

# Digital Finance Adoption, Emerging Trends, and Customer Satisfaction: A Bibliometric Analysis

Rosma Shakya<sup>1</sup>, Dipendra Karki<sup>1\*</sup>

Article Type: Research Article

<sup>1</sup>Nepal Commerce Campus, Tribhuvan University, Nepal

Received: 21 January 2025;

Revised: 17 March 2025;

Accepted: 29 April 2025

\*Corresponding email: [dipendra.karki@ncc.edu.np](mailto:dipendra.karki@ncc.edu.np) ISSN: 2976-1204 (Print), 2976 – 131X (Online)

Copyright © 2025 by the authors, *Interdisciplinary Journal of Innovation in Nepalese Academia*, and Star Scholars Press. The articles in IDJINA are licensed under a Creative Commons Attribution-Noncommercial-No Derivatives 4.0 International License.



## Abstract

*The rapid advancement of digital finance has transformed global financial systems, making understanding research trends and customer satisfaction crucial. This study employs bibliometric analysis using Dimensions data to examine research trends, collaboration patterns, and thematic focuses in digital finance adoption. The analysis reveals a steady growth in publications on trust, security, convenience, and service quality. Top journals like the International Journal of Information Management are highly referenced, demonstrating academic interest in user-centric digital finance research. Co-authorship analysis shows remarkable collaboration in this field, with 2.56 authors per document. International collaboration is limited (7.45%), showing a predominance of national or regional studies. This shows cross-border research can improve global knowledge exchange. The study's findings are significant for researchers, policymakers, and digital service providers seeking customer-centric strategies. Despite geographical differences and minimal interdisciplinary collaboration, future research should address data security, privacy, and evolving regulatory requirements, improve cross-sector relationships, and enhance global collaboration.*

**Keywords:** Customer satisfaction, digital finance, financial technology, trust

## Introduction

The rise of digital finance has significantly transformed the global financial market, reshaping how consumers interact with financial services. Digital payment systems, mobile banking, and online lending platforms have enhanced accessibility, efficiency, and convenience, contributing to greater financial inclusion (Arner et al., 2016; Shrestha et al., 2022). In Nepal, platforms such as Khalti, eSewa, and IME Pay have gained widespread adoption, offered seamless digital transactions, and expanded financial access, particularly in underserved areas (Shrestha & Acharya, 2021; Ghimire & Karki, 2022). Despite the rapid growth of digital finance, a lack of comprehensive research remains regarding how customers perceive and experience these services, particularly in terms of satisfaction, security, and trust (Ozili, 2018; Karki et al., 2021). Consumer perception plays a crucial role in the success and adoption of digital finance. Studies indicate that key factors influencing customer satisfaction include security, ease of use, reliability, and perceived risk (Gomber et al., 2017). Trust in digital finance platforms is particularly crucial, as concerns over cybersecurity, fraud, and data privacy often hinder adoption (Akins et al., 2016). Given Nepal's increasing digital financial integration, understanding these elements is vital for enhancing service delivery, improving user confidence, and fostering long-term adoption.

This study seeks to bridge the existing knowledge gap by conducting a bibliometric analysis of global research on digital finance adoption, customer perception, and satisfaction. Bibliometric studies help identify key research trends, influential authors, and thematic focuses in a given domain (Donthu et al., 2021). By examining citation networks and publication trends, this study aims to provide valuable insights into how digital finance influences customer satisfaction and trust. Additionally, while global research offers valuable lessons, there is limited data specific to Nepal, making this study particularly relevant to policymakers and financial service providers. The primary motivation behind this research is to explore how customers perceive and experience digital finance services within an increasingly digitalized ecosystem. Understanding customer satisfaction is essential to increasing adoption rates, fostering trust, and addressing regulatory and security challenges (Venkatesh et al., 2012; Karki, 2017). The findings will help financial institutions and policymakers enhance digital finance platforms, ensuring they meet customer needs effectively while promoting financial inclusion in Nepal.

In the context of Nepal, digital finance has witnessed a significant upsurge in recent years. According to the Nepal Rastra Bank (NRB, 2023), the country recorded over 300 million mobile banking transactions in the fiscal year 2022/23 alone, reflecting a sharp increase in digital engagement. Mobile phone penetration exceeded 130%, and internet penetration reached 85% of the population, further enabling widespread use of digital financial platforms (Nepal Telecommunications Authority, 2023). In response to this digital growth, the government and NRB have implemented key initiatives, including the Digital Nepal Framework 2019 and guidelines for electronic payment systems, aimed at promoting innovation (Shakya et al., 2025), financial inclusion, and fintech development. These advancements emphasize Nepal's commitment to fostering a robust digital finance ecosystem, thereby justifying the regional relevance and necessity of localized academic inquiry.

The objectives of this bibliometric analysis are threefold: first, to systematically examine global research trends and identify influential contributors in the domain of digital finance adoption and customer satisfaction; second, to highlight the recurring factors, such as trust, security, convenience, and service quality, that drive customer satisfaction across digital financial services; and third, to generate region-specific insights relevant to Nepal. Although the study analyzes global literature, the findings are discussed in the Nepalese context, emphasizing their relevance for local policymakers and financial service providers. This is particularly significant because there is a lack of bibliometric research focusing on digital finance from the perspective of Nepal's distinct socio-economic, technological, and regulatory landscape. By bridging this knowledge gap, the study provides a foundation for informed decision-making and strategic development in Nepal's evolving digital financial ecosystem.

## **Literature Review**

Consumer behavior and expectations have undergone significant changes with the widespread adoption of financial technologies such as mobile banking, online payments, artificial intelligence (AI), blockchain, and decentralized finance (DeFi) services. This literature review explores the existing research on digital finance, emphasizing customer perception, satisfaction, and emerging global trends, while also highlighting key bibliometric insights and identifying current research gaps.

### ***Customer Perception in Digital Finance***

Customer perception of digital finance is influenced by several factors, including trust, security, ease of use, and accessibility. Recent studies emphasize the importance of AI-driven personalization and responsive design in enhancing user trust and engagement. For example, Pavlou (2003) and Al-Htaybat and von Alberti-Alhtaybat (2021) show how AI-enabled financial platforms increase perceived value by offering tailored financial insights, promoting trust, and long-term usage. Similarly, Chhetri and Karki (2023) highlighted that localized and intuitive digital finance interfaces improve customer confidence, especially in developing economies. Security remains a central concern. Zhou (2011) and Ghimire et al. (2023) emphasize that perceived risk significantly influences user adoption. Dahlberg et al. (2008) found that a user-friendly experience positively influences customer perceptions of digital finance. More recently, AI and personalized financial services have improved customer engagement by enhancing efficiency and responsiveness (Hentzen et al., 2021; Karki et al., 2023). However, emerging technologies like blockchain, while improving transparency, also introduce new privacy and regulatory challenges (Wang et al., 2021).

### ***Factors Influencing Customer Satisfaction***

Customer satisfaction in digital finance is largely determined by service quality, transaction speed, and reliability. While foundational models such as service quality (SERVQUAL) introduced by Parasuraman et al. (1988) and expectation-confirmation theory (Oliver, 1997) remain relevant, newer frameworks are emerging to evaluate satisfaction in AI-integrated contexts. Studies have shown that mobile banking satisfaction depends on factors such as seamless transaction processing, ease of access, and responsive customer support (Alalwan et al., 2017).

Additionally, financial literacy has been identified as a significant factor influencing satisfaction levels, with well-informed customers showing higher trust in digital financial services (Ozili, 2018; Joshi et al., 2024). Recent studies suggest that AI and machine learning play a pivotal role in maintaining customer satisfaction by predicting user needs and personalizing financial interactions (Sun et al., 2022). However, satisfaction is contingent not just on technological capability, but also on ethical practices, data privacy, and regulatory assurance.

### ***Emerging Trends in Digital Finance Research***

The field is witnessing rapid innovation driven by blockchain and DeFi ecosystems, which aim to decentralize financial services and reduce institutional dependency. Recent research by Schueffel (2017) and Ryu et al. (2021) explores how DeFi protocols are reshaping user expectations regarding transparency, autonomy, and accessibility. The integration of biometric authentication and artificial intelligence in digital banking has further strengthened customer trust and enhanced security measures (Venkatesh et al., 2020). Another growing trend is the role of digital financial inclusion in expanding access to financial services, particularly in developing economies where fintech solutions address gaps in traditional banking infrastructure (Demirgüç-Kunt et al., 2018; Karki, 2018). In a recent global study, Dionysopoulos et al. (2024) highlighted that central bank digital currencies (CBDCs) are emerging as a policy-driven extension of DeFi that could improve transaction efficiency and broaden access to digital financial infrastructure.

### ***Bibliometric Analysis of Digital Finance and Customer Satisfaction***

Bibliometric analysis provides insights into the trends, influential research works, and scholarly impact in digital finance and customer satisfaction. Using citation analysis, co-authorship patterns, and keyword mapping, researchers can identify key themes and research gaps. Saputri et al. (2025) conducted a bibliometric study to examine the evolution of digital finance literature, revealing a steady rise in research on fintech adoption, customer trust, and AI-driven financial services. Co-citation analysis has highlighted the dominance of studies related to behavioral finance and technology acceptance models (Davis, 1989). Furthermore, keyword analysis of Scopus and Web of Science (WoS) databases indicates that emerging topics such as 'financial technology adoption,' 'customer experience in fintech,' and 'blockchain-based financial services' are gaining prominence. Despite the numerous advantages of digital finance, challenges such as cybersecurity threats, regulatory compliance, and data privacy remain significant concerns. Cybersecurity risks and data breaches continue to hinder customer trust and adoption (Wang et al., 2021).

## **Research Methods**

This study employed a bibliometric analysis approach to explore global trends and insights in digital finance and customer satisfaction. The research focuses on articles, studies, and academic papers published in reputable databases such as Dimensions. The selection criteria included peer-reviewed articles published in the last 10 years, focusing on digital finance and customer satisfaction.

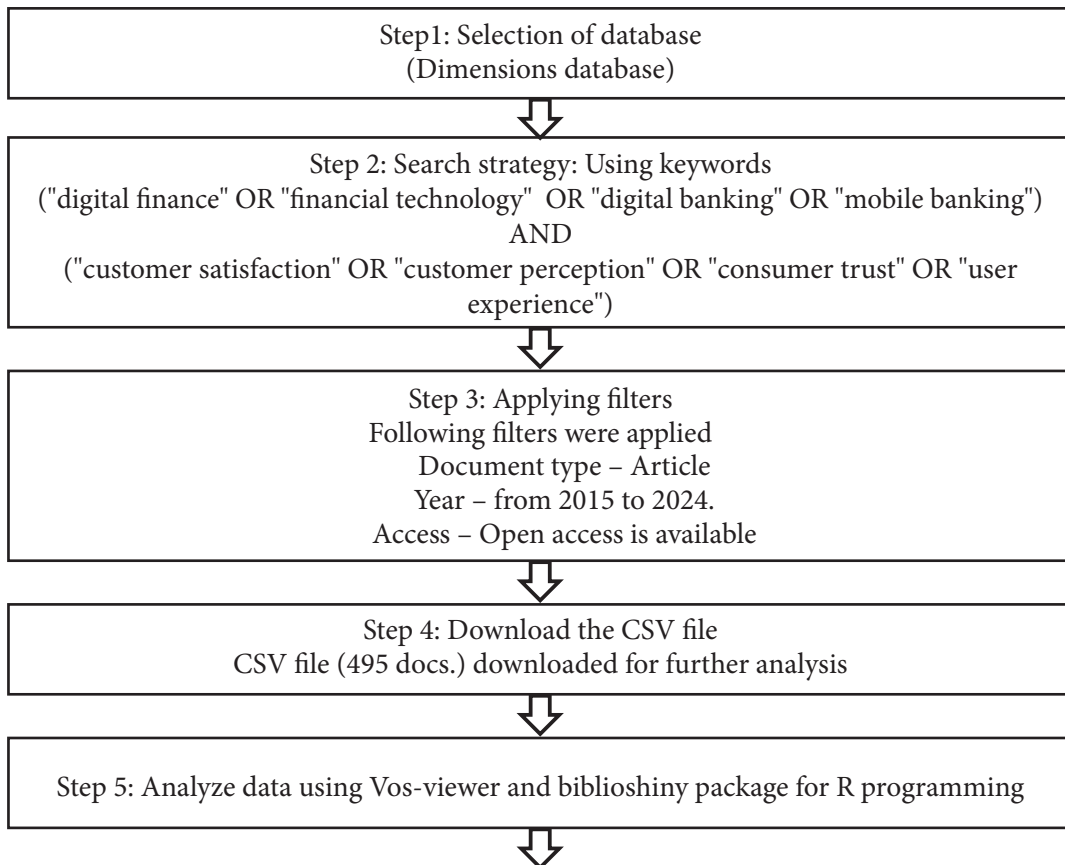
While this study primarily utilizes data from the Dimensions database, it acknowledges the potential limitation of selection bias due to the exclusion of subscription-based sources like Scopus and Web of Science (WoS). However, Dimensions was selected for several reasons. *First*, it offers broad coverage of peer-reviewed journals, including many newer and regionally inclusive publications that may be underrepresented in Scopus or WoS. *Second*, many open-access journals indexed in Dimensions are also listed in Scopus and WoS, ensuring a degree of consistency and reliability across databases. Moreover, Dimensions is increasingly recognized for its comprehensive and accessible bibliometric data, making it a valuable tool for exploratory research, especially in emerging and interdisciplinary fields like digital finance. To minimize selection bias, this study carefully filtered results to include only peer-reviewed and high-impact journal articles from reputable publishers.

The research utilizes Bibliometric software to analyze various aspects of the field. Citation analysis helps identify the most influential papers and authors, while co-citation analysis examines the relationships between key studies and recurring research topics. By analyzing keyword frequency, the study highlights common themes that dominate discussions in the literature. Additionally, network analysis provides a visual representation of connections between authors, journals, and institutions, offering insight into the collaborative nature of research in this area. This study extracts data using the 'Dimensions' database. Relevant articles were selected based on the following criteria:

- Keywords: ("digital finance" OR "financial technology" OR "digital banking" OR "mobile banking") AND ("customer satisfaction" OR "customer perception" OR "consumer trust" OR "user experience")
- Document type: Peer-reviewed articles
- Publication period: 2015-2024
- Open-access availability

The selection of keywords in this study was guided by the core themes directly aligned with the research objectives. Using Boolean operators ensured a comprehensive and inclusive retrieval of relevant literature while maintaining precision. Data was extracted in comma-separated values (CSV) format and analyzed using VOSviewer and Biblioshiny (R programming package). Citation analysis identified influential authors and research trends, while network analysis visualized collaboration patterns. The results of the bibliometric analysis have been presented using visualizations like network maps and graphs, highlighting the evolution of research trends, the impact of key authors, and the global discourse on customer satisfaction in digital finance. The analysis is conducted transparently and objectively, and all sources of data are properly cited to ensure that ethical considerations are upheld. The detailed process, as suggested by Donthu et al. (2021), is explained below.

**Figure 1**  
**Steps in Bibliometric Analysis**



## Result and Analysis

This section presents the bibliometric analysis of research on digital finance and customer satisfaction, covering publication trends, citation impact, key contributors, and thematic patterns.

The bibliometric analysis of digital finance and customer satisfaction spans from 2015 to 2024, covering nearly a decade of research growth. The 1,168 published documents across 850 sources suggest that research in this field is well-disseminated across multiple academic journals. A 55% annual growth rate highlights the increasing relevance of digital finance, likely driven by the rise of mobile banking, digital payments, and fintech innovations. The study identifies 2,792 authors, with most publications being co-authored, as only 231 documents are written by a single author. This indicates a strong culture of academic collaboration. However, international co-authorship is 7.449%, suggesting that while some studies involve global partnerships, there is still room for increased cross-border research efforts. By applying strict inclusion criteria, such as selecting only peer-reviewed journal articles, the study identified a total of 495 high-quality documents for review, ensuring rigor and validity in the analysis.

**Table 1**  
**Descriptions of Bibliometric Analysis**

Category	Value
Timespan	2015-2024
Sources	850
Documents	1,168
Annual Growth Rate	55%
Authors	2,792
Authors of Single-Authored Docs	231
International Co-Authorship	7.45%
Co-Authors per Document	2.56
Author's Keywords (DE)	1
References	12,002
Document Average Age	2.67 years
Average Citations per Document	7.488

The average number of co-authors per document is 2.56, reinforcing that most studies are team-based. The 12,002 references show a robust foundation of existing research supporting new findings. The document's average age of 2.67 years suggests that most cited works are recent, reflecting the fast-changing nature of digital finance. Additionally, the average citation per document is 7.488, indicating that studies in this field have a notable academic impact. These findings suggest that digital finance research is both current and impactful, with collaborative work contributing significantly to its academic advancement.

**Figure 2**  
**Publication Over the Year**

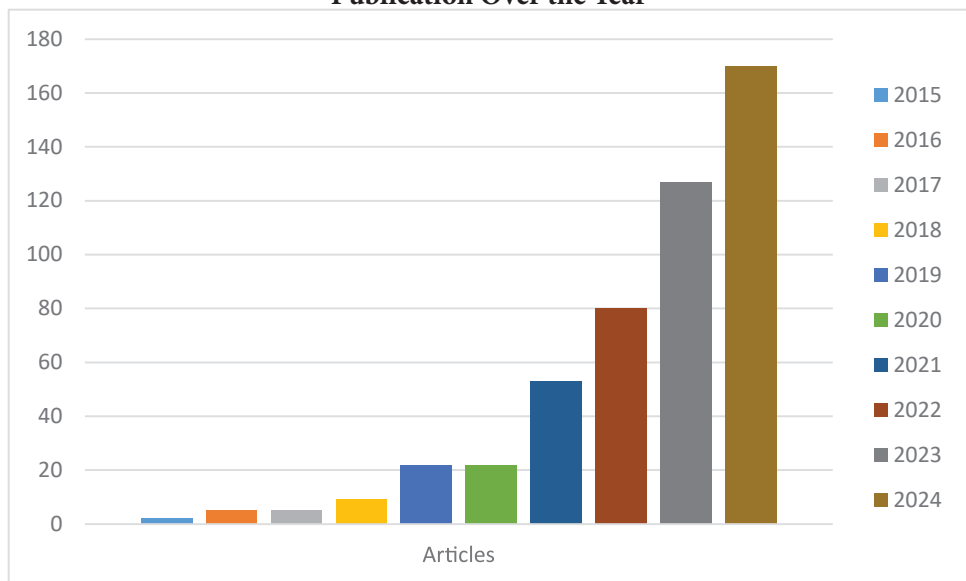




Table 2 shows the number of research articles published on digital finance and customer satisfaction each year. The trend indicates whether research interest in this field has increased or decreased over time. A growing number of publications in recent years suggests that digital finance is becoming a more relevant and widely studied topic. If the number of publications fluctuates, it might indicate varying levels of academic interest based on technological advancements, financial trends, or regulatory changes. The upward trend reveals that digital finance is gaining popularity as a mainstream research area. This growing academic focus may be driven by rising global digitalization and consumer demand for more accessible financial services.

**Table 2**  
**Most Relevant Sources**

Sources	Articles
Sustainability	37
International Journal of Bank Marketing	16
Journal of Financial Services Marketing	15
Journal of Risk and Financial Management	12
Heliyon	11
Cogent Business & Management	8
Journal of Open Innovation: Technology, Market, and Complexity	8
World Journal of Advanced Research and Reviews	8
Journal of Islamic Marketing	7

Table 2 lists the academic journals that have published the highest number of papers on digital finance and customer satisfaction. Journals like *Sustainability*, *International Journal of Bank Marketing*, and *Journal of Financial Services Marketing* appear frequently, suggesting that these are key platforms where research in this field is being published. Identifying these sources helps in understanding where the major academic discussions are taking place. The dominance of these journals illustrates the interdisciplinary nature of digital finance research, spanning sustainability, marketing, and financial services. It also signals where scholars and practitioners should look to stay updated on leading research in this area, and where future submissions may find a receptive audience.

### **Author Analysis**

Author analysis involves evaluating an author's work, background, writing style, and influence on a particular field to understand their contributions and credibility (Bizzaro & Baker, 2020). It includes identifying the most relevant author in each context, examining their contributions, and how their works are cited or connected to other authors (bibliographic coupling). This analysis also involves studying the author's credibility, the recurring themes in their writings, and their overall impact on the subject matter or discipline.



**Table3**  
**Most Relevant Authors**

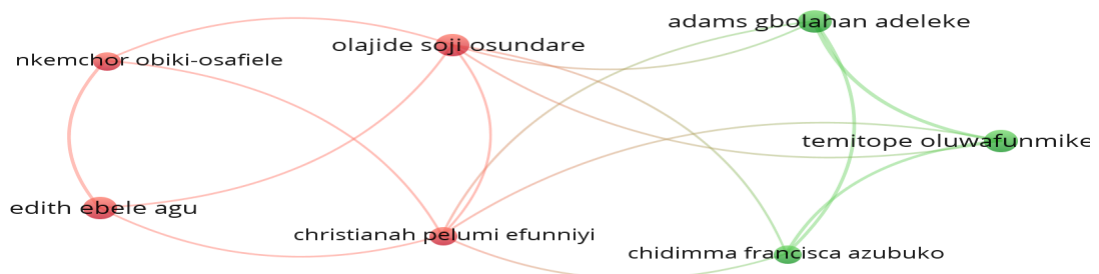
Authors	Articles	Articles Fractionalized
Bhatnagar P	6	2.33
Liu J	6	2.12
Rajesh A	6	2.33
Wang Y	6	2.28
Liu Y	5	1.50
Rahman M	5	1.80
Zhang Y	5	1.33
Alsmadi Aa	4	1.53
Dinçer H	4	1.17
Huang Y	4	0.93

Table 3 highlights the authors who have contributed the most articles on digital finance and customer satisfaction. Some authors have multiple publications in this area, indicating their expertise and influence in the field. The fractionalized article counts accounts for co-authorship, meaning that if a paper has multiple authors, the contribution is divided among them. Recognizing these leading authors can help researchers identify key studies and potential collaborators. Identifying leading authors helps to find intellectual leaders and research clusters within the field. This insight can guide emerging researchers toward key readings and potential academic collaborators, strengthening the global research network in digital finance.

### ***Co-authorship by Authors***

Figure 3 zooms in on individual co-authorship patterns. It highlights which researchers frequently work together and how often they collaborate. If certain names appear repeatedly with multiple co-authors, it suggests they are leading research teams or are part of strong institutional collaborations. On the other hand, if some authors have only one or two collaborations, they may be working on specialized studies. Recognizing these patterns can help new researchers find potential mentors or partners in the field.

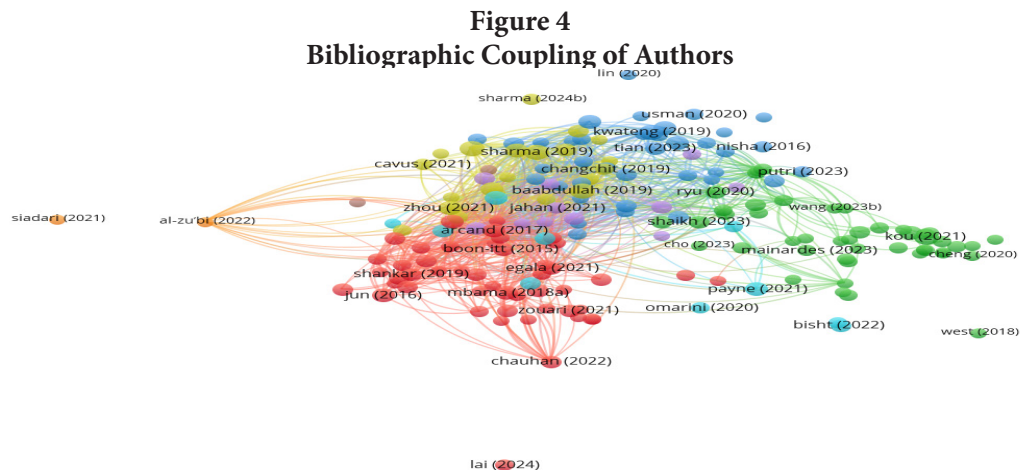
**Figure 3**  
**Co-authorship by Authors**



The co-authorship analysis reveals that most research in digital finance is conducted through collaborative efforts, as indicated by the high number of co-authors per document (2.56). However, international collaboration remains relatively low (7.45%), suggesting that most studies are conducted within national or regional contexts. Encouraging more cross-border collaborations could enhance knowledge exchange and the development of globally applicable insights. The dominance of domestic collaboration suggests that while team-based research is common, there are missed opportunities for international knowledge exchange. Expanding cross-border partnerships can lead to more diverse perspectives and enhance the global applicability of research outcomes, especially as digital finance continues to transcend geographical boundaries.

### ***Bibliographic Coupling of Authors***

Unlike co-authorship, bibliographic coupling connects researchers who cite the same references in their work. This means that even if the two authors have never worked together, their research interests are closely related. The figure helps identify clusters of researchers studying similar topics within digital finance. If certain authors frequently cite the same sources, it indicates that their studies are contributing to the same body of knowledge. This is useful for finding experts in specific areas, even if they haven't collaborated directly.



Thus, the analysis identifies Bhatnagar P, Liu J, and Rajesh A as the most prolific authors in digital finance research, each contributing multiple publications. The average number of co-authors per document (2.56) indicates a strong culture of academic collaboration. However, the international co-authorship rate (7.45%) suggests that most studies are conducted within national or regional boundaries. Encouraging cross-border collaboration could enhance the diversity of insights in digital finance research.

### ***Citation Analysis***

According to Garfield (2006), citation analysis evaluates the frequency and impact of citations to academic works, including aspects like average citation per year and identifying the most globally cited document. It includes components such as the average citation per year, the

most globally cited document, and citation analysis based on documents, which tracks how frequently a specific work is cited in other research.

**Table 4**  
**Average Citation per Year**

Year	MeanTCperArt	N	MeanTCperYear	Citable Years
2015	4.50	2	0.41	11
2016	26.60	5	2.66	10
2017	66.40	5	7.38	9
2018	37.44	9	4.68	8
2019	10.95	22	1.56	7
2020	6.91	22	1.15	6
2021	20.87	53	4.17	5
2022	3.71	80	0.93	4
2023	2.23	127	0.74	3
2024	0.39	170	0.20	2

*Note(s).* MeanTCperArt - Mean Total Citations per Article; MeanTCperYear - Mean Total Citations per Year

Table 4 presents data on the number of citations per article over the years. Older papers generally have more citations because they have been available for a longer time, whereas newer papers may have fewer citations but can still be influential in the future. A high average citation count in a specific year suggests that the papers published during that period have been widely referenced by other researchers, indicating their significance in the field.

**Table 5**  
**Most Global Cited Documents**

Paper	DOI	Total Citations	TC per Year	Normalized TC
Sharma & Sharma (2019). International Journal of Information Management	10.1016/J.Ijinfo-mgt.2018.09.013	452	64.57	15.16
Baabdullah et al. (2019). International Journal of Information Management	10.1016/J.Ijinfo-mgt.2018.09.002	372	53.14	12.48
Kou et al. (2021). Financial Innovation	10.1186/S40854-021-00256-Y	306	61.20	17.56
Tam & Oliveira (2016). Computers in Human Behavior	10.1016/J.Chb.2016.03.016	301	30.10	6.07

Kwateng et al. (2019). Journal of Enterprise Information Management	10.1108/Jeim-03-2018-0055	230	32.86	7.71
Stewart & Jürjens (2018). Information and Computer Security	10.1108/Ics-06-2017-0039	216	27.00	6.80
Arcand et al. (2017). International Journal of Bank Marketing	10.1108/Ijbm-10-2015-0150	203	22.56	4.69
Mbama & Ezepue (2018). International Journal of Bank Marketing	10.1108/Ijbm-11-2016-0181	200	25.00	6.30
Singh et al. (2017). International Journal of Bank Marketing	10.1108/Ijbm-06-2016-0086	154	17.11	3.56
Tam & Oliveira (2017). Internet Research	10.1108/Intr-05-2016-0117	149	16.56	3.45

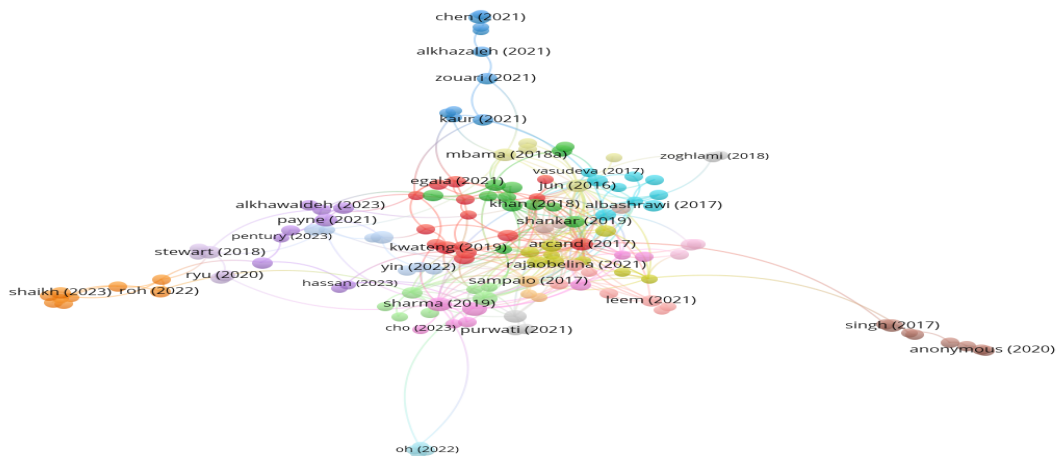
Note. TC - Total Citation

Table 5 lists the research papers that have received the highest number of citations. Highly cited papers are influential because they provide foundational theories, empirical evidence, or widely accepted findings in the field. For example, a paper published in 2019 with over 400 citations has significantly shaped discussions on digital finance and customer satisfaction. These papers are important to review when conducting a literature review or building a theoretical framework.

Citation Analysis Based on Documents

Figure 5 analyzes how frequently different research papers are cited. Papers with higher citations are considered influential, as they have contributed significantly to shaping the field. Citation analysis helps in understanding which studies have had the most impact and are widely referenced in subsequent research.

Figure 5  
Citation Analysis Based on the Document



The citation trends indicate that research in digital finance has gained significant attention in recent years. The peak in citations during 2019-2021 suggests that studies published in this period provided foundational theories and frameworks that influenced subsequent research. However, the decline in citations for recent publications (2023-2024) is expected, as newer studies typically take time to accumulate citations. This pattern highlights the need for continuous updates and further exploration of emerging themes in digital finance. Thus, the citation analysis reveals that highly cited studies in digital finance and customer satisfaction focus on key themes such as trust, security, and service quality. The most cited paper, Sharma and Sharma (2019), has received 452 citations, indicating its significant impact on the field. Citation trends show that studies published between 2017 and 2021 have higher citation counts, suggesting that foundational research during this period continues to shape recent discussions. However, newer studies from 2023-2024 have lower citation counts, as they require more time to accumulate references.

### ***Network Analysis***

Network analysis involves examining connections between authors and institutions, which can reveal collaboration patterns and co-authorship networks (Qiu et al., 2014). It involves studying the most relevant affiliations of authors, analyzing collaborative and co-authorship networks, and performing collaborative analysis of publications to understand how authors, institutions, or research groups are interconnected through shared research and publications. This type of analysis is commonly used in bibliometrics to map academic collaboration and research dynamics. This section explores how researchers, institutions, and countries collaborate in the field of digital finance and customer satisfaction. Understanding these collaboration patterns helps identify key contributors, research clusters, and how knowledge is shared across different regions. The figures and tables in this section provide a detailed look at how authors work together, which institutions are most active, and how research networks are formed.

**Table 6**  
**Most Relevant Affiliations**

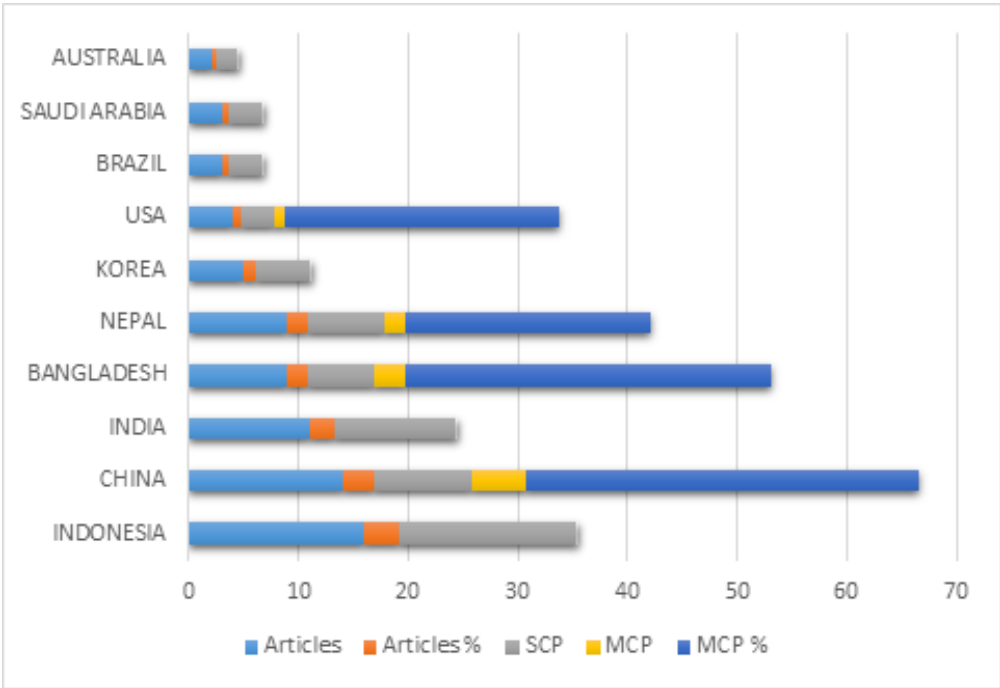
<b>Affiliation</b>	<b>Articles</b>
Doctoral Program in Management Science, Universitas Padjajaran, Bandung, Indonesia	6
Universitas Palangka Raya	6
Universitas Telkom	6
Associate Professor, School of Business, Pokhara University, Pokhara, Nepal	5
Department of Strategic Development, Webank Co., Ltd., Shenzhen 518057, China	5
Nepal Commerce Campus, T.U., Nepal	5
Universitas Islam Negeri Uin	5
Weux, Webank, Pr China	5
Dincazeno16@Stud.Ase.Ro, Z.D.	4

Table 6 presents the institutions and universities that have produced the most research on digital finance. Institutions from countries like Indonesia, China, and Nepal appear prominently, suggesting that digital finance research is particularly active in these regions. The presence of multiple institutions from different countries also indicates that digital finance is a globally relevant topic.

**Collaboration and Co-Authorship Networks**

Figure 6 analyzes collaboration at the country level, showing how different nations contribute to research in digital finance and customer satisfaction. Countries with higher collaboration scores have more international partnerships, indicating strong global research engagement. If a country has a high number of publications but low international collaboration, it suggests that most studies are conducted domestically. This figure helps in identifying whether research in digital finance is globally distributed or concentrated in specific regions.

**Figure 6**  
**Collaborative and Co-authorship Network**



Note (s): SCP - Single Country Publication; MCP - Multiple Country Publication

**Collaborative Analysis of Publications**

Table 7 presents co-authorship network metrics, identifying key researchers and their collaboration patterns. Authors are grouped into clusters, indicating research groups working on similar topics.

- Betweenness measures how often an author acts as a bridge between different research groups. Higher values (e.g., Olajide Soji Osundare Oso = 4) suggest greater connectivity between clusters.
- Closeness reflects how easily an author can reach others within the network. A value of 1 (e.g., Rajesh A, Bhatnagar P) indicates high connectivity.
- Page Rank identifies influential researchers within the network. Authors with higher values (e.g., Olajide Soji Osundare Oso) are more central in the research collaboration structure.

The presence of multiple clusters (1-4) suggests that digital finance research is divided into distinct subfields. Some authors, such as Rajesh A and Bhatnagar P, have strong network positions, indicating frequent collaboration and influence in the field. However, low betweenness scores for many authors suggest limited cross-group collaboration, highlighting opportunities for stronger interdisciplinary research.

**Table 7**  
**Collaboration Network**

Node	Cluster	Betweenness	Closeness	PageRank
Adams Gbolahan, Adeleke Aga	1	0	0.167	0.048
Edith Ebele, Agu Eea	1	0	0.167	0.04
Olajide Soji, Osundare Oso	1	4	0.25	0.05
Temitope Oluwafunmike, Sanyaolu Tos	1	0	0.167	0.048
Anwuli Nkemchor, Obiki-osafiele Ano	1	0	0.167	0.04
Rajesh, A.	2	0	1	0.045
Bhatnagr, P.	2	0	1	0.045
Suhartanto, D.	3	0	1	0.045
Syarief Me	3	0	1	0.045
Basnet, B. J.	4	0	1	0.045

### **Keyword Analysis**

Keyword analysis is the process of identifying and evaluating the most relevant and frequently used keywords in academic or research content. It helps in understanding the main topics, trends, and themes by analyzing words or phrases that appear most often. This process is useful for tracking emerging topics, improving search engine optimization (SEO), and increasing the discoverability of research. By analyzing keywords, researchers can better focus on their field and identify gaps in the literature. Wang et al. (2020) developed an algorithm that utilizes keyword analysis to generate data for literature reviews, enabling researchers to pinpoint underexplored areas within scientific publications.





Keyword frequency analysis shows that "banking," "mobile," "customer," "satisfaction," and "fintech" are the most frequently used terms, emphasizing the central themes of digital finance research. The co-occurrence network reveals strong connections between "trust," "security," and "service quality," highlighting their importance in shaping customer perception. Emerging keywords such as "AI-driven finance" and "digital wallets" indicate a growing interest in advanced financial technologies. Future research should explore how these innovations influence customer satisfaction and trust.

## Discussions

The bibliometric analysis of digital finance and customer satisfaction reveals several important insights about the growth, key contributors, and thematic focus of research in this field. The analysis of publications over the years indicates that research on digital finance has been steadily increasing, especially in the past five years. This suggests that as digital finance services such as mobile banking, digital payments, and fintech solutions have gained popularity, academic interest in understanding their impact on customer perception and satisfaction has also grown. However, the variation in citations across different years indicates that some studies have had a more lasting influence than others, likely due to the significance of their findings or the depth of their analysis.

The identification of the most relevant journals highlights where discussions on digital finance are taking place. *Sustainability*, *International Journal of Bank Marketing*, and *Journal of Financial Services Marketing* are among the leading sources, suggesting that research in this field is spread across disciplines, including finance, marketing, and business management. This interdisciplinary nature of digital finance research is also evident in the list of most relevant affiliations, which includes universities and institutions from multiple countries. The presence of institutions from Nepal, China, and Indonesia indicates that digital finance is a global research priority, particularly in emerging economies where financial technology is rapidly evolving.

A key takeaway from the analysis is the identification of influential researchers and highly cited papers. Certain authors have made significant contributions to the field, and their work continues to be widely referenced. The most cited documents provide foundational insights into digital finance, customer satisfaction, and consumer trust. These studies highlight the critical factors influencing customer satisfaction, including ease of use, security, trust, and service quality. The fact that these elements repeatedly appear across various studies suggests their universal importance in digital finance adoption.

Keyword analysis further supports these findings, as terms like "banking," "mobile," "customer," "satisfaction," and "service" frequently appear in the literature. This reinforces the idea that research is focused on understanding how digital banking services influence customer experiences. Additionally, the co-occurrence network and collaboration analysis indicate that research in this field is highly interconnected. Scholars from different regions are collaborating to explore similar topics, thereby enhancing the depth and applicability of the findings. However, there are also isolated research efforts, suggesting that there is room for increased collaboration, particularly between developed and developing economies, where digital finance adoption varies significantly.

## Conclusion and Implications

This study provides a comprehensive bibliometric analysis of research on digital finance and customer satisfaction, mapping key themes, influential contributors, and publication trends. The rising volume of literature over the past decade reflects a growing scholarly interest in the field, with a consistent focus on trust, security, convenience, and service quality factors that strongly influence user satisfaction and adoption of digital financial services. The analysis highlights how these factors are interlinked with user experience and perceptions across various regions and platforms. Additionally, co-authorship patterns and collaboration networks reveal opportunities to strengthen academic synergy and cross-border cooperation.

This study also offers important theoretical, practical, and policy-level implications. Theoretically, it advances bibliometric research by applying comprehensive citation, keyword, and network analysis to the interdisciplinary field of digital finance, while also reinforcing behavioral finance theories that explain how trust, usability, and perceived risk influence user satisfaction. Practically, the findings provide actionable insights for Nepalese fintech firms, urging them to invest in cybersecurity, leverage AI-driven personalization, and improve user-friendly design to boost customer trust and engagement. On a policy level, the study emphasizes the need for Nepalese regulators to establish frameworks that balance innovation with consumer protection, especially by enforcing data privacy standards, encouraging secure digital ecosystems, and promoting digital financial literacy.

## Limitations and Future Research

Despite its valuable insights, this study has certain limitations. The analysis relies primarily on data extracted from the Dimensions database and open-access sources, which, although inclusive of emerging journals and regionally diverse publications, may not capture the full scope of research indexed in subscription-based databases like Scopus and WoS. While Dimensions offers reliable coverage and includes many SCOPUS/WoS-indexed articles, access constraints limited the inclusion of all potential literature. Although filtering for peer-reviewed and high-impact journals was employed to mitigate selection bias, the exclusion of non-English and grey literature might have restricted the study's global comprehensiveness.

Future research should aim to expand database coverage and include longitudinal studies that assess how digital finance adoption impacts consumer behavior over time. Comparative studies between developed and developing economies could offer deeper insights into contextual factors shaping user experiences. Moreover, interdisciplinary approaches integrating finance, behavioral science, technology, and public policy will be vital in exploring emerging areas such as AI ethics, digital identity, and regulatory challenges.

## Acknowledgment

We would like to express our sincere gratitude to all individuals and institutions who helped complete this research article.

## Conflicts of Interest

The authors declare no conflicting interests among the authors.

## Fundings

No funding was received.

## Authors' Contribution and ORCID iDs

**Rosma Shakya:** Conceptualization, Methodology; Software; Investigation, Writing-Original Draft, Visualization, Data Curation, Project Administration, Formal Analysis.

 : <https://orcid.org/0009-0004-5975-877X>

**Dipendra Karki:** Data Analysis, Software, Validation, Investigation, Review and Editing, Visualization, Resources; Supervision, Project Administration.

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

## References

- Akins, B., Li, L., Ng, J., & Rusticus, T. O. (2016). Bank competition and financial stability: Evidence from the financial crisis. *Journal of Financial and Quantitative Analysis*, 51(1), 1-28.
- Alalwan, A. A., Dwivedi, Y. K., Rana, N. P., & Williams, M. D. (2017). Consumer adoption of mobile banking in Jordan. *Journal of Enterprise Information Management*, 30(2), 244-266. <https://doi.org/10.1108/JEIM-04-2015-0035>
- Al-Htaybat, K., & von Alberti-Alhtaybat, L. (2021). Artificial intelligence and customer experience in finance: Empirical insights from the banking sector. *Journal of Financial Services Marketing*, 26(1), 25-35. <https://doi.org/10.1057/s41264-020-00079-7>
- Arcand, M., PromTep, S., Brun, I., & Rajaobelina, L. (2017). Mobile banking service quality and customer relationships. *International Journal of Bank Marketing*, 35(7), 1068-1089. <https://doi.org/10.1108/IJBM-10-2015-0150>
- Arner, D. W., Barberis, J., & Buckley, R. P. (2016). The evolution of fintech: A new post-crisis paradigm? *Georgetown Journal of International Law*, 47, 1271-1319.
- Baabdullah, A.M., Alalwan, A.A., Rana, N.P., Kizgin, H., & Patil, P. (2019) Consumer use of mobile banking (M-banking) in Saudi Arabia: Towards an integrated model. *International Journal of Information Management*, 44, 38-52. <https://doi.org/10.1016/j.ijinfomgt.2018.09.002>
- Bizzaro, P., & Baker, J. (2020). *Rhetorical criticism and the study of literature*. Oxford University Press
- Chhetri, A. D., & Karki, D. (2023). Consumers' attitude on purchase behavior of green products. *Pravaha*, 29(1), 111-122. <https://doi.org/10.3126/pravaha.v29i1.71411>
- Dahlberg, T., Mallat, N., Ondrus, J., & Zmijewska, A. (2008). Past, present, and future of mobile payments research: A literature review. *Electronic Commerce Research and Applications*, 7(2), 165-181. <https://doi.org/10.1016/j.eierap.2007.02.001>
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. <https://doi.org/10.2307/249008>
- Demirgüç-Kunt, A., Klapper, L., Singer, D., Ansar, S., & Hess, J. (2018). The global finindex database 2017: Measuring financial inclusion and the fintech revolution. The World Bank. <https://doi.org/10.1596/978-1-4648-1259-0>

- Dionysopoulos, L., Marra, M., & Urquhart, A. (2024). Central bank digital currencies: A critical review. *International Review of Financial Analysis*, 91, 103031. <https://doi.org/10.1016/j.irfa.2023.103031>
- 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.
- Garfield, E. (2006). *The history and meaning of the journal impact factor*. *JAMA*, 295(1), 90–93. <https://doi.org/10.1001/jama.295.1.90>
- Ghimire, B., Dahal, R. K., & Karki, D. (2023). Job security and faculty commitment within higher education institutions. *The International Research Journal of Management Science*, 8(1), 14–27. <https://doi.org/10.3126/irjms.v8i1.60684>
- 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., Koch, J. A., & Siering, M. (2017). Digital finance and fintech: Current research and future research directions. *Journal of Business Economics*, 87(5), 537-580.
- Hentzen, J. K., Hoffmann, A., Dolan, R., & Pala, E. (2021). Artificial intelligence in customer-facing financial services: A systematic literature review and agenda for future research. *International Journal of Bank Marketing*, 39(7), 1099–1123. <https://doi.org/10.1108/IJBM-09-2021-0417>
- Joshi, S. P., Dahal, R. K., Karki, D., & Ghimire, B. (2024). Consumer behavior and decision-making in health insurance policy purchases in Nepal. *Nepalese Journal of Insurance and Social Security*, 7(1) 100-116. <https://doi.org/10.58665/njiss.66>
- Karki, D. (2017). Structural equation modeling of latent variables affecting stock prices: Evidence from Nepal. *Tribhuvan University Journal*, 31(1-2), 25-44. <https://doi.org/10.3126/tuj.v31i1-2.25329>
- Karki, D. (2018). The dynamic relationship between tourism and economy: Evidence from Nepal. *Journal of Business and Management*, 5(1), 16–22. <https://doi.org/10.3126/jbm.v5i0.27384>
- Karki, D., Karki, N., Dahal, R. K., & Bhattarai, G. (2023). Future of education in the era of artificial intelligence. *Journal of Interdisciplinary Studies*, 12(1), 54–63. <https://doi.org/10.3126/jis.v12i1.65448>
- 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*, 7(3), 135-144. <https://dx.doi.org/10.32861/jssr.73.135.144>
- Kou, G., Olgu Akdeniz, Ö., Dinçer, H., & Yüksel, S. (2021). Fintech investments in European banks: A hybrid IT2 fuzzy multidimensional decision-making approach. *Financial Innovation*, 7(1), 1-28. <https://doi.org/10.1186/s40854-021-00256-y>
- Kwateng, K. O., Atiemo, K. A. O., & Appiah, C. (2019). Acceptance and use of mobile banking: an application of UTAUT2. *Journal of Enterprise Information Management*, 32 (1), 118-151. <https://doi.org/10.1108/JEIM-03-2018-0055>
- Mbama, C. I., & Ezepeue, P. O. (2018). Digital banking, customer experience and bank financial performance: UK customers' perceptions. *International Journal of Bank Marketing*, 36(2), 230-255. <https://doi.org/10.1108/ijbm-11-2016-0181>



- Nepal Rastra Bank. (2023). *Current macroeconomic and financial situation of Nepal (Based on annual data 2022/23)*. <https://www.nrb.org.np/contents/uploads/2023/09/Current-Macroeconomic-and-Financial-Situation-Annual-2022-23.pdf>
- Nepal Telecommunications Authority. (2023). *MIS Report*, July 2023. Retrieved from <https://nta.gov.np/en/mis-reports>
- Oliver, R. L. (1997). *Satisfaction: A behavioral perspective on the consumer*. McGraw-Hill.
- 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>
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: A multiple-item scale for measuring consumer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, 7(3), 101-134. <https://doi.org/10.1080/10864415.2003.11044275>
- Qiu, J.-P., Dong, K., & Yu, H.-Q. (2014). *Comparative study on structure and correlation among author co-occurrence networks in bibliometrics*. *Scientometrics*, 101(3), 1345-1360. <https://doi.org/10.1007/s11192-014-1315-6>
- Ryu, H., Ko, Y., & Kim, D. (2021). Understanding the DeFi (Decentralized Finance) user: Motivations, challenges, and expectations. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(4), 214. <https://doi.org/10.3390/joitmc7040214>
- Saputri, A. R., Rinofah, R., & Fuady, M. (2025). Emerging trends and bibliometric analysis of AI applications in financial services. *Economic Education Analysis Journal*, 14(1), 37-52. <https://doi.org/10.15294/f25r4127>
- Schueffel, P. (2017). Taming the beast: A scientific definition of fintech. *Journal of Innovation Management*, 4(4), 32-54. [https://doi.org/10.24840/2183-0606\\_004.004\\_0004](https://doi.org/10.24840/2183-0606_004.004_0004)
- Shakya, A., Bhattarai, U., & Timsina, B. (2025). Unlocking stability: Mitigating job-hopping among millennials in the information technology sector. *American Journal of STEM Education*, 8, 29-62.
- Sharma, S. K., & Sharma, M. (2019). Examining the role of trust and quality dimensions in the actual usage of mobile banking services: An empirical investigation. *International Journal of Information Management*, 44, 65-75. <https://doi.org/10.1016/j.ijinfomgt.2018.09.013>
- Shrestha, P., & Acharya, S. (2021). The rise of digital finance in Nepal: Trends, challenges, and opportunities. *Journal of Nepalese Financial Studies*, 5(1), 45-62.
- Shrestha, P., Karki, D., & Pandit, S. (2022). Operational optimization and cost efficiency in Nepalese Banks. *Journal of Development and Administrative Studies*, 30(1-2), 23-32. <https://doi.org/10.3126/jodas.v30i1-2.69525>
- Singh, N., Srivastava, S., & Sinha, N. (2017). Consumer preference and satisfaction of M-wallets: A study on North Indian consumers. *International Journal of Bank Marketing*, 35(6), 944-965. <https://doi.org/10.1108/IJBM-06-2016-0086>
- Stewart, H., & Jürjens, J. (2018). Data security and consumer trust in FinTech innovation in Germany. *Information and Computer Security*, 26(1), 109-128. <https://doi.org/10.1108/ICS-06-2017-0039>

- Sun, Y., Liu, Z., & Zhang, J. (2022). The impact of AI-powered services on customer satisfaction in mobile banking. *Computers in Human Behavior*, 131, 107239. <https://doi.org/10.1016/j.chb.2022.107239>
- Tam, C., & Oliveira, T. (2016). Understanding the impact of m-Banking on individual performance: DeLone & McLean and TTF perspective. *Computers in Human Behavior*, 61, 233-244. <https://doi.org/10.1016/j.chb.2016.03.016>
- Tam, C., & Oliveira, T. (2017). Understanding mobile banking individual performance: The DeLone & McLean model and the moderating effects of individual culture. *Internet Research*, 27(3), 538-562. <https://doi.org/10.1108/IntR-05-2016-0117>
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 36(1), 157-178.
- Venkatesh, V., Thong, J. Y., & Xu, X. (2021). Consumer acceptance and use of information technology: Extending the unified theory of acceptance and use of technology. *MIS Quarterly*, 45(1), 1–32. <https://doi.org/10.25300/MISQ/2021/13792>
- Wang, S., Asif, M., Shahzad, M. F., & Ashfaq, M. (2024). Data privacy and cybersecurity challenges in the digital transformation of the banking sector. *Computers & Security*, 147, 104051. <https://doi.org/10.1016/j.cose.2024.104051>
- Zhou, T. (2011). Understanding mobile internet continuance usage from the perspectives of UTAUT and flow experience. *Computers in Human Behavior*, 27(2), 888-897. <https://doi.org/10.1016/j.chb.2010.11.011>

## Bios

---

**Rosma Shakya** is an MBA research scholar at Nepal Commerce Campus, TU. She possesses a strong passion for research and has been actively participating in research activities.

Email: [rosmashakya@gmail.com](mailto:rosmashakya@gmail.com)

---

**Dr. Dipendra Karki** is an Assistant Professor in the Faculty of Management at Tribhuvan University (TU), Nepal. He earned an M.Phil. and PhD in Finance from Kathmandu University School of Management (KUSOM). His teaching interests include Behavioral Finance, Global Finance, Financial Economics, and Securities Valuation. Dr. Karki is a published author who has written several articles and books.

Email: [dipendra.karki@ncc.edu.np](mailto:dipendra.karki@ncc.edu.np)

---



---

**Cite as:** 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>

---