Article

Volume 9, Issue 1, June (2026)
Journal of Insurance and Social Security
ISSN (Online): 3144-2110
DOI: https://doi.org/10.32674/y4ysex31

A Bibliometric Analysis of e-payment Systems and Their Impact on Financial Inclusion

Lekhnath Subedi[1], Dipendra Karki[1*], Nirupan Karki[2], Prapti Paudyal[3]

[1]Nepal Commerce Campus, Tribhuvan University, Nepal
[2]Department of Mechanical Engineering, Institute of Engineering, Tribhuvan University, Nepal
[3]Model Institute of Technology, Kathmandu, Nepal

Article History

Received on: February 02, 2026

Revised on: March 29, 2026

Accepted on: May 07, 2026

Keywords

Bibliometric analysis, e-payment systems, financial inclusion, financial innovation, technology adoption

Correspondence

Dipendra Karki
Email: dipendra.karki@ncc.tu.edu.np

How to Cite (APA Style)

Subedi, L., Karki, D., Karki, N., & Paudyal, P. (2026). A bibliometric analysis of e-payment systems and their impact on financial inclusion. *Journal of Insurance and Social Security, 9*(1), 73-88. https://doi.org/10.32674/y4ysex31

Abstract

Purpose: This study systematically examines the scholarly development of research on e-payment systems and financial inclusion.
Methodology/design/approach: A bibliometric analysis of 348 publications indexed in the Dimensions database (2016–2025) was conducted using Biblioshiny to examine the intellectual structure, research trends, thematic evolution, most influential authors, main themes, co-authorship, and collaboration patterns in e-payment systems and financial inclusion.
Findings: The use of e-payment technology, including mobile wallets, internet banking, and contactless payments, has increased over the past few years. Such systems are an important part of financial inclusion, as they can help lessen the dependence on traditional banking services and allow access to formal financial institutions for individuals who have not been able to benefit from traditional financial institutions. Cybersecurity problems, Digital literacy shortfalls, and infrastructure limitations are still crucial obstacles.
Conclusion: The study confirms that e-payment systems are highly relevant with regard to financial inclusion, reduction of transaction costs, and providing access to formal financial services for the unbanked. However, there are other challenges to broader adoption, including digital and data literacy, cybersecurity, and infrastructure challenges. An inclusive approach to the potential of digital payment ecosystems is dependent on coordinated legal, institutional, and technological actions.
Implications: This study provides a thorough bibliometric review of e-payment systems and financial inclusion, and suggests possible future avenues for research on the themes, focusing on regional differences in digital financial inclusion and the role of AI and blockchain.
Originality/value: This research aims to drive the progress of trustworthy digital adoption across the country and to execute the transition of the financial sector into the digital age. This strategy will propel the development of trustworthy digital adoption throughout the country and will implement the digital transformation of the financial sector.

JEL Classification: D14, E42, G21, L86, O16

© Author(s), 2026. Published by STAR Scholars Press.
This article is distributed under the Creative Commons Attribution 4.0 International License (CC BY 4.0), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. https://creativecommons.org/licenses/by/4.0/

Introduction

Electronic payment (e-payment) systems have transformed the global financial landscape since their first use and development, especially in the light of digital technology. e-payment systems include mobile wallets, online banking, QR payments, and digital currency. Such advancements have greatly improved the speed, efficiency, and security of monetary transactions, additionally raising the availability of financial services for various market segments (Nwoke, 2024; Shakya et al., 2024). In tandem with this technological shift, financial inclusion has become a top development priority for the world. It is a broad term that refers to the availability and consumption by individuals and businesses of financial products and services that are affordable and appropriate, especially for people who have been traditionally marginalized from financial systems. Even with all the international initiatives, around 1.4 billion adults have no bank accounts, and most of them are from developing economies (Demirgüç-Kunt et al., 2022). E-payment systems are now regarded as a revolutionary tool to expand financial services to the unbanked and to circumvent geographical and infrastructural limitations and costs (Alramadan et al., 2025; Sharma & Karki, 2025).

Financial Technology (FinTech) and inclusive finance have created a new paradigm that has seen the rise of digital financial services as a complement and substitute to conventional banking. The adoption of e-payment systems helps to increase financial access and economic participation by decreasing the need for physical banking channels, lowering transaction costs, and enhancing transparency (Putrevu & Mertzanis, 2024; Sharma & Karki, 2025; Shrestha & Kayestha, 2024). The impact of these on financial inclusion is, however, unevenly distributed across regions and populations, depending on a variety of factors, including differences in digital literacy, regulatory frameworks, technological infrastructure, and socio-economic conditions. The importance of financial inclusion in sustainable economic development is well established, as it allows for saving, borrowing, insurance, etc., for the poor and excluded classes (United Nations, 2022). The traditional banking system, which costs a lot to operate and has focused more on urban areas, has been unsuitable in serving rural and low-income communities. However, e-payment systems offer scalable and affordable solutions that push the provision of financial services beyond the traditional boundaries of banking institutions (Gomber et al., 2018; Lee & Shin, 2018; Ozili, 2018).

The development of financial technology has accelerated the transformation, especially the introduction of "FinTech 3.0. The change has also been further propelled by financial technology (especially 'FinTech 3.0'). Currently, technology is one of the major competitive factors in which fintech startups are emerging and providing financial services to customers directly through mobile apps, digital payment systems, and algorithmic solutions (Arner et al., 2015; Karki et al., 2025; Makina, 2019). These transformations have had a palpable impact on service delivery models in the financial services industry and have transformed the way financial inclusion is perceived and measured (Gomber et al., 2018; Karki & Dahal, 2024). At the same time, digital wallets and mobile payment systems have emerged as important avenues for financial inclusion. These platforms offer users a wide range of financial services in one app, and allow users to transact in the Near Field Communication (NFC; Dahlberg et al., 2015; Lee & Shin, 2018) environment through their mobile devices. Digital wallets are increasingly seen as essential tools to enhance financial access and participation of both merchants and consumers, especially as more merchants and consumers embrace their use (Arner et al., 2020).

The journey of digital payments has been a long one in Nepal, starting with the introduction of electronic banking systems like credit cards, online banking, and mobile banking platforms eSewa, Khalti, IME Pay, ConnectIPS, and Prabhu Pay. Such platforms have expanded their financial services offerings to include utility payments, ticketing, tourism/hospitality payments, and peer-to-peer transfers, with security features like Personal Identification Number (PIN) authentication and Know Your Customer (KYC) verification (Adhikari, 2024; Karki et al., 2021; Shakya & Karki, 2025). Accessible digital payment solutions are crucial for economic development in Nepal, as financial constraints and the adoption of digital payments are found

to have a significant impact on the performance and survival of small businesses, as confirmed by studies in the region (Shakya et al., 2024; Dahal et al., 2021; Dangol & Humagain, 2021). The growing adoption of e-banking and digital financial services has also helped to advance financial inclusion in emerging economies. Previous research has shown that e-banking improves access to affordable financial services, job demand, and creation, especially in the case of the poor, using mobile technology and Internet connectivity (Banstola, 2008; Bhattarai et al., 2024; Hussein & Saad, 2016; Lama & Kayestha, 2025; Nwude et al., 2020). The convenience and efficiency of a cashless payment system have also facilitated uptake and further increased the relationship between consumers and formal financial institutions (Albort-Morant et al., 2022; Akomeah et al., 2025). There is also empirical evidence that digital financial systems have a positive impact on financial inclusion and economic development outcomes (Nwude et al., 2020; Ozili, 2018; Yaqin & Safuan, 2023).

Financial inclusion outcomes in Nepal depend on financial innovation, institutional quality, and socio-economic factors. Financial education is found to moderate financial innovation and financial inclusion, and the demographic characteristics (income, education, gender) also have a strong influence on financial innovation and financial inclusion(Dangol & Humagain, 2021). Despite these successes, there are ongoing obstacles such as weak infrastructure, financial illiteracy (Nepal et al., 2023), and slow technological readiness that still limit the impact of the financial interventions leveraging digital technology (Pant, 2016). Cooperative banking structures and community-based financial models have also been found to be significant mechanisms to reach rural people for financial services (Simkhada, 2025). Though the number of empirical studies on digital payments and financial inclusion has been increasing, there is a lack of uniformity in the scope, methodologies, and contexts of current studies. The study has focused on the factors affecting adoption, including trust, perceived security, compatibility, and social influence, and behavioral intentions towards mobile payment systems (Ghimire & Karki, 2022; Oliveira et al., 2016; Shaw, 2014). However, there is limited evidence that has been published that investigates the intellectual structure of this body of knowledge, its thematic evolution, and global trends in research.

Thus, this study adopts the bibliometric approach, which is a systematic approach for analysing the scholarly development of the research on e-payment systems and financial inclusion. The study is designed to deliver a general overview of the structure of the knowledge in this field, including trends in publications, authors' prominence, prominent thematic clusters, and research lines. The findings are intended to help researchers, policymakers, and financial institutions to better understand the development of the digital financial ecosystem and to craft more effective, inclusive financial development strategies.

Research Methods

The current study uses a bibliometric analysis method to systematically analyze the intellectual structure, development, and research trends of e-payment systems and financial inclusion. The quantitative analysis of academic literature by statistical and network-based methods, which help identify influential publications, thematic structures, and collaboration patterns in a particular research field, is called bibliometric analysis. This method is especially useful for mapping fields that are small, dense, and constantly changing, like digital finance and financial inclusion.

In this research, a bibliometric analysis is carried out using the Dimensions database. The following combination of keywords was used:

> *'e-payment' OR 'digital payment' OR 'electronic payment' AND 'financial inclusion' OR 'financial accessibility' OR 'financial access' AND 'fintech' OR 'innovation'*

To ensure the quality, consistency, and relevance of the dataset, the present analysis only included peer-reviewed journal articles published between 2016 and 2025. The search was limited to open-access studies published in English and indexed in recognized bibliographic databases. Publications were specifically on e-payments,

financial technology (fintech), and financial inclusion. Duplicate records and non-academic sources, such as editorials, conference abstracts without full papers, book chapters, and other non-peer-reviewed documents, were excluded to ensure the analytical rigor and reliability of the bibliometric analysis.

The final data set was exported and then cleaned and standardized for analysis. This involved the elimination of duplicate records, the standardization of author names, and the consistency of variations in keywords used to analyze the data. The cleaned data were used for further bibliometric calculations.

The study uses the advanced bibliometric software tools: VOSviewer and Biblioshiny (R package- Bibliometrix) to perform the quantitative and network-based analysis. They are commonly used in bibliometric science literature analysis for producing visual and statistical depictions of science literature. The dataset retrieved was analyzed using a set of complementary bibliometric techniques to offer a comprehensive understanding of the intellectual, conceptual, and collaborative structure of the research field. Citation analysis was used to identify the most cited, influential articles, authors, and journals in order to highlight foundational and high-impact contributions. Co-citation analysis was conducted to investigate the intellectual structure of the field, in which the relationships of frequently co-cited publications were identified, providing the main theoretical bases and research clusters. Bibliographic coupling was employed to evaluate the similarity of documents based on common references, facilitating the recognition of emerging thematic areas. Moreover, a keyword co-occurrence analysis was undertaken to determine major research themes and conceptual frameworks according to the frequencies and co-frequencies of author keywords. Finally, co-authorship and network analysis identified collaborative ties between researchers, institutions, and nations, giving insights into worldwide research collaboration trends and the transfer of information in digital financial systems.

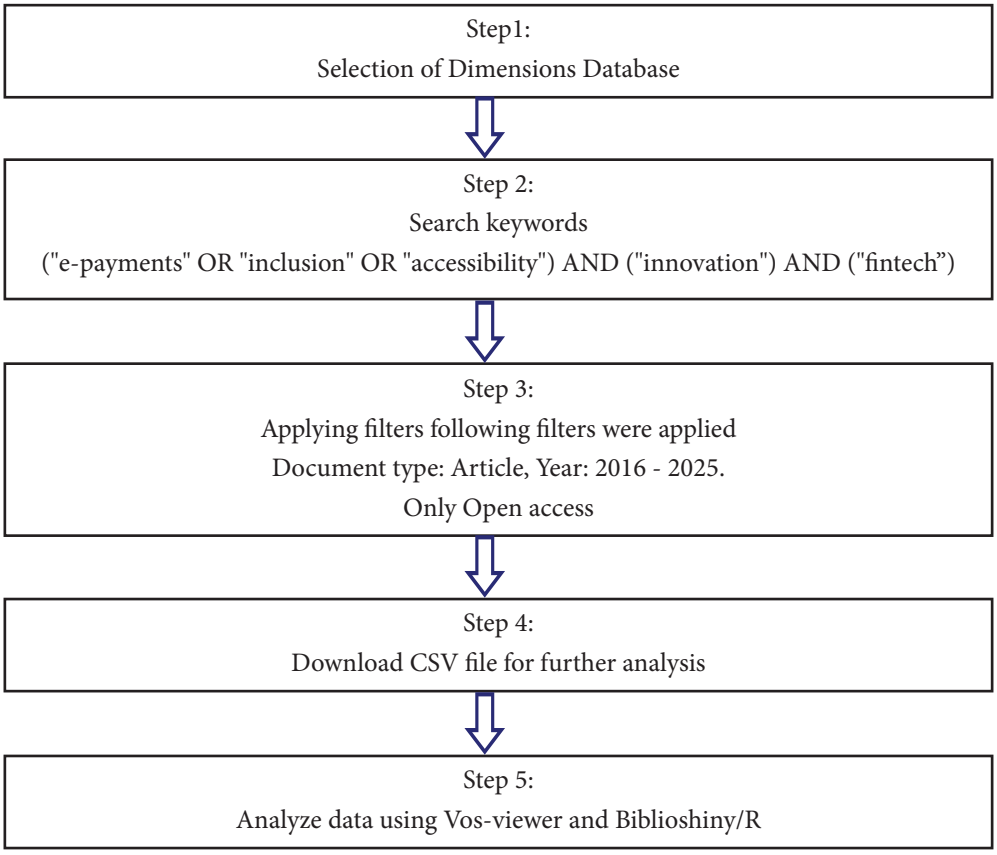


Figure 1: Steps in Bibliometric Analysis

This study above a structured bibliometric protocol proposed by Donthu et al. (2021) to perform a bibliometric analysis, which ensures the transparency, reproducibility, and methodological approach to the process of bibliometric analysis, including the database selection, keyword construction, data filtering, data cleaning, and finally, multi-technique analytical mapping. With this protocol, methodological rigor is maintained and results can be compared to other bibliometric studies in the domain of digital finance. The steps in bibliometric analysis are shown in Figure 1.

The results are presented in network maps, topic groupings, and trend progression graphs that graphically demonstrate the intellectual structure of the field. The visualizations allow for highlighting prominent streams of research, most influential contributors, and developing thematic trends in the field of research on e-payment systems and financial inclusion.

Result and Analysis

Main Information

The overview of the bibliometric dataset 2016-2025 includes 348 sources and 494 documents (see Table 1). The annual growth rate of 29.15% indicates that it is an extremely dynamic study topic. The average document age of 2.59 years demonstrates the relatively recent and emerging papers in this field. The average impact of the dataset is 11.86 citations per document, indicating a small scholarly impact. The text has 52 Keywords Plus and 52 author-contributed keywords that exhibit some thematic variation.

Table 1: Information Regarding the Data

Description	Results
Main Information about the Data	
Timespan	2016:2025
Sources (Journals, Books, etc)	348
Documents	494
Annual Growth Rate %	29.15
Document Average Age	2.59
Average citations per doc	11.86
References	0
Document Contents	
Keywords Plus (ID)	52
Author's Keywords (DE)	52
Authors	
Authors	1222
Authors of single-authored docs	117
Authors Collaboration	
Single-authored docs	126
Co-Authors per Doc	2.62
International co-authorships %	7.49

Document Types	
Article	424
Chapter	11
Monograph	1
Preprint	51
Proceeding	7

The data contains 117 authors who have written single-authored documents and 1222 authors. The level of collaboration is moderate, with an average of 2.62 authors per document and international partnerships accounting for 7.49%. Most of the documents are articles (424), followed by preprints (51), book chapters (11), proceeding papers (7), and one monograph. This outline focuses on some key developments in the field, on the level of collaboration, and on the nature of the documents that have been produced, all of which offer insight into research dynamics during the period.

Average Citation per year

The average number of citations per publication during the study period is shown in Figure 2. It reflects the academic prestige and recognition of research products in the discipline. Fluctuations in the mean citation counts from year to year are a result of the different degrees of academic interest in and inclusion of publications in later studies. In general, publications published earlier in the year will have more citations attributed to them than more recent publications will have, since they have more time in the scholarly community to be cited. Thus, the examination of the average number of citations per year gives a good indication of the temporal trend in the research impact of these studies and can highlight periods in which research on e-payment systems and financial inclusion becomes more prominent in the academic world. The metric also illustrates the maturity and influence of the field by tracking the spread and use of knowledge produced in the field over time.

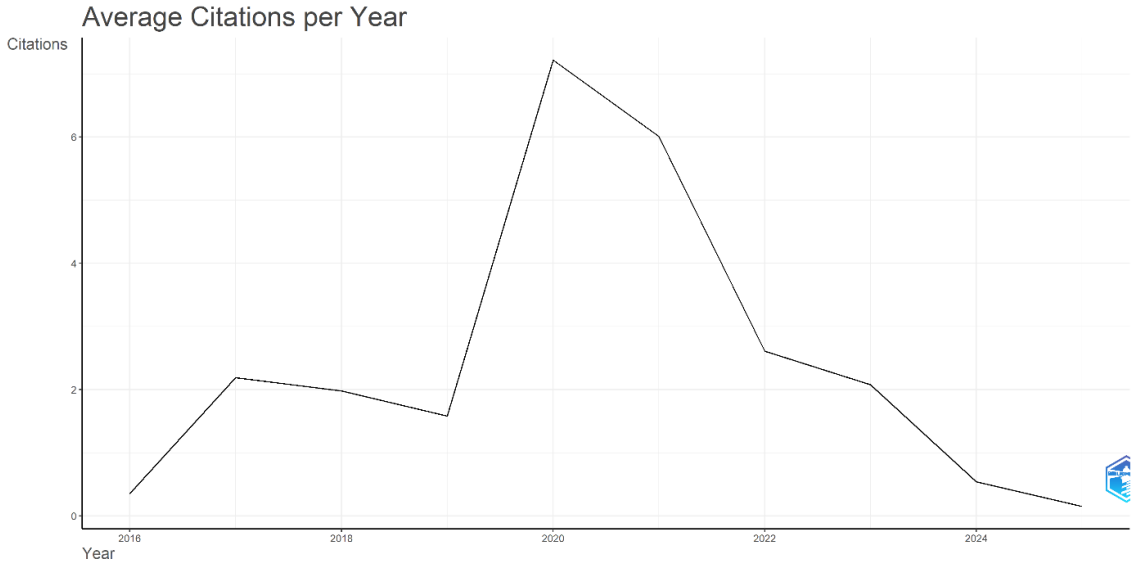


Figure 2: Average Citation per year

Most Relevant Authors

Figure 3 shows the top authors in e-payment systems and financial inclusion. The results show that OZILI PK (Ozili, 2018) and NATHAN RJ (Nathan et al., 2022) are some of the major contributors with their extensive research efforts within this area. The figure emphasizes the authors with respect to their publications, the highest being 6 publications for the most productive author. The authors are prominent and therefore played a central role in the intellectual development and advancement of the field.

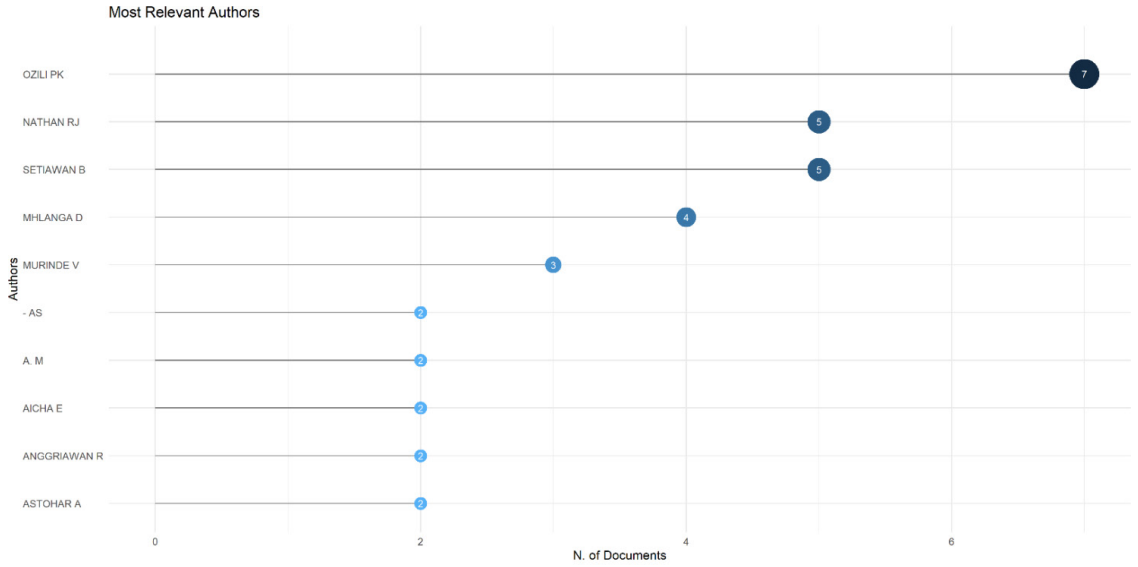


Figure 3 : Most Relevant Authors

Corresponding Authors Countries

Geographical distribution of research contribution (countries of corresponding authors): Figure 4 shows the geographical distribution of research contribution based on the countries of corresponding authors. The results show that the research on e-payment systems and financial inclusion is distributed globally and has been a significant contribution from both developed and developing economies, including India, Indonesia, China, Malaysia, Nigeria, Bangladesh, and the United States. The figure also differentiates between Single Country Publications (SCP) and Multiple Country Publications (MCP), thus giving information about the domestic research productivity and nature of research collaboration. Multiple country publications indicate that research in this area is becoming more internationalized and point to the significance of trans-border research cooperation in fostering knowledge on digital financial inclusion. Hence, the results highlight the global relevance of the topic and the global academic engagement to understand the contribution of e-payment systems to financial inclusion.

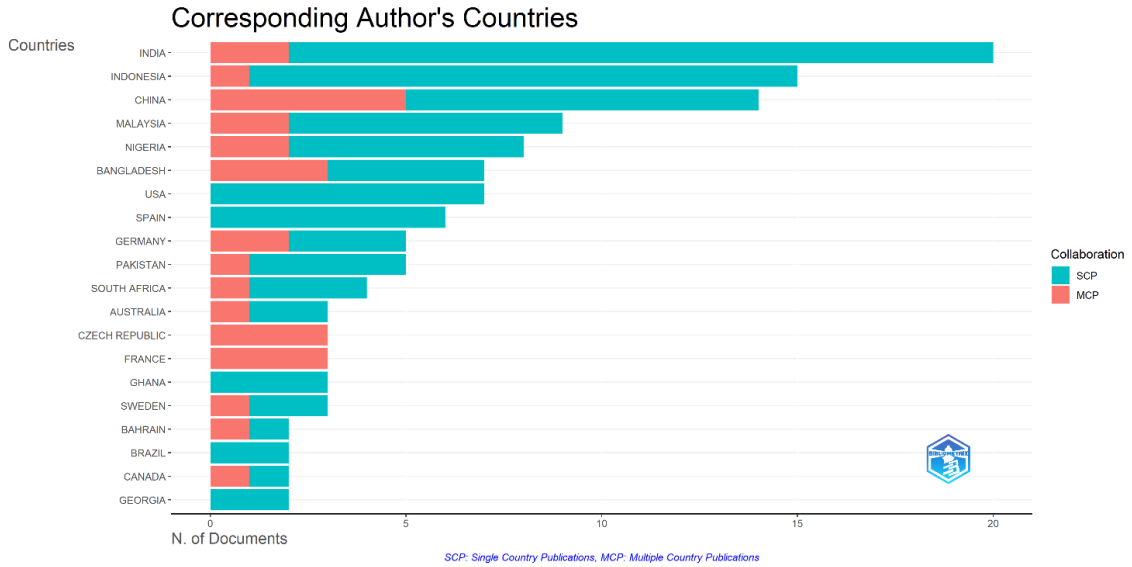


Figure 4 : Co-Authorship by Countries

Word Cloud

The word cloud (see Figure 5) displays the author keywords obtained from the bibliometric data set related to e-payment systems and financial inclusion. The size of the keywords is related to their frequency of occurrence, and larger keywords are more important in the literature.

The keyword "financial inclusion" is the most common term in the word cloud, indicating its importance in the field of study. Other significant keywords are digital payments, mobile banking, e-payment, fintech, security, and trust, showing that most of the literature is concerned with the adoption and development of digital payment technologies to encourage financial inclusion. Other common languages that frequently appeared, such as financial literacy, digital wallets, mobile money, and technology adoption, also highlight the significance of user adoption and digital financial services.

Furthermore, the presence of terms like developing countries, unbanked populations, microfinance, and economic development indicates continued research activity around improving financial access to underserved populations. Treasured terms like blockchain, cryptocurrency, interoperability, and QR code payments signify a shifting focus towards digital payment system innovations. The growing importance of e-payment system design and governance is echoed by bibliometric evidence, as blockchain technology is quickly becoming a game-changer in the financial sector, bolstering security, transparency, and efficiency in digital transactions. The relevance of these themes in the context of e-payment system design and governance is also strengthened by bibliometric evidence highlighting the swift evolution of blockchain technology as a transformative mechanism in the financial sector, bolstering security, transparency, and efficiency in digital transactions (Gomber et al., 2018; Sharma & Karki, 2025).

Therefore, the distribution of the keywords suggests that the research focus is on how to promote financial inclusion through digital payment technologies, and the approach taken is to discuss issues of adoption, security, trust, accessibility, and technological innovation.



Figure 5: Word Cloud

Thematic Map

Thematic mapping is displayed in figure 6, and highlights the research themes based on the results of the keyword co-occurrence analysis. The degree of size of the bubbles indicates the number of keywords in each thematic cluster. Financial inclusion, digital payments and mobile banking dominate the upper right quadrant (Motor Themes), which are the more mature and impactful themes in financial inclusion. They are highly central and dense, highlighting their role as the intellectual backbone of research on e-payment systems and financial inclusion. The bottom right (Basic Themes) contains fintech, trust and security, technology adoption and developing countries. The motor themes are not as developed as the other themes, but all of these themes are relevant to the field and serve as the conceptual links among multiple research streams. The upper left quadrant (Niche Themes) refers to mobile money, digital wallets and platform specific themes like the M-Pesa and eSewa.

Themes are characterized by some degree of internal development and comparatively weak linkages with the overall research field, which is due to their specific nature. Blockchain, artificial intelligence, machine learning, biometric authentication and COVID-19 are found in the lower left quadrant (Emerging or Declining Themes). Their position implies changes in scholarly interest, pointing to the domains that are becoming more important or are going out of fashion. The thematic structure reflects a well-developed field of research with a focus on financial inclusion and digital payments, with underpinning themes in fintech and technology adoption, and emerging themes further scatter the intellectual field.

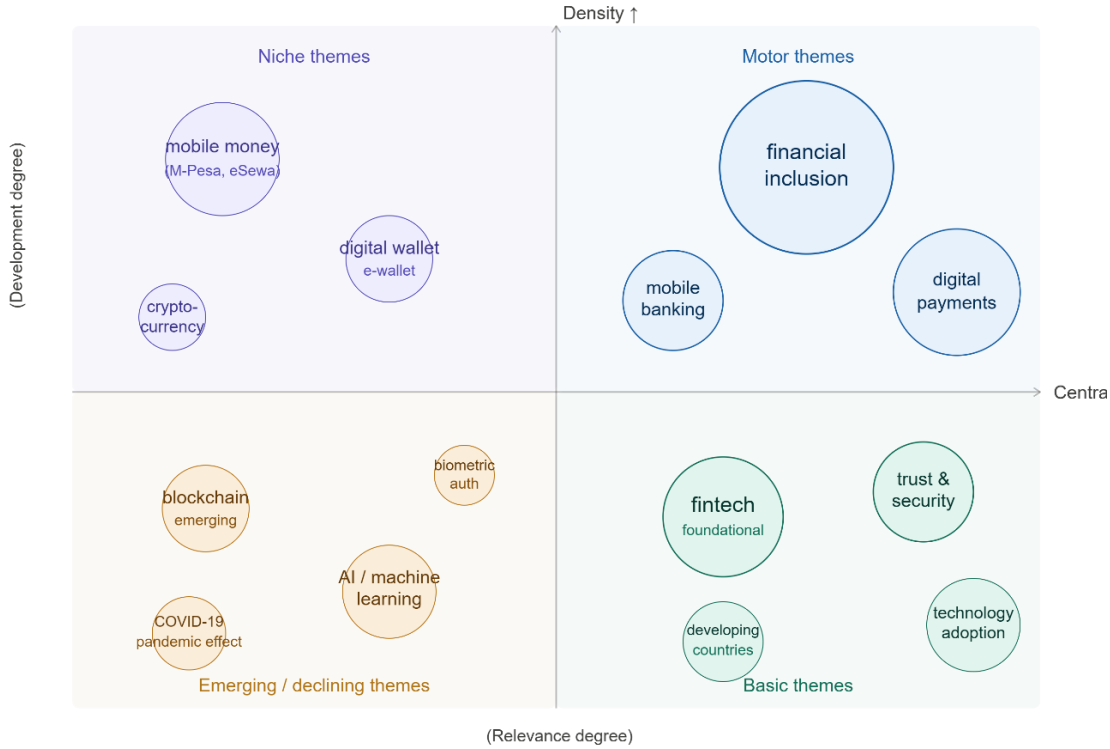


Figure 6 : Thematic Map

Collaboration Network

The author collaboration network showed the co-authorship relations in the academic literature on e-payment systems and financial inclusion (Figure 7). Every node is an author, and the lines between the nodes show collaborative relationships. Several overlapping clusters are identified in the network, indicating research groups in the field that are working together. Several smaller groups are weakly connected, while a small number of authors are in central positions, a group that plays the role of connecting various research clusters. This pattern suggests that there is limited collaboration between research teams, but there are opportunities for wider collaboration with the research community. The collaboration network shows an active pattern of scholarly collaboration and indicates the importance of co-authorship in the development of research on e-payment systems and financial inclusion.

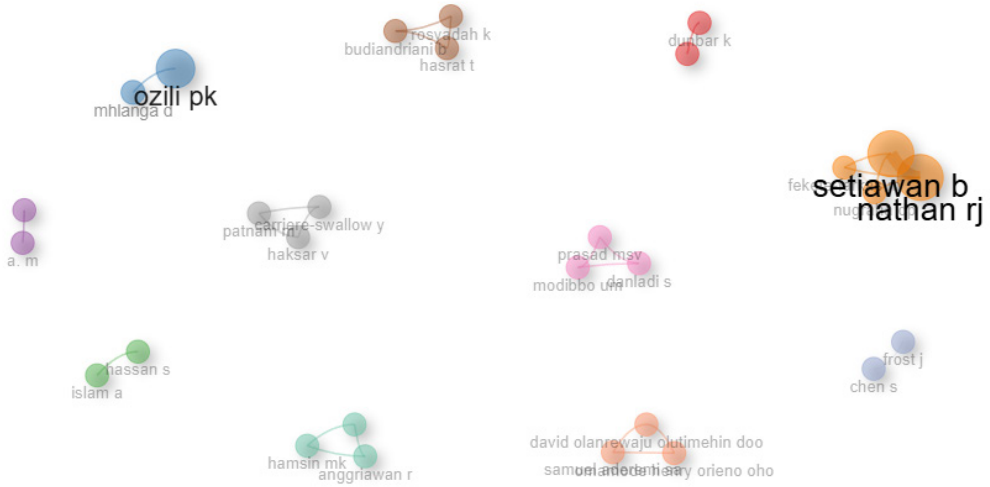


Figure 7 : Collaboration Network

Discussion

This bibliometric analysis aims to give a broad overview of the intellectual development and research focus of the field on e-payment systems and financial inclusion in the time frame 2016-2025. The total number of publications (494) and sources (348) indicates an extremely dynamic research landscape, as the annual growth rate is 29.15%. The relatively short average document age (2.59 years) suggests that the field remains dynamic and continues to evolve with new digital financial technologies and the growing attention on financial inclusion globally. Although it is a relatively new field, it has reached a moderate level of scholarly influence; an average of 11.86 citations per document means that research during this time period has been recognized to a fairly high degree in the academic world. In addition, the overwhelming number of 424 journal articles (85.8%) highlights the importance that peer-reviewed publications play in the knowledge base of this research area.

The thematic analyses indicate a clear intellectual structure around the three main research themes of financial inclusion, digital payments, and mobile banking, which support the conclusion that these are the main research themes in financial services. An analysis of keywords and thematic mapping always shows the issues of fintech, trust, and security as critical, indicating consumers' ongoing struggle to trust digital transactions, especially in developing countries like Nepal, where digital payment systems are rapidly emerging (Ozili, 2018; R. Shakya & Karki, 2025). The research on mobile money and digital wallets, M-Pesa and eSewa, is limited in scope. Meanwhile, blockchain, artificial intelligence, machine learning, and biometric authentication are growing trends. This shows the tendency towards the advancement of financial access towards the security, efficiency, and intelligence of digital payment systems. This movement reflects the growing maturity of the industry's technological capabilities and the change in today's research away from the problems of adoption and toward the digital transformation of financial services.

The joint analysis also points to the characteristics of the scientific community. The literature is composed of 1222 authors, and on average, each article contained 2.62 authors, reflecting moderate levels of academic collaboration. Yet, considering that digital finance has a global application, the co-authorship rate of 7.49% is still largely international. The same is true for the collaboration network; there are several clusters of strongly interconnected research groups with a few central nodes and numerous groups that are only weakly connected. The geographical sources of significant research contributions are also diverse, with significant

research coming from the developed and developing world, including from India, Indonesia, China, Malaysia, Nigeria, Bangladesh, and the United States, all contributing. The fact that authors like Ozili P.K. and Nathan R.J. have been at the forefront of the intellectual development of this domain further reinforces this statement.

Therefore, the results show that the study of e-payment systems and financial inclusion is a well-developed but still growing research field that has a well-defined conceptual basis. Among migrant families, e-payments are the main way of receiving remittance and becoming financially included (Karki et al., 2024). The research program continues to evolve, with a clear focus on digital payments and financial inclusion and the rise of cutting-edge technologies like artificial intelligence and blockchain. However, the strength of international collaboration is not as high as desired, suggesting the need to expand transnational and transdisciplinary collaboration that offers a unique chance for greater multi-sectoral and multi-jurisdictional involvement. Such collaboration would help increase digital payment systems awareness, build accessible, secure, and inclusive financial systems, and support future research.

Conclusion and Implications

This study used bibliometric analysis to look at how research on financial inclusion and e-payment systems has developed over time and what themes have emerged. It analyzed 348 data available from 2016 to 2025. As can be seen from the results, this research area is growing, possibly reflecting the growing significance of digital payment technologies as a component of financial inclusion. The bibliometric indications show a rapid growth of the body of knowledge, with a moderate impact on the academic world, an increasing thematic diversity, and a gradually internationalized research atmosphere.

The results identified financial inclusion, digital payments, and mobile banking as the intellectual backbone of the area, and fintech, trust and security, and technology adoption as core issues. There are also themes on blockchain, AI, machine learning, and biometric authentication, suggesting a transition towards technologically advanced financial systems that are higher on the innovation and efficiency curve and more secure. The study contributions are seen in a wide variety of developed and developing countries, but with regard to collaboration, overall research collaboration between countries is not too extensive, and there is scope for more exchange of research information.

This research helps the bibliometrics literature by analyzing the research topic evolution and knowledge clusters of e-payment in the financial inclusion, and the intellectual structure of the financial inclusion and e-payment research. The results validate the models of Diffusion of Innovations (DOI) and Technology Acceptance Model (TAM), where perceived benefit, trust, and security are the main constructs. These new themes (AI, blockchain, and biometric authentication) are based on applying existing theories to a technology-driven financial ecosystem. The low ratio of international collaboration in co-authorship is also the result of the absence of theoretical discussions on cross-cultural and comparative research on digital financial inclusion.

Practically, the results give insights that inform policymakers, financial institutions, and fintech developers in taking action. The focus on the policy level should be on identifying interoperable digital payment systems, improving cybersecurity policy, and promoting digital literacy initiatives, especially in rural and low-income populations. Financial institutions have a role to play in creating a user-friendly and inexpensive mobile payment product that is usable by less technically-savvy people. Fintech innovators are encouraged to leverage the potential of AI and blockchain to improve security and transparency, driving up consumer adoption and trust in the fintech industry among those who have traditionally been excluded from the sector. There is also a geographic divide among research areas, with more being conducted in Asia and Africa than elsewhere, which requires region-specific policy frameworks.

Limitations and Future Research

The limitation is that only open-access peer-reviewed articles from Dimensions have been included, and this excludes subscription-based and highly impactful studies. Future research should account for studies that are not available for open access in the Dimensions database. The time period represented in the data set may not include seminal earlier research. Further studies should include longitudinal comparative bibliometric analysis in various databases and analysis of the differences between regions in digital financial adoption. The potential for AI, blockchain, and biometric authentication in the realm of inclusive finance is an exciting area to explore. Furthermore, primary empirical research based on behavioral or experimental methods should be conducted to confirm the thematic patterns found with this bibliometric research.

Acknowledgment

The authors would like to thank stakeholders who took advantage of the chance to voluntarily participate in this study. The authors would also like to thank everyone and all sources that have contributed in various ways and improved the work.

Conflict of Interest

The Authors declare that there is no conflict of interest.

Funding

There was no external source of funding for the research.

Authors' Contribution and ORCID iDs

Lekhnath Subedi: Conceptualization, Methodology, Analysis, Writing-Original Draft, Review and Editing, Visualization, Validation, Software, Resources, and Investigation.

: https://orcid.org/0009-0002-4203-2193

Dipendra Karki, PhD: Conceptualization, Methodology, Analysis, Writing-Original Draft, Review and Editing, Visualization, Validation, Software, Resources, and Investigation.

: https://orcid.org/0000-0001-9045-7423

Nirupan Karki: Conceptualization, Analysis, Review and Editing, Visualization, Validation, Software, and Resources.

: https://orcid.org/0009-0007-1101-4263

Prapti Paudyal: Conceptualization, Analysis, Review and Editing, Visualization, Validation, Software, and Resources.

: https://orcid.org/0009-0002-9039-8771

References

Adhikari, R. (2024). Users' perceptions towards the e-payment system in Kathmandu metropolitan city. *Journal of Durgalaxmi*, *3*, 216–235. https://doi.org/10.3126/jdl.v3i1.73872

Akomeah, K. B., Ijiyemi, P. O., Donkor, N., Asomea– Takyi, V. A., & Twenewaah, I. (2025). Digital finance and inclusive growth in sub-Saharan Africa: The transformative role of fintech. *International Journal of Advances in Engineering and Management*, *7*(9), 310–323. https://doi.org/10.35629/5252-0709310323

Albort-Morant, G., Sanchís-Pedregosa, C., & Paredes Paredes, J. R. (2022). Online banking adoption in Spanish cities and towns. Finding differences through TAM application. *Economic Research-Ekonomska Istraživanja*, *35*(1), 854–872. https://doi.org/10.1080/1331677X.2021.1945477

Alramadan, N. S., Ashour, H. K., Neamah, A. H., & Khaleel, A. A. (2025). The role of digital wallet providers in enhancing financial inclusion: An analytical study of the Iraqi experience. *European Journal of Accounting, Auditing and Finance Research*, *13*(7), 55–64. https://doi.org/10.37745/ejaafr.2013/vol13n75564

Arner, D. W., Barberis, J. N., & Buckley, R. P. (2015). The evolution of fintech: A new post-crisis paradigm? *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2676553

Arner, D. W., Buckley, R. P., Zetzsche, D. A., & Veidt, R. (2020). Sustainability, fintech and financial inclusion. *European Business Organization Law Review*, *21*(1), 7–35. https://doi.org/10.1007/s40804-020-00183-y

Banstola, A. (2008). Prospects and challenges of e-banking in Nepal. *Journal of Nepalese Business Studies*, *4*(1), 96–104. https://doi.org/10.3126/jnbs.v4i1.1034

Bhattarai, G., Budhathoki, P. B., Rai, B., & Karki, D. (2024). Detrimental impact of employees' job demand on their workplace incivility behaviour: Restorative role of self-efficacy. *International Journal of Management and Sustainability*, *13*(1), 26–39. https://doi.org/10.18488/11.v13i1.3593

Dahal, R. K., Bhattarai, G., & Karki, D. (2021). Management accounting practices on organizational performance mediated by rationalized managerial decisions. *International Research Journal of Management Science*, *5*(1), 148–167. https://doi.org/10.3126/irjms.v5i1.35870

Dahlberg, T., Guo, J., & Ondrus, J. (2015). A critical review of mobile payment research. *Electronic Commerce Research and Applications*, *14*(5), 265–284. https://doi.org/10.1016/j.elerap.2015.07.006

Dangol, J., & Humagain, A. (2021). Determinants of financial inclusion in Namobuddha municipality, Nepal. *International Research Journal of Management Science*, *5*(1), 60–74. https://doi.org/10.3126/irjms.v5i1.35861

Demirgüç-Kunt, A., Klapper, L., Singer, D., & Ansar, S. (2022). *The global findex database 2021: Financial inclusion, digital payments, and resilience in the age of covid-19*. World Bank.

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, *133*, 285–296. https://doi.org/10.1016/j.jbusres.2021.04.070

Ghimire, M., & Karki, D. (2022). Brand loyalty among mobile users. *NCC Journal*, *7*(1), 1–14. https://doi.org/10.3126/nccj.v7i1.58612

Gomber, P., Kauffman, R. J., Parker, C., & Weber, B. W. (2018). On the fintech revolution: Interpreting the forces of innovation, disruption, and transformation in financial services. *Journal of Management Information Systems*, *35*(1), 220–265. https://doi.org/10.1080/07421222.2018.1440766

Hussein, A., & Saad, M. (2016). Perceived risk and behavioral determinants of using internet banking in Egypt. *Journal of Behavioural Economics, Finance, Entrepreneurship, Accounting and Transport*, *4*(3), 40–48. https://doi.org/10.12691/jbe-4-3-1

Karki, D., & Dahal, R. K. (2024). Service quality dimensions and investor satisfaction on online stock trading system in Nepal. *Journal of Service, Innovation and Sustainable Development*, *5*(5). https://doi.org/10.33168/SISD.2024.0106

Karki, D., Devkota, N., Dahal, R. K., Upreti, S. K., & Ghimire, B. (2025). Performance evaluation of small funds under smart investors. *Journal of Development Research*. https://doi.org/10.1177/22297561251365992

Karki, D., Magar, S. R., Devkota, N., Parajuli, S., & Paudel, U. R. (2021). Online shopping in Kathmandu Valley: Users' knowledge, challenges and way forward. *The Journal of Social Sciences Research*, (73), 135–144. https://doi.org/10.32861/jssr.73.135.144

Lama, J., & Kayestha, M. (2025). From swipe to stay: How digital banking service quality drives customer retention through customer satisfaction. *Interdisciplinary Journal of Innovation in Nepalese Academia*, *4*(1), 135-163. https://doi.org/10.32674/5zshz137

Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons*, *61*(1), 35–46. https://doi.org/10.1016/j.bushor.2017.09.003

Makina, D. (2019). The potential of fintech in enabling financial inclusion. In *Extending Financial Inclusion in Africa* (pp. 299–318). Elsevier. https://doi.org/10.1016/B978-0-12-814164-9.00014-1

Nathan, R. J., Setiawan, B., & Quynh, M. N. (2022). Fintech and financial health in Vietnam during the COVID-19 Pandemic: In-depth descriptive analysis. *Journal of Risk and Financial Management*, *15*(3), 125. https://doi.org/10.3390/jrfm15030125

Nepal, R., Rajopadhyay, P., Rajopadhyay, U., & Bhattarai, U. (2023). Interplay of investor cognition, financial literacy, and neuroplasticity in investment decision making: A study of Nepalese investors. *Journal of Business and Social Sciences Research*, *8*(2), 51–76. https://doi.org/10.3126/jbssr.v8i2.62133

Nwoke, J. (2024). Digital transformation in financial services and fintech: Trends, innovations and emerging technologies. *International Journal of Finance*, *9*(6), 1–24. https://doi.org/10.47941/ijf.2224

Nwude, E. C., Igweoji, N. D., & Udeh, S. N. (2020). The role of electronic banking as a tool to financial inclusion in Nigeria. *Noble International Journal of Business and Management Research*, *4*(1), 1–8.

Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*, *61*, 404–414. https://doi.org/10.1016/j.chb.2016.03.030

Ozili, P. K. (2018). Impact of digital finance on financial inclusion and stability. *Borsa Istanbul Review*, *18*(4), 329–340. https://doi.org/10.1016/j.bir.2017.12.003

Pant, B. (2016). Financial inclusion in Nepal: Policy review and prescriptions. *NRB Economic Review*, *28*(2), 1–18. https://doi.org/10.3126/nrber.v28i2.52531

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

Shakya, B., Karki, D., Prajuli, S., Bhandari, U., & Kayestha, M. (2024). Determinants affecting small business financially in Nepal: A structural equation modelling analysis. *Quest Journal of Management and Social Sciences*, *6*(2), 323–337. https://doi.org/10.3126/qjmss.v6i2.69103

Shakya, R., & Karki, D. (2025). Digital finance adoption, emerging trends, and customer satisfaction: A bibliometric analysis. *Interdisciplinary Journal of Innovation in Nepalese Academia*, *4*(1), 69–90. https://doi.org/10.32674/hr1c3v31

Sharma, P., & Karki, D. (2025). Blockchain technology in the digital era: Global research trends and financial innovation. *Journal of Management Changes in the Digital Era*, *2*(1), 93–109. https://doi.org/10.33168/JMCDE.2025.0107

Shaw, N. (2014). The mediating influence of trust in the adoption of the mobile wallet. *Journal of Retailing and Consumer Services*, *21*(4), 449–459. https://doi.org/10.1016/j.jretconser.2014.03.008

Shrestha, S., & Kayestha, M. (2024). Factors affecting the internet banking adoption in Kathmandu Valley. *Interdisciplinary Journal of Innovation in Nepalese Academia*, *3*(1), 33-52. https://doi.org/10.3126/idjina.v3i1.70275

Simkhada, S. (2025). *The role of digital banking on financial inclusion in Nepal* [Master's thesis, Tribhuvan University]. Tribhuvan University Central Library Digital Repository. https://hdl.handle.net/20.500.14540/25736

United Nations. (2022). *Report of the inter-agency task force on financing for development 2022: Financing for sustainable development report*. United Nations.

Yaqin, M., & Safuan, S. (2023). Digital financial inclusion and implications for developing countries economic growth. *Journal of Developing Economies*, *8*(1), 29–48. https://doi.org/10.20473/jde.v8i1.38361

Bios

Lekhnath Subedi is a Research Scholar at Tribhuvan University with academic interests in finance, digital payment systems, and financial inclusion. His research primarily focuses on emerging financial technologies and their socioeconomic implications in developing economies.

Email: subedi17.lekhnath@gmail.com,

Dipendra Karki, PhD is an Assistant Professor in the Faculty of Management at Tribhuvan University, Nepal Commerce Campus, Kathmandu. He earned PhD in Finance from Kathmandu University School of Management (KUSOM). His teaching interests include Global Finance, Behavioural Finance, and Financial Economics. Dr. Karki is a published author, having written several articles and books.

Email: dipendra.karki@ncc.tu.edu.np

Nirupan Karki is a scholar at the Department of Mechanical Engineering at Pulchowk Campus, Institute of Engineering, Tribhuvan University, where his academic interests include engineering research and technological innovation.

Email: 078bme046.nirupan@pcampus.edu.np

Prapti Paudyal is a Bachelor of Information Technology (BIT) student at Model Institute of Technology (MIT), Kathmandu, Nepal. She is also a Research Intern at the MIT Research Department. Her academic and research interests include information technology, general management, data analytics, and the application of technology in interdisciplinary research.

Email: paudyalprapti20@gmail.com

Note: The authors acknowledge the use of AI-assisted tools (such as Quillbot and ChatGPT) strictly for editing language, improving readability, and grammar checking. No AI tools were used for data analysis, interpretation, or the creation of original scientific content. The authors take full responsibility for the accuracy and integrity of the manuscript.