A Systematic Literature Review: Determinants of User Interest in Digital Payment Services: Trends and Causes

Aini Indrijawati[1], Mediaty[2], Arham[3], Sri Damayanti[4], Muhammad Zulfadli Wahid[5]
*[1,2,3,4,5] Faculty of Economics and Business, Hasanuddin university, Indonesia

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Email Correspondence:
ainindri@fe.unhas.ac.id

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ABSTRACT

This study aims to analyze the trends in digital payment usage, the key factors influencing adoption, and the roles of Perceived Usefulness and Perceived Ease of Use in driving user interest. A systematic literature review approach was employed, analyzing scholarly articles from the past decade (2014–2024), focusing on technological, behavioral, cultural, and regulatory aspects influencing digital payment adoption. The findings reveal that digital payment adoption has proliferated and is driven by technological advancements such as blockchain, regulatory support, and economic incentives. Perceived Usefulness emerges as a primary factor, offering benefits such as efficiency, cost savings, and enhanced financial inclusion. Meanwhile, Perceived Ease of Use, including intuitive interfaces and AI-based support, strengthens user engagement. This study highlights the importance of user-friendly and locally adaptive service designs. Practically, the findings provide strategic guidance for service providers and policymakers to prioritize intuitive designs, robust security frameworks, and digital literacy programs to foster the development of an inclusive and sustainable digital payment ecosystem.

INTRODUCTION

Over the past decade, the digital payment ecosystem has undergone significant transformations, profoundly impacting the interaction between consumers and businesses in an increasingly digitized economy. Digital payment solutions, such as e-money, mobile payment platforms, and blockchain-based technologies, have become essential tools for enhancing transaction efficiency and driving financial inclusion. The main advantages of these systems include incredible speed, convenience, and security, which align well with the needs of modern consumers (Siagian et al., 2022). Moreover, the COVID-19 pandemic accelerated this shift, compelling individuals and organizations to adopt cashless payment methods to ensure safety and operational efficiency (Fadhilah & Aruan, 2023). In Southeast Asia, particularly Indonesia, the increasing adoption of digital payments has been driven by the "less-cash society" campaign initiated by Bank Indonesia to support digital economic growth (Khando et al., 2023).

However, despite rapid progress, the adoption of digital payment services still needs to improve. One major obstacle is the uneven infrastructure across many regions, which limits public access to these services (Gafeeva, 2022). Additionally, concerns about information privacy and security remain significant reasons why some users hesitate to adopt new technologies (Siagian et al., 2022). Low digital literacy, particularly among users in rural areas, exacerbates these adoption disparities (Khando et al., 2023). Theoretically, the factors influencing user behavior toward digital payment services have been the focus of numerous studies, with one primary approach being the Technology Acceptance Model

(TAM). This model posits that perceived usefulness and ease of use are critical determinants in shaping user intentions to adopt technology (Siagian et al., 2022). However, existing studies are often fragmented, focusing only on specific variables or regional contexts without considering cultural diversity and technological dynamics in emerging markets such as Indonesia (Fadhilah & Aruan, 2023). Moreover, the emergence of new technological innovations, such as blockchain and cryptocurrency, adds complexity to understanding how users evaluate and adopt these services (Polasi et al., 2015).

Research on the determinants of user interest in digital payment services has heavily relied on the Technology Acceptance Model (TAM) to explain technology adoption behavior. Siagian et al. (2022) assert that perceived usefulness, ease of use, and security significantly influence user intentions, with trust as an important mediator in technology acceptance in Indonesia. Meanwhile, Khando et al. (2023) demonstrate that perceived security and ease of use are the primary factors driving adoption, particularly in developing markets where privacy risks often pose barriers. Younger generations are the primary adopters of this technology. Fadhilah and Aruan (2023) found that Generation Z is more influenced by convenience and satisfying experiences, whereas Generation Y is more driven by social influence. These findings highlight the need for tailored approaches that cater to the characteristics of different generations.

Innovations such as blockchain and cryptocurrency also play pivotal roles in transforming digital payments. Polasi et al. (2015) emphasize that the transparency and accessibility of these technologies increase user trust, although regulatory challenges remain a hurdle. In the psychological context, Gafeeva (2022) points out that the complexity of payment systems can reduce transparency and affect user behavior. The COVID-19 pandemic accelerated the adoption of digital payments with a focus on safety and convenience. Siagian et al. (2022) noted that these technologies became a key solution during the pandemic, driving adoption across various societal levels. These studies highlight key determinants such as benefits, ease, security, and trust as drivers of digital payment adoption. However, there still needs to be a gap in understanding how these factors interact holistically. This systematic review integrates previous findings to provide a more comprehensive understanding of these factors.

Although much research has addressed the determinants of digital payment adoption, existing studies still need to be more comprehensive in comprehensively explaining trends and influencing factors, particularly on a global and regional scale. For instance, Siagian et al. (2022) highlight the importance of trust and security in digital payment adoption but delve less into adoption trends over recent years, especially in emerging markets such as Indonesia. This raises questions about the extent to which changing consumption patterns, technological innovations, and external impacts like the COVID-19 pandemic have shaped the digital payment adoption landscape (RQ1). Previous studies, such as by Fadhilah & Aruan (2023) and Khando et al. (2023), have explored the influence of perceived usefulness on user intentions but often focus on single variables without considering external factors such as the complexity of new technologies or government regulations. Furthermore, the literature needs to more adequately explore the role of user heterogeneity, such as generational differences and digital literacy,

in moderating these relationships. Meanwhile, Polasi et al. (2015) highlight that perceived ease of use enhances trust, but how this variable interacts with sociocultural contexts and infrastructure in emerging markets remains under-researched (RQ3). These gaps underscore the need for a systematic approach to understanding the interaction of social, economic, and technological factors within the TAM framework.

This study provides novelty by comprehensively analyzing the determinants of user interest in digital payment services through a Systematic Literature Review (SLR). The primary focus of this research is to answer how digital payment adoption trends have evolved and what key factors have influenced them in recent years. Additionally, this study deepens the understanding of the influence of perceived usefulness on user interest, not only as a single variable but also about external factors such as regulations and technological complexity. The study also addresses gaps in the literature by exploring the relationship between perceived ease of use and sociocultural contexts, as well as technological infrastructure in emerging markets. This research provides significant new insights for developing more inclusive and strategic digital payment services by synthesizing various empirical findings and exploring the multidimensional relationships between these factors. The study advances the TAM framework while offering practical guidance for policymakers and service providers to enhance sustainable technology adoption.

LITERATURE REVIEW

Definition and Characteristics of Digital Payment

Digital payment refers to electronically transferring financial value through advanced technological platforms, encompassing e-money, digital wallets, mobile payment applications, and blockchain-based solutions that have transformed the global financial landscape (Siagian et al., 2022). E-money and mobile payment applications are widely adopted because they simplify transactions, eliminate geographical barriers, and deliver unmatched speed (Fadhilah & Aruan, 2023).

Key characteristics of digital payment systems include efficiency, security, and user-friendliness. They provide faster transactions than traditional methods, enabling real-time global financial exchanges (Khando et al., 2023). Advanced encryption protocols and multi-layered authentication address consumer security concerns by safeguarding funds and personal information (Yang, 2021). User-friendly interfaces enhance accessibility, even for less tech-savvy individuals (Siagian et al., 2022). Blockchain technology further boosts transparency and trust by maintaining immutable transaction records and reducing intermediary costs (Yang, 2021). Artificial Intelligence (AI) integration in digital payment systems personalizes and secures user experiences, meeting consumers' evolving expectations (Gafeeva et al., 2017).

Digital payment systems also ensure real-time financial monitoring, promoting transparency and accountability for businesses and individuals. The COVID-19 pandemic accelerated adoption as contactless transactions became essential for economic continuity (Khando et al., 2023). Additionally, these systems lower the costs associated with physical currency management, including production and

logistics, highlighting their environmental and economic advantages (Dimitrova et al., 2023). Combining efficiency, security, and user-centric innovation, digital payment systems have redefined global financial interactions. Their ability to drive financial inclusion, particularly in emerging markets like Southeast Asia, underscores their crucial role in fostering economic development (Fadhilah & Aruan, 2023).

Determinants of Digital Payment Adoption

Psychological and behavioral factors influence the adoption of digital payment systems, explained through the Technology Acceptance Model (TAM), focusing on two key determinants: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). These elements provide a strong theoretical basis for understanding how users interact with and adopt digital payment platforms.

Perceived Usefulness (PU) reflects the extent to which users believe digital payment systems offer benefits like saving time, improving transaction efficiency, and enhancing reliability compared to traditional methods. Fadhilah and Aruan (2023) highlighted that users value the speed and convenience of digital payments, fostering a preference for cash. Khando et al. (2023) emphasized features such as instant transfers, secure tracking, and geographical flexibility as key contributors to user satisfaction. Yang (2021) noted that blockchain enhances transparency and trust through decentralized and secure transactions, making digital payments attractive in markets with limited access to financial services. Perceived Ease of Use (PEOU) centers on digital payment systems' simplicity and intuitive design. User-friendly platforms with minimal learning requirements are more readily adopted, particularly by individuals with limited technical skills. Siagian et al. (2022) found that reducing interface complexity significantly lowers adoption barriers, especially for older users. Dimitrova and Islam (2023) observed that PEOU influences initial adoption and long-term usage.

The interplay between PU and PEOU shapes user behavior. PU drives adoption by highlighting tangible benefits, while PEOU ensures sustained engagement through ease of use. Platforms perceived as valuable and user-friendly achieve higher adoption rates (Khando et al., 2023). Cultural and demographic factors further moderate this relationship, as younger users prioritize PEOU while older users focus on PU (Fadhilah & Aruan, 2023). Multifunctional features like loyalty rewards and real-time tracking help overcome cultural resistance to digital payment systems (Gafeeva et al., 2017).

Technological Advancements in Digital Payment

Technological advancements have revolutionized digital payment systems, enhancing efficiency, security, and transparency. Innovations like blockchain, Near Field Communication (NFC), Quick Response (QR) codes, and Artificial Intelligence (AI) have reshaped the digital payment landscape, offering users unmatched convenience and trust.

Blockchain introduces an immutable, decentralized ledger system that reduces intermediary reliance, lowers transaction costs, and enhances security. Yang (2021) highlights its role in fostering transparency, preventing fraud, and strengthening trust. Cryptocurrencies like Bitcoin and Ethereum

further demonstrate blockchain's impact, enabling faster and more secure transactions. NFC technology revolutionizes contactless payments, offering speed and simplicity. Dimitrova and Islam (2023) noted its rise during the COVID-19 pandemic, meeting the demand for safer, contactless transactions. QR codes promote financial inclusion by enabling payments without sophisticated infrastructure. Fadhilah and Aruan (2023) emphasize their importance in developing markets, allowing businesses and individuals to participate in the digital economy with minimal hardware investment. AI improves digital payments by enhancing security, efficiency, and personalized experiences. AI-powered fraud detection prevents unauthorized transactions, while chatbots and predictive analytics simplify customer service. Khando et al. (2023) note that AI innovations strengthen trust and loyalty through seamless payment experiences.

These technologies address transparency issues, with real-time tracking and detailed transaction histories enhancing accountability and trust (Gafeeva et al., 2017). NFC and QR codes meet consumer demands for speed and convenience while enabling cross-border payments and global business expansion (Siagian et al., 2022). Innovations in digital payments drive financial inclusion, bridging gaps in underserved populations and supporting economic growth, particularly in developing nations (Dimitrova et al., 2023).

Digital Payments and Financial Inclusion

Digital payment systems have become essential instruments in advancing financial inclusion, particularly in developing countries where traditional banking services remain inaccessible to much of the population. By bridging the gap between the underbanked and unbanked, digital payments foster economic participation and reduce disparities in access to financial services. These technologies enable cost-effective and secure transactions, transforming how individuals and businesses interact within the formal economy.

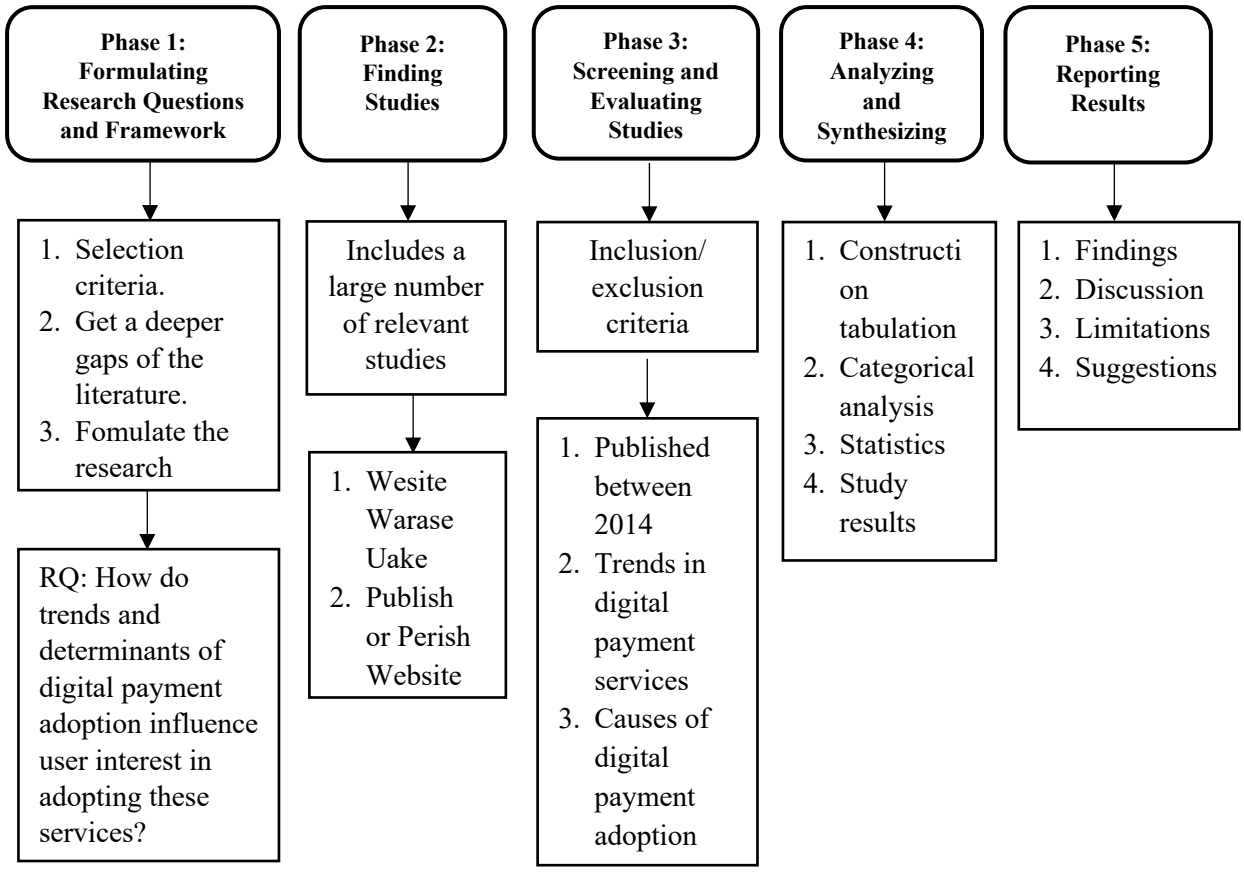
One of the primary contributions of digital payments is their ability to eliminate reliance on physical banking infrastructure. Mobile payment platforms and electronic money services have proven crucial in extending financial services to underserved regions. Fadhilah and Aruan (2023) highlight how digital wallets and payment applications empower rural communities by simplifying access to savings, loans, and payment systems. Dimitrova and Islam (2023) further demonstrate that the integration of QR codes has democratized transactions, enabling users with basic mobile devices to engage in the digital economy. Government-led initiatives also play a significant role in promoting financial inclusion. Programs such as digital subsidies, cash transfers, and welfare payments leverage digital payment platforms to ensure efficient resource distribution to marginalized populations. Khando et al. (2023) note that collaborations between governments and fintech companies have enhanced transparency and reduced administrative costs. Additionally, Yang (2021) explains that blockchain technology strengthens these efforts by ensuring accountability and transparent financial flows.

The private sector has also contributed significantly to advancing financial inclusion. Platforms like

GoPay and M-Pesa exemplify how partnerships with local businesses can facilitate the adoption of digital payment systems, particularly among small and medium enterprises (SMEs). These partnerships provide SMEs with access to credit, enhance transactional capabilities, and increase their visibility within the formal financial system (Siagian et al., 2022). However, challenges persist. Low digital literacy, infrastructure gaps, and concerns about data privacy remain significant barriers. Rufina Gafeeva et al. (2017) emphasize the importance of educational initiatives to build user trust in digital payment systems. Dimitrova and Islam (2023) also highlight the need for robust regulatory frameworks to protect user data and promote trust.

RESEARCH METHOD

This study employs the systematic literature review (SLR) method, a structured and comprehensive approach to identifying, evaluating, and synthesizing knowledge in a specific research field. This method enables researchers to understand recent developments, trends, key findings, and gaps in the scientific literature (FEB Unair, 2024). The SLR approach addresses key trends and the factors driving user interest in digital payment services, focusing on Perceived Usefulness (PU) and Perceived Ease of Use (PEU). This is achieved through collecting, critically evaluating, and synthesis of relevant information from various sources. The process follows five main stages, as outlined by Denyer and Tranfield (2009), including literature identification, quality evaluation, findings synthesis, thematic analysis, and conclusion drawing.



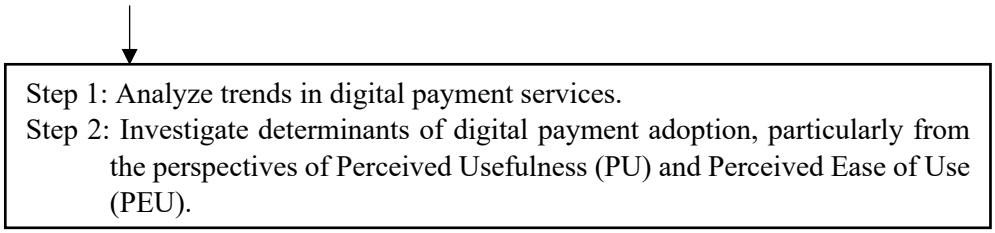


Figure 1. Systematic Literature Review (SLR) research process

Phase 1: Sampling Search and Research Question Development

The first step of the systematic literature review (SLR) research method is sampling, searching, and formulating the research questions. At this stage, the literature search is conducted using the Watase Uake database, a site that hosts journals indexed by Scopus and the Publish or Perish software. As shown in Table 1, predefined keywords are utilized in the search process to identify relevant research contributions related to the chosen topic. Articles selected through this search are based on predetermined titles and keywords. The primary goal of this literature search process is to address the main research question regarding the trends and determinants of user interest in digital payment services, analyzed through two key dimensions: Perceived Usefulness (PU) and Perceived Ease of Use (PEU).

To ensure a comprehensive analysis, this central research question is divided into three sub-research questions:

1. How have digital payment usage trends evolved in recent years, and what are the main factors influencing these trends?
2. How does Perceived Usefulness (PU) influence user interest in adopting digital payment services?
3. How does Perceived Ease of Use (PEU) influence user interest in adopting digital payment services?

The division of the leading research question into sub-questions aims to facilitate a more detailed and in-depth analysis. Through this approach, the study provides a comprehensive understanding of how digital payment usage trends have developed over the years, the main factors influencing these trends, and how PU and PEU contribute to increasing user interest in adopting digital payment services.

Table 1. Search protocol for selected literature sources

Database	Article Part Search	Keyword	Time Range
Watase Uake	Title, Keywords	Trends digital payment services Causes digital payment services	2014 - 2024
Publish or Perish	Title, Keyword	TAM Model Digital Payment	2014-2024

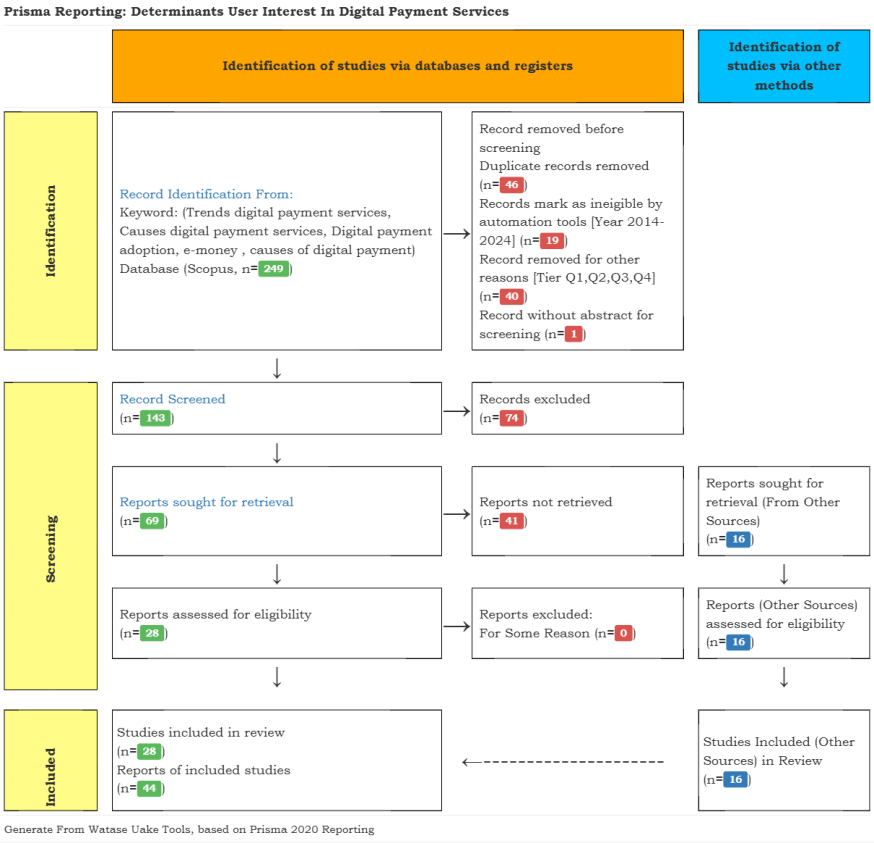
Source: Data processed in 2024

Phase 2: Identifying Studies

The stage of identifying research locations aims to find articles relevant to the research topic using two primary databases, Watase Uake and Publish or Perish. These databases provide extensive access to scientific literature, supporting identifying relevant information sources. Search protocols were consistently applied to both databases, focusing on article titles and utilizing predefined keywords. Watase Uake, or watase.web.id, is an online platform for scholarly research collaboration. Developed in 2018 and involving multiple universities by 2020, this platform offers features such as systematic literature reviews based on PRISMA methodology, simple meta-analyses, and data visualization (Wahyudi, 2024). The combination of the strengths of Watase Uake and Publish or Perish enables this study to gather relevant literature, providing a robust foundation for analyzing trends and user interest determinants in digital payment services.

Phase 3: Selecting and Evaluating Studies

The selection and evaluation phase is a critical stage in the research process, involving carefully choosing and assessing the literature identified earlier. The goal of this stage is to select high-quality and relevant literature. The studies identified during the literature search were further read, scrutinized, and evaluated based on the pre-determined research topic. From the literature search, 249 relevant articles were initially identified. Each article was then evaluated using predefined inclusion and exclusion criteria. One key criterion was the publication period between 2014 and 2024. The elimination process was conducted in four rounds. First, 46 duplicate articles across two keywords were excluded. Second, 19 articles published outside the 2014–2024 period were eliminated. Third, 40 articles not classified as Q1, Q2, Q3, or Q4 in the Scopus database were removed. Fourth, one article without an abstract for screening was excluded. Further screening involved two additional elimination stages. The first manual elimination ensured that the articles' titles and abstracts contained the relevant keywords, excluding 74 articles that did not meet the criteria. The second stage excluded 41 articles that lacked accessible data. In the final analysis phase, 28 articles met the criteria and passed the elimination process. However, due to the limited number of articles obtained from Watase Uake, an additional 16 were included from other sources, such as Publish or Perish, to reach this study's desired number of articles. In total, 44 articles were selected for use in this research.



Source: Data processed from watase uake website, 2024

Figure 2. Prism Reporting: Determinants of user interest in digital payment services

Phase 4: Analysis and Synthesis

In this phase, an analysis of the 44 selected articles was conducted, and the extracted data was synthesized to identify factors and patterns related to trends and determinants of user interest in digital payment services. The objective of this analysis was to understand the evolution of trends in the use of digital payment services and the factors influencing user interest in adopting digital payment services, which were analyzed through two main dimensions: Perceived Usefulness (PU) and Perceived Ease of Use (PEU). Additionally, bibliometric analysis was conducted to examine the evolutionary trends related to this topic by considering several key points, such as: (1) The number of articles published in the last 10 years, (2) Distribution of articles by journal databases, and (3) Distribution of articles by country.

Phase 5: Reporting Results

The research findings were communicated using tables, statistics, and discussions, following a methodology similar to that used by Toorajipour et al. (2021). This approach included presenting comprehensive details about the search strategy, criteria for study inclusion or exclusion, selection of relevant studies, quality evaluation, data extraction, and synthesis of findings. The results of the analysis were then reported comprehensively and systematically, both in the form of scientific articles and

detailed reports. This comprehensive presentation provided an in-depth review of the trends and determinants of user interest in adopting digital payment services, analyzed through the two main dimensions: Perceived Usefulness (PU) and Perceived Ease of Use (PEU).

RESULTS AND DISCUSSION

Classification of Articles Based on Keywords

Table 2. Article Classification

No.	Topic/Keyword	Researcher Name (Year)
1.	*Trends digital payment services*	Putrevu & Mertzanis (2024), Milne (2023), Broby (2021), Ng et al. (2024), Yang et al. (2019), Lotz & Vasselin (2019), (Abdulai et al., 2024), Xia et al. (2023), Zhang et al. (2017), Fatonah et al. (2018), Chaudhry et al. (2016), Sethaput & Adsavakulchai (2021), Polasik et al. (2015). (Khando et al., 2021).
2.	*Causes digital payment services*	Frączek & Urbanek (2021), Davoodalhosseini & Rivadeneyra (2020), Ariffin et al. (2021), Carli & Uras (2024), Dehghan & Haghighi (2015), Dimitrova & Öhman (2024), Adhikary et al. (2021), Ravikumar & Prakash (2022), Chen & Ren (2022), Lakhaiyar & Mani (2022), Jiang et al. (2021), Herdiyanto et al. (2020), Ahamad (2022), Gafeeva et al. (2018).
3.	*TAM Model Digital Payment*	Susanto et al. (2022), Aji et al. (2020), Widayat et al. (2020), Banerjee & Pradhan (2024), Dimitrova (2024), (Amrita et al., 2022), Taneja et al. (2024), Arora et al. (2023), Sahi et al. (2021), Riskinanto et al. (2017), Pei et al. (2015), Ladkoom & Thanasopon (2020), Aji et al. (2019), Rahmi & Adhy (2019), Fadhilah & Aruan (2023), Siagian et al. (2022).

Based on the information presented in Table 2, the articles have been categorized into three groups according to relevant topics or keywords. Of the total, 14 articles focus on discussing trends in digital payment services, followed by 14 articles that explore the causes of digital payment adoption. Furthermore, 16 articles specifically address the TAM theory, focusing on Perceived Usefulness (PU) and Perceived Ease of Use (PEU). These data indicate that topics on fraud trends in the government sector and fraud mitigation strategies in the government sector are relatively limited. The data also demonstrate that the number of articles discussing trends and causes is nearly equal, indicating that research on digital payment services shows a balanced focus between analyzing what is happening in the market (trends) and why it is happening (causes). Moreover, based on the number of articles focusing on the TAM theory, it is evident that the TAM model is the dominant theoretical framework used to understand the adoption of digital payment services. This finding suggests that user psychological aspects, such as perceived usefulness and ease of use, are highly significant in this research.

Bibliometric Analysis

The results of the bibliometric analysis are presented to examine the trends and evolution of research related to this topic by providing a graphical representation of the distribution of published articles per year, by country, and by journal database for all articles published over the past decade (2014–2024). The publication of scholarly articles on trends and causes of user interest in digital payment services, analyzed through two main dimensions—Perceived Usefulness (PU) and Perceived Ease of Use (PEU)—between 2014 and 2024, reflects this growing research focus. Research productivity provides an overview of the contributions made by institutions or individuals to research activities. Research productivity is measured by research output, one of which is publications. The distribution of articles per year illustrates the increasing academic attention to issues of digital payment services, particularly regarding user behavior through the PU and PEU approaches. This reflects the importance of this topic in understanding the development of financial technology and its impact on consumer behavior.

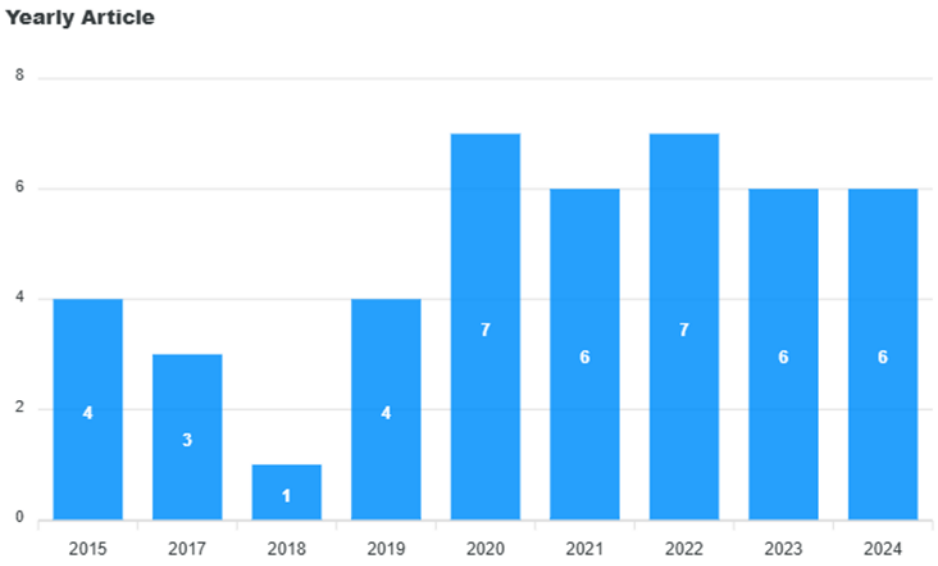


Figure 3. Distribution Chart Based on Year of Publication

An analysis of 44 articles reveals that in 2015, the number of publications began with four articles, followed by slight fluctuations from 2016 to 2018, with a significant decline in 2018 to just one article. A notable increase occurred in 2019 with four articles, which continued to rise, peaking in 2020 with seven articles. This surge was likely influenced by the acceleration of digital transformation driven by the COVID-19 pandemic. After 2020, research productivity remained high, with six articles published in 2021, and it reached another peak in 2022 with seven articles. From 2023 to 2024, the number of publications stabilized at six articles per year. This data highlights the growing academic attention to factors influencing the adoption of digital payment services, including their perceived usefulness and ease of use. The stability of publications in recent years reflects the continued relevance of this topic in understanding changes in user behavior toward digital payment technologies. Future projections indicate the potential for increased publications if technological innovations and regulations in this field continue to evolve, further enriching the literature on digital financial services.

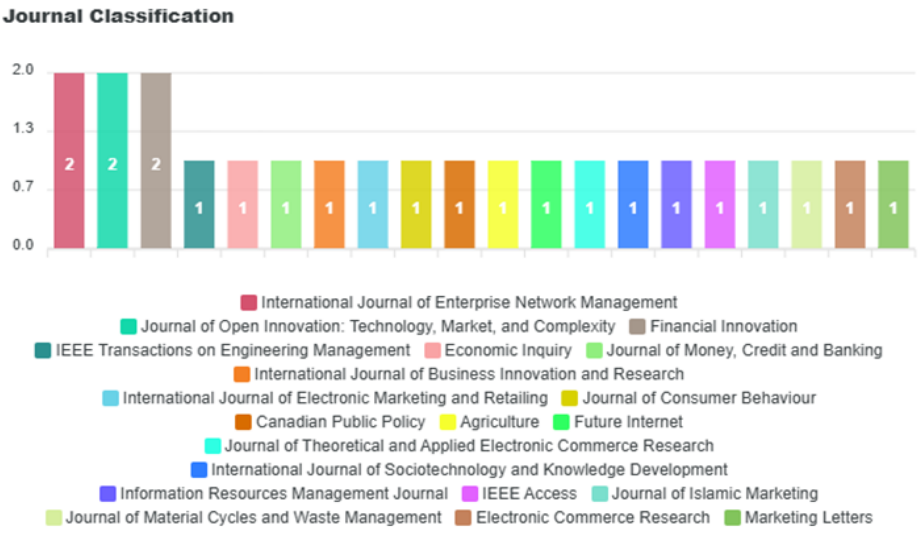


Figure 4. Graph of Article Distribution Based on Article Classification
Source: Data processed in 2024

The development of publications on the trends and causes of user interest in digital payment services, as presented in Figure 4, reveals that three journals made the highest contributions: *International Journal of Enterprise Network Management*, *Journal of Open Innovation: Technology, Market, and Complexity*, and *Financial Innovation*, each publishing two articles. Most other journals, such as *IEEE Transactions on Engineering Management*, *Economic Inquiry*, and *Journal of Money, Credit and Banking*, contributed only one article. This distribution reflects a diversification of research across various disciplines, including technological innovation, management, finance, electronic marketing, and public policy. This interdisciplinary approach highlights the broad attention given to the topic of digital payment services. However, no single journal dominates the field, indicating that the literature remains fragmented. This diversity provides opportunities for future research to focus more on specific journals, potentially enhancing the consistency and quality of the literature on the trends and causes of digital payment service adoption.

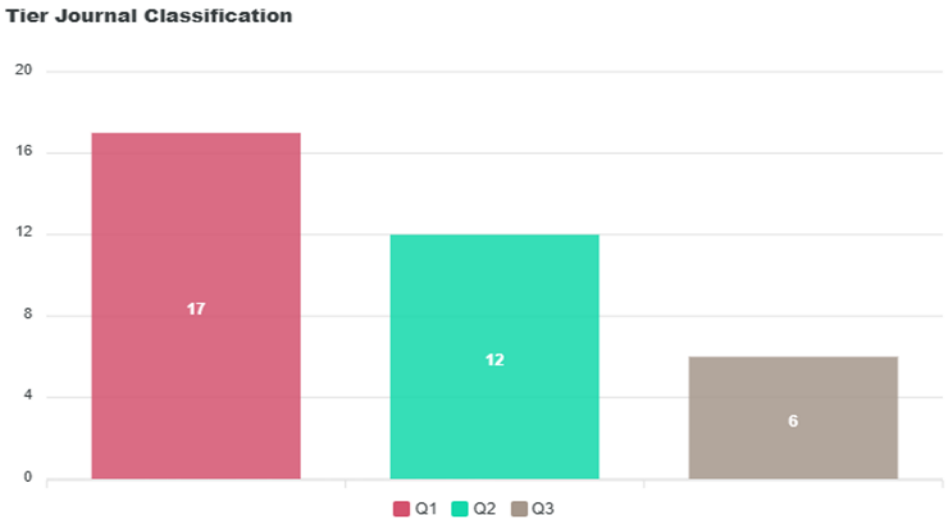


Figure 5. Distribution by Tier Article Classification

Source: Data processed in 2024

Based on Figure 5, regarding the distribution of article tiers indexed by Scopus, it can be observed that 17 articles are in Q1 tier journals, 12 articles in Q2, and 6 articles in Q3. The majority of articles are published in Q1 and Q2 tier journals, reflecting the high quality of research and the relevance of this topic in academic literature. This fact highlights the strong interest and focus on research and knowledge dissemination regarding the trends and causes of digital payment service adoption. The dominance of publications in high-quality journals indicates that this topic attracts global academic attention, contributing significantly to understanding user behavior and the development of financial technology. This distribution also serves as a foundation for further, more in-depth, and focused research.

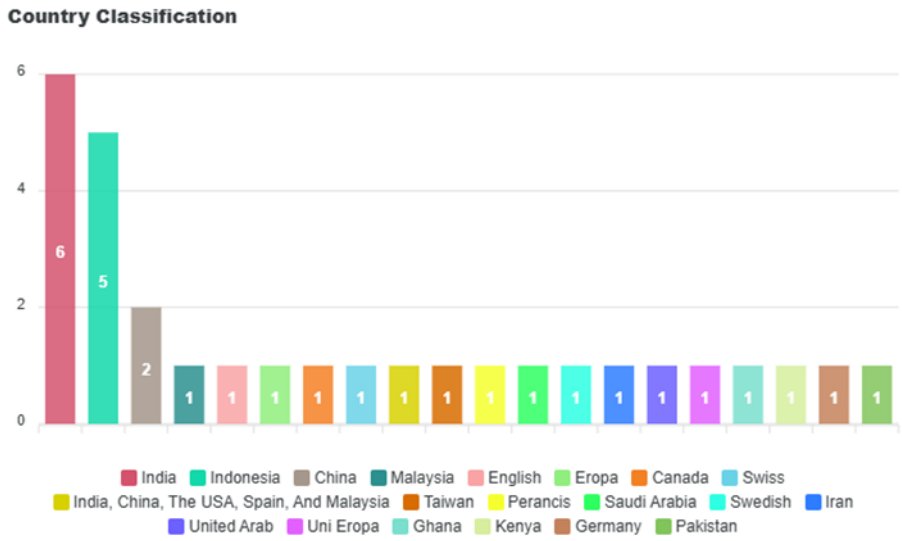


Figure 6. Country article distribution graph

Source: Data processed in 2024

The chart above illustrates the distribution of publications on trends and causes of user interest in digital payment services based on the countries of origin of the research. India is the most significant contributor, with six articles, followed by Indonesia with five articles and China with two. Meanwhile, other countries such as Malaysia, Taiwan, France, Saudi Arabia, Sweden, Iran, Canada, Germany, the European Union, and Ghana each contributed 1 article. This distribution reflects that research on this topic has a global reach, involving contributions from various regions, including Asia, Europe, North America, and the Middle East. The dominance of India and Indonesia underscores significant attention to digital payment services in countries with large populations and rapid technology adoption. The presence of other countries, albeit in smaller numbers, indicates that this topic remains relevant in diverse economic and cultural contexts.

DISCUSSION

SRQ1: Analysis of Digital Payment Usage Trends and Key Influencing Factors

The findings of this study indicate that several key factors, including technological infrastructure,

innovation, trust, user behavior, regulations, and socio-economic impact, influence the adoption and development of digital payment usage. Technological infrastructure and policies play a fundamental role in supporting the adoption of digital payments, particularly in developing countries. As Putrevu and Mertzanis (2024) described, the availability of adequate infrastructure and supportive policies are critical factors in driving the adoption of this technology. However, technical barriers and operational risks often hinder its maximum potential. Ng et al. (2024) reinforce this finding by demonstrating that collaboration between market players and regulations creates a more efficient mobile payment ecosystem. Moreover, technological innovation has proven to be a major driver in creating new paradigms in digital payments. Milne (2023) and Yang et al. (2019) underscore that blockchain and cryptocurrency offer transparency and enhance transaction security, thereby strengthening user trust in these services. Meanwhile, Broby (2021) emphasizes the importance of integrating technology into the digital banking sector, which increases efficiency and enhances user experience, making it a cornerstone of modern financial transformation.

Trust and security are other critical dimensions significantly influencing user interest in digital payments. Chaudhry et al. (2016) identify that cryptographic algorithms, such as elliptic curve cryptography, provide a robust security foundation for users. According to Abdulai et al. (2024), trust is a key factor driving the adoption of this technology, particularly in developing countries. The study by Sethaput and Adsavakulchai (2021) adds that guaranteed transaction security, combined with positive user experiences, significantly contributes to the successful adoption of digital banking, especially in Southeast Asia. User behavior and culture also play a significant role in adopting digital payment technology. Zhang et al. (2017) demonstrate that social and cultural elements strongly influence users' decisions to adopt this technology. For example, cultural norms can determine the extent to which new technology is embraced. Similar findings are presented by Fatonah et al. (2018), who highlights how local culture, particularly in traditional markets, affects users' perceptions of the benefits and ease of digital payment services.

From a user decision perspective, this study finds that driving and inhibiting factors often influence decisions to adopt digital payment services. Xia et al. (2023) reveal that the Push-Pull-Mooring framework is highly relevant in this context, where factors such as convenience, incentives, and security risks simultaneously influence users' decisions. Regulatory complexity and market dynamics also emerge as significant challenges. Polasik et al. (2015) indicate that cryptocurrency price volatility often acts as a barrier to adoption. Lotz and Vasselin (2019) highlight the competition between e-money and fiat currency, reflecting tensions within the digital payment ecosystem. In this context, Khando et al. (2021) stress the importance of a strong regulatory framework to ensure the sustainability of this ecosystem. The socio-economic impact of digital payment adoption is also a key focus. According to Abdulai et al. (2024), digital payments support trading activities and improve economic efficiency, particularly in developing countries. Yang et al. (2019) add that blockchain technology in e-money can reduce transaction costs and enhance financial inclusion, providing access to financial services for

previously unserved communities

SRQ2: Analysis of Factors Driving User Interest in Digital Payment Services from the Perspective of Perceived Usefulness

The findings of this study reveal that Perceived Usefulness (PU) is one of the primary determinants influencing user interest in adopting digital payment services. Factors such as transaction efficiency, digital literacy, user experience, incentives, and the surrounding social and economic context shape this perception. The usefulness of digital payment services is often associated with efficiency, cost reduction, and ease of use. Frączek and Urbanek (2021) and Davoodalhosseini and Rivadeneyra (2020) noted that users tend to choose these services due to their ability to save time and costs compared to traditional methods. In a business context, Banerjee and Pradhan (2024) found that these services support productivity, particularly in the MSME and e-commerce sectors, which heavily rely on quick and efficient transactions. Digital literacy and trust in technology are crucial in shaping the perception of usefulness. Studies by Adhikary et al. (2021) and Dimitrova and Öhman (2024) highlighted that technological understanding enhances users' ability to recognize the full benefits of digital payment services. Trust in technology security, such as encryption and blockchain (Dehghan & Haghighi, 2015; Jiang et al., 2021), further strengthens user acceptance of these services. User experience is also a significant element in driving perceived usefulness. Research by Chen & Ren (2022) and Lakhaiyar & Mani (2022) demonstrated that direct experience with digital payment services enhances users' understanding of tangible benefits like speed and convenience. This, in turn, reinforces user trust and loyalty toward these services.

The social and economic context also influences perceived usefulness. Herdiyanto et al. (2020) and Carli and Uras (2024) found that these services significantly impact financial inclusion in developing countries by providing access to previously unserved communities. In developed countries, perceived usefulness is more driven by efficiency and integration with other technologies within the digital ecosystem. Economic incentives also play a crucial role in enhancing perceived usefulness. Taneja et al. (2024) and Arora et al. (2023) indicated that cashback, discounts, and promotions encourage users, particularly younger generations, to try and adopt digital payment services. These incentives offer direct benefits that increase the appeal of such services. Cultural context also influences how users perceive the benefits of digital payment services. Susanto et al. (2022) noted that these services are considered beneficial in traditional markets as they speed up transaction processes. However, Rahmi and Adhy (2019) highlighted that local cultural values still significantly influence adoption decisions, even when the benefits are evident. The interaction between usefulness and ease of use is also significant from a technological perspective. Aji et al. (2019) and Riskinanto et al. (2017) found that services that are easy to use enhance perceived usefulness, particularly among users unfamiliar with digital technology. This underscores the importance of intuitive and user-friendly service design in driving adoption. Lastly, regulatory and market stability contribute to long-term perceived usefulness. Dimitrova (2024) and

Siagian et al. (2022) noted that a supportive regulatory environment fosters user trust in the sustainable benefits of these services.

SRQ3: Analysis of Factors Driving User Interest in Digital Payment Services from the Perspective of Perceived Ease of Use

The findings of this study reveal that Perceived Ease of Use (PEOU) plays a significant role in driving user interest in digital payment services. The ease of learning and using the technology emerges as a primary factor influencing adoption decisions. Research by Frączek and Urbanek (2021) and Davoodalhosseini and Rivadeneyra (2020) indicates that users are more likely to adopt digital payment services if they perceive the technology as intuitive and not requiring complex technical skills, particularly for individuals with low digital literacy levels. The simplicity of design and accessibility of the technology also significantly contribute to creating a positive user experience. Ariffin et al. (2021) and Carli and Uras (2024) highlight that simple interfaces and easy access, such as effortless application downloads, increase user interest in trying and adopting these technologies. Dehghan and Haghighi (2015) and Dimitrova and Öhman (2024) noted that Clear usage guides and responsive technical support further reinforce the perception of ease, especially for new users.

Digital literacy is another critical factor influencing user comfort with digital payment services. Adhikary et al. (2021) and Ravikumar and Prakash (2022) found that users with a better understanding of technology tend to feel more confident accessing these services. Direct experience with the technology also enhances the perception of ease. Studies by Chen & Ren (2022) and Lakhaiyar & Mani (2022) show that trying simple features of digital payment technologies helps users understand the benefits of these services and increases their comfort levels. Mobile technology has become a key element in shaping the perception of ease of use. Jiang et al. (2021) and Herdiyanto et al. (2020) emphasize that mobile devices, integral to daily life, facilitate users' transition to digital payment systems. Additionally, services that are easy to use are often perceived as more beneficial, as demonstrated by Ahamad (2022) and Gafeeva et al. (2018). The strong relationship between ease of use and perceived usefulness creates a positive cycle that reinforces the adoption of this technology.

Cultural preferences also significantly impact the perception of ease of use. Susanto et al. (2022) and Aji et al. (2020) noted that users in traditional markets are more likely to accept digital payment services if the design aligns with local needs. However, cultural challenges persist in some regions, as explained by Rahmi and Adhy (2019), where traditional values may hinder the adoption of these technologies, even when their ease of use is evident. Incentives such as cashback or discounts drive new users' interest in digital payment services. Taneja et al. (2024) and Arora et al. (2023) noted that incentives combined with simple service designs provide a positive initial experience, increasing the likelihood of sustained adoption. Furthermore, clear and supportive regulations are critical in creating a smoother user experience, as highlighted by Dimitrova (2024) and Amrita et al. (2022).

Ease of use in local transactions is vital, especially in traditional markets. Research by Fadhilah and Aruan (2023) and Siagian et al. (2022) found that users are more likely to adopt services if the technology

can be adapted to their familiar transaction patterns. The positive effects of perceived ease of use not only attract new users but also enhance long-term loyalty, as revealed by Pei et al. (2015) and Ladkoom & Thanasopon (2020). Lastly, AI-based technologies further strengthen the perception of ease of use. Sahi et al. (2021) and Riskinanto et al. (2017) noted that chatbots and automated support help users resolve issues quickly, ultimately increasing their satisfaction with these services. However, generational gaps remain challenging as younger generations adapt to new technologies more quickly than older ones (Aji et al., 2019; Rahmi & Adhy, 2019).

CONCLUSION

This study examines the development of digital payment usage trends and the influence of Perceived Usefulness and Ease of Use on user interest in adopting these services. The analysis indicates that the adoption of digital payments has experienced significant growth in recent years, driven by technological advancements, service accessibility, and increased digital literacy. Key factors such as technological innovations like blockchain, adequate regulatory support, and attractive economic incentives have been primary drivers shaping these trends. Furthermore, user-friendly service designs have become critical catalysts in accelerating the adoption of this technology across various sectors and geographic regions.

This study's findings significantly contribute to academic and practical domains. This research provides original insights by integrating technological, behavioral, and cultural dimensions to understand the dynamics of digital payment service adoption. Practically, the study emphasizes the importance of intuitive service design, robust security frameworks, and adaptive approaches to cultural contexts to enhance user engagement. For policymakers and managers, these results suggest that building trust through transparent regulatory policies, enhancing digital literacy, and providing relevant incentives can significantly boost the adoption of digital payment systems. These insights highlight the importance of user-focused innovation in expanding access to and utilization of digital payment services.

However, this study has several limitations. It primarily relies on secondary data, which may need to fully capture digital payment systems' latest and most specific aspects, particularly in underrepresented regions. Additionally, the focus on end-user perspectives leaves room for further exploration of the roles of institutions and intermediaries. Future research is encouraged to integrate longitudinal and cross-cultural analyses to enrich understanding these dynamics. Further studies on the impact of emerging technologies, such as artificial intelligence and personalized user interfaces, on digital payment adoption also provide valuable insights. Addressing these limitations will strengthen the knowledge base and support the development of a more inclusive and effective digital payment ecosystem.

REFERENCE

Abdulai, M. G., Dary, S. K., & Domanban, P. B. (2024). Adoption of digital payment platforms and trade credit activities among informal firms in Ghana. Heliyon, 10(11), e32302. https://doi.org/10.1016/j.heliyon.2024.e32302

Adhikary, A., Diatha, K. S., Borah, S. B., & Sharma, A. (2021). How does the adoption of digital payment technologies influence unorganized retailers' performance? An investigation in an emerging market. Journal of the Academy of Marketing Science, 49(5), 882–902. https://doi.org/10.1007/s11747-021-00778-y

Ahamad, S. S. (2022). A Novel NFC-Based Secure Protocol for Merchant Transactions. IEEE Access, 10, 1905–1920. https://doi.org/10.1109/ACCESS.2021.3139065

Aji, H. M., Berakon, I., Muafi, & Kholid, M. N. (2019). The Moderating Role of Knowledge about Riba on Intention to Use E-Money: Findings from Indonesia. 2019 IEEE 6th International Conference on Industrial Engineering and Applications, ICIEA 2019, 588–593. https://doi.org/10.1109/IEA.2019.8714982

Aji, H. M., Berakon, I., & Riza, A. F. (2020). The effects of subjective norm and knowledge about riba on intention to use e-money in Indonesia. Journal of Islamic Marketing, 12(6), 1180–1196. https://doi.org/10.1108/JIMA-10-2019-0203

Amrita, N. D. A., Supartha, I. W. G., Giantari, I. G. A. K., & Ekawati, N. W. (2022). Attitude based on Tri Kaya Parisudha in increasing intention to reuse e-money. International Journal of Data and Network Science, 6(4), 1115–1124. https://doi.org/10.5267/j.ijdns.2022.7.008

Ariffin, F. Bin, Ishii, K., Sato, M., & Ochiai, S. (2021). The effectiveness of the e-money incentive mechanism in promoting separation of recyclables at source in Malaysia. Journal of Material Cycles and Waste Management, 23(1), 371–385. https://doi.org/10.1007/s10163-020-01107-1

Arora, A. K., Panchal, A., Gupta, V. P., & Sharma, D. (2023). Digital payment apps: perception and adoption – a study of higher education students. International Journal of Enterprise Network Management, 14(1–2), 122–138. https://doi.org/10.1504/IJENM.2023.130774

As'ad, A., Brasit, N., Muis, M., & Umar, F. (2024). uNVEILING THE ANTECEDENTS OF SuSTAINABLE PERFORMANCE: INSIGHTS FROM HOSPITALITY INDuSTRY MANAGERS.

Banerjee, A. K., & Pradhan, H. K. (2024). Influence of demographic profiles in adoption of digital payment system in India: a multigroup invariance analysis. Technology Analysis and Strategic Management, 36(10), 2285–2301. https://doi.org/10.1080/09537325.2022.2132928

Broby, D. (2021). Financial technology and the future of banking. Financial Innovation, 7(1). https://doi.org/10.1186/s40854-021-00264-y

Carli, F., & Uras, B. R. (2024). E-money, risk-sharing, and welfare. European Economic Review, 169(July 2023), 104832. https://doi.org/10.1016/j.euroecorev.2024.104832

Chaudhry, S. A., Farash, M. S., Naqvi, H., & Sher, M. (2016). A secure and efficient authenticated encryption for electronic payment systems using elliptic curve cryptography. Electronic Commerce Research, 16(1), 113–139. https://doi.org/10.1007/s10660-015-9192-5

Chen, B., & Ren, J. (2022). Does the Adoption of Digital Payment Improve the Financial Availability of Farmer Households? Evidence from China. Agriculture (Switzerland), 12(9). https://doi.org/10.3390/agriculture12091468

Davoodalhosseini, S. M., & Rivadeneyra, F. (2020). A policy framework for e-money. Canadian Public Policy, 46(1), 94–106. https://doi.org/10.3138/cpp.2019-010

Dehghan, F., & Haghighi, A. (2015). E-money regulation for consumer protection. International Journal of Law and Management, 57(6), 610–620. https://doi.org/10.1108/IJLMA-06-2014-0042

Denyer, D., & Tranfield, D. (2009). Producing a systematic review.

Dimitrova, I. (2024). Barrier-breakers ' influence on full-adoption of digital payment methods. 34(7), 139–159. https://doi.org/10.1108/INTR-11-2022-0886

Dimitrova, I., & Öhman, P. (2024). Flip that coin: Barriers, barrier-breakers, and full-adoption of digital payment methods. Journal of Consumer Behaviour, August 2023, 2367–2378. https://doi.org/10.1002/cb.2343

Fadhilah, I., & Aruan, D. T. H. (2023). Understanding consumer adoption and actual usage of digital payment instruments: comparison between Generation Y and Generation Z. International Journal of

Electronic Marketing and Retailing, 14(1), 1. https://doi.org/10.1504/ijemr.2023.10050665
Fatonah, S., Yulandari, A., & Wibowo, F. W. (2018). A Review of E-Payment System in E-Commerce. Journal of Physics: Conference Series, 1140(1). https://doi.org/10.1088/1742-6596/1140/1/012033
Frączek, B., & Urbanek, A. (2021). Financial inclusion as an important factor influencing digital payments in passenger transport: A case study of EU countries. Research in Transportation Business and Management, 41(April 2020). https://doi.org/10.1016/j.rtbm.2021.100691
FEB Unair. (2024, May 29). "Systematic Literature Review Melalui Watase Uake Untuk Pengembangan Penelitian" Hima S3 Ilmu Ekonomi Universitas Airlangga. https://feb.unair.ac.id/news-download/news-mahasiswa/hima-s3-ie/8761-systematic-literature-review-melalui-watase-uake-untuk-pengembangan-penelitian-hima-s3-ilmu-ekonomi-universitas-airlangga.html
Gafeeva, R., Hoelzl, E., & Roschk, H. (2018). What else can your payment card do? Multifunctionality of payment modes can reduce payment transparency. Marketing Letters, 29(1), 61–72. https://doi.org/10.1007/s11002-017-9445-2
Herdiyanto, D. W., Setiabudi, D., & Chaidir, A. R. (2020). Electronic transaction system for user authentication and e-payment application based on RFID smart card. AIP Conference Proceedings, 2278(October). https://doi.org/10.1063/5.0014687
Jiang, Y., Ahmad, H., Butt, A. H., Shafique, M. N., & Muhammad, S. (2021). QR digital payment system adoption by retailers: The moderating role of COVID-19 knowledge. Information Resources Management Journal, 34(3), 41–63. https://doi.org/10.4018/IRMJ.2021070103
Khando, K., Gao, S., Islam, S. M., & Salman, A. (2021). Enhancing employees information security awareness in private and public organisations: A systematic literature review. Computers & Security, 106, 102267. https://doi.org/https://doi.org/10.1016/j.cose.2021.102267
Ladkoom, K., & Thanasopon, B. (2020). Factors influencing reuse intention of e-payment in Thailand: A case study of promptpay. ICEIS 2020 - Proceedings of the 22nd International Conference on Enterprise Information Systems, 1(Iceis), 743–750. https://doi.org/10.5220/0009410407430750
Lakhaiyar, S., & Mani, M. (2022). Factors influencing adoption of digital payment systems during COVID-19. International Journal of Sociotechnology and Knowledge Development, 14(1), 1–3. https://doi.org/10.4018/IJSKD.315292
Lotz, S., & Vasselin, F. (2019). a New Monetarist Model of Fiat and E-Money. Economic Inquiry, 57(1), 498–514. https://doi.org/10.1111/ecin.12714
Milne, A. (2023). Argument by False Analogy: The Mistaken Classification of Bitcoin as Token Money. Journal of Money, Credit and Banking, 0(0). https://doi.org/10.1111/jmcb.13061
Ng, W. K., Chen, S., Chen, W. H., Chen, C. L., & Jiang, J. L. (2024). Mobile Payment Innovation Ecosystem and Mechanism: A Case Study of Taiwan's Servicescapes. Journal of Theoretical and Applied Electronic Commerce Research, 19(1), 633–653. https://doi.org/10.3390/jtaer19010034
Pei, Y., Wang, S., Fan, J., & Zhang, M. (2015). An empirical study on the impact of perceived benefit, risk and trust on E-payment adoption: Comparing quick pay and union pay in China. Proceedings - 2015 7th International Conference on Intelligent Human-Machine Systems and Cybernetics, IHMSC 2015, 2, 198–202. https://doi.org/10.1109/IHMSC.2015.148
Polasik, M., Piotrowska, A. I., Wisniewski, T. P., Kotkowski, R., & Lightfoot, G. (2015). Price fluctuations and the use of bitcoin: An empirical inquiry. International Journal of Electronic Commerce, 20(1), 9–49. https://doi.org/10.1080/10864415.2016.1061413
Putrevu, J., & Mertzanis, C. (2024). The adoption of digital payments in emerging economies: challenges and policy responses. Digital Policy, Regulation and Governance, 26(5), 476–500. https://doi.org/10.1108/DPRG-06-2023-0077
Rahmi, A., & Adhy, S. (2019). Analysis of Server-Based Electronic Money Acceptance Using Partial Least Square Method. ICICOS 2019 - 3rd International Conference on Informatics and Computational Sciences: Accelerating Informatics and Computational Research for Smarter Society in The Era of Industry 4.0, Proceedings, 1–6. https://doi.org/10.1109/ICICoS48119.2019.8982382
Ravikumar, T., & Prakash, N. (2022). Determinants of adoption of digital payment services among small fixed retail stores in Bangalore, India. International Journal of Business Innovation and Research, 28(3), 319–346. https://doi.org/10.1504/IJBIR.2022.124123
Riskinanto, A., Kelana, B., & Hilmawan, D. R. (2017). The Moderation Effect of Age on Adopting E-Payment Technology. Procedia Computer Science, 124, 536–543. https://doi.org/10.1016/j.procs.2017.12.187

Sahi, A. M., Khalid, H., Abbas, A. F., & Khatib, S. F. A. (2021). The evolving research of customer adoption of digital payment: Learning from content and statistical analysis of the literature. Journal of Open Innovation: Technology, Market, and Complexity, 7(4), 230. https://doi.org/10.3390/joitmc7040230

Sethaput, V., & Adsavakulchai, S. (2021). E-Payment and It's Effects on Cash in Thailand. Proceeding of the 2021 9th International Electrical Engineering Congress, IEECON 2021, Cic, 460–463. https://doi.org/10.1109/iEECON51072.2021.9440063

Siagian, H., Tarigan, Z. J. H., Basana, S. R., & Basuki, R. (2022). The effect of perceived security, perceived ease of use, and perceived usefulness on consumer behavioral intention through trust in digital payment platform. International Journal of Data and Network Science, 6(3), 861–874. https://doi.org/10.5267/j.ijdns.2022.2.010

Susanto, P., Hoque, M. E., Hashim, N. M. H. N., Shah, N. U., & Alam, M. N. A. (2022). Moderating effects of perceived risk on the determinants–outcome nexus of e-money behaviour. International Journal of Emerging Markets, 17(2), 530–549. https://doi.org/10.1108/IJOEM-05-2019-0382

Taneja, S., Ali, L., Siraj, A., Ferasso, M., Luthra, S., & Kumar, A. (2024). Leveraging Digital Payment Adoption Experience to Advance the Development of Digital-Only (Neo) Banks: Role of Trust, Risk, Security, and Green Concern. IEEE Transactions on Engineering Management, 71, 10862–10873. https://doi.org/10.1109/TEM.2024.3395130

Widayat, W., Masudin, I., & Satiti, N. R. (2020). E-Money payment: Customers' adopting factors and the implication for open innovation. Journal of Open Innovation: Technology, Market, and Complexity, 6(3). https://doi.org/10.3390/JOITMC6030057

Xia, H., Gao, Y., & Zhang, J. Z. (2023). Understanding the adoption context of China's digital currency electronic payment. Financial Innovation, 9(1). https://doi.org/10.1186/s40854-023-00467-5

Yang, K., Hu, M., Jia, Z., Gong, B., & Zhang, X. (2019). An Association Ring Signature for Block Chain E-Money Transactions. Wuhan University Journal of Natural Sciences, 24(2), 169–175. https://doi.org/10.1007/s11859-019-1382-x

Zhang, X., Tang, S., Zhao, Y., Wang, G., Zheng, H., & Zhao, B. Y. (2017). Cold hard E-cash: Friends and vendors in the venmo digital payments system. Proceedings of the 11th International Conference on Web and Social Media, ICWSM 2017, Icwsm, 387–396. https://doi.org/10.1609/icwsm.v11i1.14873