Mapping the Intellectual Landscape of E-Wallet Adoption: A Bibliometric and Systematic Literature Review

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Abstract:

This study presents a comprehensive bibliometric and systematic literature review (SLR) of global research on e-wallet adoption, highlighting intellectual developments, influential contributors, and emerging research themes. Using data retrieved from the Scopus and Web of Science databases covering the period from 2000 to 2023, 173 relevant articles were analysed using bibliometric tools, including VOSviewer and Bibliometrix. The PRISMA framework guided the systematic literature review, resulting in 166 eligible studies for qualitative synthesis. The findings reveal a substantial increase in research output after 2016, with publication growth accelerating further during the COVID-19 pandemic due to the rapid expansion of contactless payment systems and fintech adoption. Indonesia emerged as the leading contributor in publication volume, while Malaysia demonstrated the highest citation impact. Keyword co-occurrence analysis identified five major thematic clusters, including mobile payment adoption, fintech in cashless economies, technology acceptance models, innovation diffusion, and COVID-

19-driven digital financial inclusion. The systematic review revealed that the Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and Diffusion of Innovation (DOI) were the dominant theoretical frameworks applied in e-wallet research. Trust, perceived usefulness, security, and social influence were identified as the most significant determinants of e-wallet adoption across studies. The study highlights important research gaps, including the need for longitudinal studies, cross-cultural validation, and greater attention to rural digital inclusion and emerging technologies such as blockchain.

Keywords: E-wallet, Bibliometric analysis, Systematic literature review, Mobile payments, Technology adoption, TAM, UTAUT, Fintech

1. Introduction:

The rapid shift towards digital payments has brought e-wallets into the mainstream of financial transactions. This transformation has sparked a growing body of research across disciplines such as information systems, consumer behaviour, and financial technology. While numerous studies have investigated various dimensions of e-wallet adoption (Ilieva et al., 2021; Ilieva et al., 2023), there is a need to consolidate existing knowledge to understand the structure and evolution of this field. This study employs both bibliometric and systematic literature review (SLR) methodologies to provide a robust overview of the academic landscape of e-wallet adoption.

2. Research Methodology

2.1 Data Sources and Search Strategy

The present study adopted a dual-method approach combining bibliometric analysis and systematic literature review (SLR) to examine the intellectual structure and evolution of e-wallet adoption research. Bibliographic data were collected from two widely recognised academic databases, namely Scopus and Web of Science, due to their extensive coverage of peer-reviewed scholarly publications.

The search process focused on studies related to e-wallets, mobile wallets, digital payment systems, fintech adoption, and consumer behavioural intention. Only peer-reviewed journal articles published in English between 2000 and 2023 were

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considered for analysis. The selected studies primarily belonged to the domains of business, management, finance, information systems, and technology adoption. The retrieved records were exported in compatible formats for bibliometric mapping and systematic review analysis.

2.2 Exact Boolean Search Strings

To ensure methodological transparency and reproducibility, predefined Boolean search strings were employed in both Scopus and Web of Science databases. The search strategy was designed to capture studies focusing on e-wallets, mobile payment systems, and digital financial technologies.

The following search query was used in the Scopus database:

TITLE-ABS-KEY ("e-wallet" OR "mobile wallet" OR "digital wallet" OR "mobile payment" OR "UPI payment") AND PUBYEAR > 1999 AND (LIMIT-TO (LANGUAGE, "English"))

For the Web of Science database, the following search structure was applied:

TS = ("e-wallet" OR "mobile wallet" OR "digital wallet" OR "mobile payment" OR "UPI payment")

The search was limited to peer-reviewed journal articles published between 2000 and 2023. The final dataset was refined based on relevance to digital payment adoption, fintech applications, and consumer technology acceptance behaviour.

2.3 Inclusion and Exclusion Criteria

The inclusion and exclusion criteria were developed to ensure the quality, relevance, and consistency of the selected literature. Only peer-reviewed journal articles directly related to e-wallet adoption, digital payment behaviour, fintech systems, and consumer technology acceptance were included in the study.

During the PRISMA screening and eligibility stages, duplicate records identified across the Scopus and Web of Science databases were removed. Conference papers, editorials, book chapters, theses, reports, and non-English publications were excluded due to differences in peer-review standards and accessibility. Studies unrelated to consumer adoption behaviour, financial technology, or digital payment systems were also excluded after abstract and full-text review.

Additionally, articles lacking empirical evidence, theoretical relevance, or methodological clarity were removed during the eligibility assessment. After

screening and filtering, 173 articles were retained for bibliometric analysis, while 166 studies met the eligibility criteria for the systematic literature review.

2.4 Tools Used

The bibliometric analysis was conducted using VOSviewer and Bibliometrix (R package), which are widely used tools for science mapping and bibliometric visualisation. VOSviewer was employed for keyword co-occurrence analysis, citation mapping, and thematic cluster visualisation, while Bibliometrix facilitated descriptive bibliometric analysis, publication trend analysis, and thematic evolution mapping.

The systematic literature review was guided by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework to ensure a transparent and structured review process. The combined use of bibliometric tools and systematic review methodology enabled both quantitative mapping and qualitative synthesis of the e-wallet adoption literature.

3.Publication Trends and Analysis

The volume of publications on e-wallet adoption has increased significantly over the last two decades, reflecting the rapid transformation of global digital payment ecosystems. Although a limited number of studies were published between 2000 and 2015, scholarly attention began to rise substantially after 2016 due to the widespread adoption of smartphones, expansion of internet connectivity, and government initiatives promoting cashless economies (Puasa et al., 2021).

The growth became even more pronounced during and after the COVID-19 pandemic, when contactless transactions and digital payment systems became essential for consumers and businesses. Countries such as India, Indonesia, Malaysia, and China witnessed accelerated adoption of e-wallet services due to policy support, fintech innovation, and increasing consumer preference for convenient payment methods.

The bibliometric results indicate that the highest research output was recorded in 2022, demonstrating the growing academic and practical relevance of fintech and digital financial inclusion. The increasing trend in publications also reflects the interdisciplinary nature of e-wallet research, which integrates perspectives from information systems, consumer behaviour, finance, marketing, and technology management.

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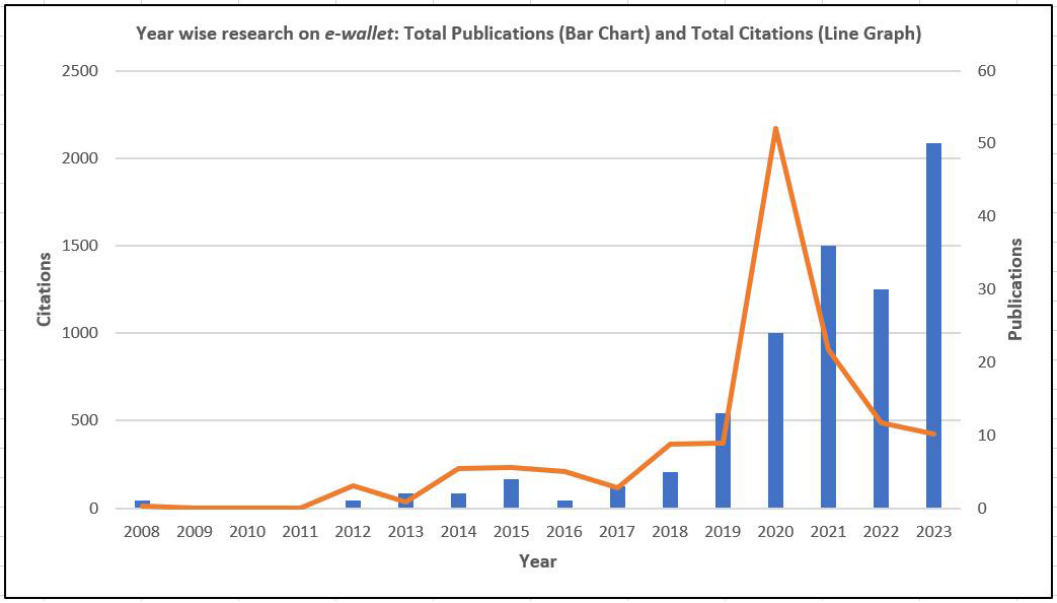
Figure 1: Annual Scientific Production in the E-Wallet Research Domain (1995–2023)



This figure illustrates the yearly distribution of publications retrieved from the Scopus database. The trend shows a significant rise in research output post-2016, peaking in 2022 with 87 publications. The volume of publications on e-wallets has steadily increased, particularly since 2016, correlating with global efforts to promote cashless economies (Puasa et al., 2021).

3.1 Influential Sources and Authors

The International Journal of Information Management and the Journal of Retailing and Consumer Services emerged as major publication outlets in the field of e-wallet research. Influential contributors include Chawla D., Dhir A., Joshi A., Singh N., and Amoroso D., whose works significantly contributed to technology adoption and consumer behaviour literature.

The bibliometric analysis also revealed a geographically diverse authorship structure, indicating the global relevance of digital payment adoption studies.

Figure 2: Top 10 Productive Authors in E-Wallet Literature

Authors	No. of Articles
Chawla D	4
Dhir A	4
Joshi A	4
Amoroso D	3
Kaur P	3
Kumar V	3
Shaw N	3
Singh N	3
Sinha N	3
Talwar S	3

3.2 Keyword Co-occurrence and Thematic Clusters

The analysis revealed five major thematic clusters within the e-wallet adoption literature.

- Cluster 1: Mobile payments, adoption, intention to use
- Cluster 2: E-wallet and fintech in cashless economy
- Cluster 3: Application of TAM in electronic money
- Cluster 4: Diffusion of innovation and consumer behaviour
- Cluster 5: COVID-19 impact, UPI, and financial inclusion (Aji et al., 2020; Revathy & Balaji, 2020)

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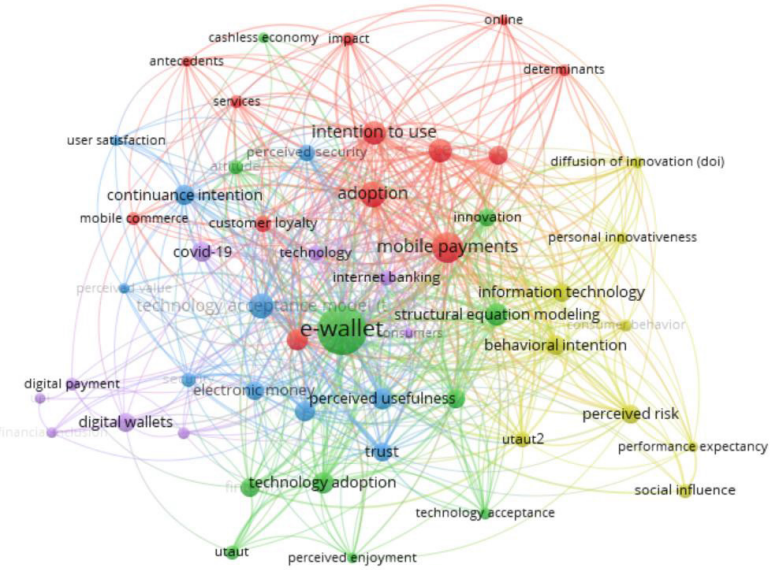
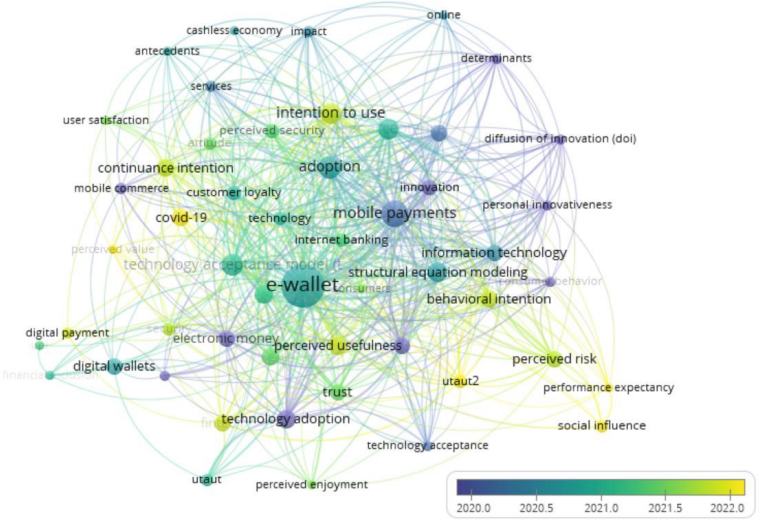
Figure 3: Nomological Network of Keyword Co-occurrence



This figure presents the conceptual linkage of high-frequency keywords in the e-wallet domain. Themes such as technology acceptance, consumer intention, and mobile security appear as interconnected research areas.

Figure 4: Temporal Evolution of Keywords in E-Wallet Research



The temporal evolution map indicates a thematic transition from basic mobile payment adoption studies towards research focusing on security, financial inclusion, UPI systems, and pandemic-driven digital payment behaviour

Table 1: Top Repeated Keywords in E-Wallet Research

Keyword	Frequency
Electronic money	69
E-wallet	50
Electronic commerce	23
Mobile payment	17
Intention to use	17
Perceived usefulness	17
Blockchain	14
Digital wallets	13
Payment systems	12
Smart cards	12

The keyword "electronic money" is the most frequently used, followed by "e-wallet," underscoring the core theme of research on digital transactions.

Table 2: Top Productive Countries in E-Wallet Research

Country	Total Publications	Total Citations
Indonesia	110	499
Malaysia	81	631
India	74	415
USA	16	467
Vietnam	14	85

3.3 Country-wise Contributions

Country-wise analysis revealed that Indonesia recorded the highest number of publications on e-wallet research, followed by Malaysia and India. However, Malaysia demonstrated the highest citation impact, suggesting stronger international academic influence per publication. The dominance of Asian countries reflects the rapid growth of digital payment ecosystems and government-led financial digitalisation initiatives across the region (Ilieva et al., 2023).

ISSN: 2582 - 2594

4. Systematic Literature Review (SLR)

The systematic review of 166 studies revealed that Technology Acceptance Model (TAM), Unified Theory of Acceptance and Use of Technology (UTAUT), and Diffusion of Innovation (DOI) were the most widely used theoretical frameworks in e-wallet adoption research. Among these, TAM was predominantly applied to examine perceived usefulness and perceived ease of use, while UTAUT focused on performance expectancy, social influence, and facilitating conditions.

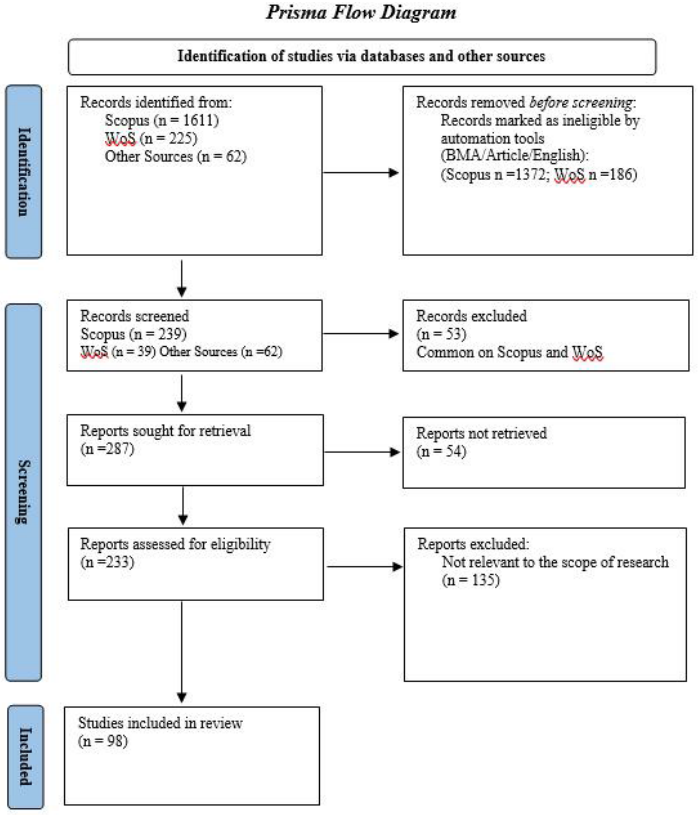
A significant number of studies employed Structural Equation Modelling (SEM) to test behavioural relationships between consumer attitudes and adoption intentions. The findings consistently identified perceived usefulness, trust, and security as the strongest determinants of e-wallet adoption. Several studies reported that consumers were more willing to adopt digital payment systems when they perceived them as secure, reliable, and convenient.

Research conducted during the COVID-19 pandemic highlighted a major behavioural shift towards contactless payment systems. Studies from India, Malaysia, Indonesia, and other developing economies found that fear of physical contact accelerated e-wallet adoption. Government initiatives promoting digital financial inclusion and smartphone penetration further strengthened this trend. The review also identified differences between developed and developing economies. Research from developed countries focused more on technological sophistication and user experience, whereas studies from developing countries emphasised accessibility, trust, financial literacy, and infrastructure challenges. Rural and semi-urban populations remain underrepresented in the literature, indicating a major research gap for future studies.

A comparative analysis of the reviewed studies reveals notable variations in theoretical applicability, regional findings, and methodological approaches. While the Technology Acceptance Model (TAM) was widely employed to explain e-wallet adoption through perceived usefulness and perceived ease of use, several studies argued that the Unified Theory of Acceptance and Use of Technology (UTAUT) provided a more comprehensive explanation by incorporating constructs such as social influence and facilitating conditions. In developing economies such as India, Indonesia, and Malaysia, trust and security emerged as stronger determinants of adoption compared to convenience-oriented factors commonly observed in studies from developed countries. Furthermore, research conducted during the COVID-19 period indicated a significant behavioural shift, where e-wallet usage evolved from a convenience-driven choice to a necessity-driven financial practice due to health and safety concerns. Despite the extensive use of Structural Equation Modelling

(SEM) in the literature, most studies relied on cross-sectional survey designs, limiting the ability to examine long-term behavioural changes and post-adoption continuance intentions. Additionally, inconsistencies in sample selection, cultural contexts, and measurement constructs created variations in findings across studies, indicating the need for more longitudinal, comparative, and cross-cultural research in future e-wallet adoption studies.

Figure 5: PRISMA Flow Diagram for Study Selection



Note: Scopus and WoS stand for the Scopus and Web of Science databases, respectively.

This flow diagram represents the four phases of the systematic review—identification, screening, eligibility, and inclusion—based on the PRISMA framework. A total of 666 initial records were screened, resulting in 166 studies used in the final analysis. Following PRISMA guidelines, 166 articles were analysed

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to identify key constructs, theoretical frameworks (TAM, UTAUT, DOI), and methodological approaches. Many studies employed structural equation modelling, highlighting the role of perceived usefulness, trust, and social influence in adoption (Teoh et al., 2020).

5. Discussion

The integration of bibliometric mapping and systematic synthesis reveals a field that has transitioned through three distinct evolutionary phases. Initially, research (2000–2010) focused on the technical feasibility of "Electronic Money." The second phase (2011–2019) saw a surge in behavioural studies rooted in TAM and UTAUT, driven by the smartphone revolution. The current phase (2020–present) is defined by "Necessity-Driven Adoption," in which global health crises and government-led digitalisation (such as India's UPI) have shifted e-wallets from a luxury to a utility.

The bibliometric findings complement the systematic literature review by demonstrating how thematic evolution in e-wallet research aligns with theoretical developments in technology adoption studies. Earlier studies primarily focused on technical feasibility and electronic payment infrastructure, whereas recent research increasingly emphasises behavioural intention, trust, financial inclusion, and digital security. The growing prominence of UTAUT and TAM frameworks reflects the shift from technology-centred perspectives to user-centred adoption models. Furthermore, the increasing research attention on COVID-19 and UPI-based payment systems indicates the strong influence of external environmental factors on digital payment behaviour.

6. Research Gaps and Future Directions

- Lack of longitudinal and cross-cultural studies
- Underexplored variables like perceived risk and hedonic motivation
- Limited integration of emerging technologies (e.g., blockchain)
- Focus needed on semi-urban and rural users in developing countries

6.1 Limitations of the Study

This study has certain limitations that should be acknowledged. First, the analysis was limited to publications indexed in the Scopus and Web of Science databases, which may have excluded relevant studies from other sources. Second, only English-language peer-reviewed journal articles were included, while conference papers, book chapters, and industry reports were excluded. Additionally, the bibliometric findings depend on the accuracy of database indexing and metadata. Finally, many

of the reviewed studies used cross-sectional survey designs and Structural Equation Modelling (SEM), limiting the examination of long-term behavioural changes in e-wallet adoption. Future research may overcome these limitations by using multiple databases, multilingual studies, and longitudinal research designs.

7. Conclusion

This study provides a comprehensive overview of the intellectual structure and evolution of e-wallet adoption research by integrating bibliometric analysis and systematic literature review. The findings reveal the growing academic importance of digital payment systems and highlight the dominant role of behavioural frameworks such as TAM, UTAUT, and DOI in explaining e-wallet adoption behaviour. Trust, perceived usefulness, security, and social influence emerged as the most significant determinants influencing consumer adoption intentions.

The study also offers important practical and policy implications. For policymakers, the findings emphasise the need to strengthen digital financial inclusion initiatives, improve cybersecurity regulations, and promote digital literacy, particularly in rural and semi-urban regions. For fintech companies and digital payment service providers, the study highlights the importance of enhancing user trust, transaction security, and service convenience to improve customer adoption and retention. From an academic perspective, the study contributes to the growing fintech literature by identifying major thematic trends, influential contributors, and existing research gaps. Future research should focus on longitudinal analysis, cross-cultural validation, and the integration of emerging technologies such as blockchain and artificial intelligence in digital payment ecosystems.

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