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Research Article

The Impact of E-Commerce Usage on Digital Transfomation of MSMEs in Kudus

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Abstract: Digital transformation is an important strategy for Micro, Small, and Medium Enterprises (MSMEs) in increasing competitiveness in the digital economy era. One form of digital transformation widely implemented by MSMEs is the use of e-commerce as a marketing and business transaction medium. This study aims to analyze the effect of e-commerce use on digital transformation in MSMEs in Kudus Regency. The study uses a quantitative approach with an explanatory research type. The research sample consisted of 100 MSMEs selected using a purposive sampling technique. Data collection was carried out through distributing questionnaires and analyzed using simple linear regression with the help of SPSS version 26. The results of the study indicate that the use of e-commerce has a positive and significant effect on digital transformation in MSMEs in Kudus Regency with a regression coefficient value of 0.648 and a significance value of 0.000 (<0.05). The coefficient of determination (R^2) value of 0.439 indicates that the use of e-commerce is able to explain the digital transformation of MSMEs by 43.9%, while being influenced by other factors outside the study. These findings indicate that e-commerce utilization not only increases marketing and sales activities but also drives the digitalization of business processes, business innovation, and increased competitiveness of MSMEs. Therefore, efforts to improve digital literacy and mentoring for MSMEs are needed to optimize e-commerce utilization to support sustainable digital transformation.

Keywords: Competitiveness; Digital Transformation; E-Commerce; Micro Small and Medium Enterprises (MSMEs); Digital Economy.

1. Introduction

The development of information and communication technology has brought major changes to the patterns of public economic activity, including the Micro, Small, and Medium Enterprises (MSMEs) sector. The digital era encourages business actors to utilize technology as a means to increase efficiency, expand markets, and create competitive advantages. Digital transformation is no longer a choice but a necessity for MSMEs to survive and thrive amidst increasingly dynamic business competition (Silviawati et al., 2025). Digitalization is also one of the main factors determining business sustainability, especially for MSMEs that have been dominated by conventional management systems.

MSMEs are a strategic sector in the Indonesian economy because they contribute significantly to national economic growth, job creation, and the equalization of public income. Based on data from the Ministry of Cooperatives and SMEs, MSMEs contribute more than 60% of Indonesia's Gross Domestic Product (GDP) and absorb around 97% of the national workforce. However, this massive contribution has not been fully followed by the ability of MSMEs to optimize the adoption of digital technology (Ministry of Cooperatives and SMEs, 2024). Low digital literacy and limited access to technology remain among the obstacles faced by MSME actors in confronting the digital economy era.

One form of digital transformation implementation growing rapidly in the MSME sector is the use of e-commerce. E-commerce is an electronic commerce platform that enables business actors to conduct buying and selling transactions online through various marketplaces and other digital media (Nadhifah et al., 2024). The utilization of e-commerce provides many benefits for MSMEs, including expanding market reach, increasing marketing

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effectiveness, reducing operational costs, and facilitating transaction and communication processes with customers (Alfaqih, 2025). With e-commerce, MSME actors are no longer limited to local markets but can reach consumers nationally and even internationally.

The use of e-commerce is also an important indicator in driving digital transformation in MSMEs. According to (Galib, M., Faridah, F., 2024), digital transformation is a process of organizational change through the utilization of digital technology aimed at increasing business value, productivity, and competitiveness. The implementation of e-commerce not only affects sales growth but also drives changes in business management systems, such as the use of digital payments, social media-based marketing, digital inventory management, and data-driven consumer behavior analysis.

Nevertheless, the level of e-commerce adoption among MSMEs in Indonesia still shows a gap. Many MSME actors have not been able to optimize the use of digital platforms due to limited human resources, low understanding of technology, lack of internet access, and insufficient assistance in the business digitalization process (Angraini et al., 2024). This condition causes the digital transformation process in MSMEs to progress unevenly and requires support from various parties, including the government, academics, and the private sector.

Kudus Regency is one of the regions in Central Java Province that possesses substantial MSME potential. Various types of businesses thrive in this area, ranging from the food and beverage industry, handicrafts, and apparel (garments), to trading. The presence of MSMEs in Kudus Regency serves as one of the main pillars of the regional economy and contributes to improving community welfare. However, based on various observations and local government reports, there are still many MSME actors in Kudus who have not optimally utilized e-commerce in running their businesses. Most MSME actors still use conventional marketing methods and have not fully digitalized their business processes (Dinas Koperasi, 2024)

In fact, current consumer behavior developments show a shift from conventional transactions toward digital transactions. Consumers tend to choose platforms that offer ease of access, transaction speed, and a wide variety of online product options. This condition demands that MSME actors in Kudus Regency undergo digital transformation through the utilization of e-commerce to maintain competitiveness and improve their business performance (Septiadi & Agus, 2024)

In addition, research on the influence of e-commerce usage on digital transformation in MSMEs in Kudus Regency is still relatively limited. Most previous studies have focused more on the influence of e-commerce on increasing sales or MSME financial performance, while research specifically examining the relationship between e-commerce usage and MSME digital transformation at the regional level remains scarce. Therefore, this study is crucial to provide empirical evidence regarding the extent to which the use of e-commerce can drive digital transformation in MSMEs within Kudus Regency.

The results of this study are expected to provide theoretical contributions to the development of economic science, particularly in the fields of digital economy and MSME development. Furthermore, it aims to provide practical contributions for local governments, MSME actors, and various stakeholders in formulating policies and strategies to strengthen the digital transformation of MSMEs in Kudus Regency.

2. Literature Review

The Use of E-Commerce in MSMEs

The development of information and communication technology has driven a shift in business transaction patterns from conventional systems to digital systems. One form of this development is the emergence of e-commerce, which serves as a means for business actors to conduct electronic trading activities via the internet network. According to (Wijaya et al., 2024), e-commerce is the use of digital technology in business transaction processes that allows companies to carry out marketing, sales, customer service, and information exchange more effectively and efficiently. The existence of e-commerce provides opportunities for MSMEs (Micro, Small, and Medium Enterprises) to reach a wider market without being limited by space and time.

In the MSME sector, the utilization of e-commerce has become an important strategy in increasing business competitiveness. The use of e-commerce platforms enables MSME actors to expand their marketing networks, increase sales volume, and reduce operational costs previously incurred for conventional marketing activities. (Silviawati et al., 2025) explain that e-commerce acts as a main instrument in supporting the development of MSME

businesses because it provides easy access to markets, accelerates transaction processes, and enhances interaction between business actors and consumers.

In addition to providing economic benefits, the use of e-commerce is also an indicator of MSMEs' readiness to face the digital economy era. The higher the level of e-commerce usage, the higher the ability of MSMEs to adopt information technology to support their business activities. Therefore, e-commerce is not only viewed as a sales medium, but also as part of a business transformation strategy oriented toward the utilization of digital technology.

Digital Transfortasi On In MSMEs

Digital transformation is an organizational change process that utilizes digital technology to create new value, improve efficiency, and strengthen organizational competitiveness. According to Egodawele et al. (2022), digital transformation is not only related to the use of technology, but also encompasses changes in business processes, organizational culture, and the business models run by companies. In the context of MSMEs, digital transformation is carried out through the integration of digital technology into various business activities, ranging from marketing, financial management, and customer service to the decision-making process.

Digital transformation has become one of the critical factors determining business survival amidst increasingly competitive business competition. MSMEs that are able to adopt digital technology tend to have a better capability to deal with market changes and consumer needs (Heni hendrawati, 2015). According to (Angraini et al., 2024), digital transformation can enhance operational efficiency, business productivity, and product innovation, as well as expand market access for MSME actors.

Nevertheless, the digital transformation process in MSMEs still faces various obstacles. Low digital literacy, limited human resources, lack of access to technology, and a minimal amount of mentoring in digitization implementation are factors that hinder the digital transformation process among MSMEs in Indonesia. This condition causes the level of digital transformation between MSMEs to still show quite significant differences.

The Impact of E-Commerce Usage on Digital Transformation among Micro, Small, and Medium Enterprises (MSMEs)

The use of e-commerce and digital transformation are two interconnected aspects. The adoption of e-commerce in MSMEs not only drives sales growth and market expansion, but also triggers changes in various aspects of business management. When MSME actors begin using e-commerce platforms, they are indirectly required to adopt other digital technologies, such as electronic payment systems, digital marketing through social media, the use of financial logging applications, and technology-based inventory management.

(Silviawati et al., 2025) state that e-commerce is one of the main drivers of digital transformation in MSMEs because its existence is capable of integrating various digital technologies into a single business ecosystem. By utilizing e-commerce, MSME actors are encouraged to enhance their digital competence and innovate within their business processes.

Research conducted by Herlina et al. (2025) shows that the use of e-commerce has a positive effect on increasing the competitiveness and business sustainability of MSMEs. Furthermore, Wulandari and Veri (2025) also found that a high level of e-commerce usage can accelerate the digital transformation process by improving technology adaptation capabilities and operational efficiency. The results of these studies indicate that e-commerce can serve as an entry point for MSMEs to undergo a comprehensive digital transformation.

In the context of Kudus Regency, the utilization of e-commerce by MSME actors still shows varying levels of adoption. While some business actors have utilized various digital platforms to market their products, others still run their business activities conventionally. This condition shows that research on the influence of e-commerce usage on digital transformation in MSMEs within Kudus Regency is important to conduct in order to obtain empirical evidence regarding the relationship between these two variables.

Based on the theoretical review and prior research, it can be concluded that the use of e-commerce holds great potential in driving digital transformation in MSMEs. The higher the level of e-commerce usage, the higher the level of digital transformation that occurs among MSME actors. Therefore, this study proposes the hypothesis that the use of e-commerce has a positive and significant effect on digital transformation in MSMEs in Kudus Regency.

3. Method

This study utilizes a quantitative approach with an explanatory research design to analyze the influence of e-commerce usage on digital transformation in MSMEs within Kudus Regency. A quantitative approach is used because this study aims to test the relationship between variables through statistical analysis (Sugiyono, 2022)

The population in this study consists of all MSME actors in Kudus Regency who have utilized e-commerce platforms in their business activities. The sampling technique employs purposive sampling with specific criteria: MSME actors who have been running their business for at least one year and actively use marketplaces such as Shopee, Tokopedia, or TikTok Shop. The total sample size for this research is set at 100 respondents, based on the formulation by Hair et al. (2022), which states that the minimum sample size should be 5 to 10 times the number of research indicators.

The data used consists of both primary and secondary data. Primary data is obtained by distributing questionnaires using a five-point Likert scale, while secondary data is gathered from journals, books, and reports related to MSMEs and digital transformation. Data collection techniques are carried out through questionnaires, observation, and documentation.

Data analysis is performed using SPSS version 26 through several stages: validity test, reliability test, descriptive analysis, classical assumption test, and simple linear regression analysis with the following equation:

$$Y = \alpha + \beta X + e \qquad \text{(i)}$$

Where:

a. Y is the digital transformation of MSMEs,
b. X is the use of e-commerce,
c. a is the constant,
d. b is the regression coefficient, and
e. e is the error.

Hypothesis testing is conducted using the t-test at a significance level of 5% (0.05) as well as the coefficient of determination (R^2) to determine the extent of the influence of e-commerce usage on digital transformation in MSMEs within Kudus Regency.

4. Results and Discussion

Results

General description of respondents

This study involved 100 MSME actors in Kudus Regency who have utilized e-commerce platforms in running their businesses. The characteristics of the respondents based on gender, age, length of business, and the e-commerce platform used are presented in Table 1.

Table 1. Respondent Characteristics.

Characteristics	Categori	Number of (People))	Persentation (%)
Gender	Man	42	42,0
	Woman	58	58,0
Age	<30 year	25	25,0
	30–40 year	40	40,0
	>40 year	35	35,0
Old Age	1–3 year	28	28,0
	4–6 year	37	37,0
	>6 year	35	35,0
E-Commerce Platform	Shopee	46	46,0
	Tokopedia	25	25,0

Characteristics	Categori	Number of (People))	Persenta-tion (%)
	TikTok Shop	19	19,0
	Lainnya	10	10,0

Based on Table 1, the majority of respondents are female at 58% and fall within the 30–40 age range at 40%. This indicates that MSME actors in Kudus Regency are dominated by a productive age group that can adapt relatively more easily to the development of digital technology. In addition, the most widely used e-commerce platform is Shopee, with a percentage of 46%.

Descriptive analysis of research variables

E-Commerce Usage Variables (X)

Tabel 2. Deskriptif Analysis of E-Commerce Usage Variable.

Indikator	Rata-rata	Kategori
Marketplace usage intensity	4,12	Tall
Ease of use of the platform	4,18	Tall
Frequency of online transactions	3,96	Tall
Utilizing digital features	3,87	Tall
Utilizing digital features	4,21	Very hight
Everage	**4,07**	**Tall**

Based on Table 2, the mean value for the e-commerce usage variable is 4.07, which falls into the high category. This indicates that the majority of MSMEs in Kudus Regency have utilized e-commerce optimally in their business activities.

Digital Transformation Variable (Y)

Table 3. Descriptive Variables of Digital Transformation.

Indikator	Rata-rata	Kategori
Digitalization of business processes	3,95	Tall
Use of operational technology	3,88	Tall
Digital marketing	4,15	Tall
Technology-based business innovation	3,82	Tall
Increased competitiveness	4,06	Tall
Average	**3,97**	**Tall**

These results indicate that digital transformation in MSMEs within Kudus Regency has been progressing quite well. The utilization of digital technology is not only used for marketing purposes, but has also been implemented in operational processes and business development.

Uji Validitas Dan Reabilitas

All statement items for the e-commerce usage and digital transformation variables have a correlation coefficient value greater than the r-table value (0.196), meaning that all items are declared valid. Meanwhile, the reliability test results show a Cronbach's Alpha value of 0.857 for the e-commerce usage variable and 0.832 for the digital transformation variable. These values are greater than 0.70, indicating that the research instruments are declared reliable.

Results of Multiple Linear Regression Analysis

The results of the simple linear regression analysis can be seen in Table 4.

Table 4. Results of Simple Linear Regression Analysis.

Variable	regression coefficient (β)	t- count	Sig.
Constant	9,214	3,681	0,000
Use of e-commerce	0,648	8,756	0,000

The regression equation obtained is:

$$Y = 9{,}214 + 0{,}648X \quad \text{(II)}$$

The equation indicates that the regression coefficient value for the e-commerce usage variable is 0.648 and has a positive value. This means that every one-unit increase in e-commerce usage will increase the digital transformation of MSMEs by 0.648 units.

hypothesis testing (t test)

The test results show that the t-value of 8.756 is greater than the t-table value of 1.984, with a significance level of 0.000 < 0.05. Therefore, the research hypothesis (H1) is accepted, which means that the use of e-commerce has a positive and significant effect on digital transformation in MSMEs within Kudus Regency.

Coefficient of Determination (R^2)

Table 5. Results of the Determination Coefficient.

Model	R	R Square	Adjusted R Square
1	0,663	0,439	0,433

The coefficient of determination (R^2) value of 0.439 indicates that the e-commerce usage variable can explain 43.9% of the digital transformation in MSMEs, while the remaining 56.1% is influenced by other variables outside this study, such as digital literacy, government support, human resource quality, and technological readiness.

Discussion

The research results indicate that the use of e-commerce has a positive and significant effect on digital transformation among MSMEs in Kudus Regency. These findings suggest that the higher the level of e-commerce utilization by MSME actors, the higher the level of digital transformation occurring within their business activities.

The utilization of e-commerce encourages MSME actors to implement various changes in their business processes, ranging from digital marketing, the use of electronic payment systems, and application-based transaction recording to the use of social media as a means of communication with customers. This condition shows that e-commerce functions not only as a sales medium but also as a catalyst for the overall digitalization process of businesses.

The findings of this study are consistent with the research conducted by (Silviawati et al., 2025), which states that e-commerce plays an important role in accelerating the digital transformation of MSMEs through increased market access, operational efficiency, and technological adaptability. This study also supports the findings of (Meliawati et al., 2025), which demonstrate that the use of e-commerce can enhance the competitiveness and sustainability of MSMEs.

In the context of Kudus Regency, the substantial influence of e-commerce usage on digital transformation indicates that MSME actors have recognized the importance of digital technology in improving business performance. The use of platforms such as Shopee, Tokopedia, and TikTok Shop provides convenience for business owners in marketing their products, expanding consumer reach, and improving transaction efficiency.

However, the coefficient of determination value of 43.9% indicates that the digital transformation of MSMEs is not solely influenced by the use of e-commerce. Other factors, such as digital literacy, human resource competencies, technological infrastructure support, and government policies, also play important roles in promoting successful digital transformation among MSMEs.

Overall, the findings of this study prove that the use of e-commerce is one of the strategic factors in accelerating the digital transformation of MSMEs in Kudus Regency. Therefore, continuous efforts from local governments, academics, and various stakeholders

are needed to improve digital literacy and encourage the more optimal utilization of e-commerce in order to strengthen the competitiveness of MSMEs in the digital economy era.

The research findings indicate that the use of e-commerce has a positive and significant effect on the digital transformation of MSMEs in Kudus Regency, with a coefficient of determination (R^2) value of 43.9%. These findings are consistent with the current situation in Indonesia, which shows an increasing number of MSMEs entering the digital ecosystem through the utilization of marketplaces and e-commerce platforms (Dinas Koperasi, 2024)

Penelitian ini juga mendukung temuan (Silviawati et al., 2025) dan (Meliawati et al., 2025)yang menyatakan bahwa e-commerce mampu meningkatkan daya saing dan mendorong digitalisasi UMKM. Namun, hasil penelitian ini memberikan kontribusi yang lebih spesifik dengan menunjukkan bahwa penggunaan e-commerce tidak hanya meningkatkan penjualan, tetapi juga mendorong perubahan pada proses bisnis, pemasaran, dan pengelolaan usaha berbasis digital.

This study also supports the findings of (Silviawati et al., 2025) and (Meliawati et al., 2025), which state that e-commerce can enhance competitiveness and promote the digitalization of MSMEs. However, this study provides a more specific contribution by demonstrating that the use of e-commerce not only increases sales but also encourages changes in business processes, marketing activities, and digital-based business management.

Nevertheless, the digital transformation of MSMEs in Kudus Regency is still influenced by other factors, such as digital literacy, human resource competencies, and technological infrastructure support. Therefore, synergy among the government, academics, and MSME actors is needed to accelerate the digital transformation process in a sustainable manner.

5. Conclusions

Based on the research findings, it can be concluded that the use of e-commerce has a positive and significant effect on the digital transformation of MSMEs in Kudus Regency. This is evidenced by a significance value of 0.000, which is lower than 0.05, and a regression coefficient of 0.648, indicating that an increase in e-commerce usage is accompanied by an increase in the digital transformation of MSMEs.

Furthermore, the coefficient of determination (R^2) value of 43.9% indicates that the use of e-commerce makes a substantial contribution to the digital transformation of MSMEs, although there are still other factors outside the scope of this study that influence the business digitalization process. These findings confirm that e-commerce functions not only as a medium for transactions and marketing but also as a key driver of business process digitalization, improved operational efficiency, and enhanced competitiveness of MSMEs.

Therefore, the utilization of e-commerce should continue to be enhanced through mentoring programs, digital literacy training, and technological infrastructure support so that the digital transformation of MSMEs in Kudus Regency can be implemented optimally and sustainably.

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Conflicts of Interest: Declare conflicts of interest or state **(mandatory)**, "The authors declare no conflict of interest." Authors must identify and declare any personal circumstances or interests that may be perceived as inappropriately influencing the representation or interpretation of reported research results. Any role of the funders in the study's design; in the collection, analysis, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results must be declared in this section. If there is no role, please state, "The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results".

References

Silviawati, S., Wibawa, E. S., Wardani, N. A., Wahyuning, S., & Noviana, I. (2025). *Peran E-Commerce dalam Transformasi Digital UMKM Indonesia: Sebuah Kajian Literatur*. Jurnal Riset Manajemen dan Ekonomi, 3(4), 159–175. https://doi.org/10.54066/jrime.v3i4.3551

Kementerian Koperasi dan UKM Republik Indonesia. (2024). *Perkembangan Data Usaha Mikro, Kecil dan Menengah Tahun 2024*. Jakarta: Kemenkop UKM RI.

Sultan Ali Alfaqih. (2025). Dampak E-Commerce Terhadap UMKM Di Indonesia: Peluang Dan Hambatan. *Indonesian Journal of Economics Management and Accounting*, *2*(7), 2094–2102. Retrieved from https://jurnal.intekom.id/index.php/ijema/article/view/1419

Galib, M., Faridah, F., & Muharram, M. (2024). *Transformasi Digital UMKM: Analisis Pemasaran Online dan Dampaknya terhadap Ekonomi Lokal di Indonesia*. Journal of Economics and Regional Science, 4(2). Doi : https://doi.org/10.52421/jurnal-esensi.v4i2.531

Angraini, D., Riady, Y., Putimasurai, P., Pratama, A., Sadria, A., & Rosmiati, R. (2024). *Transformasi Digital dalam Meningkatkan Daya Saing Usaha Mikro, Kecil, dan Menengah (UMKM) Indonesia: Sebuah Tinjauan Sistematis*. Eklektik: Jurnal Pendidikan Ekonomi dan Kewirausahaan. Eklektik : Jurnal Pendidikan Ekonomi dan Kewirausahaan. Vol 7, No 2.

Dinas Koperasi, UKM dan Perdagangan Kabupaten Kudus. (2024). *Laporan Perkembangan UMKM Kabupaten Kudus Tahun 2024*. Kudus: Diskop UKM Kabupaten Kudus.

Nadhifah, T., et., al. 2024. Konsep Manajemen Syariah Dalam Mengahadapi Tantangan Generasi Millenial Di Masa Depan FALAH: Jurnal Hukum Ekonomi Syariah. Vol. 7 Nomor 2 : h. 13-28.

Septiadi, B., & Agus, I. (2024). *Transformasi Bisnis di Era Digital: Analisis Sistematis terhadap E-Bisnis di Indonesia pada Konteks UMKM*. Journal of Digital Literacy and Volunteering, 2(1), 38–43. Doi: https://doi.org/10.57119/litdig.v2i1.80

Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2022). *Multivariate Data Analysis* (9th ed.). Cengage Learning.

Sugiyono. (2022). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung: Alfabeta.

Herri Wijaya, et., al. 2023. Mengajarkan Peran Digitalisasi Dalam Meningkatkan Perekonomian Masyarakat Di Desa Banget Kaliwungu Kudus. *Jurnal Abdimas Indonesia Volume 5 Nomor 2, 63-70.*

Nadhifah, T, et., al. 2024. JUAL BELI ONLINE DALAM PERSPEKTIF HUKUM ISLAM. Jurnal Magister Ekonomi Syariah, Vol. 3 No. 1, 125-134, e-ISSN 2963-9182

Sari, R. P., Saviola, F., & Firdaus, H. F. (2026). Strategi omnichannel dalam mengelola saluran pemasaran terintegrasi untuk meningkatkan pengalaman pelanggan di era digital. *Lokawati: Jurnal Penelitian Manajemen dan Inovasi Riset*, *4*(3), 52–68. https://doi.org/10.61132/lokawati.v4i3.2560

Maharani, F., & Dewi, R. (2026). Pengembangan e-modul interaktif menggunakan media Liveworksheets pada elemen komunikasi di tempat kerja Fase F di SMK Negeri 44 Jakarta. *Atmosfer: Jurnal Pendidikan, Bahasa, Sastra, Seni, Budaya, dan Sosial Humaniora*, *4*(3), 195–211. https://doi.org/10.59024/atmosfer.v4i3.1956

Amanda, I. A., & Yasin, M. (2026). Analisis tingkat konstribusi ekspor terhadap pertumbuhan ekonomi di Indonesia: Studi kasus ekspor Indonesia ke Amerika Serikat berdasarkan Harmonized System (HS) Code 71. *Jurnal Pajak dan Analisis Ekonomi Syariah*, *3*(3), 444–454. https://doi.org/10.61132/jpaes.v3i3.2377