

Exploring the Digital Payment Ecosystem: A Systematic Review and Bibliometric Study of Mobile Banking, Wallets, and Payment Systems

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ABSTRACT

This paper presents both a systematic review and bibliometric methodology, providing insight into the digital payments ecosystem as an evolving space that encompasses m-Banking, digital wallet use, and payment systems. Bibliometric tools like VOSviewer and Biblioshiny were used to examine publishing trends, citation networks, and co-citation patterns using a dataset of 4656 articles that were acquired from the Scopus database. A total of 1715 (2014-2023) peer-reviewed journal articles provide the foundation for the quantitative analysis of the respective sectors of the digital payments ecosystem - digital wallets, m-Banking, and payment systems as well as the qualitative analyses that will identify existing research gaps and serve as a guide for future studies. The use of bibliometric methods identifies the most frequently cited journals and authors as well as the top countries, seminal articles, and emerging themes in this developing area. In addition, a qualitative analysis of the leading areas of research in the field is provided in the form of five distinct themes. The five major areas identified are Digital Finance and Inclusion; User Adoption and Behavioral Factors; Digital Banking and Financial Technology (Fintech); Mobile Payments and Security; and Consumer Behavior and Technology Adoption. Some of the emerging themes identified in the analysis include mobile payment cybersecurity issues; the importance of developing digital financial literacy; and the integration of new payment technologies into existing banking systems. Furthermore, the research indicates that digital payment systems enhance entrepreneurship because they enable new firms to start operating and allow small firms to access capital. Also, through enabling cashless transactions and decreasing the number of resources used by companies, digital payment systems help further sustainability objectives through both their encouragement of cashless transactions as well as their assistance toward inclusive economic growth. Finally, a conceptual framework will be provided to assist policymakers, regulators and academic researchers further understand and explore the complexity of the digital payment ecosystem.

Keywords: Digital Payments, Mobile Banking, Mobile payment systems, Digital wallets, Mobile Financial Services, Entrepreneurship, Sustainability

INTRODUCTION:

As the digital payment ecosystems go further, they are transforming global payments and rapidly moving financial services toward greater financial inclusion and economic efficiency, particularly in developing countries (1). Internet accessibility, mobile service availability and advances in financial technology, have made it possible to change from a cash system to a digital payment platform (2). Governments; technology companies; and financial institutions have been constantly promoting the idea of cashless economies and in doing so have had a significant impact on the growth of the digital payments ecosystem (3). Digital payment solutions offer consumers and businesses greater convenience, better access to financial service and reduced transaction costs (4). With their ability to provide convenience; security; and access, mobile payments have revolutionized how we perform financial transactions. The move from bartering to digital money shows that throughout human history there has been a desire to find effective and secure payment systems

(5). Mobile payments, which are available via smartphones and are powered by technologies like NFC and QR codes, form the backbone of fintech (6). By employing technologies such as blockchain; AI; and API; these systems provide seamless financial solutions for consumers (6). Key milestones in the evolution of digital payments includes the first ATM, which was introduced in 1967, and the establishment of blockchain technology in 2009 (4). Mobile devices can be used to provide secure authentication for many different types of financial transactions including e-banking and retail purchases (7). Digital Payment Systems continue to increase in usage and will continue to facilitate convenience, provide away to send money across borders, and promote a cashless society by 2050; experts estimate that all cash as we know it now will be completely replaced by virtual cash.

Advancements in the fields of technology and innovation are occurring at an unprecedented rate and a variety of

academic disciplines have explored the different areas of study in this fast-changing field. Studies on container shipping have been numerous since the 1960s, analyzing the sector's contribution and areas of research (8). Innovation ecosystems have been the subject of growing interest, with recent studies exploring strategic approaches, interacts or interactions, and digital ecosystems (9). The technology and innovation management field has been analyzed through bibliometric analysis, revealing intellectual structures and emerging trends (10). The e-democracy research field has grown, with studies on its development and identification of knowledge gaps and recurring themes (11). The role of digital payment systems in stimulating entrepreneurial activity is via reducing barriers to entry, creating ease of transaction, and providing easier access to finance (especially) for newer businesses and small to medium-sized enterprises (SMEs), leading to increased innovation and the ability to scale. The transition to digital payments reduces dependence on paper-based transactions, decreases overall costs of business operation, and promotes efficient, inclusive and environmentally sustainable financial systems thereby supporting a strong sustainable economy. Digital payments increase the speed and decrease costs of payments made by entrepreneurs to their suppliers, employees, customers, and government.

Digital financial systems provide a way for entrepreneurs to get credit products to initiate and grow their companies while supporting formal entrepreneurship through helping them comply with regulatory and tax requirements. To stimulate digital financial services, governments in developing countries could invest in physical/regulatory infrastructure and partner with private sector entities to provide training to prospective users (10).

The bibliometric analysis and systematic review of electronic payment systems present a steep spike in scholarly attention and publications over the last few years (12), (13). The study reviews literature sampled across various databases, covering a range of decades of studies, and employs analytical software like VOS-viewer and Biblioshiny (14), (13). The outcomes of interest include mapping research clusters that respond to determinants of adoption, consumer behavior, and technological consequences (14). China, USA and India are the prominent leading contributors in this area (12). Major scholarly journals publishing articles on digital payments include Sustainability and Journal of Cleaner Production (12). The study offers useful insights into the state of research, points out areas of ignorance and recommend more study in the field of digital payment technology (14), (13).

Table 1: Showing Research Questions and Methods

	Research Question	Research Method
	RQ 1. How has the study of digital payment systems evolved over the years, and which Authors, Publications and Nations have contributed most significantly?	Publication Patterns
Bibliometric Analysis	RQ 2. Which studies and research articles have had the most influence and are most often mentioned in the subject of digital payments?	Citation Evaluation
	RQ 3. Which theoretical Foundations and core themes underlie research on digital wallets, mobile banking, and payment systems?	Co-occurrence Evaluation
	RQ 4. What are the patterns and trends of global cooperation in the study of digital payments?	Collaborative Network Analysis
systematic review literature	RQ5. Which major conclusions and gaps exist in the body of research on digital payment systems?	Systematic Literature Review

A quantitative method used to analyze scientific literature in order to understand research patterns, productivity levels, and cooperation trends is called bibliometric analysis. Bibliometric analysis employs a software program toolkit from VOSviewer to identify key domains to investigate for potential research purposes. The subsequent sections outline the main features of bibliometric analysis. Bibliometric analysis involves gathering data from various publications such as articles, books, and conferences (15). Tools such as VOSviewer and R-based tools like Bibliometrix are typically

employed for the visualization of bibliometric data to detect patterns and connections in scholarly literature (16). Recent research shows an increasing focus on particular areas, such as water management and medical hyper spectral imaging, which reflects the development of research approaches (17), (16). Bibliometric analysis and systematic literature review captures emphasis on application, methods, and theory with major contribution from nations such as the USA and China(18). The bibliometric and systematic literature review of Digital payment yields major trends and insights into their

development and implications. The findings show an increased academic focus on digital payment, as reflected by the identification of more than 1,000 publications, which emphasizes the necessity of interdisciplinary research to resolve challenges of sustainability and technological incorporation in the financial industry (19). Although the current literature offers a good basis for the understanding of digital payment, mobile banking and further research is necessary to solve emerging challenges and keep pace with fast technological progress. The ever-evolving nature of digital financial services development necessitates continuous investigation of its implications on international finance.

Methodology

Bibliometric analyses allow researchers to conduct more thorough research. The R programming language has developed into one of the most widely used statistical package programs to perform data analysis and to present results through visually appealing graphs, charts, and plots across many disciplines including but not limited to health care, molecular biology, computer science and cancer research (22), (24), (23). The wide range of packages and functionalities offered by R makes statistical analysis, machine learning, and data visualization feasible (22). Biblioshiny, an R-based bibliometric analysis tool, has gained popularity across various research domains. The tool offers a simple web interface to the Bibliometrix package, which allows researchers to analyze and visualize bibliographic data from various sources (25), (26). It can process large datasets and thereby determining trends and gaps in the research field (27). It also facilitates easy analysis of publication counts, citation counts, and prominent authors and journals in the research field (3).

Data Collection and Data Analysis Tools

With a focus on important components like authors, nations, and pertinent search phrases in the field, Table 2 describes the data retrieval procedure and search approach for the study. Additionally, it provides bibliographic coupling and co-occurrence patterns along with helpful insights on the overall influence of the study under analysis, citation rates, and annual publishing trends. For academic research employed in this study, Scopus has established itself as a reputable leading bibliometric database, providing high-quality, curated data in a variety of sectors, including management and business (28). Scopus is strongly advised for research requiring a maximum number of publications, such as business agility, as it generates results that are on par with or even better than those from other databases, such as Web of Science (29). In addition, there are databases that do not offer automated data export and Web of Science items that are repeated. As a result, the other databases were not included in this analysis. Given the goals of the study, the search criteria have been created such that no item that must be included would be excluded. A number of keywords have been used in this review study such as “Digital Payment”, “Mobile Banking” and “Payment System”, “Digital Wallets” resulting a comprehensive database of “1715” articles from Scopus covering the years during 2014 to 2025 had been assembled, written in

English.

This research quality and relevance have been addressed in a manner consistent with the timeframe by using Articles published (Peer-reviewed) or Review Papers, Proceedings from conferences and Published Books by time frame. The selected review study dealt with the subject area of Digital financial services, Business management & Accounting, Economics, Econometrics & Finance. Exploratory bibliometric surveys with VOSviewer and Biblioshiny using Scopus data have gathered popularity these days to show research trends and visualize scientific knowledge.

Data Base: –	Scopus
Keywords: -	Digital Payment. Mobile Banking and payment
System,	Digital Wallets : 4656
Data Retrieval	
Exclusion Criteria	Results
Duration : 2014-2025	4031
Subject area: Business Management and Accounting, Economics, Econometrics and Finance	1742
Document Type : Article	1729
Scopus Type:	1320
journal	224
Books	116
Conference Proceeding	68
Books Series	1
Trade Journal	1715
Language : English	1715
Removing Duplicity & Missing Values	

Annual Publication Trend

The figures record a sharp increase in published research papers from 49 in 2014 to 366 in 2024, showing an

Table 2. Search Strategy and Data Retrieval Process

Table 1: Demonstrating the Study's Architecture

Findings

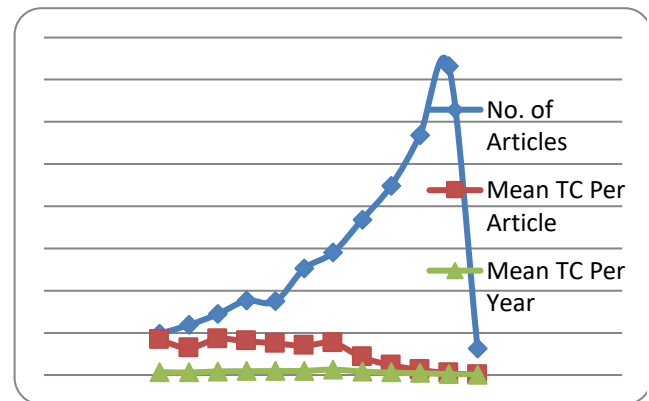
Bibliometric analysis of research on the digital payment ecosystem, 2014-2025, gathers a total of 1,715 documents from 743 sources that represent a rather wide academic interest in mobile banking, wallets, and payment systems. The field has still been active despite the negative annual growth rate of 4.08%, given its positive average citation rate of 19.02 citations per document, indicating a relatively high degree of impact. Collaborations are seen, with 23.73% of studies dealing with international co-authorships and 2.78 co-authors on an average per paper. Articles remain the most common, with numbers standing at 1,258, followed by chapters in books (252) and conference papers (128), thus comprising a mix of theoretical and practical work. The sheer size of the citations used in this study (77,481) and the usage of a somewhat diverse keyword set demonstrate the multidisciplinary nature of research in digital payments.

Table 3: Descriptive Statistics

Description	Results
Time span	2014:2025
Sources (Journals, Books, etc)	743
Documents	1715
Document Average Age	4.03
Average citations per doc	19.02
References	77481
Keywords Plus (ID)	1735
Author's Keywords (DE)	3742
Authors	3965
Authors of single-authored docs	264
Single-authored docs	288
Co-Authors per Doc	2.78
International co-authorships %	23.73
DOCUMENT TYPES:	
article	1258
book	31
book chapter	252
conference paper	128
editorial	4
erratum	3
Review	39

increase in research output. However, the Mean TC per Article has dropped sharply from 41.53 in 2014 to a paltry 2.14 in 2024, showing newer papers are being cited less. The Mean TC per Year peaked at 6.31 in 2020 but has declined thereafter, as expected from the citation aging phenomenon, in which the older papers tend to accumulate more citations over time. Such a trend suggests a trade-off between the number and the quality, where higher publication volumes may be leading to lower citation effect per article.

Figure 1 Annual Publication Trend with Average Citation



Most relevant journals contributed to the study area

Scholarly journals are key drivers of research in digital payments. Table 4 shows the most relevant journals available to conduct research in digital payment. With 74 articles, the International Journal of Banking, Marketing leads, followed by the Journal of Payments Strategy and Systems (29 articles) and Banks and Bank Systems (28 articles), indicating a high level of scholarly interest in banking and payment developments. The Journal of Financial Services Marketing (24 articles) and Journal of Retailing and Consumer Services (20 articles) both examine consumer behavior and financial services. The Journal of Internet Banking and Commerce (16 articles) and Technological Forecasting and Social Change (20 articles) both present technology-oriented viewpoints. Expert views are reflected in the Journal of Islamic Marketing (18 articles) and Journal of Science and Technology Policy Management (18 articles). Interdisciplinary journals and conference proceedings also reflect evidence of research opportunities in digital payments.

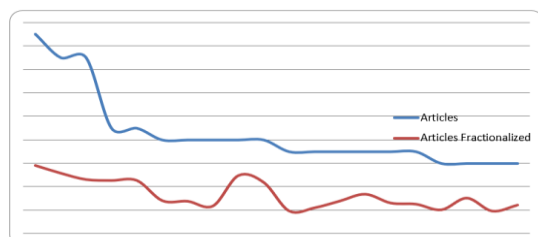
Table 4: Showing Top 15 journals contributed to the study area

Sources	Articles
International Journal of Bank Marketing	74
Journal Of Payments Strategy and Systems	29
Banks And Bank Systems	28
Journal Of Financial Services Marketing	24
Journal Of Retailing and Consumer Services	20
Technological Forecasting And Social Change	20
Journal Of Islamic Marketing	18
Journal Of Science and Technology Policy Management	18
Cogent Business and Management	17
Journal Of Internet Banking and Commerce	16
International Journal of Electronic Finance	15
International Journal of Business Information Systems	13
Studies In Systems, Decision and Control	13
International Journal of Recent Technology and Engineering	12
Proceedings Of the International Conference on Industrial Engineering And Operations Management	12

Most Relevant Authors Contributed to the Study Area

Prominent Authors about digital payment systems, namely the following researchers, have contributed significantly to this area of work. Shaikh AA rates first with 17 articles; followed by Karjaluo H (15 articles) and Liébana-Cabanillas F (15 articles); their strong impact is measured. Other important authors are Chawla D and Joshi H (9 articles each), plus Shankar A (8 articles, 4.92 fractionalized contribution) and Singh S (8 articles, 4.33 fractionalized contribution). Chaouali W, Gupta S, and Muñoz-Leiva F have also helped to expand the communication concerning digital transactions. Even if there is a good quantity of study in this field, additional studies must be done, therefore there is always need for further research. Due to the fast advancement of financial technology and the trends in worldwide acceptance, this field continues to have a significant impact on research, as seen by the increasing number of publications.

Figure 2 Top 20 Authors Contributed to the Study



Most Relevant Country Contributed to the study Area

The top 20 contributors to research on the digital payment ecosystem have been tabulated in Table 6, with India ranking first (1,074 publications) and followed by Indonesia (439), Malaysia (268), and the USA (268). India's strong research output reflects its rapid acceptance of mobile banking, digital wallets and payment systems. Other countries including China (265) and the United Kingdom (140) are also known for their strong academic research in fintech and digital payment transactions. These varied global contributions show how emerging focus on digital payments has been created from technology-related advancements; financial inclusion and changes in consumer behavior.

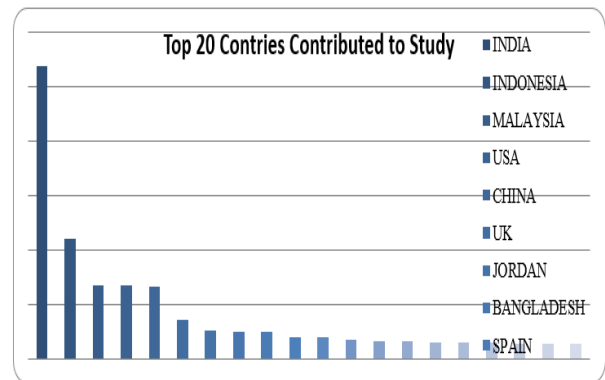


Figure 3: Showing Top 20 Country Contributed to the Study

Citation Evaluation

The visualization created by VOSviewer illustrates a bibliometric co-citation network and citation network of digital payment research, therefore pointing out the influential authors and thematic clusters. Principal authors such as Oliveira (2014) (32), Sharma (2019) (35), Laukkanen (2016) (34), and Patil (2020) (33), contribute heavily to the subject matter since their articles tend to be frequently cited. The color-coded clusters reveal interrelated subject matters, while Li (2020) (32) is a stand-alone entity, implying the existence of a nascent or specialist subfield. The close associations among scholars such as Merhi (2019) (38) , De Luna (2019) (40), and Muñoz-Leiva (2017) (39) point towards a rich and active research culture. The above analysis substantiates the fact that the subject area of digital payment research is developing with a solid support system and formation of trends favorable to the complete comprehension of mobile banking, wallets, and payment systems.

fintech start-ups and aids regulators in finding the appropriate balance between innovation and financial stability.

Cluster 4 (Yellow) - "Mobile Payments and Security"

This cluster describes the development of electronic money and its regulation and security challenges in mobile payments. This paper mainly focuses on uptake of mobile payment in China and developing nations while addressing security threats and discussing fraud concerns together with the impact of authentication technologies in assuring payment security. It further discusses the evolution of electronic money and its regulation and presents the idea graphically, indicating that there needs to be a strong assurance of security in making mobile payments..

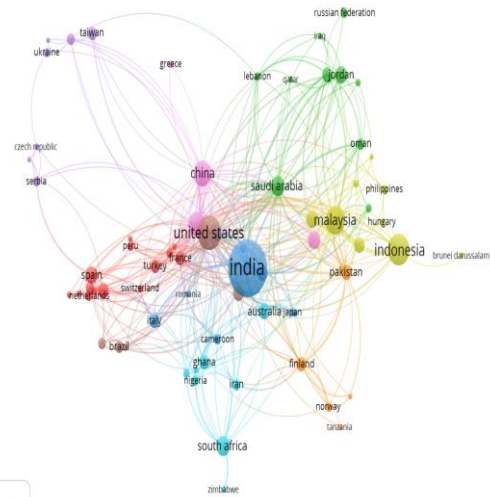
Cluster 5 (Purple) - "Consumer Behavior and Technology Adoption"

This cluster study investigates consumer attitudes toward digital payment technologies from a regional perspective in Malaysia and Southeast Asia. It contextualizes cultural and demographic differences in the acceptance of payment technology, with particular focus on the roles of smart-phones and mobile networks in digital transactions. The study will assist digital payment providers in customizing services based on consumer preferences and provide marketers with information to formulate targeted campaigns, while also creating an avenue for policymakers to understand the perceived barriers to adoption.

Collaborative Network Analysis

The visual representation of the collaborative network validates the existence of international research collaborations between countries, highlighting the key players and the relationships. The larger nodes, like India, the United States, and China, show their dominance in research collaborations, and the smaller nodes are associated with countries having fewer co-published papers. Colored differentiated clusters show countries that frequently work with each other, like the cluster of India with South Africa and Nigeria, and the cluster between Jordan, Saudi Arabia, and Russia in the Middle East.

Thicker lines between some countries indicate the presence of well-established research relationships, while thin or missing lines indicate potential scope for international collaboration development. The analysis provides helpful information about the nature of global research networks, helping policymakers and institutions select potential collaborators for future research.



Systematic Literature Review

We provide a thorough analysis of widely referenced papers in the subject of digital payment in this section. By doing this, we hope to provide researchers a thorough grasp of the most recent developments in digital payments so they may better support their study. Ranked topmost according to citations, the research papers are discussed in terms of sources, no. of total citations per literature, method used and their findings in Table 4. As such, Table 4 is designed as a systematic overview of these key research papers. This way, researchers will be able to conceptualize both the gaps in the literature on digital payments and the various approaches of digital payment promotion.

Table 5

Sources	No. of Citation	Methods Used	Findings
De et al. (2020) (30)	666	The article discusses impact of the Covid-19 pandemic on digital technology, particularly telecommuting and virtual teams, and the increased uses of the internet during lockdown.	The pandemic accelerated the use of digital technology, impacted work-from-home and gig economy, accelerated techno stress, presenteeism, internet shutdowns, and surveillance and privacy issues.
Oliveira et al. (2014) (31)	607	The research employed PLS, bootstrapping, Kolmogorov-Smirnov, Harman's one-factor test, questionnaires, and unstructured interviews to determine trust in m-transactions and value perceptions of m-Banking.	It explains 31% of variation in m-Banking usage intention with behavioral intention, facilitating conditions, initial trust, performance expectancy, task technology fit, and combining TTF, UTAUT, and ITM explaining adoption..

(Li et al. 2019) (32)	504	Regression is applied in this study to repeat and non-repeat expenditure data over the years 2013-2017 to examine the consumption rate and household spending as the dependent variables.	Chinese household consumption is significantly positively influenced by digital finance, particularly poorer households, through e-shopping and credit access, resulting in increased repeat expenditure and positive impacts on the majority of consumption categories.
(Patil et al. 2020) (33)	496	The research employed a quantitative survey research design, with a seven-point Likert scale, along with expert judgment, pilot testing, structural equation modeling, and Harman's single-factor test for data collection.	The study found that while attitude, grievance redressal, personal inventiveness, anxiety, and trust have indirect effects on use behavior, performance expectation has a major influence on mobile payment use behavior..
(Laukkanen 2016) (34)	483	Two large-scale surveys within Finland were administrated through applied literature, logistic regression models, step-wise logistic regression with a forward conditional step, and confirmatory factor analyses in order to test construct validity.	Mobile banking usage is constrained by various barriers like value, image, tradition, gender, age, and perceived risk, and is more resistant among women and older consumers.
(Sharma and Sharma 2018) (35)	437	The study used a neural network model for data analysis and SEM for hypothesis testing. The data was gathered in two stages using an online survey given to Omani citizens.	According to a model that combines structural equation and neural network analysis, trust and the quality of service have a reliable impact on m-banking usage, with higher levels of trust and service quality drawing in and keeping customers in Oman.
(Alalwan et al. 2016) (36)	398	Convenience sampling and self-administered questionnaires were used to gather data from Jordanian banking customers for a conceptual model of the Technology Acceptance Model. The dependability of the model was assessed using Cronbach's coefficient.	Behavioral intention to embrace mobile banking is influenced by perceived utility and ease of use; self-efficacy reinforces positive beliefs, whereas perceived risk has a negative effect..
(Zins and Weill 2016) (37)	363	With dummy variables for income and education levels, the study evaluates the factors that influence financial inclusion in Africa, concentrating on personal traits like gender, age, income, and education.	Gender, income, education, and age all affect financial inclusion in Africa, where mobile banking is more common than it is worldwide. The financial exclusion of women is influenced by cultural norms and gender disparities. The study designs policies using data from 37 African nations.
(Merhi et al. 2019) (38)	358	Convenience sampling, a self-administered questionnaire, and an online survey conducted through social media were all used in the study. A pilot study of 45 participants was conducted to ensure validity.	According to the study, the adoption of mobile banking is greatly influenced by trust, security, privacy, and habit; in Lebanon and England, performance expectancy and price value are particularly important.
(Muñoz-Leiva et al. 2017) (39)	347	Confirmatory Factor Analysis (CFA), Maximum Likelihood Estimation (MLE), Bollen-Stine method correction, an online questionnaire, an explanatory video, and	The use of mobile banking apps is strongly influenced by attitudes, with attitudes being positively influenced by social image. Discriminant validity across constructs is

		Structural Equation Model (SEM) testing were all used in the validity analysis.	confirmed by the fact that risk and usefulness do not directly increase app usage.
(De Luna et al. 2018) (40)	327	The study evaluates new mobile payment tools using a multi-group analysis, convenience sampling for NFC technology through Facebook, and quota sampling for SMS and QR systems.	The study assesses how well SMS, NFC, and QR payment systems are accepted by consumers, identifies the factors that affect their adoption, and explains why different people have different intentions when using each system.
(Susanto et al. 2016) (41)	316	An extended framework based on ECM was created and validated after 301 smartphone banking users completed a survey that was gathered via the email server of a panel company.	While security and privacy have no effect on user satisfaction, perceived security has a significant impact on trust in smartphone banking services. Perceived security and satisfaction are impacted by initial confirmation.
(Chawla and Joshi 2019) (42)	275	Convenience sampling was employed for respondents, a questionnaire was created, content analysis was carried out, focus groups were held, and the proposed model was tested using PLS-SEM.	According to the study, perceived usefulness has a significant impact on intention, trust, and attitude, whereas perceived ease of use has no discernible effect on user attitude but positively affects perceived usefulness.
(Karjalainen et al. 2018) (43)	228	Self-reported surveys were used, common method variance was reduced, questionnaire item order was changed, and predictor and criterion variables were kept apart in this study.	Bank satisfaction, commitment, and innovation are all influenced by perceived value; hedonic value propels commitment, while utilitarian value propels satisfaction. Value is influenced by perceived risk and individual inventiveness.
(Pham and Ho 2015) (44)	225	In order to evaluate the relationships between constructs, a survey research approach was employed, which included a pilot survey, a self-administered questionnaire, translation into Chinese, exploratory and confirmatory factor analysis, and structural equation modeling.	The study emphasizes the significance of the added value of NFC mobile payments, the preference for product-related considerations over personal ones, and the need for better adoption performance from consumers.

Discussion

This research investigates the digital payment ecosystem encompassing mobile banking, digital wallets, and payment systems in general. Grab an idea from the paper and the conference proceedings and softly describe and apply the same in the present analysis from bibliometric studies, which involve 1715 research papers on various topics from 2014 to 2025 selected from the Scopus database, generally regarded as one of the most dexterous databases for academic papers. The report describes how studies have evolved over time, references major academic studies that have been successful and founding principles of theories related to studying this subject matter, gives an overview of trends involving international cooperation between researchers and identifies areas lacking research. According to this study, in the past 20 years, there has been an increase in research output due to the increase in the use of digital financial services among consumers, the implementation of new technologies and the development of new regulatory

policies. The VOS viewer image depicts bibliometric citation networks and co-citation networks in the field of digital payments research. The figure displays leading researchers in the space like Oliveira (2014), Sharma (2019), Laukkanen (2016), and Patil (2020), whose works are heavily cited within discussions regarding digital payments. Quite interestingly, this paper shows that India, United State and China lead in highly international collaboration between countries. These very nations highly contribute to the conceptual and practical development of digital payment, mobile banking and e-wallet research publications. Underlining eco-conscious consumers and cashless economy increasingly matters for banking sector as digital payment and fin-tech grows. Factors such as consumer confidence, perceived security, and acceptance of technology determine the digital payment ecosystem. Nonetheless, there exists an attitude-behavior gap, where benefits are acknowledged but accompanied by hesitation toward them because of privacy issues, security problems, or unfamiliarity.

Psychological and social barriers must be addressed to raise adoption rates. Future studies should target how to enhance confidence and lessen perceived risks among users.

Future Research Direction and Limitations

The review elaborated on the technical advancements in mobile banking, digital wallets, and payment systems but states that there is a lack of understanding in areas pertaining to security advancements, AI-oriented payment solutions, and financial inclusion, behavioral issues, cross-cultural adoption, decentralized finance, sustainability, and regulation challenges. Future research avenues would be to analyze upcoming security solutions, AI-powered financial decision-making chat-bots, and predictive analytics along with the role of AI in digital payments. It would also be important to consider how mobile banking and digital payment platforms could help bridge financial gaps for the underprivileged population and, thus, aid in establishing an inclusive financial ecosystem. Factors of psychology and behavior affecting adoption would be vital in future studies. Studying cross-culture and regional comparison will give insights into how social, cultural, and regulatory environments assist or obstruct digital payment adoption through different economies. Furthermore, this research will also investigate the influence of digital wallets and cryptocurrencies on traditional banking models and monetary policies. Finally, the study will examine how global policy frameworks provide balanced approaches to security, innovation, and individual right to privacy; eliminate regulatory fragmentation in the digital payment industry globally; and create a common set of standards across countries so that they may more easily transact with each other.

Conclusion

The digital payments ecosystem mapping research area has produced valuable insights, including an overview of how research has evolved identification of significant works, and analysis of theoretical foundations and collaborative patterns among researchers. More research is necessary in order to fill existing voids in the literature regarding the impact of new technologies, how to include underdeveloped areas in the future, and how to conduct longitudinal studies to evaluate how quickly the digital payment system is changing. Once these gaps have been filled, policymakers and academics will then be able to create a framework that will improve security and promote global access to digital financial services. Entrepreneurship is supported by digital payment systems since they facilitate access to finance. They help to eliminate transactional barriers and impact the growth of the start-up and small business sector. Furthermore, they also support sustainability since they promote the movement towards paperless transactions, lower operating cost, and promote efficient and environmentally sustainable financial practices

REFERENCES

1. Dudu Nof, Alao Nob, Alonge Neo. Advancing Financial Inclusion Through Digital Payment Platforms in

Emerging Markets. *Finance & Accounting Research Journal* [Internet]. 2024 Nov 9;6(11):2028–60. Available From: <https://doi.org/10.51594/Farj.V6i11.1696>

2. Khan R. Digital Payments Impact on Indian Economy Through Banking Systems & Global Comparisons. *International Journal of Scientific Research In Engineering And Management* [Internet]. 2024 May 5;08(05):1–5. Available From: <https://doi.org/10.55041/Ijsrem33022>

3. Rui Z. A look at the Rising Popularity of Cashless Economies around the World. *International Journal on Recent Trends in Business and Tourism* [Internet]. 2023 Jan 1;07(03):16–32. Available from: <https://doi.org/10.31674/ijrtbt.2021.v07i03.002>

4. Teker S, Teker D, Orman I. Digital Payment Systems: A Future Outlook. *Pressacademia* [Internet]. 2022 Jul 30; Available From: <https://doi.org/10.17261/Pressacademia.2022.1613>

5. Goyal A. Evolution Of Payment System And Rises Of Mobile Payment. *Interantional Journal Of Scientific Research In Engineering And Management* [Internet]. 2024 Jun 11;08(06):1–5. Available From: <https://doi.org/10.55041/Ijsrem35731>

6. Chatterjee P. The Rise Of Mobile Payment Systems: How Information Technology Shapes The Fintech Ecosystem. *International Journal Of Engineering And Computer Science* [Internet]. 2024 Nov 22;12(08):25801–14. Available From: <https://doi.org/10.18535/Ijecs/V12i08.4712>

7. Herzberg A. Payments And Banking With Mobile Personal Devices. *Communications Of TheAcm* [Internet]. 2003 May 1;46(5):53–8. Available From: <https://doi.org/10.1145/769800.769801>

8. Lau Yy, Ng Aky, Fu X, Li Kx. Evolution And Research Trends Of Container Shipping. *Maritime Policy & Management* [Internet]. 2013 Oct 23;40(7):654–74. Available From: <https://doi.org/10.1080/03088839.2013.851459>

9. Paviani Jr, Tonelli Df, Prado Jwd, De Castro Rr. Innovation Ecosystem: Evolution And Trends In Scientific Literature. *Journal Of Innovation Management* [Internet]. 2024 Dec 23;12(3):102–25. Available From: https://doi.org/10.24840/2183-0606_012.003_0005.

10. Klapper, Leora. "How digital payments can benefit entrepreneurs." *IZA World of Labor* (2017).

11. Huang Y, Ding Xh, Liu R, He Y, Wu S. Reviewing The Domain Of Technology And Innovation Management: A Visualizing Bibliometric Analysis. *Sage Open* [Internet]. 2019 Apr 1;9(2). Available From: <https://doi.org/10.1177/2158244019854644>

12. Nchise Ac. The Trend Of E-Democracy Research. *Iee* [Internet]. 2012 Jun 4;165–72. Available From: <https://doi.org/10.1145/2307729.2307756>

13. Kumar Ns, Singh Vp. Digital Payment Systems: Global Research Trends And Insights From Bibliometric Analysis. *Shodhkosh Journal Of Visual And Performing Arts* [Internet]. 2024 Mar 31;5(3). Available From: <https://doi.org/10.29121/Shodhkosh.V5.I3.2024.3530>

14. Jain V, Jain N. Deciphering The Growth Of Digital Payment Adoption: An Extensive Spar-4 Bibliometric Exploration. *Global Knowledge Memory And Communication* [Internet]. 2024 Sep 30; Available From: <https://doi.org/10.1108/Gkmc-05-2024-0296>
15. Kumar Nk, Yadav As. A Systematic Literature Review And Bibliometric Analysis On Mobile Payments. *Vision The Journal Of Business Perspective* [Internet]. 2022 Jun 21;28(3):287–302. Available From: <https://doi.org/10.1177/09722629221104190>
16. Barra Afa, Saputro Drs, Widianingsih P. Bibliometric Analysis Of Spline Regression Model For Trend Mapping And Strategy Development Research Using Vosviewer. *Nucleus* [Internet]. 2024 Nov 5;5(02):74–81. Available From: <https://doi.org/10.37010/Nuc.V5i02.1760>
17. Jiang S, Ma D, Tan X, Yang M, Jiao Q, Xu L. Bibliometric Analysis Of The Current Status And Trends On Medical Hyperspectral Imaging. *Frontiers In Medicine* [Internet]. 2023 Sep 19;10. Available From: <https://doi.org/10.3389/Fmed.2023.1235955>
18. Mingaleva Z, Chernova O, Mitrofanova Iv. Bibliometric Analysis Of Research Trends In Water Management Aimed At Increasing The Sustainability Of The Socio-Economic Development Of A Region. *Water* [Internet]. 2023 Oct 22;15(20):3688. Available From: <https://doi.org/10.3390/W15203688>
19. Lyu P, Liu X, Yao T. A Bibliometric Analysis Of Literature On Bibliometrics In Recent Half Century. *Journal Of Information Science* [Internet]. 2023 Aug 21; Available From: <https://doi.org/10.1177/01655515231191233>
20. Prodan S, Konhäusner P, Dabija Dc, Lazaroiu G, Marincean L. The Rise In Popularity Of Central Bank Digital Currencies. A Systematic Review. *Heliyon* [Internet]. 2024 Apr 30;10(9):E30561. Available From: <https://doi.org/10.1016/J.Heliyon.2024.E30561>
21. Passas I. Bibliometric Analysis: The Main Steps. *Encyclopedia* [Internet]. 2024 Jun 20;4(2):1014–25. Available From: <https://doi.org/10.3390/Encyclopedia4020065>
22. De Oliveira Oj, Da Silva Ff, Juliani F, Barbosa Lcfm, Nunhes Tv. Bibliometric Method For Mapping The State-Of-The-Art And Identifying Research Gaps And Trends In Literature: An Essential Instrument To Support The Development Of Scientific Projects. In: *IntechopenEbooks* [Internet]. 2019. Available From: <https://doi.org/10.5772/Intechopen.85856>
23. Gandhi Ma, Tripathy Sp, Pawale Ss, Bhawalkar Js. A Narrative Review With A Step-By-Step Guide To R Software For Clinicians: Navigating Medical Data Analysis In Cancer Research. *Cancer Research Statistics And Treatment* [Internet]. 2024 Jan 1;7(1):91–9. Available From: https://doi.org/10.4103/Crst.Crst_313_23
24. Chua Ew, Ooi Dj, Muhammad Nan. A Concise Guide To Essential R Packages For Analyses Of Dna, Rna, And Proteins. *Molecules And Cells* [Internet]. 2024 Oct 5;47(11):100120. Available From: <https://doi.org/10.1016/J.Mocell.2024.100120>
25. Giorgi Fm, Ceraolo C, Mercatelli D. The R Language: An Engine For Bioinformatics And Data Science. *Life* [Internet]. 2022 Apr 27;12(5):648. Available From: <https://doi.org/10.3390/Life12050648>
26. Biblioshiny-R Application On Bioinformatics Education Research (2004-2023). *Curriculum And Teaching Methodology* [Internet]. 2024 Jan 1;7(8). Available From: <https://doi.org/10.23977/Curtm.2024.070829>
27. Renata N, Firdaus N. Biblioshiny Application Using R-Studio In Islamic Management Research. *Tamwil* [Internet]. 2024 Jun 27;10(1):1. Available From: <https://doi.org/10.31958/Jtm.V10i1.12265>
28. Çelik Ş. Bibliometric Analysis Of Publications On The Effect Of Animal Production On Climate Change From Past To Present. *Frontiers In Earth Science* [Internet]. 2024 May 24;12. Available From: <https://doi.org/10.3389/Fearth.2024.1402407>
29. Tan F, Yang J, Zhou C. Historical Review And Synthesis Of Global Carbon Neutrality Research: A Bibliometric Analysis Based On R-Tool. *Journal Of Cleaner Production* [Internet]. 2024 Mar 7;449:141574. Available From: <https://doi.org/10.1016/J.Jclepro.2024.141574>
30. Baas J, Schotten M, Plume A, Côté G, Karimi R. Scopus As A Curated, High-Quality Bibliometric Data Source For Academic Research In Quantitative Science Studies. *Quantitative Science Studies* [Internet]. 2020 Jan 23;1(1):377–86. Available From: https://doi.org/10.1162/Qss_A_00019
31. Lesníková P, Sujova AJ. Bibliometrics and Scientometrics of the Business Agility. *Iee* [Internet]. 2024 Jun 26;334–41. Available from: <https://doi.org/10.4995/carma2024.2024.17462>
32. De R, Pandey N, Pal A. Impact Of Digital Surge During Covid-19 Pandemic: A Viewpoint On Research And Practice. *International Journal Of Information Management* [Internet]. 2020b Jun 9;55:102171. Available From: <https://doi.org/10.1016/J.Ijinfomgt.2020.102171>
33. Oliveira T, Faria M, Thomas Ma, Popovič A. Extending The Understanding Of Mobile Banking Adoption: When Utaut Meets TtfAndItm. *International Journal Of Information Management* [Internet]. 2014b Jul 23;34(5):689–703. Available From: <https://doi.org/10.1016/J.Ijinfomgt.2014.06.004>
34. Li J, Wu Y, Xiao Jj. The Impact Of Digital Finance On Household Consumption: Evidence From China. *Economic Modelling* [Internet]. 2019b Sep 21;86:317–26. Available From: <https://doi.org/10.1016/J.Econmod.2019.09.027>
35. Patil P, Tamilmani K, Rana Np, Raghavan V. Understanding Consumer Adoption Of Mobile Payment In India: Extending Meta-Utut Model With Personal Innovativeness, Anxiety, Trust, And Grievance Redressal. *International Journal Of Information Management*

[Internet]. 2020b May 14;54:102144. Available From: <https://doi.org/10.1016/j.ijinfomgt.2020.102144>

36. Laukkanen T. Consumer Adoption Versus Rejection Decisions In Seemingly Similar Service Innovations: The Case OfThe Internet And Mobile Banking. *Journal Of Business Research* [Internet]. 2016b Feb 1;69(7):2432–9. Available From: <https://doi.org/10.1016/j.jbusres.2016.01.013>

37. Sharma Sk, Sharma M. Examining The Role Of Trust And Quality Dimensions InThe Actual Usage Of Mobile Banking Services: An Empirical Investigation. *International Journal Of Information Management* [Internet]. 2018b Oct 4;44:65–75. Available From: <https://doi.org/10.1016/j.ijinfomgt.2018.09.013>

38. Alalwan Aa, Dwivedi Yk, Rana Npp, Williams Md. Consumer Adoption Of Mobile Banking In Jordan. *Journal Of Enterprise Information Management* [Internet]. 2016c Feb 4;29(1):118–39. Available From: <https://doi.org/10.1108/Jeim-04-2015-0035>

39. Zins A, Weill L. The Determinants Of Financial Inclusion In Africa. *Review Of Development Finance* [Internet]. 2016b Jun 1;6(1):46–57. Available From: <https://doi.org/10.1016/j.rdf.2016.05.001>

40. Merhi M, Hone K, Tarhini A. A Cross-Cultural Study OfThe Intention To Use Mobile Banking Between Lebanese And British Consumers: Extending Utaut2 With Security, Privacy And Trust. *Technology In Society* [Internet]. 2019b Jul 9;59:101151. Available From: <https://doi.org/10.1016/j.techsoc.2019.101151>

41. Muñoz-Leiva F, Climent-Climent S, Liébana-Cabanillas F. Determinants Of Intention To Use The Mobile Banking Apps: An Extension OfThe Classic Tam Model. *Spanish Journal Of Marketing - Esic* [Internet].

2017d Jan 8;21(1):25–38. Available From: <https://doi.org/10.1016/j.sjme.2016.12.001>

42. De Luna Ir, Liébana-Cabanillas F, Sánchez-Fernández J, Muñoz-Leiva F. Mobile Payment Is Not All The Same: The Adoption Of Mobile Payment Systems Depending OnThe Technology Applied. *Technological Forecasting And Social Change* [Internet]. 2018b Oct 25;146:931–44. Available From: <https://doi.org/10.1016/j.techfore.2018.09.018>

43. Susanto A, Chang Y, Ha Y. Determinants Of Continuance Intention To Use The Smartphone Banking Services. *Industrial Management & Data Systems* [Internet]. 2016b Mar 31;116(3):508–25. Available From: <https://doi.org/10.1108/Imds-05-2015-0195>

44. Chawla D, Joshi H. Consumer Attitude And Intention To Adopt Mobile Wallet In India – An Empirical Study. *International Journal Of Bank Marketing* [Internet]. 2019b Jun 19;37(7):1590–618. Available From: <https://doi.org/10.1108/Ijbm-09-2018-0256>

45. Karjaluoto H, Shaikh Aa, Saarijärvi H, Saraniemi S. How Perceived Value Drives The Use Of Mobile Financial Services Apps. *International Journal Of Information Management* [Internet]. 2018b Sep 25;47:252–61. Available From: <https://doi.org/10.1016/j.ijinfomgt.2018.08.014>

46. Pham Ttt, Ho Jc. The Effects Of Product-Related, Personal-Related Factors And Attractiveness Of Alternatives On Consumer Adoption OfNfc-Based Mobile Payments. *Technology In Society* [Internet]. 2015b Jun 13;43:159–72. Available From: <https://doi.org/10.1016/j.techsoc.2015.05.004>

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