



# E-Commerce Trends in Indonesia: A Literature Review on Adaptation and Consumer Behavior

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**Abstract.** This research employs the Systematic Literature Review (S.L.R.) method to analyze E-Commerce trends in Indonesia, focusing on adaptation and consumer behaviour. The study results show that the adoption of e-commerce in Indonesia has significantly increased, driven by the growth of digital infrastructure and the expansion of the Internet. The study also found that despite the rapid development of E-Commerce, there are still challenges that need to be addressed, such as regulations and data security, to strengthen Indonesia's digital ecosystem. This research also provides important insights for industry players and policy-makers in developing more effective strategies to increase the adoption and trust of consumers in Indonesia's e-commerce industry.

**Keywords:** E-Commerce, Consumer Adaption, Consumer Behavior.

## 1 Introduction

Electronic Commerce, or E-Commerce, is one of the critical components of the global digital economy, particularly in Indonesia, due to its contribution to economic growth and facilitation of online business transactions [1]. E-commerce plays a significant role in economic growth through the increase in transaction value and the public's rising interest in online shopping [2]. The analysis also shows that E-Commerce transaction values positively impact long-term economic growth. Furthermore, E-Commerce encourages innovation and technological development, which multiplies economic growth [3]. The electronic systems applied in E-Commerce, such as electronic data exchange, electronic funds transfer, and automatic data collection, not only enhance business operational efficiency but also open up opportunities to develop more sophisticated products and services. E-commerce also improves business efficiency by utilizing cashless payments to reduce costs and speed up transactions [4]. In addition, E-Commerce offers a broader and higher-quality range of products, which contributes to economic growth by facilitating online sales, distribution, marketing, and purchasing.

In Indonesia, E-Commerce has a vast market, with a population of approximately 276 million. Various studies also show that the gross transaction value of the E-Commerce sector in Indonesia reached USD 62 billion in 2023, representing 75.6% of the total gross transaction value of Indonesia's digital economy. The rapid digital

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transformation in recent years has also made Indonesia one of the fastest-growing E-Commerce markets. Although E-Commerce in Indonesia has developed rapidly, several challenges and issues still need to be considered, such as complex regulations, data privacy concerns, and more robust physical infrastructure. Implementing solid and transparent data protection systems must protect consumer data privacy.

The adoption of E-Commerce in Indonesia is increasing, driven by various factors, including the expanding internet penetration and high digital engagement among the population [5]. Moreover, technological advancements, such as using A.I. on platforms like Shopee, Tokopedia, Lazada, and others, have contributed to the increased adoption of E-Commerce in Indonesia. Logistics service providers, such as iStoreiSend, have also developed integrated e-logistics systems to improve distribution efficiency, allowing E-Commerce companies to focus more on sales without handling product delivery. Both physical and non-physical infrastructure contribute to the development of E-Commerce in Indonesia. The government is committed to strengthening physical infrastructure, such as roads, airports, and ports, to support efficient and affordable logistics. In addition, non-physical infrastructure, such as wide cellular and internet networks, enables consumers to shop online more efficiently and comfortably. These developments increase business operational efficiency and facilitate online transactions, ultimately contributing to Indonesia's economic growth.

Several studies have discussed the development and contribution of E-Commerce to the Indonesian economy. However, there is still a lack of comprehensive studies reviewing consumer adaptation and behaviour in Indonesia's E-Commerce context. Most research has focused on technical and economic aspects while understanding how consumers adapt and how E-Commerce developments influence their behaviour has yet to be explored in-depth. Therefore, this research aims to fill that gap by providing deeper insights into consumer adaptation and behaviour in Indonesia's e-commerce industry. This study will enrich the existing literature and guide industry players and policymakers in creating more effective strategies to increase E-Commerce adoption in Indonesia.

## **2 Method**

### **2.1 Sample and Data Collection**

This study employed a Systematic Literature Review (S.L.R.) method to collect and analyze relevant research articles focusing on E-Commerce trends in Indonesia, particularly examining consumer adaptation and behaviour. The data were sourced from academic databases, journals, and books on E-Commerce and consumer behaviour. The selection criteria for the literature included studies published within the last five years to ensure up-to-date insights. Articles that met the inclusion criteria, such as those discussing E-Commerce adoption, consumer adaptation, and technological trends, were included in the analysis. The collected data were then synthesized qualitatively, presenting findings descriptively to provide an in-depth understanding of the critical factors influencing E-Commerce adoption and consumer behaviour in Indonesia.

## 2.2 Research Instrument

The research method used is a Systematic Literature Review (S.L.R.), which is not typically associated with a primary research instrument like a survey or questionnaire. Instead, S.L.R.s focus on collecting and analyzing existing research from various sources. The study likely used literature and secondary data from journal articles, reports, and books on E-Commerce trends, adaptation, and consumer behaviour in Indonesia.

## 2.3 Data Analysis

The data analysis used in the article is a qualitative approach based on the Systematic Literature Review (S.L.R.) method. The analysis involves identifying and reviewing relevant studies on E-Commerce trends and consumer behaviour in Indonesia, focusing on key themes such as ease of use, consumer trust, and government policies. The studies are categorized and compared to identify common patterns and gaps in the research. The article employs a descriptive analysis by summarizing the findings without statistical methods, focusing on providing insights and recommendations based on the reviewed literature. The analysis aims to synthesize the existing knowledge on consumer adaptation and behaviour in E-Commerce and highlight challenges and opportunities for further development in Indonesia.

# 3 Results and Discussions

## 3.1 Results

**Table 1.** Analyzed Articles

No.	Title and Year of Research	Author	Research Method	Research Findings
1	Analysis of Factors Affecting E-Commerce Adoption by DIY Craft SMEs (2023)	C.Y. Palangan	Quantitative	Only two out of ten factors significantly influence SMEs' adoption of e-commerce, namely perceived benefits and government support. The perceived benefits include market share expansion, faster processing, increased revenue, company image, and competitiveness. Government support, such as financial assistance, training, and information, is crucial. This research provides insights for stakeholders to increase E-Commerce adoption among S.M.E.s [6].
2	Analysis of Factors Forming Customer Perceived Value in E-Commerce in Indonesia (2020)	Maria Chyntia Chrystantari and Suyanto	Quantitative	Eight factors form customer perceived value in Indonesian E-Commerce: Brand Image, Responsiveness, Assurance and Price, Brand Value, Company Image, Information Value, Social Value, and Non-Monetary Cost.

No.	Title and Year of Research	Author	Research Method	Research Findings
				Brand image is the most dominant factor in shaping customer perception [7].
3	Adaptation of Online Shopping Behavior of Generation X During the Pandemic (2023)	Fransisca Paramitha and Patricia Editha Adrijanto	Qualitative	This study shows that Generation X has changed its shopping behaviour during the pandemic, emphasising experience and truthfulness in product selection. Although they have adapted to technology, they still tend to shop offline. This study also provides new insights and helps practitioners or marketers design the right marketing programs for Generation X [8].
4	Analysis of Factors Influencing Indonesian Consumers to Purchase Clothing on E-Commerce Applications Using the UTAUT-2 Model (2023)	Mikhael Ming Kho-sasih	Quantitative	The most influential factor in someone's decision to purchase clothing on E-Commerce applications is their habit of using E-Commerce applications [9].
5	E-Commerce Adoption by SMEs as an Effort to Adapt to Consumer Behavior Changes (2024)	Meida Rach-mawati	Literature Review	Most new S.M.E.s have adopted E-Commerce in their business operations, with the food sector dominating. The benefits of using E-Commerce for S.M.E.s include positively contributing to improving customer service quality and making it easier to access information about prices and product details offered [10].

### 3.2 Discussions

From the analysis of five selected journal articles, the authors identified several key findings related to consumer adaptation and behaviour in E-Commerce in Indonesia:

1. Indonesian consumers are becoming increasingly accustomed to using E-Commerce platforms for online transactions. The main factors influencing E-Commerce adoption in Indonesia include ease of use, perceived benefits, government support, and adequate infrastructure, as outlined in Palangan's study [6].
2. The study by Chrystiantari and Suyanto [7] found that risk perception and consumer trust are key factors influencing online shopping behaviour. Consumers tend to choose E-Commerce platforms that offer transaction security and a good reputation. This aligns with trust theory, which suggests that trust is crucial in influencing purchase decisions on E-Commerce platforms.
3. Several studies, such as the one conducted by Paramitha and Adrijanto [8], indicate that social and cultural factors also play a role in E-Commerce adaptation in

Indonesia. For example, Generation X, although beginning to adopt online shopping, still prefers to shop offline. This shows that cultural factors still affect technology adaptation among Indonesian consumers.

4. Khosasih's study [9] showed that E-Commerce applications significantly influence consumers' purchasing decisions, especially for clothing products. This suggests that as consumers' experience with online shopping grows, they become more comfortable and are likely to repeat the behaviour.

In the context of E-Commerce in Indonesia, several key factors influencing consumer behaviour can be identified:

1. **Trust and Security:** Studies show positive user reviews, security certifications, and consistent shopping experiences can build consumer trust [7].
2. **Ease of Access and Use:** User-friendly platforms that are easy to access are more likely to be adopted by consumers, especially those trying online shopping for the first time [6].
3. **Government Support and Infrastructure:** Supporting policies, such as regulations on consumer data protection and financial assistance for S.M.E.s, can encourage broader E-Commerce adoption [10].

The results of the analysed studies were then compared, showing consistency in the findings regarding the importance of trust, risk perception, and ease of use in influencing E-Commerce consumer behaviour in Indonesia. This study also shows that E-Commerce adaptation in Indonesia is driven by adequate infrastructure, regulatory support, and changes in consumer shopping preferences. However, there are differences in the level of e-commerce adaptation across different ages and social groups. For instance, Generation X still shops offline, even though they have become familiar with and used e-commerce during the pandemic. This suggests that cultural and social factors still influence consumer behaviour in Indonesia.

## **4 Conclusion, Implication, Limitation, and Suggestion**

### **4.1 Conclusion**

This study analyzes E-Commerce trends in Indonesia, focusing on consumer adaptation and behaviour through the Systematic Literature Review (S.L.R.) method. The findings indicate that E-Commerce in Indonesia has experienced significant growth and has become essential to consumers' daily lives. Consumers have started to adapt positively to e-commerce platforms, although challenges such as risk perception and trust still need to be addressed to ensure sustainability. Factors such as ease of use, pricing, and trust are critical determinants of consumer behaviour. This study provides important insights for industry players and policymakers to develop more effective strategies to enhance consumer adoption and trust in E-Commerce. Furthermore, strengthening infrastructure and regulations to support data privacy security is strongly recommended to ensure consumers feel safer when conducting transactions online.

## 4.2 Practical Implications

1. The article highlights the importance of ease of use and platform accessibility as critical factors influencing E-Commerce adoption in Indonesia. This suggests that E-Commerce platforms should improve user interfaces, ensuring their websites and mobile applications are intuitive and easy to navigate, especially for first-time users. A user-friendly platform can significantly increase consumer engagement and increase transaction volumes.
2. Trust and risk perception findings suggest that E-Commerce platforms must prioritize security measures to protect consumer data. Platforms should communicate their security protocols (e.g., data encryption, secure payment gateways) and obtain certifications that can be displayed to users. Maintaining a good reputation through positive customer reviews and transparent return policies can also help mitigate risk perceptions and build trust, thereby driving more online purchases.
3. The article emphasizes the role of cultural and social factors in E-Commerce adoption, particularly among different generations, such as Generation X. E-Commerce platforms and marketers should consider tailoring their marketing strategies to different consumer segments, offering personalized promotions or experiences based on consumer preferences. For example, Generation X may prefer more personalized customer service or hybrid shopping experiences (online and offline), which could be integrated into marketing strategies.
4. The article underscores the importance of government regulations and infrastructure in promoting E-Commerce adoption. Policymakers should focus on strengthening digital infrastructure, such as expanding internet connectivity and improving logistical networks. Additionally, supportive policies, such as providing financial assistance and digital literacy programs for S.M.E.s (Small and Medium Enterprises), can encourage more businesses to adopt E-Commerce, promoting broader digital transformation in the economy.

## 4.3 Limitations and Future Suggestions

1. Limitations of Methodology: The article primarily uses the Systematic Literature Review (S.L.R.) method, which limits the scope of the existing body of research. This may limit the applicability of the results to different contexts or more recent developments in E-Commerce that were not covered in the reviewed studies. Future research could incorporate empirical data collection, such as surveys or interviews, to validate the findings and provide more updated insights on consumer behaviour in Indonesia's rapidly changing e-commerce landscape.
2. Geographical Focus: While the article focuses on E-Commerce in Indonesia, it does not account for regional variations. Future research should explore these regional differences, examining how infrastructure, internet access, and cultural factors vary across regions and affect E-Commerce adoption.
3. Cultural and Generational Factors: The article identifies the influence of social and cultural factors, particularly concerning different generations like Generation X.

Future studies should investigate the specific behaviour and preferences of these younger consumers and the cultural shifts that may further influence E-Commerce adoption in Indonesia.

4. **Technological Advancements:** The article discusses the current factors influencing E-Commerce adoption, such as ease of use, trust, and infrastructure. Future research could examine the impact of these technologies on consumer behaviour, mainly how they affect personalization, data security, and the overall shopping experience.

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