organizational performance.

H7: Value creation innovation mediates the relationship between strategic agility and organizational performance.

The researcher describe conceptual framework as follows:

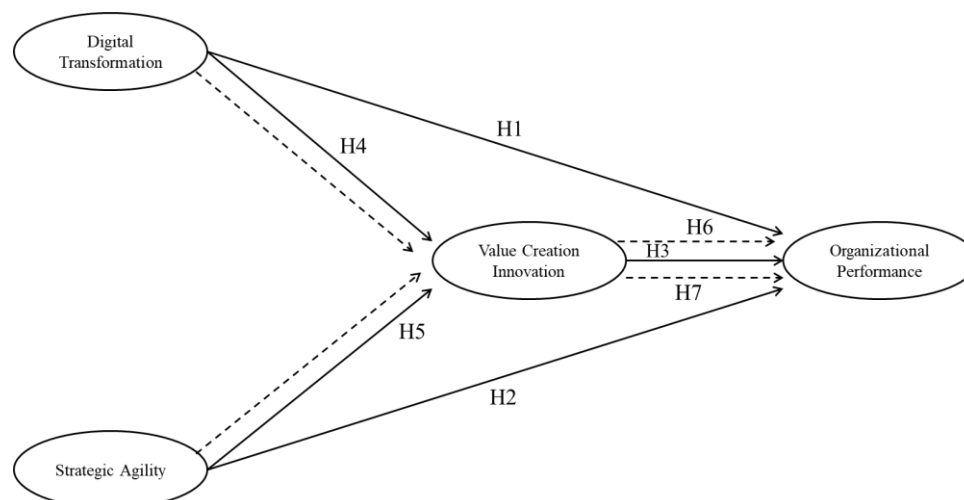


Figure 1: Conceptual Framework

3. Materials and Methods

This study employs correlational quantitative research design with hypothesis testing based on causal relationships. The correlational quantitative approach is used to analyze the relationships between the studied variables. This method is chosen as it allows for objective measurement of the influence of one variable on another using numerical data. Quantitative research relies on precise measurement and statistical analysis of data collected through instruments such as questionnaires, surveys, or relevant tests (Sekaran & Bougie, 2016).

The study utilizes primary data collected through a survey administered to executives of bonded zone enterprises. A non-probability sampling method is employed, specifically using purposive sampling, where the questionnaire is distributed through Google Forms.

The population of this study consists of all textile and textile product companies receiving bonded zone facilities in Java, totaling 422 companies. The exact number of company executives within this population is unknown. These companies were selected as they represent over 90% of bonded zone enterprises in the textile and textile product sector across Indonesia. Respondents in this study were individuals at the leadership level, from middle leaders to top leaders, who have strategic roles in corporate decision-making. These respondents were selected because they have deep insight into the policies, strategies, and innovations implemented in their companies.

The sample size for this study is determined using power analysis. The required number of respondents is calculated using G*Power software, following the guidelines provided by Memon et al. (2020). In calculating the sample size in G*Power, the study adopts an effect size of 0.15 (medium effect), an alpha level (α) of 0.05, and a statistical power of 80%. These parameters align with the recommended settings for social and business research (Hair et al., 2013). Based on these specifications, for a model with three predictors, the minimum required sample size is determined to be 77 respondents.

This study employs Structural Equation Modeling (SEM) to predict the relationships between variables, using SmartPLS Version 4 as the analysis software. SEM is chosen because it allows for simultaneous examination of multiple relationships between latent variables, making it suitable for complex models involving direct and indirect effects (Hair et al., 2013). Additionally, SEM is widely used in management and business research to test theoretical models with measurement errors, ensuring more robust and reliable findings (Henseler et al., 2016). Given that this study examines mediating effects and relationships between multiple constructs, SEM provides a comprehensive analytical framework that enhances the validity of the results.

4. Results and Discussion

4.1. Result

This study successfully collected and analyzed data from 156 respondents. The descriptive data provide an overview of the respondents' demographic and professional characteristics. Most respondents were male, with 95 participants (60.9%). This finding suggests that male respondents may be more actively engaged or represented in the business sector examined in this study. This observation is consistent with previous research indicating that male labor force participation rates are generally higher than those of female workers (Malik & Rahman, 2020).

Regarding age distribution, 65 respondents (41.7%) were aged between 41 and 50 years old. This indicates that most respondents were over 40 years old, which suggests that the sample consists of experienced individuals with substantial knowledge relevant to this study, given that the respondents hold managerial or executive positions within their respective companies.

In terms of educational background, most respondents (84 participants, or 53.8%) hold a bachelor's degree (S1). This suggests that most respondents possess a solid educational foundation, which is likely to enhance their understanding of managerial issues and decision-making processes. This aligns with findings by Riekhoff & Kuitto (2024), who noted that higher education graduates have a greater likelihood of entering the labor market compared to those with lower educational qualifications.

Regarding work experience, most respondents (110 participants, or 70.5%) have been employed for over 10 years. This finding indicates that the respondents consist predominantly of experienced senior executives, ensuring that the sample is representative of the broader population.

In terms of corporate characteristics, most respondents (110 participants, or 70.5%) are from foreign direct investment (FDI) companies. This indicates that a significant proportion of the sampled firms are engaged in international-scale investment activities, reflecting the globalized nature of the sector under investigation.

This study uses the Smart-PLS program as a statistical tool. The SmartPLS program is used as a statistical tool to process data from surveys and anticipate limited sample sizes and normalization of undistributed data. This data processing is to determine the form of the model, loading factors, and the significance of its latent variables. Validity is tested by assessing convergent validity from the outer model, and reliability is tested by assessing cronbach alpha. The analysis tool to test validity in this study is to compare the factor loading value of each statement item with the

standard factor loading. The indicator is valid if the factor loading value is > 0.7 and is invalid if the factor loading is < 0.7 (Hair et al., 2013).

Table 1: Result of Validity Test

Variable	Indicator	Outer Loading	Decission
Digital Transformation	DT1	0.716	Valid
	DT2	0.875	Valid
	DT3	0.861	Valid
	DT4	0.848	Valid
	DT5	0.815	Valid
	DT6	0.788	Valid
	DT7	0.888	Valid
	DT8	0.777	Valid
Organizational Performance	OP1	0.958	Valid
	OP2	0.972	Valid
	OP3	0.976	Valid
	OP4	0.975	Valid
	OP5	0.977	Valid
Strategic Agility	SA1	0.81	Valid
	SA2	0.843	Valid
	SA3	0.902	Valid
	SA4	0.842	Valid
	SA5	0.837	Valid
Value Creation Innovation	VC1	0.874	Valid
	VC2	0.897	Valid
	VC3	0.873	Valid
	VC4	0.905	Valid
	VC5	0.862	Valid
	VC6	0.868	Valid
	VC7	0.906	Valid
	VC8	0.844	Valid

Source: Primary data processing

Reliability was evaluated using Cronbach's alpha, where an indicator is deemed reliable if Cronbach's alpha ≥ 0.60 , indicating that the items are internally consistent in measuring the construct (Sekaran & Bougie, 2016).

Table 2: Result of Reliability Test

Variable	Cronbach's alpha	Decission
Digital Transformation	0.931	Reliable
Organizational Performance	0.985	Reliable
Strategic Agility	0.901	Reliable
Value Creation Innovation	0.958	Reliable

Source: Primary data processing

Test results also show that the Adjusted R^2 value for Organizational Performance (OP) is 0.46, meaning that 46% of the variance in organizational performance is explained by the independent variables in this study, while the remaining variance is attributed to other factors not included in the model.

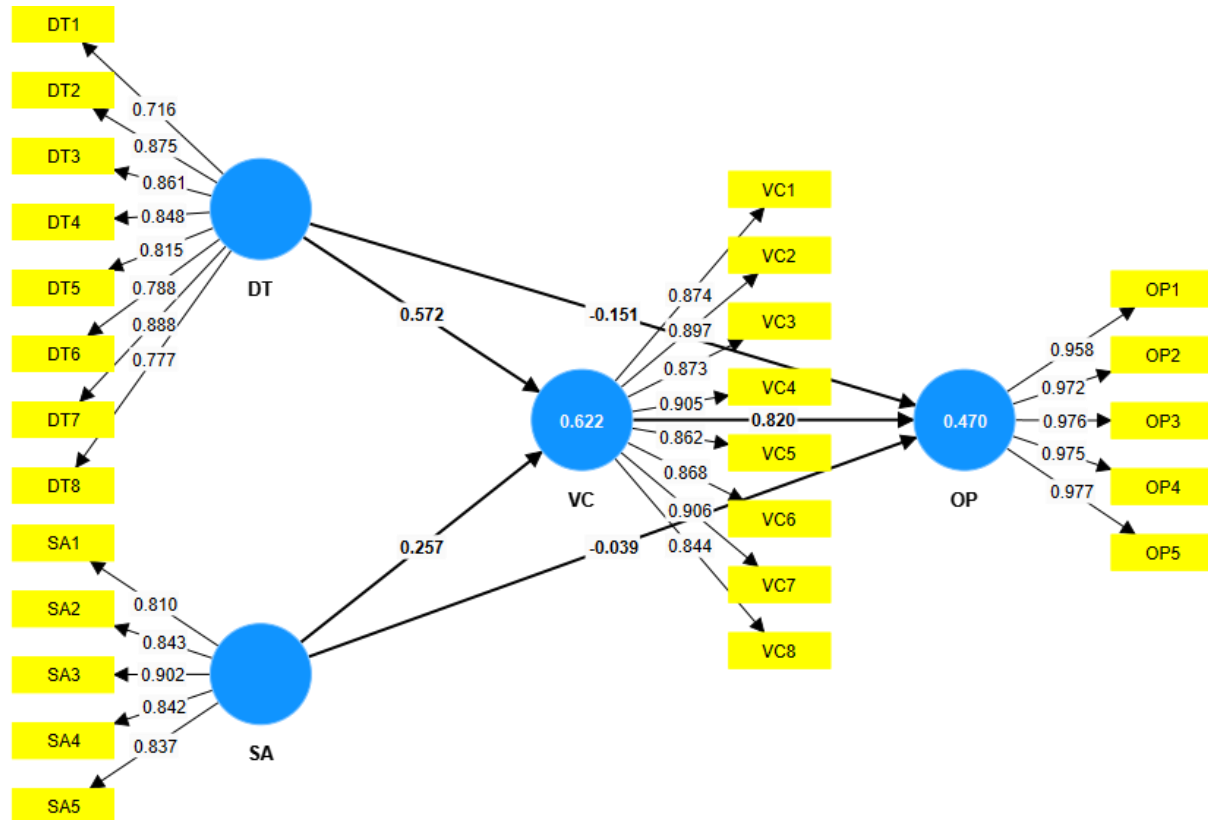
Similarly, the Adjusted R^2 value for Value Creation Innovation (VC) is 0.617, indicating that 61.7% of the variance in value creation innovation is explained by the independent variables in the model, while the remaining variance is explained by other factors outside the scope of this study.

Table 3: Coefficient Determination

Variable	R Square	R Square Adjusted
Organizational Performance	0.470	0.460
Value Creation Innovation	0.622	0.617

Source: Primary data processing

The SEM PLS research model using smart PLS 4 is produced as shown in figure 2:

**Figure 2:** SEM PLS Research Model

Hypothesis testing in this study is to determine the influence between the independent variable and the dependent variable. To find out whether there is an influence between variables, it can be seen from the p-value where if the p-value ≥ 0.05 then the hypothesis is not supported, if the p-value < 0.05 then the hypothesis is supported.

Table 4: Hypothesis Test Results

	T-Statistics	P-value	Decision
DT \rightarrow OP	1.383	0.167	Not Supported
DT \rightarrow VC	5.715	0.000	Supported
SA \rightarrow OP	0.339	0.735	Not Supported
SA \rightarrow VC	2.245	0.025	Supported
VC \rightarrow OP	9.033	0.000	Supported
DT \rightarrow VC \rightarrow OP	4.844	0.000	Supported
SA \rightarrow VC \rightarrow OP	2.181	0.029	Supported

Source: Primary data processing

The data analysis results indicate that digital transformation does not affect organizational performance, as evidenced by a t-statistic of 1.383 and a p-value of 0.167. Similarly, strategic agility does not affect organizational performance, as evidenced by a t-statistic of 0.339 and a p-value of 0.735. Conversely, digital transformation significantly affects value creation innovation, as shown by an estimate value of 5.715 and a p-value of 0.000. Similarly, strategic agility significantly influences value creation innovation, with an estimate value of 2.245 and a p-value of 0.025. Furthermore, value creation innovation significantly impacts organizational performance, as indicated by an estimate value of 9.033 and a p-value of 0.000. The mediation test results confirm that value creation innovation fully mediates the relationship between digital transformation and organizational performance, with an estimate value

of 4.844 and a p-value of 0.000. Additionally, the mediation test also confirms that value creation innovation mediates the relationship between strategic agility and organizational performance, with an estimate value of 2.181 and a p-value of 0.029.

4.2. Discussion

The direct effect of digital transformation on organizational performance is not statistically significant (H1). Zeng & Rojniruttikul (2025) support this finding, stating that digital transformation often presents significant challenges, particularly for organizations lacking internal readiness. Their study found that an inability to strategically adopt technology can turn digital transformation into a burden rather than a competitive advantage. Similarly, Wu et al. (2025) highlight that, without effective mitigation strategies, digital transformation can hinder Environmental, Social, and Governance (ESG) performance by increasing operational complexity. However, these findings contrast with studies that demonstrate a positive impact of digital transformation on organizational performance. Purwanto et al. (2024) found that strong technological governance in Indonesian universities led to improved efficiency and operational effectiveness. Likewise, Zheng & Dai (2025) reported that digital transformation enhances organizational flexibility, enabling resource optimization and improved performance. These studies emphasize that the success of digital transformation depends on an organization's ability to integrate technological changes effectively. The results suggest that while organizations may have implemented digital transformation, it has not translated into improved performance. According to Dynamic Capability Theory (Teece et al., 1997) indicates that firms may lack the dynamic capabilities necessary to leverage digital transformation effectively. Without the ability to adapt technology to environmental pressures and strategic goals, digital transformation remains ineffective in enhancing organizational performance.

The direct effect of strategic agility on organizational performance is not statistically significant (H2), aligning with Dehmolaee & Rashnavadi (2019), who found no clear link between strategic agility and organizational learning, and Chan & Muthuveloo (2019), who noted that its impact is limited without technological, organizational, and human resource support. However, studies by Dayioglu et al. (2024) and Shaban (2024) suggest that strategic agility positively influences performance in specific contexts, such as Turkish firms and Jordanian universities. According to Dynamic Capability Theory (Teece et al., 1997), rapid responses to external changes do not guarantee better performance unless supported by effective implementation and sufficient resources. This study's findings indicate strong adaptability in products and services but weak agility in switching business partners, suggesting suboptimal sensing, seizing, and reconfiguring capabilities, which are crucial for leveraging strategic agility effectively.

The hypothesis test results indicate that value creation innovation has a significant direct impact on organizational performance (H3), consistent with Ortíz et al. (2023), who found a positive relationship between value creation innovation and organizational performance in a study of amateur football clubs in Colombia, demonstrating how innovation enhances performance. Similarly, Ekakitie (2023) examined the telecommunications sector in Nigeria and found that companies adopting innovative management practices, such as MTN Nigeria, Globalcom, and Airtel Nigeria, experienced improved organizational performance due to value creation innovation. From the perspective of Dynamic Capability Theory (Teece, 2018), value creation innovation enhances organizational performance through three key mechanisms: sensing, seizing, and reconfiguring. Organizations that can identify new opportunities, adapt their strategies to market demands, and reconfigure existing resources are better positioned to improve their performance.

The hypothesis test confirms that digital transformation significantly influences value creation innovation (H4), aligning with Merin-Rodrigáñez et al. (2024), who found a direct positive effect of digital transformation on business model innovation among 434 Spanish SMEs, and Matarazzo et al. (2021), who observed that Italian SMEs in the food, fashion, and furniture sectors leveraged digital transformation to develop new distribution channels and enhance value creation. From the perspective of Dynamic Capability Theory (Teece, 2018), this positive correlation suggests that firms utilize digital technology to accelerate innovation and generate new value for customers and stakeholders, enabling them to seize opportunities by developing products, services, and business models that better align with market demands.

The hypothesis test results confirm that strategic agility significantly influences value creation innovation (H5), consistent with Al Taweel & Al-Hawary (2021), who studied 224 senior managers in the industrial sector and found a significant relationship between strategic agility and value creation innovation. Similarly, Yildiz & Aykanat (2021), in their study of 216 companies in the Sakarya industrial zone, Turkey, found that strategic agility directly impacts organizational innovation, including value creation innovation.

The findings of this study indicate that value creation innovation mediates the relationship between digital transformation and organizational performance (H6). The results reveal that digital transformation does not directly affect organizational performance; however, when mediated by value creation innovation, its impact becomes significant. This finding aligns with Wang et al. (2022), who demonstrated that digital transformation enhances organizational performance in Chinese manufacturing firms. Similarly, Zhao et al. (2024), in a study of 22,672 companies in China, confirmed the significant positive impact of digital transformation on organizational performance. Bawono et al. (2022) further supported this by showing that digital business model innovation,

specifically value creation innovation, had a positive and significant effect on organizational performance in Indonesia's telecommunications sector during the COVID-19 pandemic. From the perspective of Dynamic Capability Theory (Teece, 2018), these findings suggest that digital transformation alone does not automatically enhance organizational performance; instead, it must first drive value creation innovation, which subsequently contributes to performance improvement.

The findings of this study indicate that value creation innovation mediates the relationship between strategic agility and organizational performance (H7). The results reveal that strategic agility does not directly affect organizational performance; however, when mediated by value creation innovation, its impact becomes significant. This aligns with Yildiz & Aykanat (2021), who studied 216 companies in the Sakarya industrial zone, Turkey, and found that strategic agility had no significant direct effect on organizational performance, but when organizational innovation acted as a mediator, its impact increased. Similarly, Purwanto et al. (2023), in their study on Indonesia's motorcycle industry, found that strategic agility had no significant direct effect on organizational performance but showed a significant effect through an indirect relationship. These findings suggest that the impact of strategic agility may depend on industry characteristics or the specific business environment in which firms operate.

5. Conclusion

This study reveals that digital transformation does not have a significant impact on organizational performance. These findings suggest that the success of digital transformation depends on an organization's ability to effectively integrate technological changes into its business model. Additionally, strategic agility does not directly influence organizational performance, indicating that not all companies can successfully implement strategic agility in a way that enhances performance. However, the study confirms that value creation innovation significantly affects organizational performance, demonstrating that implementing value creation innovation can optimally drive organizational performance. Furthermore, the results indicate that digital transformation positively influences value creation innovation, suggesting that effective implementation of digital transformation enhances value creation innovation. Similarly, strategic agility has a significant impact on value creation innovation, implying that organizations capable of effectively implementing strategic agility can foster innovation and value creation.

The study also highlights the mediating role of value creation innovation in the relationship between digital transformation and organizational performance. The findings confirm that digital transformation affects organizational performance through value creation innovation, as supported by hypothesis testing results. Similarly, value creation innovation mediates the relationship between strategic agility and organizational performance, reinforcing its role as a crucial driver of performance improvement.

Theoretically, this study contributes to Dynamic Capability Theory (Teece, 2018) by demonstrating that value creation innovation serves as a key mechanism for enhancing organizational performance. The findings suggest that value creation innovation is a critical organizational capability that must be optimized for digital transformation and strategic agility to effectively improve organizational performance.

Despite its contributions, this study has several limitations. One key limitation is that the research focuses solely on textile companies within bonded zones, which may not provide a comprehensive understanding of organizational performance across industries with different characteristics. Future research should consider expanding the sample to include a broader range of companies, including those outside bonded zones, to enhance the generalizability of the findings.

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