



The Influence of E-commerce and Social Media Adoption in Improving the Competitiveness of MSME Products

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Abstract

This study aims to analyze the role of digitalization through e-commerce and social media marketing in improving the competitiveness of fashion sector MSMEs in the Industrial Age 4.0. This study uses a descriptive quantitative method with data collection through questionnaires from 33 MSMEs that have utilized digital platforms. The results showed that social media marketing has a significant influence on MSME competitiveness ($p = 0.028$), while e-commerce did not show a significant influence ($p = 0.601$). These findings highlight the importance of optimizing social media marketing in creating customer loyalty and increasing brand awareness, although e-commerce still faces barriers such as technological literacy and infrastructure limitations. This research makes a practical contribution by recommending digital skills training and infrastructure support to maximize the potential of digitalization for MSMEs. In addition, the theoretical implications of this study open up opportunities for the exploration of other variables, such as product innovation and business networks, to improve MSME competitiveness more comprehensively.

Keywords: Digitalization, E-commerce, Social Media Marketing, MSMEs (Micro, Small, and Medium Enterprises), Competitiveness

1. INTRODUCTION

The Industrial Revolution 4.0 has changed the paradigm of the global economy, including the way companies and MSMEs conduct their business. Digital technology, as the core of this era, enables integration between operational processes and data-driven innovation. In the Indonesian context, the existence of digital technology has become a key driver of business transformation, particularly in improving the efficiency, effectiveness and competitiveness of MSMEs. MSMEs themselves have an important role as drivers of the national economy, contributing 61.9% to GDP and absorbing 97% of the total national workforce (Ministry of Cooperatives and SMEs, 2022). However, despite this huge potential, challenges such as lack of technological literacy, budget limitations, and unpreparedness to face digital competition are significant obstacles that need to be overcome. The digital era offers great opportunities for MSMEs to reach a wider market through platforms such as e-commerce and social media. E-commerce platforms such as Tokopedia, Shopee, and Lazada have created easier access for MSMEs to offer their products to consumers at home and abroad. Data from We Are Social and Hootsuite (2024) shows that more than 80% of internet users in Indonesia have made online purchases, reflecting the huge potential for e-commerce growth. On the other hand, social media such as Instagram, Facebook, and TikTok act as

marketing tools that are not only effective but also cost-effective. With features such as paid advertising, MSMEs can target specific market segments more efficiently. However, the ability to make the most of this technology is still a challenge, especially for MSMEs in the fashion sector where competition is increasingly fierce. The fashion sector is one of the MSME industries that has great potential in Indonesia. With rich local creativity, Indonesian fashion products have their own appeal in both domestic and international markets. However, this sector also faces tough challenges, especially in terms of marketing and distribution. According to a report by Bank Indonesia (2022), around 40% of MSMEs in the fashion sector have difficulty accessing the digital market. This is due to low digital literacy, lack of marketing strategy skills, and limited understanding of evolving technology. In addition, logistical challenges and competition from imported products further complicate the situation. Therefore, an integrated strategy is needed to support fashion MSMEs in overcoming these barriers and capitalizing on the opportunities of digitalization.

Previous research supports the opinion that digitalization can have a significant positive impact on the performance of MSMEs. A study by Purwanto et al. (2021) found that the implementation of e-commerce increased the sales volume of MSMEs by 30% in the first year. In addition, Hasibuan et al. (2023) showed that qualified digital literacy can increase brand awareness of MSMEs by 50%. These studies underscore the importance of relevant education and training to improve MSMEs' readiness to utilize digital technology. However, not all MSMEs can easily access the resources needed for this training, especially MSMEs in remote areas where infrastructure is still limited.

For this reason, this study aims to analyze the role of digitalization through e-commerce and social media marketing in improving the competitiveness of fashion sector MSMEs in the Industrial Age 4.0. This research is important because it provides an in-depth overview of the opportunities and challenges faced by MSMEs in the adoption of digital technology. In addition, the results of this study are expected to provide strategic input for MSME actors, government, and other stakeholders in formulating policies that support the strengthening of MSME competitiveness in domestic and international markets.

2. LITERATURE REVIEW

- **E-commerce**

E-commerce is defined as the activity of buying and selling goods or services through digital platforms (Laudon & Traver, 2020). In a study conducted by Rahayu and Day (2017), e-commerce was proven to be able to increase market access for MSMEs,

especially in areas that were previously difficult to reach. According to research by Susanti (2021), MSMEs that utilize e-commerce experience an increase in sales of up to 30% compared to MSMEs that still use traditional methods. This shows that e-commerce is one of the important strategies in increasing the competitiveness of MSMEs.

- **Social Media Marketing**

Social media marketing is a marketing strategy that uses social media platforms to promote products or services. According to Kotler and Keller (2016), social media allows direct interaction between businesses and consumers, thus creating a more personalized relationship. Research by Wijaya (2020) shows that the use of social media such as Instagram and Facebook can increase brand awareness of MSMEs by up to 40%. In addition, a study by Putri and Santoso (2021) found that social media marketing has a significant influence on customer loyalty, especially among the millennial generation.

Competitiveness of MSMEs

- **MSME competitiveness**

defined as the ability of MSMEs to survive and thrive amid market competition. According to Porter (1990), competitiveness is influenced by factors such as innovation, efficiency, and adaptability to change. Research by Nugroho (2018) shows that MSMEs that adopt digital technology have higher competitiveness compared to MSMEs that still use traditional methods. This is reinforced by a study from Sari and Kurniawan (2020), which states that digitalization helps MSMEs to be more responsive to consumer needs (Safii et al., 2024).

- **Hypothesis Development**

Digitalization has become a key factor in supporting business transformation in the Industry 4.0 Era. Various studies have shown that the application of digital technologies, such as e-commerce and social media, can improve the competitiveness of MSMEs. In the context of the fashion sector, e-commerce provides wider access to the market, allowing MSMEs to sell their products without geographical restrictions (Anom & Safii, 2022). Research by Purwanto et al. (2021) found that e-commerce implementation can increase the sales volume of MSMEs by 30% within the first year. In addition, social media has become an effective marketing tool to build brand awareness and attract new consumers. A study by Hasibuan et al. (2023) showed that good digital literacy through social media can increase brand awareness by 50%, which in turn has an impact on increasing sales and competitiveness (Safii et al., 2024). Based on this explanation, this study develops the following hypothesis:

H1 : Digitalization through e-commerce has a positive and significant effect on the competitiveness of fashion sector MSMEs in the Industry 4.0 era. Explanation: E-commerce enables MSMEs to reach a wider market without geographical boundaries. Digital selling systems speed up the transaction process, reduce operational costs, and provide a more convenient shopping experience for consumers (Safii & Rahayu, 2021). Thus, e-commerce increases efficiency and helps MSMEs in the fashion sector compete with larger businesses.

H2 : Digitalization through social media marketing has a positive and significant effect on the competitiveness of fashion sector MSMEs in the Industry 4.0 era. Explanation: Social media marketing helps MSMEs build brand awareness and customer loyalty through engaging content. By utilizing platforms such as Instagram, TikTok, or Facebook, MSMEs in the fashion sector can creatively promote their products, interact directly with consumers, and get feedback for product and service improvement. As a result, MSMEs' competitiveness increases as they can reach their target markets more effectively

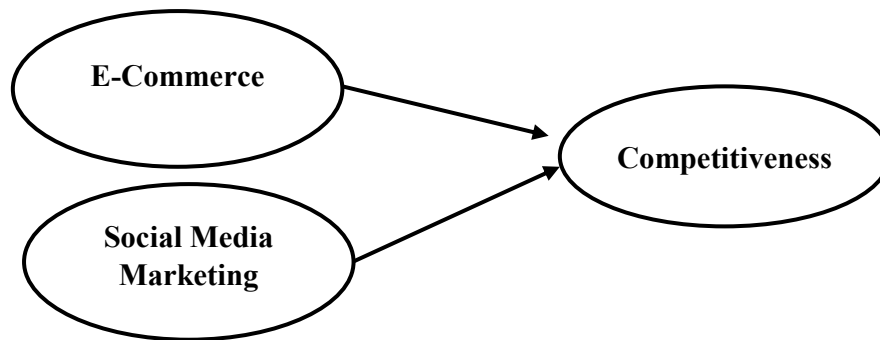
- **Conceptual Framework**

Based on empirical studies and hypothesis development, this study aims to analyze how digitalization through e-commerce and social media marketing affects the competitiveness of MSMEs in the Industry 4.0 era. This research is expected to provide a deeper understanding of the role of each independent variable in supporting the competitiveness of MSMEs, so that businesses can optimize digital technology to win the competition.

E-Commerce enables MSMEs to expand their markets domestically and internationally, reduce geographical barriers in product transactions and distribution, and provide operational efficiency through the integration of online sales systems.

Social Media Marketing is able to increase brand awareness through creative promotional strategies. expand marketing reach quickly and at a lower cost than traditional marketing, allowing direct interaction with consumers to build loyalty.

MSME Competitiveness is measured through the ability of MSMEs to adapt to technology, win markets, and maintain business positions. influencing actors include operational efficiency, product quality, and marketing innovation.



3. METHODS

This research uses descriptive quantitative research methods. The population in this study are MSMEs in the Fashion sector. The sample in this study used purposive sampling technique, Furthermore, the sample selection criteria in this study are MSMEs that have used e-commerce platforms (such as Tokopedia, Bukalapak, or Shopee), then MSMEs that have a marketing strategy through social media (such as Instagram, Facebook, or TikTok), and MSMEs that have been operating for at least one year to ensure that they have experience in implementing e-commerce and social media marketing. Based on these criteria, 33 MSMEs were selected that met the requirements to be used as research samples. This research uses a survey method using a questionnaire as a data collection tool. The questionnaire was distributed using Google Form (GF) distribution media.

The data source used in this study uses Primary Data. In this study, primary data sources were obtained from answers to questionnaires indirectly or in the form of google forms distributed to respondents The data collected in this study were then subjected to validity tests to ensure that the research instruments actually measured what should be measured, as well as reliability tests to ensure the consistency of the measurement results. The entire data processing and analysis process was carried out using the SPSS v.22 statistical application, which allows testing to be carried out efficiently and accurately. This aims to obtain valid and reliable results as a basis for drawing research conclusions.

4. RESULTS AND DISCUSSION

• Respondent Demographics

The demographics of the entire research sample are summarized in Table 1. Respondent Demographics. The items summarized in the table include Age of Owner, Length of Business, Monthly Turnover. Most of the businesses owned were of medium scale (36.4%), while small scale (45.5%) and large scale (18.1%). The majority of

business owners are between 20-40 years old (60.6%) with the majority of business experience 2-5 years (45.5%) and the majority of monthly turnover 1-3 million (66.7%).

Table 1. Respondent Demographics

Description	All Sampe =33	
	N	%
Shop Type		
Small Shop	15	45,5%
Medium shop	12	36.4%
Big store	6	18,1%
Business experience		
1-2 years	10	30,3%
2-5 years	15	45,5%
>5 years	8	24,2%
Age of owner		
20-40 years old	20	60,6%
>40 years	13	39,4%
Turnover/month		
1-3 jt	22	66,7%
>3 jt	11	33,3%

- **Model Feasibility Test**

To ensure the quality of the proposed model, a model feasibility analysis should be conducted before designing and testing the overall model. The structural model is used as a reference in determining the variance to be explained as a basis for determining the significance level of certain data. Before analyzing the relationship between variables, assess the coverage of the research model. In the structural equation model (SEM), it is necessary to have valid and reliable research model data. The criterion in question is a construct whose ideal standard value is 0.5 (Ferdinand, 2014). As for construct reliability, the variance extracted value must be equal to or greater than 0.5 and the required construct reliability value must be equal to or greater than 0.7.

From table 2 Ui Validity and Reaibilitas, it can be seen that the summary of validity and reliability shows that the Loading Factor value of all items is greater than 0.5. Then the independent variable has a variance extracted value greater than 0.5 and a construct reliability value greater than 0.7. So it can be concluded that construct reliability has met the requirements of SEM analysis.

Table 2. Validity and Reliability Test

Variable	Indicator	Standard Loading Factor	Composite Reliability
E-Commerce	EC1	0.530	0.845
	EC2	0.495	
	EC3	0.573	
	EC4	0.228	
	EC5	0.332	
	EC6	0.343	
	EC7	0.458	
	EC8	0.621	
	EC9	0.589	
	EC10	0.367	
	EC11	0.286	
	EC12	0.572	
Social Media Marketing	SMM1	0.551	0.929
	SMM2	0.659	
	SMM3	0.723	
	SMM4	0.683	
	SMM5	0.629	
	SMM6	0.565	
	SMM7	0.475	
	SMM8	0.651	
	SMM9	0.619	
	SMM10	0.705	
	SMM11	0.734	
	SMM12	0.707	
	SMM13	0.544	
	SMM14	0.754	
Competitiveness	DS1	0.368	0.857
	DS2	0.268	
	DS3	0.359	
	DS4	0.323	
	DS5	0.555	
	DS6	0.414	
	DS7	0.610	
	DS8	0.371	
	DS9	0.252	

SEM (Structure Equatin Model) testing is a comprehensive model testing that involves structural models and integrated measurement models. A model can be said to be good if the model is supported conceptually theoretically by empirical data.

- **Hypothesis Testing**

In this study, the pean of simple linear regression analysis is part of the statistical technique used to test whether or not the influence of variable X on variable Y. The following is an explanation of the independent variables and related variables that will be

examined in this study, namely: independent variable (X) is E-Commerce (X1), Social Media Marketing (X2), while the related variable (Y) is Competitiveness.

Table 3. Hypotheses Testing Result

Variable	Regression Coefficient	Significance
Constant	24.409	0.002
E-commerce (X1)	-0.093	0.601
Social Media Marketing (X2)	0.035	0.028

5. DISCUSSION

This study found that e-commerce has no significant effect on competitiveness ($p = 0.601$). This is in line with the opinion of Laudon and Traver (2021), who explain that e-commerce adoption is often hampered by a lack of technological literacy among small businesses. Furthermore, Turban et al. (2018) emphasized that adequate infrastructure and training are essential to ensure the successful implementation of e-commerce, especially in resource-limited regions. The research model was only able to explain 12.6% of the variability in competitiveness, indicating the presence of other factors that were not studied. Ferdinand (2014) explains that in SEM or regression analysis, a low Adjusted R Square value often indicates the need to add other variables to strengthen the model, such as product innovation, service quality, or business networks. The validity and reliability values of the instrument have met the established criteria (loading factor > 0.5 ; composite reliability > 0.7). According to Hair et al. (2014), valid and reliable instruments are an important basis for producing credible findings. This shows that the results obtained can be used as a basis for further research.

The model constant has a significant value, indicating that there are fixed factors that affect competitiveness, even if the independent variables (E-Commerce and Social Media Marketing) do not change. Byrne (2016) explains that a significant constant indicates the influence of fundamental elements, such as the business environment or regulation, which are not measured in the model. This discussion confirms the importance of social media marketing as a factor influencing the competitiveness of MSMEs. However, to maximize the potential of e-commerce, it is necessary to improve technological literacy and infrastructure support. These results provide direction for future research to explore additional relevant variables

6. CONCLUSION

This study found that social media marketing has a significant influence on competitiveness. In contrast, e-commerce does not show a significant influence on the competitiveness of MSMEs.

7. LIMITATION

This study only includes two independent variables, namely e-commerce and social media marketing, the research model is only able to explain 12.6% of the variability in competitiveness, which shows that there are many other factors outside the variables studied that affect the competitiveness of MSMEs. This limitation provides an opportunity for further, more in-depth research by expanding variables, samples, and data collection methods.

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