E-Commerce Business Analysis: Challenges and Strategies to Improve Business Performance

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Abstract: The development of information technology is driving the growth of e-commerce as a vital part of the digital economy, offering opportunities for market expansion and increased business efficiency. However, e-commerce businesses also face various challenges that impact their performance and sustainability. This study aims to analyze the main challenges of e-commerce and strategies that can be implemented to improve business performance. The study uses a conceptual approach with qualitative methods through a literature review of national and international scientific literature. The results of the study indicate that the main challenges of e-commerce include high market competition, changes in consumer behavior, limited human resources, and technological and data security issues. Therefore, adaptive strategies such as digital marketing, improving service quality, product innovation, and optimal utilization of information technology are needed.

Introduction

The advancement of information and communication technology has brought significant changes to various sectors of life, including business and trade activities. E-commerce, as an electronic-based business model, enables the online buying and selling of goods and services through digital platforms, transcending spatial and temporal boundaries.

In Indonesia, e-commerce growth is rapid, driven by increasing internet penetration and widespread use of digital devices, positioning it as a key driver of the national digital economy.[Sabarwo et al., 2024] This trend encourages businesses, including micro, small, and medium enterprises (MSMEs), to leverage e-commerce platforms to expand market reach, enhance operational efficiency, and strengthen competitiveness amid intense rivalry.[Hasibuan et al., 2023].

However, this rapid e-commerce expansion is accompanied by various challenges

affecting business performance. Intensifying market competition stands out as a primary obstacle, where the ease of launching online businesses leads to market saturation and high pricing pressures.[Kamila et al., 2025] Additionally, rapid shifts in consumer behavior, with high expectations for product quality, service speed, and transaction ease, compel businesses to continuously adapt to sustain customer satisfaction and loyalty.[Bao et al., 2025].

Limited human resources with digital competencies pose a critical issue, as managing e-commerce demands expertise in information technology, digital marketing, and data management. Many businesses, especially MSMEs, struggle to access such skilled personnel, hindering technology optimization.[Huang, 2025] Technology and data security problems exacerbate the situation, with vulnerabilities to cyber disruptions and privacy breaches eroding consumer trust.[Akin, 2024]

Logistics and infrastructure challenges, particularly in Indonesia's archipelago, add complexity through high shipping costs and prolonged delivery to remote areas. Reliance on fragmented payment systems and preferences for cash on delivery (COD) heightens operational risks and fraud potential.

This study aims to analyze key e-commerce business challenges alongside adaptive strategies to enhance performance, focusing on empirical insights from recent literature. Its urgency lies in the pressing need for Indonesian e-commerce players, particularly MSMEs, to survive volatile digital dynamics, where adaptation failures can lead to significant performance declines.[Memarista et al., 2025] The novelty stems from an in-depth synthesis of Indonesia-specific challenges, such as archipelago logistics and regulations, with data-driven strategies, which prior studies have not fully integrated.[Thi et al., 2025].

Research Methods

This research employs a conceptual approach with a qualitative method to analyze e-commerce business challenges and strategies for improving business performance. Conceptual research emphasizes developing theoretical frameworks through in-depth literature reviews without primary field data collection, while the qualitative approach enables comprehensive exploration of phenomena via descriptive analysis and concept synthesis. The research design focuses on systematic literature reviews to integrate expert perspectives, as outlined by Sugiyono in qualitative research methodologies that highlight credible secondary data collection. This approach aligns with Sudaryono's emphasis on thematic analysis for contextual understanding in contemporary qualitative studies.

Research instruments consist of secondary documents such as textbooks, national and international journal articles, and relevant scientific publications obtained through systematic searches. Data collection techniques utilize literature studies with keywords related to e-commerce and business performance, considering source credibility, information novelty, and research focus relevance. These instruments are validated through source triangulation to ensure reliability, following Emzir's recommendations for qualitative data analysis. Data analysis applies descriptive-qualitative techniques, including critical literature reviews, expert perspective comparisons, and synthesis of prior findings to generate coherent conclusions.

The research population encompasses all scientific literature on e-commerce, business

challenges, and performance improvement strategies published nationally and internationally. The sample is determined through purposive sampling with inclusion criteria of credible, relevant, and current sources, yielding representative secondary data without statistical generalization. This sampling follows Creswell's principles for qualitative literature research, ensuring analytical depth. The approach strengthens validity by focusing on thematic saturation rather than numerical sample size.

Research procedures begin with study focus determination, followed by literature selection via database searches, data analysis and synthesis, and systematic conclusion drawing. These stages produce coherent narratives linking literature findings to the Indonesian e-commerce context. The procedures reflect logical flows as described by Sugiyono and Sudaryono in comprehensive research methodology guides.

Results and Discussion

The results and discussion chapter presents a description of the research findings based on a systematic literature review and a discussion linking these findings to the concepts and findings of previous research. The discussion focuses on the characteristics and development of e-commerce businesses, the challenges faced in improving business performance, and the strategies that business actors can implement to overcome these challenges. Furthermore, this chapter examines the role of technology and innovation in supporting e-commerce performance and the implications of implementing e-commerce strategies for both financial and non-financial business performance. This discussion is expected to provide a comprehensive understanding of the dynamics of e-commerce businesses and the strategic factors that contribute to improved business performance.

Characteristics and Development of E-Commerce Businesses

Based on the results of a study of various scientific literature, e-commerce is understood as a form of business activity that utilizes digital technology and internet networks in all or part of the transaction process, from product promotion, ordering, payment, to distribution of goods and services (Baghdadi & Pulparambil, 2025). E-commerce develops as a consequence of advances in information technology that drive changes in interaction patterns between business actors and consumers. The main characteristics of e-commerce businesses include the use of digital platforms, non-face-to-face transactions, the availability of real-time information, and the integration of information technology systems in managing business operations (Kassemeier et al., 2025).

Figure 1. Example of E-Commerce Use

The development of e-commerce businesses is inextricably linked to the increasing adoption of digital technology by the public. Literature shows that easy internet access and the use of digital devices have transformed consumer consumption patterns, making them more practical and efficient (Wasilewski et al., 2025). Consumers no longer need to visit physical stores to purchase goods or services; instead, they can conduct transactions online using a variety of available e-commerce platforms. This trend makes e-commerce one of the fastest-growing business sectors in the digital economy (Huang, 2025).

E-commerce businesses are developing in various business models, including business-to-business (B2B), business-to-consumer (B2C), consumer-to-consumer (C2C), and consumer-to-business (C2B). Each model has different characteristics and challenges, depending on the target market and the type of transactions conducted (Fargetta & Scrimali, 2025). This diversity of models demonstrates the flexibility of e-commerce in accommodating increasingly complex and dynamic market needs. However, this flexibility also requires business actors to have a good understanding of market characteristics and consumer behavior (Gao, 2026).

From a business performance perspective, e-commerce offers significant opportunities for businesses to improve operational efficiency and effectiveness. Relatively lower operational costs compared to conventional businesses, along with the ability to reach a wider market, are key advantages of e-commerce (Matsui, 2025). However, the literature also shows that not all e-commerce businesses are able to optimally capitalize on these opportunities. This suggests that e-commerce development needs to be accompanied by appropriate business strategies to positively impact business performance (Thi et al., 2025).

Challenges of E-Commerce Businesses in Improving Business Performance

A literature review shows that one of the main challenges facing e-commerce businesses is the high level of competition in the digital marketplace. The ease of establishing an e-commerce business has led to the emergence of many new businesses, creating increasingly fierce competition (Matsui, 2025). This situation requires businesses to have a clear competitive advantage to survive and improve their business performance. Without strong differentiation, e-commerce businesses are at risk of declining performance due to competitive pressures (Jahan et al., 2025).

Besides competition, changing consumer behavior also poses a significant challenge for e-commerce businesses. Digital consumers tend to have high expectations for product quality, speed of service, and ease of transaction (Pawełek-lubera et al., 2025). Literature shows that e-commerce consumers are increasingly critical and easily switch to other platforms if dissatisfied. Therefore, maintaining customer satisfaction and loyalty is a complex and ongoing challenge for e-commerce businesses (Bao et al., 2025).

Another common challenge is the limited human resources with digital competencies. Managing an e-commerce business requires expertise in information technology, digital marketing, and data management (Huang, 2025). However, not all businesses have access to human resources with these competencies. This limitation can hinder the optimal use of technology and impact business performance (Akin, 2024).

Technological and data security issues are also significant challenges for e-commerce businesses. Reliance on digital systems makes e-commerce businesses vulnerable to technical

disruptions and cybersecurity threats (Wasserlauf-pepper et al., 2025). The literature confirms that transaction security and the protection of consumer personal data are key factors in building trust. A decline in consumer trust can directly impact e-commerce business performance (Ilham et al., 2023).

E-Commerce Business Strategies to Improve Business Performance

E-commerce businesses can implement various business strategies to address challenges and improve business performance. One of the most widely discussed strategies in the literature is digital marketing (Wulan, 2025). Digital marketing allows businesses to reach a wider range of consumers at a relatively cost-effective rate. Utilizing social media, search engine optimization, and digital advertising can increase product visibility and strengthen brand image in the digital marketplace. (Farhan et al., 2024)

In addition to digital marketing, improving customer service quality is a crucial strategy for enhancing e-commerce business performance. Responsive and informative customer service can increase customer satisfaction and foster customer loyalty (Harini & Handayani, 2019). Literature shows that customer satisfaction is closely linked to business sustainability. Therefore, e-commerce businesses need to pay special attention to customer service as an integral part of their business strategy (Widiastuti et al., 2024).

Product and service innovation strategies are also crucial factors in facing digital market competition. Innovation enables businesses to create added value and product differentiation (Widiastuti et al., 2024). With continuous innovation, businesses can meet evolving consumer needs and increase competitiveness in the market. The right innovation strategy can significantly contribute to improved business performance (Zeynep Aydın Sünbül, 2018).

The Role of Technology and Innovation in Supporting E-Commerce Performance

Information technology plays a crucial role in supporting the performance of e-commerce businesses. Utilizing technology enables businesses to manage business processes more efficiently and in an integrated manner, from product management and sales transactions to after-sales service (Kamila et al., 2025). With a structured digital system, e-commerce businesses can minimize operational errors and increase the speed of service to consumers, ultimately positively impacting business performance (Hidayah et al., 2023).

In addition to improving operational efficiency, technology also plays a role in supporting business decision-making (Farhan et al., 2024). The use of analytical systems and data processing enables businesses to more accurately understand consumer behavior, market trends, and product demand levels. This information can be used as a basis for formulating marketing strategies, inventory management, and product development, resulting in more accurate and data-driven business decisions.

Technological innovation in e-commerce businesses is also evident in the development of payment systems and logistics services ('Aini et al., 2024). A variety of secure and easily accessible digital payment methods can enhance consumer convenience in transactions. Furthermore, innovations in logistics systems, such as real-time delivery tracking, can increase consumer trust in e-commerce services (Rahmawati et al., 2025). High consumer trust is a crucial factor in increasing business loyalty and sustainability (Thi et al., 2025).

Thus, technology and innovation serve not only as operational support but also as a source of competitive advantage for e-commerce businesses. Businesses that are able to adapt and implement technology innovatively tend to have better business performance than those that are less responsive to technological developments (Sabarwo et al., 2024). Therefore, investing in technology and innovation is a strategic step in improving the competitiveness and performance of e-commerce businesses (Farhan et al., 2024).

Conclusion and Recommendation

Based on the study results, it can be concluded that improving e-commerce business performance is determined by the ability of business actors to respond to digital business challenges through the implementation of adaptive and sustainable strategies, particularly in digital marketing, improving customer service quality, product and service innovation, and utilizing information technology. These findings indicate that the use of technology does not automatically improve business performance without the support of appropriate strategic management. However, the conclusions of this study are still limited to literature-based analysis, so generalization of the results must be done carefully. Therefore, further research is recommended to use empirical field data and a more diverse methodological approach to be able to provide a more comprehensive picture of the influence of e-commerce strategies on business performance.

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