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Digital Transformation and MSME Revenue Growth: The Role of E-Commerce in Jember

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Abstract –

This study aims to analyze the impact of e-commerce on MSMEs because advances in information technology, particularly in e-commerce, have significantly influenced this sector. This study aims to determine sales increases, operational efficiency, and market access. The research method involves analyzing data from several MSMEs that have used e-commerce platforms as part of their business strategy. This data was collected from secondary sources, such as relevant literature. The results of the analysis indicate that e-commerce adoption positively affects MSME performance; increased sales and operational efficiency are identified as the main impacts, with increased market access and customers as driving factors. Compared to MSMEs that have not implemented e-commerce strategies in their business models, MSMEs that have successfully implemented them tend to grow more rapidly.

Keywords – *Transformation Digital; MSME Revenue Growth; E-Commerce*

I. INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) have the potential to survive and grow as providers of goods and services both nationally and internationally. Marketing plans are key to this, with various detailed strategies. Given the increasingly fierce competition in terms of price, service, and product quality, implementing a marketing strategy is essential to achieve optimal results. The internet is one medium that can be utilized in implementing this strategy, especially considering the increasing internet usage in Indonesia, which is evenly distributed across all age groups. Data from MarkPlus Insight, a leading research firm in Asia southeast, shows that internet usage in Indonesia continues to increase.

In 2011, the number of internet users in Indonesia rose from 42 million to 55 million. This increase indicates the enormous potential of e-commerce in Indonesia (Haryanto et al., 2022). E-commerce is the use of the internet as a marketing tool. This includes the use of the internet as a sales and promotion tool in business-to-business or business-to-consumer contexts, as well as to facilitate communication in supply chain management (Didiharyono et al., 2022).

With all the conveniences and advantages offered, becoming an entrepreneur has become easier in today's rapidly developing digital era. In 2017, approximately 8% of the total number of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia, or 3.79 million businesses, utilized online platforms to market their products, as reported by the Ministry of Cooperatives and Small and Medium Enterprises (Kemenkop UKM). Based on the above information, this research will focus on the extent of e-commerce's contribution to improving MSME performance.

Micro, Small, and Medium Enterprises (MSMEs) play a vital role in Indonesia's economic structure, contributing around 61% to the national Gross Domestic Product (GDP) and absorbing approximately 97% of the total labor force (BPS, 2023). Despite this major contribution, MSMEs continue to face structural challenges, including limited access to technology, digital skills, and wider markets (Tambunan, 2019). The post-pandemic era has accelerated the need for digital transformation, particularly to maintain competitiveness and sustainability in a rapidly changing business environment (OECD, 2022).

Digital transformation is defined as the strategic integration of digital technologies into business processes to enhance efficiency, innovation, and value creation (Vial, 2019). For MSMEs, one of the most significant manifestations of digital transformation is e-commerce adoption, which enables entrepreneurs to market products, reach wider consumers, and increase revenue growth (Laudon & Traver, 2023). Data from the Ministry of Cooperatives and SMEs (Kemenkop UKM, 2023) show that only about 30% of MSMEs in East Java have adopted digital platforms, highlighting a considerable digital gap. In Jember Regency, this disparity is even more visible, with many MSMEs still operating conventionally.

Previous studies indicate that e-commerce adoption positively affects MSME performance by increasing market access and reducing operational costs (Ikhsan & Hasan, 2020; Fuadi et al., 2021). However, most of these studies are general and lack regional-based empirical comparison. They rarely analyze measurable differences in MSME revenue before and after digital transformation. Consequently, the causal link between digital transformation, e-commerce adoption, and MSME revenue growth remains unclear, particularly in semi-urban areas like Jember.

This study is built upon the Resource-Based View (RBV) (Barney, 1991) as the *grand theory*, which explains that firms gain sustainable competitive advantage through valuable, rare, inimitable, and non-substitutable (VRIN) resources. In the MSME context, digital transformation represents a strategic resource that strengthens internal capabilities and innovation potential.

Although prior studies (Haryanto et al., 2022; Ikhsan & Hasan, 2020) demonstrate that e-commerce contributes to MSME growth, they do not explore how digital transformation facilitates e-commerce adoption or how this adoption quantitatively affects MSME revenue, especially in rural or developing regions. Moreover, few studies integrate RBV and TOE frameworks to explain this dynamic relationship comprehensively. Therefore, there is a need for a regional, data-based study that examines the measurable effects of e-commerce adoption as an outcome of digital transformation.

This study lies in its integration of the Resource-Based View (RBV) and TOE framework to analyze MSME revenue growth through e-commerce adoption in Jember Regency. This dual-theoretical approach provides a holistic understanding of how internal resources and external readiness interact to drive business performance.

Empirically, this study presents comparative data of MSME turnover before and after e-commerce adoption, providing concrete evidence of digital transformation's economic impact.

This research is urgent as the ongoing digital divide among MSMEs risks widening economic inequality between digitally literate and non-digital enterprises. The study is expected to contribute to policy recommendations for inclusive MSME digitalization in regional economies.

II. METHOD

This study employs a qualitative descriptive approach. The purpose of this approach is to provide a comprehensive understanding of the phenomenon of digital transformation and its influence on MSME revenue growth through e-commerce adoption in Jember Regency. The descriptive qualitative method is chosen to capture real experiences, perceptions, and challenges faced by MSME actors in implementing digital transformation without manipulating variables (Creswell, 2014).

The analysis focuses on exploring how MSME owners perceive digital transformation, how they adopt e-commerce, and how these processes affect their business performance. The research emphasizes depth over breadth, using interview narratives and observational data to interpret relationships among the core variables.

This study was conducted in Jember Regency, East Java, Indonesia, one of the regions with high MSME activity and increasing digital business trends. The informants were selected using a purposive sampling technique, which allows the researcher to select participants based on specific criteria relevant to the research focus (Sugiyono, 2020).

III. RESULTS AND DISCUSSION

An MSME (Micro, Small, and Medium Enterprise) is a business owned by an individual or a small to medium-sized business entity. Currently, the MSME sector stands out for its significant presence in various economic sectors and makes a significant contribution to the national economy. However, MSMEs still face various operational obstacles, with one of the main obstacles being capital. Some MSMEs use initial capital from the business owner or through loans. The level of business success can be reflected in the effectiveness of capital management. In Jember Regency alone, there are tens of thousands of MSMEs whose livelihoods depend on selling, both in urban and rural areas.

People's paradigms can be transformed to be more creative with technology, which has an impact on online marketing systems. Utilizing Information Technology, namely using information technology to promote your business through e-commerce, social media, and Google Ads, among other information technologies.

In the modern era, digital transformation has impacted all aspects of life, including how businesses and MSMEs operate more efficiently and reach a wider market. Social platforms that manage e-commerce transactions can help small and medium-sized enterprises (MSMEs) move toward digitalization, thus supporting micro-enterprises that lack information.

Online shopping habits have become commonplace among Indonesians. Moreover, Indonesia is the largest E-Commerce market in Southeast Asia, with many impacts arising from the presence of Micro, Small, and Medium Enterprises (MSMEs) in Jember Regency. In 2023, Jember Regency broke the record for the largest number of MSMEs during the international event, namely Jember Fashion Carnival (JFC). After conducting research on several MSMEs in Jember Regency, the results we obtained were several impacts of E-commerce. According to the interview survey we conducted with several MSMEs, they believed that the use of E-Commerce had a negative impact. One of the impacts. This is because when the ordered food is damaged, it can be returned, but this can result in losses. Furthermore, increased competition is making consumers more cautious in choosing products, both in terms of price and quality. The survey also identified administrative costs borne by both buyers and sellers.

In the face of digitalization for MSMEs, there are several opportunities: unequal internet access; low human resource understanding of the digital economy; and barriers, such as opening broader market access and helping MSMEs scale up.

From the results of yesterday's interview, many MSMEs are of the opinion that after the existence of E-Commerce, their product sales have increased significantly, even almost doubled, their target market is generation Z and millennials, because the current generation's interest in shopping on E-Commerce is very high, due to the laziness that occurs in them and also shopping on E-Commerce has many advantages.

This is the information we obtained through interviews with several Micro, Small, and Medium Enterprises (MSMEs) in Jember Regency, their turnover before the use of E-Commerce and after the use of E-Commerce.

Tabel 1

No	Business Name	Turnover before using E-	Turnover after using E-
1	Captain Donut	2-3 Million	4-5 Million
2	Hokky Crispy Chicken	1-2 Million	5-6 Million
3	COD Fried Chicken	15-20 Million	25-35 Million
4	Fierce Duck 99	1-1.5 Million	2.5-3.5 Million
5	Jember's Mother's Stall	5-6 Million	8-9 Million

POSITIVE IMPACT

From the use of E-Commerce, several stores can be accessed at all times, in accordance with the view of E. Turban (2012) who stated that E-Commerce provides benefits and advantages for various parties, including these. Benefits for MSMEs;

- a. Expanding the Market for MSMEs
- b. Reduce Promotion Costs

Benefits for Customers

- a. Make it easier for customers to find food options
- b. Make it easier for customers to get information about the MSME
- c. Make it easier for customers to find cheaper prices
- d. There are many promotions that customers can get

Furthermore, the use of e-commerce has a positive impact by providing security and convenience in the transaction process. This impact includes cost-effectiveness in promotions and increased transaction speed, which ultimately can increase the competitiveness of MSMEs. Furthermore, the use of e-commerce also helps reduce payment costs and allows for the delivery of detailed product information, including special prices, to consumers online. This simplifies the transaction process without requiring an in-store presence, allowing MSMEs to compete with similar stores and achieve more optimal results. In addition to increased revenue, MSMEs will also experience another positive impact, namely increased consumer awareness of their products. This can make it easier to acquire customers, as interviews revealed, further positive impacts include easier promotion and faster sales.

CONCLUSIONS

This study highlights that the adoption of e-commerce has a significant positive and negative impact on the revenue growth of Micro, Small, and Medium Enterprises (MSMEs) in Jember Regency. Data analysis shows that MSMEs that integrate e-commerce platforms into their business operations experience a significant increase in revenue. E-commerce opens new opportunities for MSMEs to reach a wider market and reach potential consumers beyond their traditional geographic areas. The existence of these online platforms allows MSMEs to expand the reach of their products and services, increase competitiveness, and enhance their brand visibility in the digital marketplace. The implications of this study can serve as a basis for designing policies that strengthen the growth of the MSME sector through the application of digital technology.

This study concludes that digital transformation plays a crucial role in enhancing MSME performance through e-commerce adoption. Findings from MSMEs in Jember Regency demonstrate that the integration of digital technologies such as e-commerce platforms, online marketing, and digital payment systems has significantly increased business turnover, market access, and operational efficiency.

The relationship between digital transformation, e-commerce adoption, and MSME revenue growth is supported by the Resource Based View (RBV) and Technology Organization Environment (TOE) frameworks. Digital

transformation acts as a strategic resource (RBV) that strengthens MSMEs' capabilities, while e-commerce serves as the mechanism (TOE) that operationalizes this resource to achieve measurable business outcomes.

In essence, MSMEs that actively adopt e-commerce and digital tools demonstrate stronger competitiveness, adaptability, and resilience in dynamic market environments. The study highlights that digital transformation through e-commerce is not merely a technological adaptation but a strategic necessity for MSMEs to achieve sustainable revenue growth. Strengthening digital ecosystems through capacity building, infrastructure, and inclusive policy support will ensure that MSMEs remain competitive and resilient in Indonesia's rapidly evolving digital economy.

This study provides a contextually rich understanding of how digital transformation and e-commerce adoption contribute to MSME growth. The results highlight that digitalization is no longer optional but a strategic necessity for MSMEs seeking competitiveness in the modern economy. Future research is encouraged to expand this study with broader samples, quantitative validation, and cross-regional comparisons to strengthen generalizability and policy relevance.

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