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## The Effect of E-Payment on Global Consumers: A Systematic Literature Review

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### Abstract

The development of electronic technology has greatly influenced the paradigm shift in payment transactions, leading to the emergence of a payment method known as Electronic Payment (e-Payment) which is an innovation in payment transactions in this modern era. Strong and widespread connectivity plays an essential role in driving a significant transformation in the financial market and operations. Digitalization and the utilization of the internet have made the global economic system more advanced and practical, thus boosting economic growth. This research aims to examine the implementation of e-payment among consumers globally and its impact on business growth, economic growth, and productivity. This study investigates the key factors influencing patterns and trends in the implementation of e-payments. This research employs a systematic literature review related to implementation of e-payment and its influence on business growth, economic growth, and productivity, including articles published from 2020 to 2024 to ensure relevant findings. The results of this study are expected to confirm the significance of e-payment implementation on business growth, economic growth, and productivity.

### Keywords

Business, E-Payment, Economic Growth, Productivity.

## 1. Introduction

The rapid development of digital technology over the past few decades has transformed how consumers and businesses interact in financial transactions (Khasanah & Sasana 2022; Jala & Hamdan, 2023). Electronic payment systems, known as e-payments, have emerged as a primary alternative to traditional cash payment methods worldwide (Ramli & Hamzah, 2021). E-payment encompasses various technologies, from credit and debit cards, digital wallets, electronic bank transfers, to blockchain-based technologies like cryptocurrencies (Hassan et al., 2020). Along with the adoption of these technologies, there is a clear trend toward declining cash usage, particularly in countries with more advanced technological infrastructure (Parmar, 2022; Segarwati et al., 2022).

Globally, e-payment adoption has seen significant growth, driven by factors such as increased internet penetration, rising use of mobile devices, and government support in developing digital payment infrastructure (Karsen et al., 2019). Countries like Indonesia, China, Syria, Saudi Arabia, Taiwan, and Serbia have been at the forefront of e-payment adoption, with large user populations and supporting technological innovations (Asif, 2021; Alzoubi et al., 2022; Abdillah et al., 2024).

The adoption of e-payments worldwide brings numerous benefits, including transaction efficiency, enhanced security, and easy access for consumers (Sarkar, 2019; Husni et al., 2023). However, despite its advantages, there are several challenges, such as cybersecurity issues, varying regulations across countries, and digital divides that still pose challenges in some regions (Wahid & Sarfiah, 2021; Ghaith & Ghaith, 2022). This research aims to explore global trends and patterns in e-payment adoption, driving factors, and challenges faced in its implementation (Ani, 2020; Quyen, 2020). By understanding these developments, this study is expected to provide insights for stakeholders, including governments, service providers, and users, to optimize e-payment system adoption on a global scale (Chauhan & Sharma, 2024).

Advances in information technology have facilitated the development of electronic payment methods, or e-payments, which allow for the exchange of goods and services without the need for physical currency (Kurniadi et al., 2024; Handayani et al., 2024). Tools for electronic payments provide governments, businesses, and economies with several managerial advantages (Sahi et al., 2021). They enable e-commerce, which boosts trade both domestically and internationally, and they enable banking institutions to have cheaper transaction costs (Gholami et al., 2010; Ho & Wu, 2009). Additionally, e-payments lower the cost of money in circulation, which results in significant financial gains. However, there are several barriers that consumers face when it comes to using online payment systems (Anjum & Chai, 2020; Tella, 2012).

This research encompasses several important topics on the use and adoption of electronic payment systems across various countries. First, the study investigates the factors influencing passengers' payment method preferences in the subway transportation system in Xi'an, China, using the Random Forest (RF) model and SHapley Additive exPlanations (SHAP) method to identify significant variables determining payment method choices. Second, it explores the impact of e-payment service usage on the supply chain performance of MSMEs in Indonesia, as well as the impact of e-commerce service usage, aiming to understand how adopting these technologies enhances supply chain efficiency and performance.

In Saudi Arabia, the research analyzes factors influencing the comparative perception of electronic payment versus traditional payment methods. Meanwhile, another study evaluates external and internal factors affecting micro-entrepreneurs' decisions to adopt electronic payment systems. During the COVID-19 pandemic, factors influencing the continuance usage intention of e-payment are also analyzed,

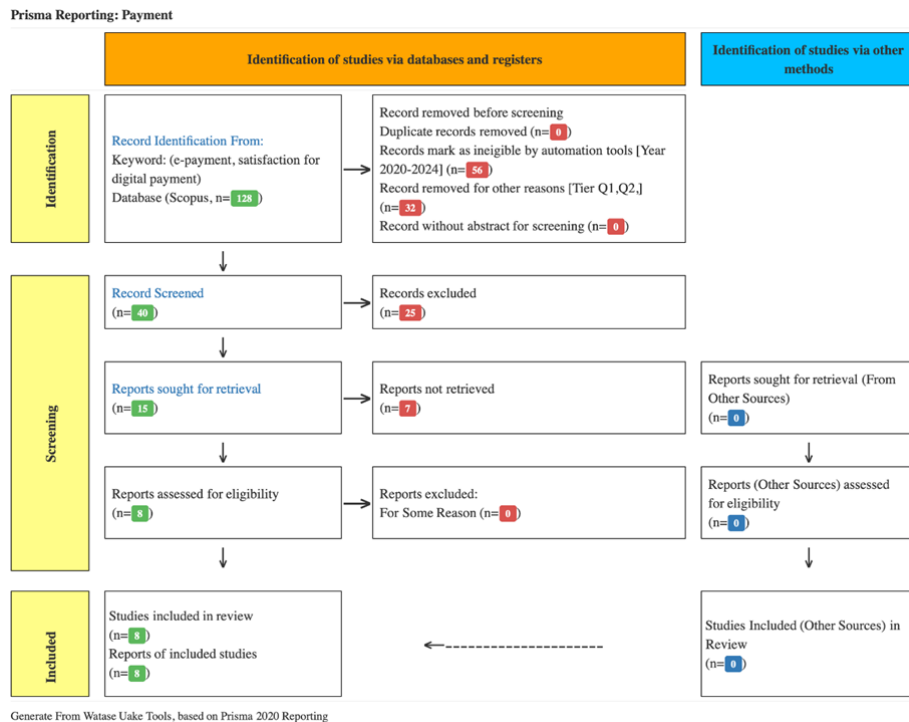
including in Serbia, where sanitation habits, the tendency to believe in conspiracy theories, and financial literacy are examined as variables related to its use (Asar et al., 2016).

Research in Syria focuses on how the perception of service quality affects customer satisfaction and trust in electronic payment services provided by telecommunication companies. In Indonesia, another study investigates the factors influencing customer intentions to adopt the QRIS (Quick Response Code Indonesian Standard) payment system. The approach used is the extended UTAUT (Unified Theory of Acceptance and Use of Technology) to identify variables driving customer interest, supporting the transition from cash to non-cash transactions, and expanding financial inclusion. All these studies highlight the importance of understanding various social, economic, and psychological factors in promoting the global adoption of electronic payment technologies.

This study aims to review literature published between 2020 and 2024 regarding the effects of e-payment on global consumers, creating an updated systematic literature review aligned with the latest trends and conditions. The research addresses two key questions: (1) What are the definitions, theories, and methodologies in studies related to e-payment and global consumers? (2) What are the implications of e-payment for business and economic growth? Using the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) methodology, the study is structured into several sections. The first section provides the background and formulates the research questions. The second section explains the methodology for conducting systematic bibliometric analysis, including article searches through the Watase Uake website. The third section presents clustering and detailed discussion of results to address the research questions using a systematic literature search process. Finally, the study concludes with research findings and recommendations for future studies.

## **2. Methods**

This systematic literature review on e-payment uses a Bibliometric Approach, which is an important part of research evaluation methodology, especially in applied and scientific fields (Ellegaard & Wallin, 2015). The first criterion, based on bibliometric analysis rules, is the data collection obtained by reading publications that include titles, abstracts, or keywords related to the research topic. In this study, the focus is on the impact of e-payment on global consumers, particularly in terms of business growth, economic growth, and productivity. The articles used were obtained from the Scopus database through the Watase Uake website (<https://www.watase.web.id/home/index.php>). This site helped the author to gather a collection of articles relevant to the research theme. The second criterion in this study is to use sources in the form of articles and journals. Third, data were taken from articles published in reputable international portals with the Scopus database from Q1 to Q2 based on the Scopus Ranking Index. Fourth, the articles must be written in English.



**Figure 1.** PRISMA Methodology Flow Chart

The study used the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) literature review methodology (Asar et al., 2016). This method helps us ensure that the SLR and reported comprehensively and transparently, thus improving the quality and credibility of the study. The PRISMA methodology is conducted with five steps; namely, determining the research protocol, literature search, screening studies, extracting relevant data, and data analysis. A summary flowchart of the methodology used in this article is shown in Figure 1, while further explanation of the PRISMA methodology steps will be discussed in the next section.

The systematic review process in this study involves several key steps. First, Identification Research determines research keywords, inclusion/exclusion criteria, data sources, and analysis methods. The inclusion criteria include articles published in reputable international journals indexed by Scopus (Q1-Q2) and written in English, while exclusion criteria exclude articles without abstracts, in languages other than English, or duplicates. Next, the Literature Search involves a comprehensive search across academic databases and research repositories, using keywords like "e-Payment," "Business Growth," "Economic Growth," and "Productivity," with a publication range from 2020 to 2024. The third step, Study Screening, filters 128 journal articles from Scopus using established criteria, resulting in 8 selected studies that meet the standards. Finally, Data Extraction organizes relevant data from these studies, including bibliographic details, research methodology, findings, and other characteristics like study quality and limitations, summarized in a table for detailed analysis.

### 3. Results

This research investigates the effect of e-payment in its various effects. However, this research discusses about e-payment impact on business growth, economic growth, and productivity. In this study, we focus on retail electronic payments, including transactions made through payment cards (e.g., credit, debit), fee/prepaid

(stored value) cards, mobile payments (card- and network based), electronic fund transfers (direct debit and credit transfer), and virtual money or accounts.

**Table 1.** Details of Various Effect of e-Payment on Global Consumers

Title and Researcher	Specialized Terms Used	Effect	Context
Determinants of passengers' ticketing channel choice in rail transit systems: New evidence of e-payment behaviors from Xi'an, China (Xiaowei Li, et al. 2023)	E-payment behaviors ticketing channel in rail transit systems	Time efficiency, Paperless, Multi-business collaboration	Transportation
The Influence of E-Payment and E-Commerce Services on Supply Chain Performance: Implications of Open Innovation and Solutions for the Digitalization of Micro, Small, and Medium Enterprises (MSMEs) in Indonesia (Alfonz, et al. 2022)	E-Payment on Supply Chain Performance on Micro, Small, and Medium Enterprises (MSMEs)	Customer satisfaction, Efficiency, Data accuracy	Small Business
Explaining the comparative perception of e-payment: role of e-shopping value, e-payment benefits and Islamic compliance (Karim, 2020)	E-shopping value, e-payment benefits and Islamic compliance	Security data, Efficiency, Economic value	Hospitality Industry
E-payment adoption and utilization among micro-entrepreneurs: a comparative analysis between Indonesia and Malaysia (Budi, et al. 2023)	Financial technology, E-payment (digital payment)	Efficiency, Effectiveness of economic transactions	Financial Performance
Quick response code Indonesia standard (QRIS) E-payment adoption: customers perspective (Evan, et al. 2024)	E-payment, Customer Perspective	Social influence, Ease of accessibility	Financial Performance
Continuance Usage Intention toward E-Payment during the COVID-19 Pandemic from the Financial Sustainable Development Perspective Using Perceived Usefulness and Electronic Word of Mouth as Mediators (Tsai, et al. 2022)	E-payment, Financial sustainability	Economic growth	Financial Performance
COVID-19 and Behavioral Factors of e-Payment Use: Evidence from Serbia (Milos, et al. 2023)	E-payment, Financial sustainability	Economic growth	Financial Performance
The quality of e-payment services offered by mobile companies: the Syrian evidence (Batoul, et al. 2024)	E-payment, Business transaction	Business growth	Software company

Source : Writing team (2024)

This study shows that the use of e-payment provides significant benefits in terms of efficiency and user satisfaction. Users experience ease and speed in making transactions compared to traditional payment methods. Factors such as ease of access, security, and speed are the main aspects influencing the widespread adoption of e-payment. This research suggests the development of better security features and improvements to the user experience to encourage increased usage. This research confirms that the adoption of e-payment has a positive impact on the supply chain performance of MSMEs. By reducing reliance on cash transactions, MSMEs can improve transparency, speed up payment processes, and optimize financial management. The study encourages government policies to strengthen digital infrastructure and offer training to MSME operators to better understand the benefits and use of e-payment.

The findings of this study reveal that despite the high potential for e-payment adoption, significant barriers remain, especially in developing countries. These barriers include public distrust in digital security, limited internet infrastructure, and a lack of user knowledge. The study recommends further efforts to build public awareness and trust in e-payment technology through public education and improved infrastructure development. The conclusions from this study show that trust factors play an important role in consumers' decisions to use e-payment. Aspects such as personal data protection, government regulations, and transaction procedure transparency significantly affect user trust levels. The recommendations from this research include increasing transparency in transaction processes and providing customer support services to strengthen consumer trust.

This study finds that the COVID-19 pandemic has significantly accelerated the adoption of e-payment, with many consumers switching to digital transactions to reduce physical interactions. The pandemic has opened opportunities to promote the continued use of e-payment even after the pandemic ends. The conclusion suggests that governments and service providers should expand access and strengthen e-payment security to maintain the adoption momentum created during the pandemic.

#### **4. Conclusion**

This study concludes that e-payment has had a significant impact on global consumers in various aspects. First, electronic payment systems offer convenience and speed in transactions, which directly enhances the consumer experience. Consumers can now make payments anytime and anywhere without worrying about geographical limitations or operational hours, greatly improving comfort and flexibility. Second, the improvement in transaction security is one of the factors driving e-payment adoption by consumers. Advanced security technologies, such as data encryption and two-factor authentication, provide consumers with a sense of security while transacting. However, despite the improved security levels, issues related to personal data protection remain a major concern for some consumers, particularly in countries that lack adequate regulations.

Furthermore, e-payment adoption also contributes to the increase in financial inclusion in developing countries by enabling consumers who previously lacked access to traditional banking systems to participate in the digital economy. However, challenges related to unequal access to technology and digital infrastructure remain as barriers that need to be addressed. The study also found that e-payment influences overall consumer behavior, driving changes in shopping patterns, such as an increase in online transactions and a decrease in cash usage. Nevertheless, factors such as trust in service providers and dependence on technological devices remain significant obstacles that need attention. e-payment has a broad positive impact on global consumers, but to fully maximize its benefits, improvements in regulation, digital education, and more equitable infrastructure development are necessary. Governments, companies, and service providers must collaborate to address the existing challenges, ensure security, and improve accessibility for all segments of society.

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