International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

Analysis Of Technology Capability And Innovation In Influencing The Business Performance Of PT. Bertumbuh Cipta Karya's Partners Mediated By Digital Transformation

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Abstract

Digital transformation is a strategic factor in increasing the competitiveness of MSMEs, but its success is influenced by the technological capabilities and innovation possessed by business actors. This study aims to analyze the influence of technological capability and innovation on business performance with digital transformation as a mediating variable in partner businesses of PT. Bertumbuh Cipta Karya. The study used a quantitative approach with an explanatory research type. The study population consisted of 50 active partner businesses and all were sampled using a total sampling technique. Data were collected through a five-point Likert scale questionnaire and analyzed using Structural Equation Modeling Partial Least Squares (SEM-PLS) with SmartPLS. The results showed that technological capability and innovation had a positive and significant effect on digital transformation. Technology capability also had a positive and significant effect on business performance, while innovation did not have a significant direct effect on business performance. Digital transformation had a positive and significant effect on business performance and mediated the relationship between technology capability and innovation on business performance. This study concluded that digital transformation is the main mechanism that transforms technological capabilities and innovation into improved business performance, so strengthening digital transformation is an important strategy in increasing the competitiveness of MSMEs.

Keywords:Business Performance, Digital Transformation, Innovation, Technology Capability, MSMEs.

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INTRODUCTION

Globalization and digital transformation have transformed business competition patterns, including in the micro, small, and medium enterprise (MSME) sector. Business activities previously dominated by conventional sales are now shifting to the use of digital technology for marketing, operational management, and decision-making. This transformation is a crucial factor enabling organizations to transform their strategies, business processes, and operational models based on digital technology, thereby maintaining their competitiveness amidst global competition (Kraus et al., 2022). In line with the development of the Industrial Revolution 5.0, the use of Artificial Intelligence (AI), the Internet of Things (IoT), and big data analysis further strengthens the need for businesses to improve operational efficiency, expand market reach, and accelerate decision-making. Therefore, digital transformation is an indispensable requirement for companies to increase competitiveness and maintain business continuity (Vial, 2019).

Indonesia, as one of the countries with the largest number of MSMEs in the ASEAN region, makes this sector a key pillar of the national economy. According to a report from the Ministry of Cooperatives and SMEs, MSMEs contribute 60.5% to the national Gross Domestic Product and absorb 96.9% of the workforce in Indonesia (Kebudayaan, 2023). Data from the Indonesian Chamber of Commerce and Industry (Kadin) in 2024 also shows that there are 30,178,617 non-agricultural and fisheries MSMEs, or 50.7%, while MSMEs in the agricultural and fisheries sector reached 29,341,033 units, or 49.3%. The large number of MSMEs creates increasingly high levels of competition, requiring businesses to have adequate technological capabilities to adapt to changes in the business environment through the utilization of technological capabilities.

Although digital transformation is becoming an increasingly urgent need, the level of digitalization of MSMEs in Indonesia is still not fully optimal. The government continues to accelerate digitalization through various programs that increase the number of digitalized MSMEs from 17.28 million in 2021 to 20.99 million in 2022, then target 24 million MSMEs by 2023 and provide big data for digitalized MSMEs by 2024 (Azizah, 2023). However, MSMEs still face various obstacles such as limited resources, low technical skills, and data security issues, so support from the government and technology providers is still needed so that the use of digital technology can improve business sustainability and competitiveness (Sari, 2024). In this context, digital transformation is seen as a process of organizational change through the use of digital technology that can increase business effectiveness and become a link between

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technology capability and improved organizational performance (Abdurrahman et al., 2024). On the other hand, technological capability is an organization's ability to manage digital infrastructure, information systems, software, and human resources, thus becoming a critical factor in the success of digital transformation (Aldoseri et al., 2024). Furthermore, innovation plays a role in creating updates to products, services, operational processes, and business models that utilize digital technology, thereby improving organizational performance (Abdurrahman et al., 2024). This condition is further reinforced by the WIPO (2025) report, which ranks Indonesia 80th out of 192 countries in innovation, indicating that there are still opportunities for innovation development in the MSME sector.

This phenomenon also occurs in MSMEs partnering with PT. Bertumbuh Cipta Karya in Ponorogo Regency. The company, which operates in the creative, digital services, and branding sectors, has provided assistance to 50 active MSMEs in developing digital marketing, brand identity, and e-commerce optimization. However, the digital transformation process among MSME partners remains uneven. Some business actors still experience difficulties in optimally utilizing digital technology, characterized by low performance of digital marketing algorithms, stagnant engagement levels, and the suboptimal application of technology in business processes. This condition indicates that low technological capability and innovation remain factors that slow the digital transformation process, impacting operational efficiency and business performance of partner businesses. On the other hand, previous research has been conducted primarily on large companies, the banking sector, and the information technology industry. Research by Abdurrahman et al. (2024) shows that technological capability and innovation have a positive effect on digital transformation and business performance in the banking sector. Khin and Ho (2019) also found that digital capability has a positive effect on innovation and organizational performance in information technology companies, while research by Roro et al. (2025) showed that digital capability has a positive effect on digital transformation in the coffee beverage industry in Bandar Lampung. Furthermore, Setiawan, Fery et al. (2025) explained that transformational leadership plays a role in improving the performance of MSMEs in the digital transformation era. However, research on the influence of technological capability and innovation on MSME business performance with digital transformation as a mediating variable is still relatively limited, particularly in regional MSMEs and has never been conducted on MSME partners of PT. Bertumbuh Cipta Karya, Ponorogo Regency.

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Based on these conditions, this study aims to analyze the influence of technological capability and innovation on digital transformation and business performance, and examine the mediating role of digital transformation in this relationship. This study has an urgency to provide an understanding of the factors that support the improvement of MSME business performance through the use of digital technology so that it can become a basis for strengthening business competitiveness. The novelty of this study lies in examining the role of digital transformation as a mediating variable in the relationship between technological capability, innovation, and business performance in MSME partners of PT. Bertumbuh Cipta Karya in Ponorogo Regency, which until now has not been the focus of previous research.

METHOD

This study uses a quantitative approach with an explanatory research type to examine the causal relationship between technology capability, innovation, digital transformation, and business performance in partner businesses of PT. Bertumbuh Cipta Karya. The quantitative approach was chosen because it allows for objective, systematic, and measurable measurement of relationships between variables through testing previously formulated hypotheses (Soegiyono, 2011). The scope of the study focused on partner businesses of PT. Bertumbuh Cipta Karya that operate in the digital-based business development ecosystem. The selection of research objects was based on their relevance to the implementation of technology capability, innovation, digital transformation, and business performance in business activities so as to be able to provide empirical data in accordance with the research objectives (Bougie & Uma Sekaran, 2019; Vial, 2019).

The research population was all active partner businesses of PT. Bertumbuh Cipta Karya that have or are currently implementing digital technology in their business activities, with a total of 50 businesses based on internal company data. The sampling technique used total sampling so that all members of the population became research respondents. The sample determination took into account the relatively limited population size and its suitability with Structural Equation Modeling-Partial Least Squares (SEM-PLS) analysis. According to Hair et al. (2019), the minimum sample size in SEM-PLS can be determined using the 10-times rule. In this study, the number of respondents has met the minimum requirements because the digital transformation construct receives two paths of influence from the independent variable, while the

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business performance construct receives three paths of influence, so the minimum sample size is 30 respondents.

The research instrument used a closed-ended questionnaire compiled based on variable indicators adapted from previous research that have been used to measure technology capability, innovation, digital transformation, and business performance (Hair et al., 2019). All statements were measured using a five-point Likert scale, with a score of 1 for "Strongly Disagree," a score of 2 for "Disagree," a score of 3 for "Neutral," a score of 4 for "Agree," and a score of 5 for "Strongly Agree." Primary data were obtained by distributing questionnaires to owners or managers of PT. Bertumbuh Cipta Karya's partner businesses, while secondary data were obtained from company documents, scientific journals, books, articles, and various academic references that support the development of the theoretical basis and interpretation of the research results. The technology capability variable was measured through indicators of technological infrastructure availability, human resource technological competence, technology integration with business processes, and the ability to adopt new technologies (Khin & Ho, 2019; Weritz et al., 2025). Innovation variables are measured through product innovation, process innovation, organizational innovation, and marketing innovation (Ma et al., 2022; Aldoseri et al., 2024). Digital transformation variables are measured through business process digitalization, digital culture, utilization of digital data and technology, and digital customer experience (Vial, 2019; Gong & Ribiere, 2021), while business performance is measured through sales growth, profitability, customer satisfaction, and operational efficiency (Ma et al., 2022; Weritz et al., 2025).

Data analysis was conducted using SmartPLS with the Structural Equation Modeling-Partial Least Squares (SEM-PLS) method because it is able to test direct and indirect relationships between latent variables and is suitable for use in predictive research involving mediation models (Hair et al., 2019). The analysis stages include testing the outer model through convergent validity tests using outer loading and Average Variance Extracted (AVE), discriminant validity tests using the Fornell-Larcker Criterion, and reliability tests using Cronbach's Alpha and Composite Reliability. Next, the inner model was tested through the coefficient of determination (R^2), effect size (f^2), predictive relevance (Q^2), and path coefficient. Hypothesis testing was conducted using a bootstrapping procedure with the criteria of a t-statistic value greater than 1.96 and a p-value less than 0.05 (Hair et al., 2019). Mediation testing was conducted through direct and indirect effect analysis to determine the role of digital transformation as a mediating variable between technology capability and innovation on business performance.

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Interpretation of the mediation effect refers to the approach of Zhao et al. (2010), which is based on the significance of the indirect effect and the relationship between the direct and indirect effects in the research model.

RESULTS AND DISCUSSION

Respondent Description

1. Characteristics Based on Business Type

Table 1. Based on Business Type

No.	Type of business	Frequency	Percentage (%)
1.	Culinary	12	24%
2.	Fashion	9	18%
3.	Property	12	24%
4.	Service	13	26%
5.	Craft	4	8%
Total		**50**	**100%**

Source: Processed by Researchers (2026)

Based on Table 1, it is known that the distribution of business types of PT. Bertumbuh Cipta Karya partners is quite diverse. Businesses in the service sector dominate with 13 respondents or 26%, followed by the culinary and property sectors with 12 respondents or 24% each. Next, fashion businesses with 9 respondents or 18%, and crafts are the sector with the smallest number of respondents, namely 4 respondents or 8%. This diversity of business types illustrates that PT. Bertumbuh Cipta Karya provides cross-sector mentoring services, so that the results of the study are expected to represent the condition of MSME digitalization more broadly.

2. Characteristics Based on Length of Business

Table 2. Based on Business Length

No.	Length of Business	Frequency	Percentage (%)
1.	< 1 year	6	12%
2.	13 years old	13	26%
3.	4 – 6 years	11	22%
4.	7 – 9 years	9	18%
5.	> 10 years	11	22%

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E-ISSN : 2964-0865
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Total		**50**	**100%**

Source: Processed by Researchers (2026)

Based on Table 2, it can be seen that the majority of respondents were businesses with an operational age range of 1 to 3 years, namely 13 respondents (26%). Businesses established for 4-6 years and more than 10 years each numbered 11 respondents (22%), while businesses established for 7-9 years numbered 9 respondents (18%). Meanwhile, businesses established less than 1 year numbered 6 respondents (12%). This data indicates that most partners are relatively young businesses but have significant potential to grow through the use of digital technology and structured business innovation.

Data Analysis Results

1. Descriptive Research Variables

Table 3. Descriptive Statistics of Research Variables

Variables	Indicator	Mean	Standard Deviation	Information
Technology Capability (X1)	TC1 – Technology Infrastructure Availability	3,420	1,247	Pretty good
	TC2 – HR Technology Competence	3,140	1,294	Pretty good
	TC3 – Technology Integration with Business Processes	3,440	1,215	Pretty good
	TC4 – Ability to Adopt New Technologies	3,320	1,392	Pretty good
	Average Variable	3,330	-	Pretty good
Innovation (X2)	IN1 – Product Innovation	3,980	0.958	Good
	IN2 – Process Innovation	3,740	1,175	Good

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	IN3 – Organizational Innovation	3,900	0.974	Good
	IN4 – Marketing Innovation	3,680	1,236	Good
	Average Variable	3,825	-	Good
Digital Transformation (Z)	DT1 – Digitalization of Business Processes	3,260	1,157	Pretty good
	DT2 – Digital Culture	3,640	1,156	Good
	DT3 – Utilization of Data and Digital Technology	3,420	1,090	Pretty good
	DT4 – Digital Customer Experience	3,680	1,096	Good
	Average Variable	3,500	-	Pretty good
Business Performance (Y)	KB1 – Sales Growth	3,180	1,335	Pretty good
	KB2 – Profitability	3,280	1,278	Pretty good
	KB3 – Customer Satisfaction	3,580	1,052	Good
	KB4 – Operational Efficiency	3,380	1,141	Pretty good
	Average Variable	3,355	-	Pretty good

Source: Processed by Researchers (2026)

Based on Table 3, the Innovation variable obtained the highest average of 3.825 which is included in the good category, followed by the Digital Transformation variable with an average of 3.500 which is included in the fairly good category, Business

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Performance of 3.355 in the fairly good category, and Technology Capability with an average of 3.330 which is in the fairly good category. Overall, the descriptive statistics results indicate that PT. Bertumbuh Cipta Karya's partner businesses have made various innovation efforts and the use of digital technology, although technological capabilities and business performance are still at a level that requires further improvement, especially in the aspects of digital HR competency and sales growth.

2. Description of Technology Capability Variable (X1)

Table 4. Respondents' responses regarding technology capability

No	Indicator	STS	TS	N	S	SS	Total
1.	Availability of Technology Infrastructure	4(4)	7(14)	16(48)	10(40)	13(65)	171
2.	HR Technology Competence	5(5)	14(28)	9(27)	13(52)	9(45)	157
3.	Technology Integration with Business Processes	12(60)	15(60)	7(21)	15(30)	1(1)	172
4.	Ability to Adopt New Technologies	13(65)	12(48)	10(30)	8(16)	7(7)	166
TOTAL							**666**

Source: Processed by Researchers (2026)

Based on Table 4 above, it can be seen that the technology capability variable obtained a total score of 666 from the four indicators measured. These results indicate that respondents generally gave a positive response to the technological capabilities of PT. Bertumbuh Cipta Karya's partner businesses. This indicates that most business owners have sufficient capabilities in utilizing technology to support their daily business activities.

3. Description of Innovation Variable (X2)

Table 5. Respondents' responses regarding innovation

No	Indicator	STS	TS	N	S	SS	Total
1.	Product Innovation	1(1)	1(2)	14(42)	16(64)	19(90)	171
2.	Process Innovation	4(4)	4(8)	6(18)	23(92)	13(65)	187
3.	Organizational Innovation	0(0)	6(12)	8(24)	21(84)	15(75)	195
4.	Marketing Innovation	4(4)	4(8)	12(36)	14(56)	16(80)	184
	TOTAL						**765**

Source: Processed by Researchers (2026)

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Table 5 shows that the innovation variable received a total score of 765. This value indicates that the level of innovation in PT. Bertumbuh Cipta Karya's partner businesses is in the high category. Most respondents stated that their businesses have implemented various forms of innovation to improve product quality and customer service.

4. Description of Digital Transformation Variable (Z)

Table 6. Respondents' Responses Regarding Digital Transformation

No	Indicator	STS	TS	N	S	SS	Total
1.	Digitalization of Business Processes	4(4)	8(16)	17(51)	13(52)	8(40)	163
2.	Digital Culture	1(1)	9(18)	12(36)	13(52)	15(75)	182
3.	Utilization of data and digital technology	2(2)	7(14)	19(57)	12(48)	10(50)	171
4.	Marketing Innovation	1(1)	8(16)	10(30)	18(72)	13(65)	184
TOTAL							**700**

Source: Processed by Researchers (2026)

Based on the results of Table 6, it is known that the digital transformation variable obtained a total score of 700, which shows that most partner businesses have started to implement digital transformation in carrying out their business activities.

5. Description of Business Performance Variable (Y)

Table 7. Respondents' Responses Regarding Business Performance

No	Indicator	STS	TS	N	S	SS	Total
1.	Sales Growth	6(6)	11(22)	12(36)	10(40)	11(55)	159
2.	Profitability	5(5)	10(20)	11(33)	14(56)	10(50)	164
3.	Customer satisfaction	1(1)	8(16)	12(36)	19(76)	10(35)	179
4.	Operational Efficiency	5(5)	4(8)	15(45)	19(76)	7(35)	169
TOTAL							671

Source: Processed by Researchers (2026)

Based on Table 7, Business Performance scored 671, indicating that PT. Bertumbuh Cipta Karya's partner businesses generally have a good level of business performance. This is evident from the majority of respondents who gave positive

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responses to indicators such as sales growth, profitability, customer satisfaction, and operational efficiency.

Outer Model

1. Convergent Validity Test

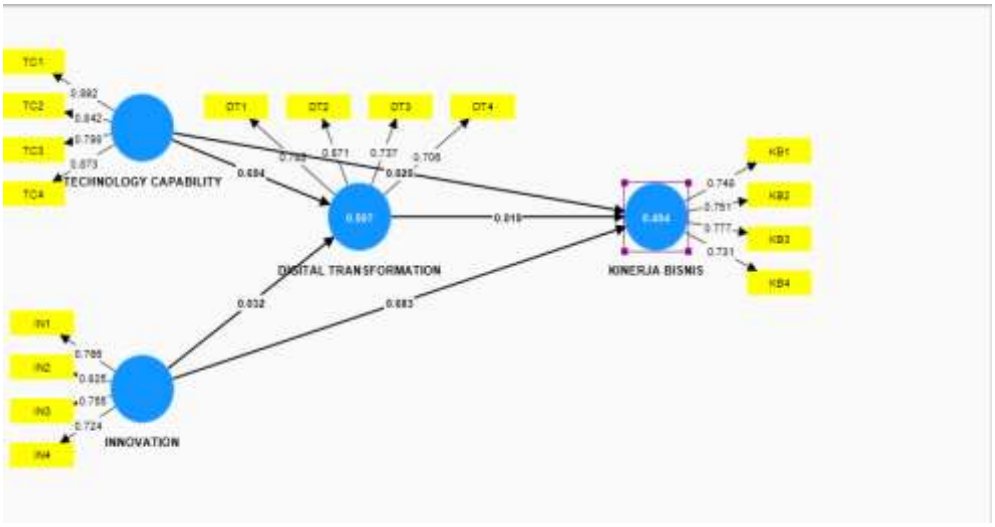


Figure 1. Path Diagram with Loading Factor Values
Source: Processed by Researchers (2026)

Table 8. Outer Loading and AVE Test Results

Construct	Indicator	Outer Loading	AVE	Information
Technology Capability (X1)	TC1	0.862	0.771	Valid
	TC2	0.894		Valid
	TC3	0.874		Valid
	TC4	0.882		Valid
Innovation (X2)	IN1	0.767	0.695	Valid
	IN2	0.896		Valid

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	IN3	0.844		Valid
	IN4	0.823		Valid
Digital Transformation (Z)	DT1	0.884	0.760	Valid
	DT2	0.865		Valid
	DT3	0.858		Valid
	DT4	0.879		Valid
Business Performance (Y)	KB1	0.888	0.748	Valid
	KB2	0.842		Valid
	KB3	0.837		Valid
	KB4	0.890		Valid

Source: Processed by Researchers (2026)

Based on Table 8, all indicators in the four constructs have outer loading values above 0.70, with a range of values (IN1) of 0.767 and (IN2) of 0.896. Meanwhile, the AVE values for all constructs are above 0.59, namely Technology Capability at 0.772, Innovation at 0.695, Digital Transformation at 0.760, and Business Performance at 0.748. Thus, all indicators in this study have met the requirements for convergent validity.

2. Discriminant Validity Test

Table 9. Fornell-Larcker Criterion

Construct	Digital Transformation	Innovation	Business Performance	Technology Capability
Digital Transformation	0.872			

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Innovation	0.433	0.833		
Business Performance	0.780	0.368	0.865	
Technology Capability	0.538	-0.040	0.552	0.878

Source: SmartPLS output, processed by researchers (2026).

Based on Table 9, the square root of the AVE for each construct is greater than the correlation between constructs in its row and column. The square root of the AVE for Digital Transformation is 0.872, Innovation is 0.833, Business Performance is 0.865, and Technology Capability is 0.878, all exceeding the correlation between constructs. This proves that each construct has a different measurement than the others.

Table 10. Heterotrait-Monotrait Ratio (HTMT)

Construct	Digital Transformation	Innovation	Business Performance	Technology Capability
Digital Transformation				
Innovation	0.442			
Business Performance	0.871	0.392		
Technology Capability	0.579	0.205	0.602	

Source: SmartPLS Output, Processed by Researchers (2026)

Based on Table 10, all HTMMT values between constructs are below 0.90. The highest HTMMT value was found between Digital Transformation and Business Performance at 0.871, but still below the requirement. These results confirm that each construct in this research model is conceptually and empirically distinct from one another, thus meeting discriminant validity.

3. Reliability Test

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Table 11. Construct Reliability Test Results

Construct	Cronbach's alpha	CR (rho_a)	CR (rho_c)	AVE	Information
Digital Transformation	0.895	0.897	0.927	0.760	Reliable
Innovation	0.861	0.918	0.901	0.695	Reliable
Business Performance	0.887	0.890	0.922	0.748	Reliable
Technology Capability	0.902	0.914	0.931	0.771	Reliable

Source: SmartPLS Output, Processed by Researchers (2026)

Based on Table 11, all constructs in this research model demonstrate excellent reliability. Cronbach's Alpha values range from 0.861 to 0.902, and Composite Reliability (rho_c) values range from 0.901 to 0.931. All these values are above the required threshold, thus concluding that all constructs are reliable and consistent in measuring latent variables.

Inner Model Analysis Results

1. **Coefficient of Determination (r2)**

Table 12. Value of the Coefficient of Determination (r2)

Endogenous Variables	R-square	R-square adjusted	Category
Digital Transformation	0.497	0.475	Weak-Moderate
Business Performance	0.642	0.619	Moderate-Strong

Source: SmartPLS Output, Processed by Researchers (2026)

Based on the results of the SEM-PLS analysis in Table 12, the value (r2) of the Digital Transformation variable was 0.497, indicating that the structural model has weak-strong capabilities, which means that Technology Capability and Innovation are able to

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explain 49.7% of the variation in Digital Transformation, while the remaining 50.3% is influenced by other factors outside the research model.

Furthermore, the value (r2) of the Business Performance variable is 0.642, indicating that the structural node has moderate capabilities, meaning that Technology Capability, Innovation, and Digital Transformation are simultaneously able to explain 64.2% of the variation in Business Performance, and the remaining 35.8% is influenced by other factors outside the research model.

2. Effect Size Test (f2)

Table 13. **Effect Size Value (f2)**

Relationship between constructs	(f2)	Category
Innovation →Digital Transformation	0.412	Big
Technology Capability→Digital Transformation	0.613	Big
Digital Transformation→Business Performance	0.518	Big
Innovation→Business Performance	0.026	Small
Technology Capability→Business Performance	0.091	Small-Medium

Source: SmartPLS Output, Processed by Researchers (2026)

Based on the results of the f-square (f2) analysis in the SEM-PLS model, several important findings were obtained regarding the magnitude of the influence (effect size) of each exogenous variable on the endogenous variable, namely:

A. The influence of the Innovation variable on Digital Transformation has an f2 value of 0.412, which is above 0.35, which is considered a large effect. This finding indicates that Innovation is a key factor and primary determinant in shaping Digital Transformation. In other words, the presence of Innovation significantly determines the level of Digital Transformation in the research model.
B. The influence of the Technology Capability variable on Digital Transformation has an f2 value of 0.613, which is above 0.35, which is considered a large effect. This finding indicates that Technology Capability is also a key factor and a major determinant in shaping Digital Transformation. In other words, the presence of the Technology Capability variable significantly determines the level of Digital Transformation in the research model.
C. The effect of the Digital Transformation variable on Business Performance has a value of 0.518, which is above 0.35, which is considered a large effect. This finding

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indicates that Digital Transformation is also a key factor or primary determinant in shaping business performance. This indicates that Digital Transformation contributes to the development of business performance in the study.

D. The effect of Innovation on Business Performance is 0.026, which is above 0.02, which is considered a small effect. This indicates that Innovation contributes to business performance, but its impact is relatively limited in practical terms compared to other variables in the model.
E. The effect of Technology Capability on Business Performance is 0.091, which is above 0.02, which is considered a small to medium effect. This indicates that Technology Capability contributes to shaping Business Performance, but its impact is still relatively limited in practical terms compared to other variables in the model.

3. Predictive Relevance (q2)

Table 14. Predictive Relevance Value (q2)

Endogenous Variables	SSO	SSE	Q^2 (=1-SSE/SSO)	Category
Digital Transformation	200,000	130,298	0.349	Big
Innovation	200,000	200,000	0.000	-
Business Performance	200,000	109,589	0.452	Big
Technology Capability	200,000	200,000	0.000	-

Source: SmartPLS Output, Processed by Researchers (2026)

Based on Table 14, the results of the (q2) values for each endogenous variable are obtained.

A. The Digital Transformation variable obtained a q2 value of 0.349. This value falls into the large predictive relevance category, as it approaches 0.35. These results indicate that the research model has strong predictive power for the Digital Transformation variable.
B. The Innovation and Technology Capability variables have a q2 value of 0.000. This value does not indicate a weakness in the model, as these two variables are exogenous, not influenced or predicted by other constructs in the structural model.
C. The Business Performance variable obtained a q2 value of 0.452, which is above the 0.35 threshold, thus falling into the large predictive relevance category. This

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value indicates that the model has excellent predictive ability for the Business Performance variable.

Hypothesis Test Results (Bootstrapping)

1. Direct Hypothesis Test (Path Coefficient)

Table 15. Path Coefficient Test Results

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Digital Transformation-> Business Performance	0.607	0.101	6,014	0.000
Innovation -> Digital Transformation	0.456	0.092	4,976	0.000
Innovation-> Business Performance	0.114	0.101	1,130	0.259
Technology Capability -> Digital Transformation	0.556	0.088	6,284	0.000
Technology Capability-> Business Performance	0.230	0.084	2,731	0.006

Source: SmartPLS Output, Processed by Researchers (2026)

2. Indirect Hypothesis Test (Specific Indirect Effect)

Table 16. Direct Effect Test

	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
Innovation -> Digital Transformation-> Business Performance	0.277	0.076	3,621	0.000
Technology Capability -> Digital Transformation-> Business Performance	0.338	0.085	3,976	0.000

Source: SmartPLS Output, Processed by Researchers (2026)

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International Journal of Economics, Business and Innovation Research
https://e-journal.citakonsultindo.or.id/index.php/IJEBIR
E-ISSN : 2964-0865
IJEBIR

3. Mediation Test

Table 17. Mediation Test Results

Variables	Direct Effect			Indirect Effect			Information
	Original Sample	T-Statistic	P-Value	Original Sample	T-Statistic	P-Value	
Technology Capability → *Digital Transformation*→ Business Performance	0.230	2,731	0.006	0.338	3,976	0,000	*Complementary Mediation*
Innovation → *Digital Transformation*→ Business Performance	0.114	1,130	0.259	0.277	3,621	0,000	*Full Mediation (Indirect Only Mediation)*

Source: SmartPLS Output, Processed by Researchers (2026)

DISCUSSION

The Influence of Technology Capability on Digital Transformation (H1)

The results of the first hypothesis test show that technology capability (X1) has a positive and significant effect on digital transformation (Z) with a path coefficient value of 0.556, a t-statistic value of 6.284, and a p-value of 0.000 < 0.05, thus (H1) **accepted** This finding indicates that the greater a partner's business capability in managing technology infrastructure, developing digital human resources, and integrating technology into business processes, the stronger the digital transformation process within that organization or business.

This result is in line with researchHershanty (2021)which states that IT capability has a positive influence on digital transformation in small and medium-sized businesses. This is in line with researchRupeika-Apoga et al. (2022)that MSMEs with higher technological capability tend to be more adaptive in implementing digital transformation compared to MSMEs with limited technological capability. In the scope of PT. Bertumbuh

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Cipta Karya's partner businesses, the assistance provided by the company plays a role in increasing the technological readiness of partners, thereby accelerating the acceptance of digital transformation in real terms. This is experienced by PT. Bertumbuh Cipta Karya's partner businesses such as Bakol Ericheese, Sate PakIpung, Seblak and Bakso Acila which have utilized various digital technologies in their operational activities, where they utilize technological capabilities such as the use of WhatsApp Business to receive customer orders, QRIS as a digital payment method, and Instagram and online food applications as product promotion media. Thus, the results of this study show that the higher the Technology Capability of a partner business, the greater the opportunity for the business to achieve increased sales, operational efficiency, customer satisfaction, and profitability, thereby improving Business Performance.

The Influence of Innovation on Digital Transformation (H2)

Testing the second hypothesis produces a path coefficient value of 0.456 with a t-statistic value of 4.976 and a p-value of 0.000 < 0.05, so (H2) **accepted.** These results demonstrate that innovation (X2) has a positive and significant impact on digital transformation (Z). Partner businesses with a high propensity for innovation in products, processes, organizations, and marketing are thus more likely to implement digital transformation as a means of realizing new ideas effectively and with broad impact.

This finding is in line with research byAbdurrahman et al. (2024)which confirms that digital technology-based innovation can accelerate the digital transformation process within organizations. Furthermore,Ma et al. (2022)explains that ambitious innovation supported by digital platforms produces a more substantial transformative impact on organizational performance. Innovation is also carried out by Indiyana Stuff, with its main product being plain tote bags. Indiyana Stuff carries out innovation by always presenting innovations to improve designs, and following trends and providing ordering services for various designs and types so as to maintain customer loyalty. In addition to product innovation, several businesses have begun implementing marketing innovations through creating promotional content on social media, providing regular discounts, and collaborating with local influencers. This strategy increases promotional reach so that products are better known to the public. This means that innovation is not only an output of digital transformation, but also plays a role as an initial driver that moves organizations to transform with digital as a whole.

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The Influence of Technology Capability on Business Performance (H3)

The third hypothesis shows that Technology Capability (X1) has a positive and significant effect on Business Performance (Y), with a path coefficient value of 0.230, a t-statistic of 2.731 > 1.96, and a p-value of 0.006 < 0.05. Thus (H3) **accepted** These results indicate that increasing the technological capability of partner businesses directly contributes to improved business performance, although the magnitude of the effect is relatively smaller than the pathway through the mediating variable digital transformation.

Research that strengthens this is research byRanvijay Singh Chauhan (2025) which states that companies with adequate technology capability have better decision-making quality, thus positively impacting overall organizational performance. As experienced by Samanata Living, PT. Bhirawa, PT. Hasta Property, Majasty, and PT. Bumi Inti Prakasa where the use of technology capability is very adequate, including the availability of technological infrastructure in the form of digital devices and internet access, as well as the ability of human resources to utilize it, has been proven to have a direct impact on operational efficiency and sales growth.

The Influence of Innovation on Business Performance (H4)

The fourth hypothesis test yielded a path coefficient of 0.114 with a t-statistic of 1.130 < 1.96 and a p-value of 0.259 > 0.05. These results indicate that Innovation (X2) does not have a direct, significant effect on Business Performance (Y), thus (H4) **rejected**. Although the direction of the influence is positive, the value does not reach the required level of statistical significance.

The insignificant direct impact of innovation on business performance can be explained by the argument that innovation undertaken by MSMEs requires time and the right platform to produce a tangible impact on performance. Without the support of an adequate technology ecosystem, innovation efforts tend to be suboptimal in converting creative ideas into measurable performance improvements. This aligns with research conducted byKhin & Ho (2019)who found that digital innovation does not directly improve organizational performance but instead requires an intermediary in the form of digital transformation to optimize its impact. This finding also strengthens the suitability of digital transformation as a mediating variable in this research model.

This situation is evident in one of the partner businesses engaged in the sale of building materials/steel, namely the Indah Bangunan and Baja Murni partners. In this business, sales performance is determined more by factors such as price, quality, and availability of goods according to project specifications, rather than by product, process,

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or marketing innovation efforts. The standard and technically oriented characteristics of the products mean that innovation efforts are insufficient to significantly change customer purchasing behavior, unless accompanied by a strengthening of the digital ecosystem, for example, an online ordering system, a digital product catalog, or online technical consultation services. This condition strengthens the argument that innovation will only have a real impact on business performance if it is first realized through adequate digital transformation.

The Impact of Digital Transformation on Business Performance (H5)

The fifth hypothesis obtained highly significant results with a path coefficient of 0.607, t-statistic 6.014 > 1.96 and p-value 0.000 < 0.05, so (H5) **accepted**. Digital Transformation (Z) has been proven to have a positive and significant impact on the business performance of partner businesses (Y), and is the strongest predictor of business performance in this model. The broader implementation of digital transformation, encompassing digitalization processes in business, strengthening digital culture, utilizing data, and improving the online customer experience, will result in improved partner business performance.

This result is in line with the findingsHutama et al. (2023)which proves that digital business transformation has a positive and significant impact on MSME performance.Vial (2019)also emphasized that digital transformation is a strategic change that reshapes business processes, business models, and organizational structures based on digital technology, which ultimately impacts long-term performance. In the context of PT. Bertumbuh Cipta Karya, the role of digital mentoring provided to partners has proven to be able to encourage more effective implementation of digital transformation, thereby contributing significantly to improving partner business performance.

This situation is clearly illustrated by Amida's Muslim fashion business. As a business competing in a competitive market heavily influenced by trends, Amida has implemented a comprehensive digital transformation, from utilizing social media and e-commerce as primary sales channels, to consistently using visual content to build its brand image, to utilizing sales data and customer behavior to determine future product and promotional strategies. The combination of these various aspects of digital transformation, rather than simply utilizing a single digital platform, has enabled Amida to reach a wider market, consistently increase sales volume, and build customer loyalty amidst the intense competition in the Muslim fashion business.

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***Digital Transformation*Mediating Technology Capability on Business Performance (H6)**

The results of testing the sixth hypothesis through the indirect effect test produced an indirect path coefficient of 0.338 with a t-statistic of 3.976 > 1.96 and a p-value of 0.000 < 0.05. These results prove that Digital Transformation (Z) significantly mediates the influence of Technology Capability (X1) on Business Performance (Y), so (H6) **accepted**. Focusing on conditions where the direct influence of technology capability on business performance remains significant (H3 is accepted) but its indirect influence is also significant, then the type of mediation that occurs is complementary mediation.(Zhao et al., 2010).

This finding has important implications: the technological capabilities of partner businesses do not simply impact performance directly; they must first be realized through a systematic digital transformation process to achieve optimal results. Digital transformation plays a role in transforming technological potential into tangible and measurable business performance. This is in line with research.Hershanty (2021)which found the relationship between IT capability and firm performance was significantly mediated by digital transformation in small and medium-sized businesses.

This situation is reflected in Jatimori, a tourism and amusement park business. Jatimori already possessed technological infrastructure, such as a digital ticketing system and an adequate internet network, but these capabilities had little impact on performance improvement unless integrated into a more comprehensive digital strategy. After Jatimori underwent a digital transformation process, for example through targeted digital promotions, online ticket booking management, and the use of visitor data to design operational strategies, its technological capabilities were truly able to increase the number of visitors and business revenue. Digital transformation thus plays a role in transforming technological potential into tangible and measurable business performance.

***Digital Transformation*Mediating Innovation on Business Performance (H7)**

The results of the seventh hypothesis test show that Digital Transformation (Z) significantly mediates the influence of Innovation (X2) on Business Performance (Y), with an indirect path coefficient value of 0.277, t-statistic 3.621 > 1.96, and p-value 0.000 < 0.050, so that (H7) **accepted**. Considering that the influence of innovation (X2) on Business Performance (Y) is not significant (H4 is rejected) but its indirect influence

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through digital transformation is proven to be significant, the type of mediation that applies is full mediation.(Zhao et al., 2010).

These findings confirm that innovations implemented by PT. Bertumbuh Cipta Karya's partner businesses will have a tangible impact on business performance if implemented through an adequate digital platform and ecosystem. Digital transformation provides the infrastructure, digital distribution channels, and data analytics that enable innovation to be deployed quickly, efficiently, and have a broader impact. These results align with research.Ma et al. (2022)which found that ambidextrous innovation impacts company value through digital transformation mediation, as well asChandra & Ikasari (2023)which emphasizes that digital transformation strengthens the relationship between digital capability and the resilience of MSME businesses.

This condition is clearly visible in the Indiyana Stuff business. Before receiving assistance from PT. Bertumbuh Cipta Karya, the tote bag product innovations that Indiyana Stuff continuously developed had not yet had a significant impact on increasing sales. However, after undergoing a digital transformation process through assistance from Bertumbuh Creative, which included the creation of more organized and consistent promotional content, the creation of an official website, and assistance in utilizing marketplaces like Shopee to expand sales reach, Indiyana Stuff's business performance improved dramatically, even experiencing a situation of being overwhelmed in fulfilling the number of incoming orders. This condition proves that digital transformation provides infrastructure, digital distribution channels, and marketing strategies that enable product innovation to be utilized more quickly, efficiently, and have a broader impact on business performance.

CONCLUSION

This study shows that technological capability and innovation play a significant role in driving digital transformation in PT. Bertumbuh Cipta Karya's partner businesses. Technology capability is proven to have a positive and significant effect on digital transformation and business performance, while innovation only has a significant effect on digital transformation and does not directly affect business performance. Digital transformation is the most powerful factor in improving business performance, while also acting as a mediator that strengthens the relationship between technological capability and business performance through a complementary mediation mechanism, and fully mediates the relationship between innovation and business performance through full mediation. These findings emphasize that increasing technological capability and

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innovation needs to be implemented through an integrated digital transformation process to be able to produce increased sales, operational efficiency, customer satisfaction, and business profitability.

This study has limitations because it only involved 50 partner businesses of PT. Bertumbuh Cipta Karya in Ponorogo Regency, so the results cannot be generalized to all MSMEs in Indonesia. Furthermore, the study used a cross-sectional approach with respondent perception data, so it is not able to describe changes in business performance in the long term. Future research is recommended to involve a broader sample, various business sectors, and use a longitudinal design or mixed approach to obtain a more comprehensive understanding. The addition of variables such as digital leadership, organizational agility, entrepreneurial orientation, or government support could also enrich the research model. Practically, the research results have implications for PT. Bertumbuh Cipta Karya, MSMEs, and stakeholders to strengthen technological capabilities, encourage sustainable innovation, and develop targeted digital transformation programs as a primary strategy to improve competitiveness and business performance.

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