Digital Bisnis: Jurnal Publikasi Ilmu Manajemen dan E-Commerce
Volume. 5, Nomor. 3, September 2026
E-ISSN : 2962-0821; P-ISSN : 2964-5298; Hal. 49-62
DOI: https://doi.org/10.30640/digital.v5i3.7390
Tersedia: https://jurnaluniv45sby.ac.id/index.php/Digital

The Influence of Digital Business Strategy, Digital Transformatio and E-Commerce Utilization on the Performance of MSME Toy Entrepreneurs in Ponorogo

Septian Dwi Susanto[1*], Sri Hartono[2], Tegoeh Hari Abrianto[3]
[1-3]Program Studi Manajemen, Universitas Muhammadiyah Ponorogo, Indonesia

[*]*Corresponding Author: septiangao71@gmail.com*

Abstract. The rapid development of digital technology has encouraged Micro, Small, and Medium Enterprises (MSMEs) to adopt strategies that enhance their competitiveness and business performance. This study aims to examine the influence of digital business strategy, digital transformation, and e-commerce utilization on the performance of toy MSME entrepreneurs in Ponorogo Regency, Indonesia. A quantitative approach with an associative research design was employed. Data were collected through questionnaires distributed to 22 toy MSME entrepreneurs using a saturated sampling technique, in which all members of the population were included as respondents. The collected data were analyzed using multiple linear regression analysis to determine the individual and combined effects of the independent variables on business performance. The findings reveal that digital business strategy, digital transformation, and e-commerce utilization each have a positive and significant effect on the performance of toy MSME entrepreneurs. Furthermore, these three variables simultaneously exert a significant positive influence on MSME performance. The results indicate that the effective implementation of digital business strategies, digital transformation initiatives, and e-commerce platforms can substantially improve the performance and competitiveness of toy MSMEs in Ponorogo Regency. These findings provide practical implications for MSME owners and policymakers in promoting digital adoption to support sustainable business growth and long-term competitiveness.

Keywords: Digital Business Strategy; Digital Transformation; E-Commerce Utilization; MSME Performance; Toy Msmes.

1. INTRODUCTION

The development of digital technology has changed the way Micro, Small, and Medium Enterprises (MSMEs) carry out business activities, ranging from marketing, transactions, to business operational management. In Indonesia, the number of internet users has reached around 212 million people in 2023, while in East Java Province there are around 9.78 million MSMEs and as many as 4.6 million of them have utilized digital technology in their business activities, thus showing the increasing opportunities for digitalization for the development of MSMEs. This condition shows that the application of digital technology is an important factor in increasing competitiveness and business performance in the midst of increasingly competitive business competition (Asmar et al., 2025). The findings are supported by research that states that e-commerce and digital transformation has a positive effect on the performance of MSMEs (Sahrul & Nuringsih, 2023).

Although digitalization is growing rapidly, there are still many MSME actors who are not able to utilize technology optimally so that business activities are still carried out conventionally (Costa et al., 2023).

Naskah Masuk: 15 Mei 2026; Revisi: 22 Mei 2026; Diterima: 13 Juli 2026; Tersedia: 21 Juli 2026

This condition also occurs for MSMEs in Ponorogo Regency, especially toy MSMEs, which still rely on direct promotion, manual recording, and sales through physical stores so that the use of digital technology has not been maximized. These problems hinder the increase in the competitiveness of MSMEs, even though the local government has provided training digital marketing to encourage the acceleration of digitalization of business actors. These obstacles are in line with research that shows that low digital literacy is still an obstacle in implementation e-commerce MSMEs and limited digital capabilities cause digital transformation to not run optimally (Ayem et al., 2024; Or et al., 2020).

The urgency of this research is getting higher because toy products are greatly influenced by market trends, promotional creativity, and the speed of information distribution to consumers. If toy MSME players are unable to adopt digital business strategies, digital transformation, and e-commerce, then the opportunity to compete with digital-based business actors will be smaller (Davit Marikyan, 2020). Therefore, the implementation of digitalization is an important step to improve operational efficiency, expand the market, and improve business performance in a sustainable manner. The statement is supported by research Chen et al. (2024) which states that digital transformation is able to improve sustainable business performance and e-business contribute to increasing sales and operational efficiency of MSMEs (Putra & Santoso, 2020).

Previous studies have shown that digital business strategies, digital transformation, and utilization e-commerce has a positive relationship with improving the performance of MSMEs. Digital business strategies have been proven to be able to improve business performance through the use of technology in business activities, while digital transformation requires dynamic capabilities so that the company is able to adapt to changes in the business environment (Warner & Wäger, 2019). In addition, the utilization of e-commerce proven to increase market reach, sales, operational efficiency, customer relationships, and the competitiveness of MSMEs (Arshad et al., 2025). Other research results also show that digital technology strengthens the influence of business strategies on improving the performance of MSMEs (Armiani, 2017).

The novelty of this research lies in testing the influence of digital business strategies, digital transformation, and the simultaneous use of e-commerce on the performance of toy MSME entrepreneurs in Ponorogo Regency. Previous research generally only tested one or two variables so it did not provide a comprehensive picture of the relationship between the three variables.

In addition, this research was conducted on the toy MSME sector which has different characteristics compared to other business sectors because it is greatly influenced by changes in market trends. Thus, this study is expected to be able to provide more specific empirical evidence according to the characteristics of MSMEs in Ponorogo Regency.

This research focuses on analyzing the influence of digital business strategies, digital transformation, and the use of e-commerce on the performance of toy MSME entrepreneurs in Ponorogo Regency. The three independent variables were analyzed both partially and simultaneously against the dependent variable, namely the performance of MSMEs. The focus of the research is directed to find out the extent to which the application of digitalization is able to increase business success in the toy MSME sector. The results of the analysis are expected to illustrate the actual conditions of the implementation of digitalization in toy MSMEs in Ponorogo Regency.

The purpose of this study is to analyze the influence of digital business strategies on the performance of toy MSME entrepreneurs in Ponorogo Regency. This study also aims to analyze the influence of digital transformation and the use of *e-commerce* on the performance of toy MSME entrepreneurs. In addition, this study examined the influence of these three variables simultaneously on the performance of toy MSME entrepreneurs in Ponorogo Regency. The results of the research are expected to be input for MSME actors and local governments in supporting the sustainable development of MSME digitalization.

2. THEORETICAL REVIEW

This research is based on the theory Dynamic Capabilities which explains that organizations must be able to identify opportunities, capitalize on opportunities, and adjust resources to remain competitive in an ever-changing business environment. In the context of MSMEs, these capabilities are realized through the implementation of digital business strategies, digital transformation, and utilization e-commerce to increase operational effectiveness and business competitiveness. The theory also emphasizes that adaptability to technological developments is an important factor in the success of digital transformation and improving organizational performance (Warner & Wäger, 2019). Thus, the theory Dynamic Capabilities is a conceptual foundation to explain the relationship between digitalization and improving the performance of MSMEs. Digital business strategy is an approach that integrates digital technology into business activities to create value, increase efficiency, and expand markets (Santoso et al., 2025).

Meanwhile, digital transformation is understood as a comprehensive change in business processes through the use of digital technology, while e-commerce It is an important means of supporting online marketing, transactions, and customer service. The application of these three concepts has been proven to be able to improve operational efficiency, decision-making quality, and business sustainability of MSMEs (Chen et al., 2024). Therefore, digital business strategy, digital transformation, and utilization e-commerce are seen as the main factor that affects the performance of MSMEs.

Previous studies have shown that digital business strategies, digital transformation, and utilization e-commerce have a positive influence on the performance of MSMEs. Previous research has found that e-commerce and digital transformation are able to increase sales, operational efficiency, and expand the reach of the MSME market (Sahrul & Nuringsih, 2023). Similar results also showed that the use of e-commerce is the dominant factor in increasing the income and competitiveness of MSMEs (Handayani & Khair, 2024). In addition, digital business strategies have been proven to have a positive effect on improving business performance through the targeted use of technology.

However, previous research is still dominated by the discussion of each variable separately, so there have not been many that have tested the influence of digital business strategies, digital transformation, and the simultaneous use of e-commerce on the performance of MSMEs. This study fills the gap by integrating the three variables in a research model on toy MSMEs in Ponorogo Regency which have different characteristics compared to other regions. Based on the theoretical foundation and results of previous research, this study focuses on analyzing the influence of digital business strategies, digital transformation, and the use of e-commerce on the performance of toy MSME entrepreneurs in Ponorogo Regency. Thus, the research hypothesis is prepared based on theoretical linkages and empirical evidence that shows that the three variables are estimated to have a positive effect on the performance of MSMEs.

3. RESEARCH METHODS

This research is limited to the analysis of the influence of digital business strategies, digital transformation, and utilization e-commerce on the performance of toy MSMEs in Ponorogo Regency so that the discussion remains directed and in accordance with the research objectives.

The research population consisted of all 22 toy MSMEs in Ponorogo Regency that met the criteria as an active business with the respondent owner or manager, so that the entire population was used as a sample using the saturated sampling or census (Sugiyono, 2023). Research data was obtained through questionnaires as primary data and supported by secondary data from books, journals, scientific articles, and related documents, with measurements using a five-level Likert scale, while research variables included digital business strategy, digital transformation, and utilization e-commerce, and the performance of MSMEs that are operationalized based on indicators from each concept (Imam Machali, 2021). Data analysis was carried out using SPSS assistance through validity tests, reliability tests, descriptive statistical analysis, classical assumption tests which include normality, multicollinearity, and heteroscedasticity, then followed by multiple linear regression analysis to determine the influence of independent variables on dependent variables. Hypothesis testing is carried out using the test t, test F, and the coefficient of determination (R^2) with a significance level of 5% to determine the influence of digital business strategy, digital transformation, and utilization e-commerce on the performance of toy MSMEs in Ponorogo Regency.

4. RESULTS AND DISCUSSION

Respondent Characteristics

Respondents' information was obtained based on the identity listed on the research questionnaire, including the length of business, the level of digital utilization in the business, and the digital platform used.

Table 1. Characteristics of Research Respondents (n = 22).

Features	Category	Number of Respondents	Percentage
Long Term of Effort	< 1 Years	3	13,64%
	1–5 Years	6	27,27%
	6–10 Years	10	45,45%
	> 10 Years	3	13,64%
Digital Utilization Rate	Low (new to using digital for communication)	3	13,64%
	High (most business activities have been digital)	19	86,36%
Digital Platforms Used	Social media (WhatsApp, Instagram, Facebook, TikTok)	5	22,73%
	Marketplace only (Shopee, Tokopedia, TikTok Shop, and others)	0	0,00%
	Social media and marketplaces	17	77,27%

Based on Table 1, the majority of respondents have a business period of 6-10 years (45.45%), with a high rate of digital technology utilization (86.36%). Most respondents (77.27%) use social media and marketplaces at the same time, while the rest only use social media. These findings show that toy MSMEs in Ponorogo Regency have sufficient business experience and have adopted digital technology through various platforms to support marketing, customer interaction, and improving business performance.

Test Instruments

Before proving that all the statement marks are suitable to be used as a research tool, the step taken is to conduct a test with 22 respondents as follows.

Table 2. Validity Test Results of Research Variable Items.

Variable	Item	R Count	R Table	Remarks
Digital Business Strategy	X1.1	0,668	0,432	Valid
	X1.2	0,753	0,432	Valid
	X1.3	0,773	0,432	Valid
	X1.4	0,457	0,432	Valid
	X1.5	0,772	0,432	Valid
	X1.6	0,557	0,432	Valid
Digital Transformation	X2.1	0,680	0,432	Valid
	X2.2	0,694	0,432	Valid
	X2.3	0,722	0,432	Valid
	X2.4	0,736	0,432	Valid
	X2.5	0,770	0,432	Valid
	X2.6	0,499	0,432	Valid
E-Commerce Utilization	X3.1	0,821	0,432	Valid
	X3.2	0,787	0,432	Valid
	X3.3	0,687	0,432	Valid
	X3.4	0,658	0,432	Valid
	X3.5	0,807	0,432	Valid
	X3.6	0,637	0,432	Valid
MSME Performance	Y1	0,630	0,432	Valid
	Y2	0,593	0,432	Valid
	Y3	0,732	0,432	Valid
	Y4	0,856	0,432	Valid
	Y5	0,541	0,432	Valid
	Y6	0,689	0,432	Valid

Source : SPSS Output Attached.

The validity test was carried out by comparing the value of the r calculation and the r of the table (0.432) at a significance level of 5% to ensure that each questionnaire item was able to measure the research variables precisely. The test results showed that all items had a value of r calculated > r table, so they were declared valid and suitable for use in the study. Furthermore, the reliability test was carried out using Cronbach's Alpha value, with a criterion of > 0.60 to state that the research instrument was reliable or consistent.

Table 3. Results of the Reliability Test of Research Variables.

Variable	Cronbach's Alpha	Criteria	Remarks
Digital Business Strategy	0,738	0,6	Reliabel
Digital Transformation	0,767	0,6	Reliabel
E-Commerce Utilization	0,828	0,6	Reliabel
MSME Performance	0,762	0,6	Reliabel

Based on the table provided, the results of the reliability test show that all variables in the statement are considered reliable. This is because they have reached a set minimum value, which is a Cronbach Alpha value greater than 0.6.

Classic Assumption Test

The normality test was performed to find out whether the residual in the regression model had a normal distribution pattern. One of the conditions for the regression model to be good is that the resulting residual must be distributed normally. In this study, normality testing was carried out using the Normal P-P Plot of Regression Standardized Residual method.

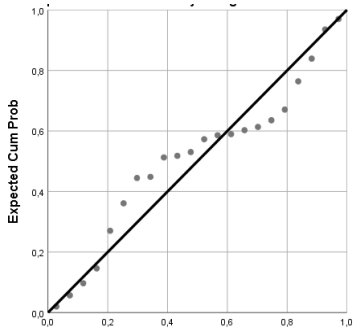


Figure 1. Normal P-P Plot of Regression Standarized Residual Dependen Variable: Performance of MSME Entrepreneurs How to Prove.

Based on the Normal P-P Plot of Regression Standardized Residual graph, the residual points are spread around and follow a diagonal line, thus indicating that the residual is normally distributed and meets the assumption of normality. To strengthen these results, this study also used the Shapiro-Wilk test because the sample size was less than 50 respondents. The data is declared to be normally distributed if the significance value (Sig.) > 0.05, while the Sig. < 0.05 indicates that the data is not normally distributed. The results of the Shapiro-Wilk test are presented in the following table.

Table 4. Shapiro Wilk.

Tests of Normality

	Shapiro-Wilk		
	Statistic	df	Say.
Y	.942	21	.238
X1	.973	21	.805
X2	.913	21	.063
X3	.952	21	.368

*. This is a lower bound of the true significance.
a. Lilliefors Significance Correction

Test results Shapiro-Wilk show that all variables have a significance value above 0.05, namely MSME performance (0.238), digital business strategy (0.805), digital transformation (0.063), and utilization e-commerce (0.368). The result, supported by a graph Normal P-P Plot, indicating that the data is normally distributed and meets the normality assumptions and is therefore worthy of further analysis. Furthermore, a multicollinearity test was carried out to determine whether there is a correlation between independent variables through the value of Tolerance and Variance Inflation Factor (VIF).

Table 5. Collinearity Statistics.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Say.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	LIVE
1	(Constant)	1,560	1,216		1,283	,216		
	Digital Business Strategy	,240	,100	,243	2,404	,027	,240	4,165
	Digital Transformation	,381	,106	,386	3,578	,002	,211	4,746
	E-Commerce Utilization	,353	,104	,398	3,392	,003	,178	5,608

a. Dependent Variable: Performance of MSME Entrepreneurs

The results of the multicollinearity test showed that all independent variables had a Tolerance value of > 0.10 and a Variance Inflation Factor (VIF) < 10, namely digital business strategy (0.240; 4.165), digital transformation (0.211; 4.746), and e-commerce utilization (0.178; 5.608). These results show that the regression model does not experience multicollinearity so that all independent variables can be used together in the analysis. Furthermore, the heteroscedasticity test was carried out using the Scatterplot method by observing the pattern of point spread, where the model was declared heteroscedasticity free if the dots spread randomly around the Y axis and did not form a specific pattern.

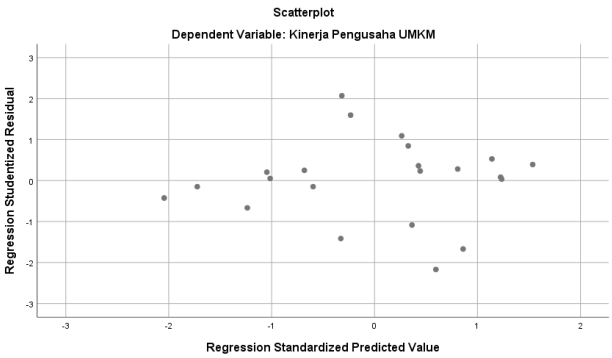


Figure 2. Graphic Scatterplot.

Based on the Scatterplot graph, the residual points are randomly spread around the Y-axis without forming a specific pattern, thus indicating that heteroscedasticity does not occur and the regression model meets the assumption of homoscedasticity. To strengthen these results, this study also used the Glejser Test, with a significance value (Sig.) criterion of > 0.05 indicating that heteroscedasticity did not occur.

Table 6. Glejser Test.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Say.
		B	Std. Error	Beta		
1	(Constant)	-,019	,830		-,022	,982
	Digital Business Strategy	,017	,068	,122	,257	,800
	Digital Transformation	,009	,073	,062	,122	,905
	E-Commerce Utilization	-,008	,071	-,063	-,113	,911

a. Dependent Variable: Abs_REs

The results of the Glejser Test showed that all independent variables had a significance value above 0.05, namely digital business strategy (0.800), digital transformation (0.905), and e-commerce utilization (0.911), so that the regression model did not experience heteroscedasticity and was suitable for multiple linear regression analysis. Furthermore, multiple linear regression analysis was carried out to test the influence of digital business strategies, digital transformation, and the use of e-commerce on the performance of Toy MSMEs.

Table 7. Multiple Linear Regression Analysis Test.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Say.
		B	Std. Error	Beta		
1	(Constant)	1,560	1,216		1,283	,216
	Digital Business Strategy	,240	,100	,243	2,404	,027
	Digital Transformation	,381	,106	,386	3,578	,002
	E-Commerce Utilization	,353	,104	,398	3,392	,003

a. Dependent Variable: Performance of MSME Entrepreneurs

The results of multiple linear regression produced the equation $Y = 1.560 + 0.240X_1 + 0.381X_2 + 0.353X_3 + e$, which shows that digital business strategies, digital transformation, and e-commerce utilization have a positive effect on the performance of MSMEs, with digital transformation having the largest coefficient (0.381). Furthermore, partial hypothesis testing (t-test) was carried out to determine the influence of each independent variable on the dependent variable, with the criteria of a value of Sig. ≤ 0.05 or $|t \text{ calculated}| > t$ table showing a significant influence.

Table 8. Partial Test Results (t-test).

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Say.
	B	Std. Error	Beta		
1 (Constant)	1,560	1,216		1,283	,216
Digital Business Strategy	,240	,100	,243	2,404	,027
Digital Transformation	,381	,106	,386	3,578	,002
E-Commerce Utilization	,353	,104	,398	3,392	,003

a. Dependent Variable: Performance of MSME Entrepreneurs

The results of the t-test showed that digital business strategies (t = 2.404; Sig. = 0.027), digital transformation (t = 3.578; Sig. = 0.002), and e-commerce utilization (t = 3.392; Sig. = 0.003) each had a positive and significant effect on the performance of MSMEs because the value of t calculated > t table (2.101) and Sig. < 0.05. Meanwhile, the results of the F test showed that the F value was calculated as 129.966 > F table 3.16 with Sig. = 0.000, so that the three independent variables simultaneously had a significant effect on the performance of Toy MSMEs in Ponorogo Regency.

Table 9. F Value.

Df Counter (df1)	Df Denominator (df2)	Side Significanty	Table F Values
3	18	0,05	3,16

The following are the results of simultaneous significance testing (F test) in this study.

Table 10. F Test Results.

ANOVA

Model	Sum of Squares	Df	Mean Square	F	Say.
1 Regression	149,855	3	49,952	129,966	,000b
Residual	6,918	18	,384		
Total	156,773	21			

a. Dependent Variable: Performance of MSME Entrepreneurs

b. Predictors: (Constant), E-Commerce Utilization, Digital Business Strategy, Digital Transformation

Based on the results of the F test, an F value of 129.966 > F table 3.16 with a Sig. of 0.000 < 0.05, so that digital business strategies, digital transformation, and the use of e-commerce simultaneously have a positive and significant effect on the performance of Toy MSMEs in Ponorogo Regency. Furthermore, the determination coefficient (R^2) was used to measure the ability of the three independent variables to explain the variation in MSME performance.

Table 11. Determination Coefficient (R^2) Test Results.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,978a	,956	,949	,620

a. Predictors: (Constant), E-Commerce Utilization, Digital Business Strategy, Digital Transformation

The results of the determination coefficient test showed an R value of 0.978 which indicates a very strong relationship between digital business strategy, digital transformation, and the use of e-commerce with the performance of MSMEs.

The R Square value of 0.956 and the Adjusted R Square of 0.949 showed that around 95% of the variation in MSME performance could be explained by these three variables, while the rest was influenced by other factors outside the study.

The Influence of Digital Business Strategy on MSME Performance

The results of the study show that digital business strategies have a positive and significant effect on the performance of Toy MSMEs in Ponorogo Regency, with a regression coefficient of 0.240, a value of t count 2,404, and Say. 0.027 (<0.05). This shows that the better the digital business strategy implemented, the higher the performance of MSMEs. Implementation of digital strategies through marketing, promotion, branding, and communication with customers can increase sales and business competitiveness. This finding is in line with Armiani's (2017) research which states that business strategy has a positive effect on the performance of MSMEs. These results are also supported by Astra et al. (2022), which proves that Digital Business Strategy have a positive and significant effect on Business Performance MSMEs.

The Effect of Digital Transformation on MSME Performance

The results showed that digital transformation had a positive and significant effect on the performance of MSMEs, with a regression coefficient of 0.381, a t-value of 3.578, and a Sig. of 0.002 (<0.05). Digital transformation helps MSMEs improve operational efficiency, service quality, and adaptability to business changes. The more optimal the application of digital technology, the higher the business performance achieved. This finding is in line with the research of Sahrul and Nuringsih (2023) which states that digital transformation improves the business performance of MSMEs. These results are also supported by Chen et al. (2024) who prove that digital transformation contributes positively to sustainable business performance.

The Effect of E-Commerce Utilization on MSME Performance

The results showed that the use of e-commerce had a positive and significant effect on the performance of MSMEs, with a regression coefficient of 0.353, a t-value of 3.392, and a Sig. of 0.003 (<0.05). The use of e-commerce helps expand the market, speed up transactions, improve customer service, and drive business efficiency. The more optimal the use of e-commerce, the better the performance of the MSMEs produced. This finding is in line with the research of Sahrul and Nuringsih (2023) who found a positive influence of e-commerce on the performance of MSMEs. These results are also supported by Arshad et al. (2025) who state that e-commerce adoption increases market reach, sales, operational efficiency, and the competitiveness of MSMEs.

The Influence of Digital Business Strategies, Digital Transformation and E-Commerce Utilization on MSME Performance

The results of the study show that digital business strategies, digital transformation, and the use of e-commerce simultaneously have a positive and significant effect on the performance of Toy MSMEs in Ponorogo Regency, as evidenced by the F value of 129.966 > F table 3.16 and Sig. 0.000 (<0.05). The R Square value of 0.956 shows that 95.60% of the variation in MSME performance can be explained by these three variables. These results show that the synergy of digital business strategies, digital transformation, and the use of e-commerce is able to increase productivity, competitiveness, and the expansion of the MSME market. This finding is in line with the research of Sahrul and Nuringsih (2023) which states that digital transformation and e-commerce together improve the business performance of MSMEs. The results of this study are also supported by Astra et al. (2022) which proves that the implementation of Digital Business Strategy contributes positively to improving the performance of MSMEs.

5. CONCLUSIONS AND SUGGESTIONS

This study concludes that digital business strategies, digital transformation, and the use of e-commerce have a positive and significant effect, both partially and simultaneously, on the performance of Toy MSMEs in Ponorogo Regency, with the three variables able to explain 95.60% of the variation in MSME performance. These results show that the application of digitalization is able to increase operational effectiveness, competitiveness, and business performance. Therefore, MSME actors are advised to maintain digital communication with customers, use digital platforms , and use e-commerce, while improving digital promotion, technology use ability, product information quality, and customer satisfaction. The government and related agencies are expected to expand digital transformation training and assistance programs for MSMEs so that technology adoption is more optimal. Researchers are then advised to add other variables, such as digital literacy, product innovation, and entrepreneurial orientation, as well as expand the research object so that the results obtained are more comprehensive.

REFERENCE

Armiani, B. (2017). *TEKNOLOGI DIGITAL MEMEDIASI DAMPAK STRATEGI BISNIS TERHADAP KINERJA UMKM DI NUSA TENGGARA BARAT Armiani*. *32*, 300–320. https://doi.org/10.24034/j25485024.y2021.v5.i3.4892

Arshad, Y., Azmey, M. S., Norhafiza, S., & Ibrahim, S. (2025). *E-Commerce Adoption Among Malaysian SMEs : Key Drivers and Business Performance Implications*. *IX*(2454), 802–813. https://doi.org/10.47772/IJRISS

Asmar, A., Adriansyah, A., & Anas, A. M. (2025). A Systematic Literature Review on Micro, Small, and Medium Enterprises (MSMEs) Performance: National and International Evidence. *Daengku: Journal of Humanities and Social Sciences Innovation*, *5*(5), 582–598. https://doi.org/10.35877/454ri.daengku4302

Astra, C., Kurniahardja, A., Virginia, C. M., & Andrian, T. (2022). *The Influence of Digital Business Strategy , Mental Accounting , and Growth Mindset on MSMEs Business Performance*. 3051–3061.

Ayem, S., Putri, F. K., Jannah, S. N., Hernindya, N. R., Yasinta, M., & Putri, S. (2024). *Pengaruh Penerapan E-Commerce Terhadap Pendapatan UMKM : Tinjauan Literature Sistematis*. *7*, 35–43.

Chen, A., Li, L., & Shahid, W. (2024). Heliyon Digital transformation as the driving force for sustainable business performance : A moderated mediation model of market-driven business model innovation and digital leadership capabilities. *Heliyon*, *10*(8), e29509. https://doi.org/10.1016/j.heliyon.2024.e29509

Costa, I., Queiroz, G. A., Nocera, P., Junior, A., Sousa, T. B. De, Yushimito, W. F., & Pereira, J. (2023). Heliyon Sustainable digital transformation in small and medium enterprises (SMEs): A review on performance. *Heliyon*, *9*(3), e13908. https://doi.org/10.1016/j.heliyon.2023.e13908

Davit Marikyan, S. P. (2020). Unified Theory of Acceptance and Use of Technology. *Encyclopedia of Education and Information Technologies*, 1750–1750. https://doi.org/10.1007/978-3-030-10576-1_300692

Eller, R., Alford, P., Kallmünzer, A., & Peters, M. (2020). Antecedents , consequences , and challenges of small and medium-sized enterprise digitalization ☆. *Journal of Business Research*, *112*(March), 119–127. https://doi.org/10.1016/j.jbusres.2020.03.004

Handayani, S., & Khair, U. (2024). Pengaruh Modal Dan E-Commerce Terhadap Perkembangan Usaha Mikro Kecil Dan Menengah (Umkm) (Studi Kasus Pada Usaha Meubel Di Kabupaten Kaur). *Jurnal Akuntansi, Keuangan Dan Teknologi Informasi Akuntansi*, *5*(1), 110–121. https://doi.org/10.36085/jakta.v5i1.6347

Prof. Dr. Sugiyono. (2023). *No Title*.

Putra, P. O. H., & Santoso, H. B. (2020). Heliyon Contextual factors and performance impact of e-business use in Indonesian small and medium enterprises (SMEs). *Heliyon*, *6*(3), e03568. https://doi.org/10.1016/j.heliyon.2020.e03568

Sahrul, E. A., & Nuringsih, K. (2023). *PERAN E-COMMERCE , MEDIA SOSIAL DAN DIGITAL TRANSFORMATION UNTUK PENINGKATAN KINERJA BISNIS UMKM*. *7*(2), 286–299.

Santoso, G., Rizal, M., Wiyana, H., & Subagja, S. N. (2025). Digitalisasi UMKM : Strategi Dan Model Bisnis Berbasis Teknologi Untuk Keberlanjutan. *JUBISDIGI: Jurnal Bisnis Digital*, *01*(01), 21–30.

Warner, K. S. R., & Wäger, M. (2019). Building dynamic capabilities for digital transformation: An ongoing process of strategic renewal. *Long Range Planning*, *52*(3), 326–349. https://doi.org/10.1016/j.lrp.2018.12.001