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Research Trends in Mobile Payment and E-Wallet Adoption: A Bibliometric Study Based on Dimensions and VOSviewer

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Abstract

The rapid growth of digital payment technologies has significantly increased the adoption of mobile payment and e-wallet services worldwide. Consequently, research on digital payment adoption has expanded considerably in recent years. This study aims to map research trends related to mobile payment and e-wallet adoption during the 2023–2026 period using a bibliometric approach. Data were collected from the Dimensions database using predefined search criteria, resulting in 446 publications for analysis. Bibliometric mapping was conducted using VOSviewer to identify research clusters, emerging topics, country collaborations, and influential publications. The results revealed three dominant research themes, namely Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and Financial Inclusion. Overlay visualization indicated a shift in research focus from traditional technology acceptance factors toward financial inclusion, mobile money, and policymaking perspectives. Furthermore, citation analysis identified several influential studies that have shaped recent developments in the field. The findings provide a comprehensive overview of the current research landscape and highlight potential directions for future studies on digital payment adoption.

Keywords: *Bibliometric Analysis; Digital Payment; E-Wallet; Mobile Payment; VOSviewer.*

1. Introduction

The rapid advancement of financial technology (FinTech) has significantly transformed the global payment landscape. Mobile payment and e-wallet services have become important components of digital financial ecosystems, enabling users to conduct transactions more efficiently, securely, and conveniently through mobile devices [1], [2]. The increasing penetration of smartphones, internet connectivity, and digital banking services has further accelerated the adoption of digital payment systems across various countries [3].

Following the COVID-19 pandemic, the use of mobile payment and digital wallet services experienced substantial growth as consumers increasingly preferred contactless and cashless transactions [4]. This transformation has encouraged governments, financial institutions, and technology providers to promote digital payment solutions as part of broader digital economy initiatives and financial inclusion programs [5].

To explain user acceptance and adoption behavior, previous studies have widely employed theoretical frameworks such as the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) [6], [7]. Factors including perceived usefulness, perceived ease of use, performance expectancy, effort expectancy, trust, social influence, and behavioral intention have been identified as significant determinants influencing the adoption of mobile payment technologies [8]–[10].

Despite the growing number of publications in this area, most studies focus on empirical investigations within specific countries, technologies, or user groups. Consequently, the overall intellectual structure, collaboration patterns, and emerging research trends in mobile payment and e-wallet adoption remain insufficiently explored. Therefore, a bibliometric analysis is needed to systematically evaluate the development of this research field and identify potential directions for future studies.

This study aims to analyze research trends related to mobile payment and e-wallet adoption during the period 2023–2026 using a bibliometric approach. Data were collected from the Dimensions database and analyzed using VOSviewer. Through keyword co-occurrence analysis, overlay visualization, density visualization, country collaboration analysis, and citation analysis, this study provides a comprehensive overview of the current research landscape and identifies emerging themes and future research opportunities in digital payment adoption.

2. Method

This study employed a bibliometric approach to analyze research trends in mobile payment and e-wallet adoption. Bibliometric analysis enables the systematic evaluation of scientific publications through quantitative techniques, allowing researchers to identify research patterns, collaboration networks, influential publications, and emerging themes within a specific field. The overall research process consisted of data collection, data filtering, bibliometric mapping, and result interpretation using VOSviewer software.

2.1. Research Design

This study employed a bibliometric approach to analyze research trends related to mobile payment and e-wallet adoption. Bibliometric analysis is a quantitative method used to evaluate scientific publications, identify research patterns, examine collaboration networks, and uncover emerging topics within a specific research field. The approach enables researchers to systematically map the intellectual structure of a scientific domain and assess its development over time.

2.2. Data Collection

The bibliographic data were collected from the Dimensions database, which provides comprehensive coverage of scholarly publications across various disciplines. Data retrieval was conducted in June 2026 using the following search query:

("mobile payment" OR "e-wallet" OR "digital wallet" OR "mobile money") AND (adoption OR acceptance OR "intention to use")

To ensure the relevance and quality of the dataset, several inclusion criteria were applied. The study only considered publications categorized under Information Systems, published between 2023 and 2026, and indexed as journal articles or conference proceedings. After applying the filtering process, a total of 446 publications were selected for further analysis.

Table 1: Data Collection Criteria

Criteria	Description
Database	Dimensions
Publication Period	2023-2026
Search Keywords	Mobile Payment, E-Wallet, Digital Wallet, Mobile Money, Adoption, Acceptance, Intention to Use
Research Category	Information Systems
Document Types	Articles and Proceedings
Total Publications	446
Analysis Tool	VOSviewer

2.3. Data Analysis Procedure

The collected metadata were exported from the Dimensions database and analyzed using VOSviewer software. The analysis process consisted of four stages:

1. Identification and collection of relevant publications from the Dimensions database.
2. Data cleaning and preparation to ensure consistency in bibliographic records.
3. Bibliometric mapping using VOSviewer.
4. Interpretation of visualization results and identification of research trends.

Fig. 1: Research workflow of the bibliometric analysis

2.4. Bibliometric Analysis

Several bibliometric techniques were employed to examine the research landscape of mobile payment and e-wallet adoption.

2.4.1. Co-occurrence analysis

Co-occurrence analysis was conducted to identify relationships among keywords appearing in the selected publications. This analysis helped reveal major research themes and thematic clusters within the field.

2.4.2. Overlay visualization

Overlay visualization was used to identify the temporal evolution of research topics. This technique enabled the identification of emerging and declining research themes based on publication year distribution.

2.4.3. Density visualization

Density visualization was performed to determine the most frequently discussed topics in the literature. Areas with higher density indicate topics receiving greater research attention.

2.4.4. Country collaboration analysis

Country collaboration analysis was conducted through co-authorship mapping to identify international research collaborations and determine the most productive countries within the field.

2.4.5. Citation analysis

Citation analysis was performed to identify influential publications and examine citation relationships among documents. This analysis helped reveal the most impactful studies contributing to the development of mobile payment and e-wallet adoption research.

The results obtained from these analyses were interpreted to identify dominant research themes, emerging trends, collaboration patterns, influential publications, and future research opportunities.

3. Results and Discussion

This section presents the results of the bibliometric analysis conducted using VOSviewer. The analysis includes keyword co-occurrence, overlay visualization, density visualization, country collaboration, and citation analysis. These analyses provide insights into the intellectual structure, research trends, collaboration patterns, and influential publications in the field of mobile payment and e-wallet adoption.

3.1. Keyword Co-occurrence Analysis

Keyword co-occurrence analysis was performed to identify the main research themes and relationships among frequently occurring terms in the selected publications. A minimum occurrence threshold of 20 was applied, resulting in 90 relevant terms being selected for mapping.

Figure 2 illustrates the keyword co-occurrence network generated using VOSviewer. The analysis identified three major clusters representing different research focuses within the field.

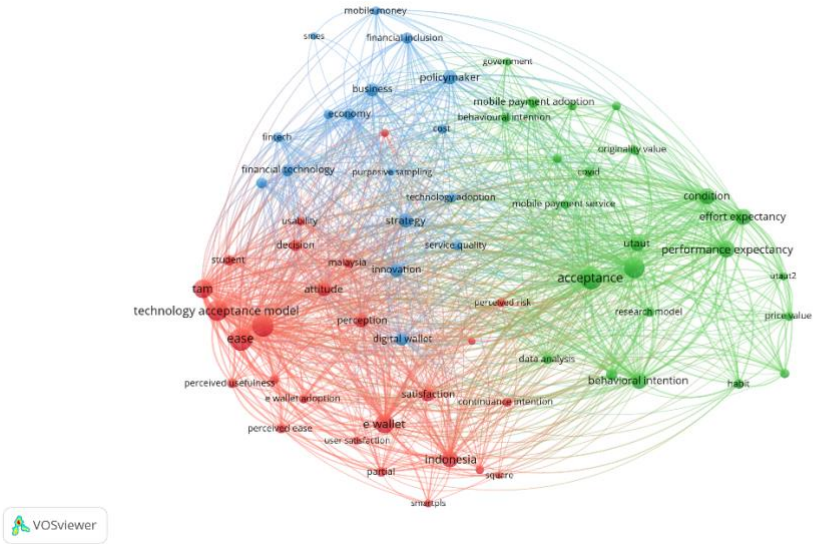

Fig. 2: Network visualization of keyword co-occurrence

The first cluster (red) primarily focuses on Technology Acceptance Model (TAM)-related variables, including *technology acceptance model*, *perceived usefulness*, *perceived ease of use*, *e-wallet*, and *user satisfaction*. This cluster indicates that TAM remains one of the most widely adopted frameworks for explaining users' acceptance of digital payment technologies.

The second cluster (green) centers on adoption behavior and UTAUT-related constructs, including *acceptance*, *behavioral intention*, *performance expectancy*, *effort expectancy*, and *habit*. These keywords suggest that researchers frequently employ UTAUT-based approaches to investigate users' intentions and actual usage behavior.

The third cluster (blue) is associated with broader digital financial ecosystems, containing terms such as *financial technology*, *financial inclusion*, *mobile money*, *business*, and *economy*. This cluster reflects the growing interest in the socioeconomic implications of digital payment adoption.

Overall, the network visualization demonstrates that TAM and UTAUT remain dominant theoretical foundations in mobile payment and e-wallet adoption research.

3.2. Overlay Visualization Analysis

Overlay visualization was conducted to identify the temporal evolution of research topics between 2023 and 2026.

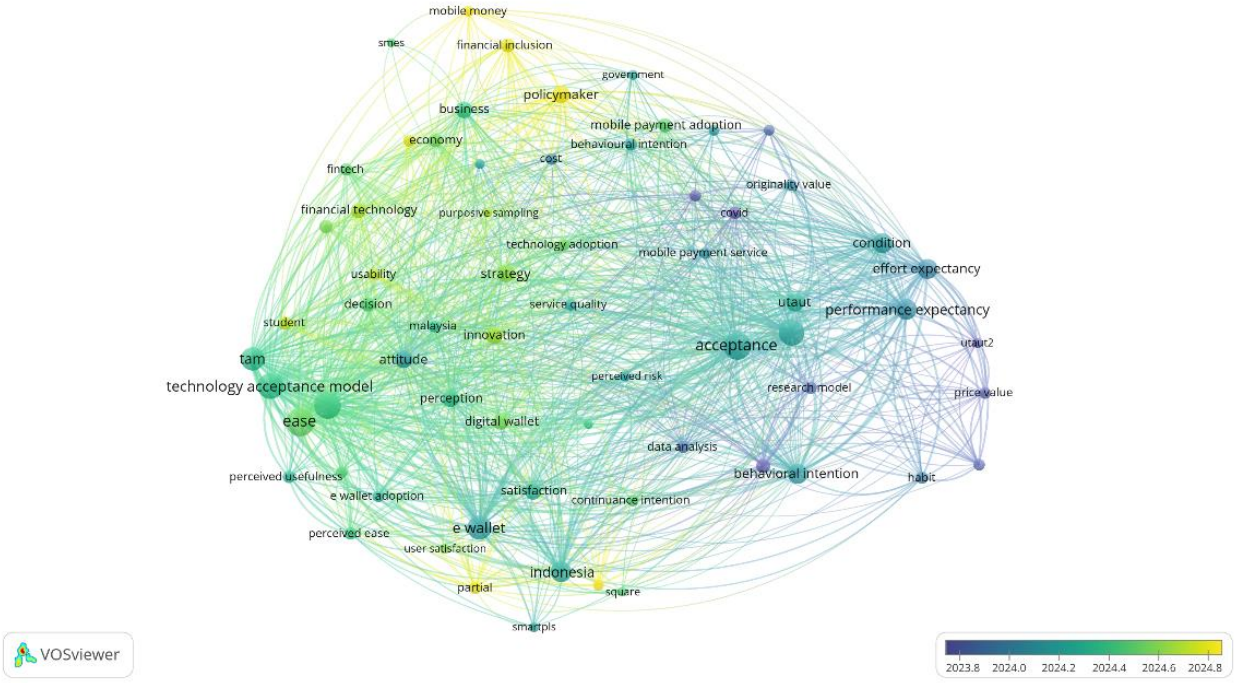

Fig. 3: Overlay visualization of keyword evolution

The overlay visualization reveals that several topics have gained increasing attention in recent years. Keywords such as *acceptance*, *performance expectancy*, *condition*, *economy*, *financial inclusion*, and *policymaker* are represented by brighter colors, indicating their stronger presence in more recent publications.

Meanwhile, keywords such as *price value*, *habit*, *UTAUT2*, and *behavioral intention* appear in relatively darker colors, suggesting that these topics have been extensively investigated in earlier studies.

The findings indicate a shift in research focus from individual behavioral determinants toward broader economic, policy, and financial inclusion perspectives. This trend suggests that researchers are increasingly examining the societal and institutional impacts of digital payment technologies.

3.3. Density Visualization Analysis

Density visualization was performed to identify the most frequently studied topics within the research domain.

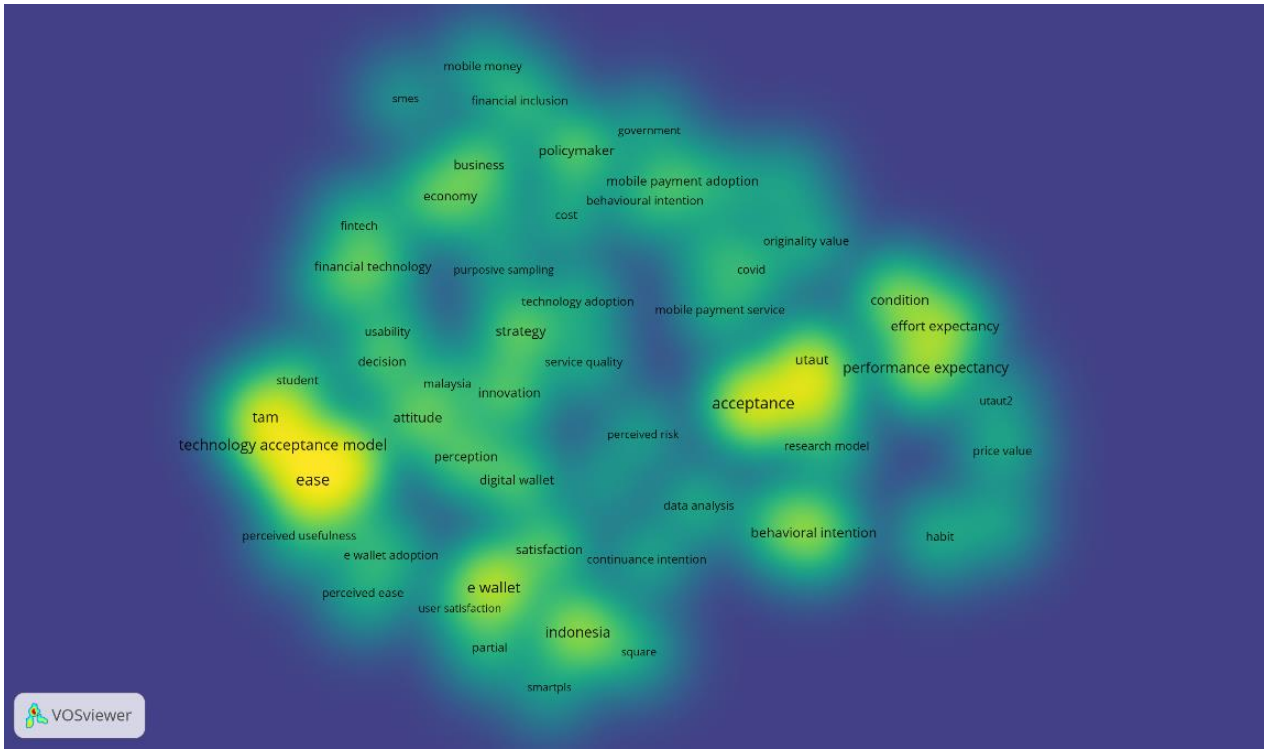

Fig. 4: Density visualization of research themes

The density map highlights several high-density areas represented by bright yellow regions. The most prominent keywords include *acceptance*, *technology acceptance model*, *ease*, *performance expectancy*, and *e-wallet*.

These findings indicate that user acceptance remains the central theme in mobile payment and e-wallet adoption studies. The strong presence of TAM and UTAUT-related constructs further confirms the continued dominance of technology acceptance theories in explaining digital payment adoption behavior.

In contrast, topics such as *policymaker*, *government*, *financial inclusion*, and *mobile money* appear in lower-density areas, suggesting that these themes remain relatively underexplored and may offer opportunities for future research.

3.4. Country Collaboration Analysis

Country collaboration analysis was conducted through co-authorship mapping to identify international research collaborations within the selected dataset.

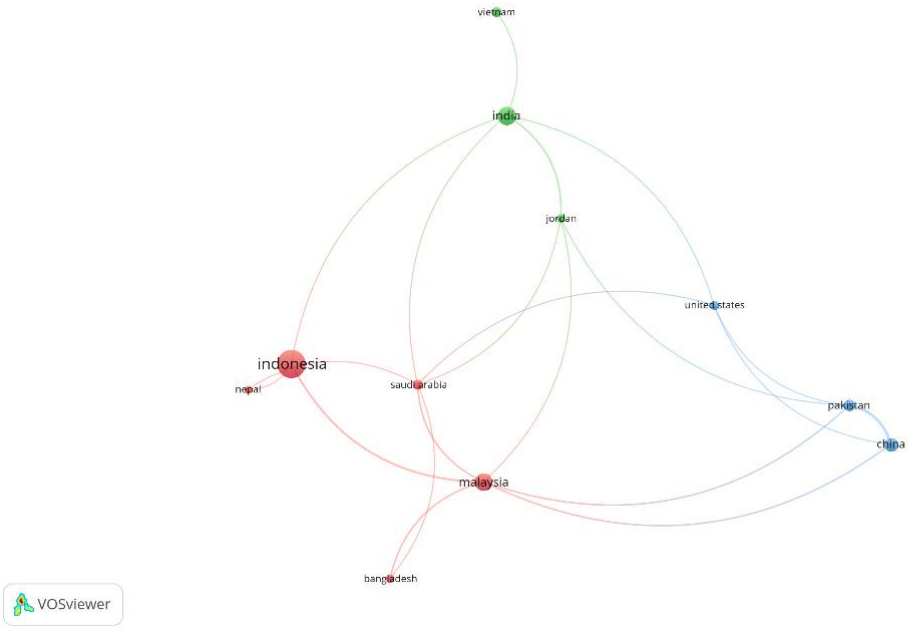

Fig. 5: Country collaboration network

The analysis identified 11 countries that met the minimum publication threshold. Three major collaboration clusters were observed.

Indonesia emerged as one of the most productive countries in the network, exhibiting strong collaboration links with Malaysia and Saudi Arabia. India also demonstrated substantial research activity and served as a connecting node among several countries.

China, Pakistan, and the United States formed another collaboration cluster, indicating active international cooperation in digital payment research.

The results suggest that Asia currently serves as the primary hub for research on mobile payment and e-wallet adoption. This finding is consistent with the rapid growth of digital payment ecosystems across Asian countries.

3.5. Citation Analysis

Citation analysis was performed to identify influential publications within the dataset.

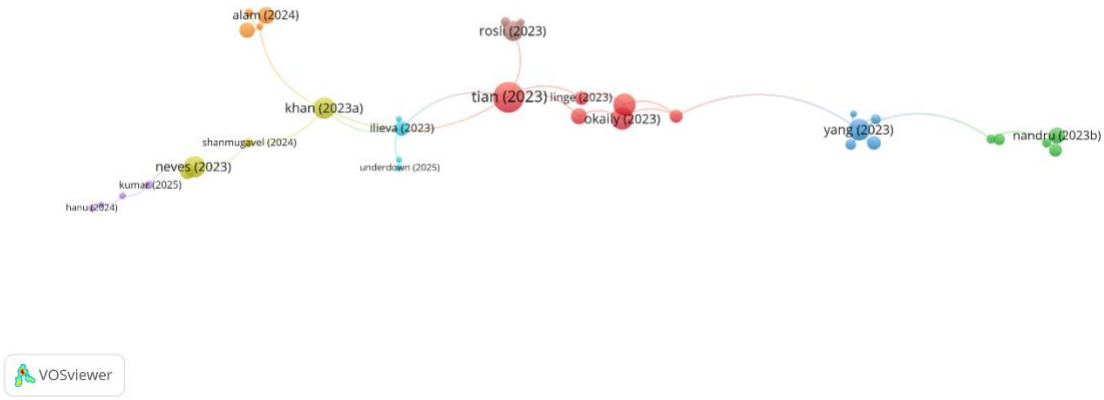

Fig. 6: Citation network of influential publications

After applying a minimum citation threshold of five citations, 79 publications met the selection criteria. The largest connected citation network consisted of 35 publications.

The citation map indicates that studies by **Tian (2023)**, **Okaily (2023)**, **Yang (2023)**, **Neves (2023)**, and **Khan (2023a)** occupy central positions within the citation network. These publications have contributed significantly to the development of mobile payment and e-wallet adoption research.

Most highly cited studies employ TAM, UTAUT, and related theoretical frameworks to explain user acceptance and continuance intention toward digital payment technologies. This finding reinforces the results obtained from the keyword co-occurrence and density analyses.

3.6. Research Gaps and Future Directions

Based on the bibliometric findings, several research opportunities can be identified.

First, existing studies predominantly focus on individual-level adoption factors, particularly TAM and UTAUT constructs. Future research should explore organizational, regulatory, and societal perspectives that influence digital payment adoption.

Second, topics related to financial inclusion, public policy, cybersecurity, and digital trust received relatively less attention despite their increasing relevance in digital financial ecosystems.

Third, most publications originate from Asian countries, indicating the need for more studies in Africa, Latin America, and other developing regions to improve the generalizability of findings.

Finally, emerging technologies such as artificial intelligence, blockchain, central bank digital currencies (CBDCs), and open banking remain underrepresented within the current research landscape. Future studies may investigate how these technologies influence the adoption and sustainability of mobile payment systems.

4. Conclusion

This study conducted a bibliometric analysis of research trends related to mobile payment and e-wallet adoption during the period 2023–2026. A total of 446 publications indexed in the Dimensions database were analyzed using VOSviewer to identify research themes, collaboration patterns, influential publications, and emerging research directions.

The results of the keyword co-occurrence analysis revealed that the Technology Acceptance Model (TAM) and the Unified Theory of Acceptance and Use of Technology (UTAUT) remain the dominant theoretical frameworks in explaining users' adoption of mobile payment and e-wallet technologies. Frequently occurring keywords such as *acceptance*, *technology acceptance model*, *performance expectancy*, *behavioral intention*, and *e-wallet* indicate that user acceptance continues to be the primary focus of existing studies. The overlay visualization further showed a growing research interest in topics related to financial inclusion, economic impacts, and policymaking, suggesting a shift toward broader societal and institutional perspectives.

The country collaboration analysis demonstrated that Asian countries, particularly Indonesia, India, Malaysia, and China, play a significant role in the development of mobile payment and e-wallet adoption research. Citation analysis identified several influential studies that have shaped the intellectual structure of the field and contributed to the widespread application of TAM and UTAUT-based models.

This study contributes to the literature by providing a comprehensive overview of recent developments in mobile payment and e-wallet adoption research. The findings may assist researchers in identifying prominent themes and potential research opportunities. Future studies are encouraged to explore underrepresented topics such as cybersecurity, digital trust, regulatory frameworks, artificial intelligence integration, blockchain-based payment systems, and central bank digital currencies (CBDCs) to enrich the understanding of digital payment adoption in evolving financial ecosystems.

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