Enhancing Service Quality via Digital Transformation through Mobile Banking: A Qualitative Bibliometric Study

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Article Info	ABSTRACT
	Objective: This study combines bibliometric analysis of global digital banking literature with qualitative interviews in Indonesia to explain how mobile banking adoption contributes to service quality improvement. **Theoretical Framework**: This study is based on technology acceptance paradigms, such as the Unified Theory of Acceptance and Use of Technology (UTAUT) and the Technology Acceptance Model (TAM). The research examines the interplay of perceived ease of use, usefulness, trust, and risk perceptions in determining customer adoption of mobile banking, hence affecting service quality outcomes. **Method**: This research employs bibliometric analysis and qualitative techniques to investigate the impact of mobile banking on service quality. Bibliometric analysis was employed to rigorously delineate research patterns and identify main topics within the literature on digital banking. The results of in-depth interviews with banking experts and mobile banking clients were analyzed thematically to identify the elements affecting the adoption of mobile banking and the enhancement of service quality. **Results and Discussion**: The results show that characteristics like convenience of use, security, performance expectancy, and perceived reliability have a big impact on how many people use mobile banking. All of these factors improve service quality and customer loyalty. Some of the main topics of discussion are the need of digital infrastructure, the reasons why some groups are less likely to accept new technology, and the need for banks to mix new technology with customer-focused strategy. The study shows that mobile banking is becoming more and more important for improving service access and operational efficiency. **Research Implications**: The results can help banks who want to make their mobile banking services better. To get more people to utilize digital products and services and give your business a competitive edge, you should focus on making apps that are safe and easy to use, finance programs that teach people about them, and develop trust-based partnerships. **Originality/Value**: This study contributes to our understanding of how mobile banking can enhance the quality of services provided by Indonesian banks. It connects research results with useful advice for banking professionals, giving them information about local impediments to adoption and strategic chances for digital transformation in financial services.

1. INTRODUCTION

Advances in information and communication technology have spurred several changes in the banking sector, especially in the area of mobile banking services, which customers are increasingly utilizing to quickly and conveniently perform a range of banking tasks (Adiningtyas & Shavira, 2024). Fianto et al., (2021) say that mobile banking is a digital marketing channel that lets clients complete their banking from anywhere and at any time, so they don't have to go to a branch office. Mobile banking is getting more and more popular around the world, especially in Indonesia, mostly because it is easy to use (Studies et al., 2024). People are worried about security when they use mobile banking services since they entail private financial transactions (Rahardjo & Darma, 22025). These services want to improve the quality of all services by giving users a speedy, safe, and comfortable experience (Rachman et al., 2024). Research indicates that customer satisfaction with mobile banking is positively correlated with customer loyalty and retention, so it is essential for banks to persist in improving their services (Fianto et al., 2021).

Mobile banking is becoming more popular, but there are still a lot of problems that need to be fixed, both technological and non-technical. These include network problems, a lack of user education, and data security problems (Ananda et al., 2023). Moreover, numerous research indicate that the degree of user trust significantly influences consumers' decisions to utilize mobile banking (Juliansyah et al., 2024). Also, enhancements to features like fast customer service, easy navigation, and working with other services make mobile banking services better (Manyanga et al., 2022). This study looks at these factors to determine how well mobile banking enhances banking services (Al-Dmour et al., 2019). Presenting a comprehensive picture of Indonesian mobile banking usage conditions is essential for banks to create accurate development strategies (Tedjokusumo & R. Murhadi, 2023).

As part of the banking industry's digital transformation, modern banks' business strategies and regulations now focus on mobile banking use (Tedjokusumo & R. Murhadi, 2023). Indonesian banks are putting more money into making mobile banking apps to make their customers happier and more loyal (Arora & Banerji, 2024). However, education and socialization are necessary for society as service users to fully understand the benefits and features of mobile banking services (Dağaşaner & Karaatmaca, 2025). This study is expected to enhance the development of mobile banking services that can compete with digital products from many industries, both scientifically and practically (Pritjahjono et al., 2023). Furthermore, policymakers can use the findings of this study as a guide when drafting laws that encourage the growth of secure and cutting-edge mobile banking services (Rahardjo & Darma, 2025).

2. THEORETICAL FRAMEWORK

2.1. The Evolution of Mobile Banking

The growth of information and communication technology, especially mobile banking, which is becoming an important aspect of modern consumer transactions, has led to quick changes in banking services (Banking, 2023). People wanted easier and faster ways to do financial transactions without having to go to a bank branch, therefore mobile banking was invented (Balcioglu, 2025). The process of digitization enabled banks to expand their services to areas that were previously inaccessible to traditional financial infrastructure (Bhatnagr & Rajesh, 2024). One of the key reasons mobile banking is growing in nations like Indonesia is that a lot of people have smartphones and internet connections (Mothey et al., 2024). Mobile banking started out as a simple tool that merely gave users account information and transaction alerts. Now, it has quickly grown into a complex platform with a wide range of financial services and personalized features (Jit et al., 2021). The digital transformation of banking through mobile banking platforms makes operations more efficient and lowers costs while keeping or improving service quality (Info et al., 2025).

2.2. The Role of Mobile Banking

Mobile banking is the primary platform for modern digital banking, providing users with the freedom and security to carry out a range of real-time financial operations from any location (Al-ghamdi, 2024). Among the features that applications offer through a mobile device are fund transfers, account balance checks, bill payments, balance top-ups, and investment activities (Farokhizadeh et al., 2024). Mobile banking saves customers a lot of time and makes banks work more efficiently by doing rid of the requirement to go to a branch (Riza, 2024). Mobile banking makes it easier for everyone to get financial services and helps a lot with financial inclusion by reaching people in rural or underdeveloped areas (Ali, 2023). The importance of mobile banking in expanding and personalizing banking services is further supported by its integration with digital financial ecosystems, such as e-wallets, fintech apps, and APIs (Arredondo-trapero & Carlos, 2023). Customer loyalty and satisfaction are also enhanced by mobile banking's assurance that services are highly user-centric and accessible 24/7 (Atual & Lei, 2022).

2.3. Features of Mobile Banking

Modern mobile banking apps provide essential features like bill payment, real-time financial transfers, prepaid mobile top-ups, and quick access to account statements and transaction histories (Alayande & Adaramola, 2025). Biometric options (like fingerprint or facial recognition) and safe logins with PINs and OTPs (One-Time Passwords) are standard features (Bhuvaneswari & Maruthamuthu, 2024). Also, a lot of banks use their mobile apps to let people sign up for accounts, apply for loans, and apply for credit cards (Rakocevic et al., 2025). Additional features that support proactive financial management include responsive chatbots for customer service and automated notifications that inform users (Activity, 2025). User-friendly interfaces, simple navigation, and

ongoing feature enhancements ensure that mobile banking apps remain competitive and meet evolving customer needs (Tuong et al., 2025).

2.4. Literature GAP

Most prior studies analyze mobile banking through the lens of the technology adoption model, focusing on elements such as perceived usefulness, user-friendliness, and consumer trust (Info et al., 2025b). Research on how innovative mobile banking features and user interfaces enhance client retention, loyalty, and service quality in Indonesia is still lacking, though (Thach et al., 2025). There are also insufficient studies looking at how digital fintech services are combined with mobile banking offered by traditional banks to optimize user value (Albugami, 2022). Consequently, this study aims to bridge these gaps by closely analyzing how mobile banking's evolution, features, and user experiences enhance service quality and customer retention in Indonesia's digital banking sector (Viet et al., 2024).

3. RESEARCH METHODS

This study employs a qualitative bibliometric analysis technique to map and evaluate the evolution of digital banking research in the scientific literature, leveraging the method's ability to identify patterns, trends, and connections in a large body of studies (Zupic, 2023). It allows for the monitoring of concept evolution over time, the recognition of pivotal authors and foundational works, and the analysis of the intellectual framework of digital banking research (Boyack, 2010). The Scopus database was selected as the primary source because of its broad coverage and strong record of peer-reviewed publications and conference proceedings in the fields of banking and information systems (Mongeon, 2015).

The search strategy used the keyword "digital banking" in the TITLE-ABS-KEY fields, limited to peer-reviewed journal articles and conference papers written in English and published between 2010 and 2026. Editorials, book reviews, non-academic studies, and other documents that weren't about banking and financial services were not included (Fahimnia et al., 2015; Tranfield et al., 2003). The initial search retrieved 1,139 records, which were then screened using predefined inclusion–exclusion criteria and manual abstract refinement; this process resulted in a final dataset of 940 documents focusing on digital and mobile banking innovation, adoption, and service quality. A performance analysis was done to look at the increase of publications, the influence of citations, productivity trends, and the most important authors, articles, institutions, and nations. After that, science mapping methods were used, such as co-citation analysis, co-authorship analysis, keyword co-occurrence analysis, and theme evolution mapping (Eck & Rousseau, 2014). These procedures were implemented using the Biblioshiny interface of the R "bibliometrix" package, complemented when needed by network visualisation in dedicated bibliometric software, which together provide advanced statistical evaluation and graphical representation of bibliometric networks (Aria & Cuccurullo, 2017). This bibliometric procedure produces a systematic and replicable overview of digital banking scholarship, revealing

research intensities, thematic clusters, influential contributors, and under-explored areas that form the basis for the qualitative phase of the study.

This qualitative bibliometric method makes it possible to provide a systematic and reproducible study of important scientific outputs by showing research intensity, theme clusters, notable authors, and gaps in future research. The outcome is a thorough overview of digital banking research that helps both researchers and professionals. Both theoretical understanding and practical application are advanced by combining existing knowledge and providing useful insights that support the continuous development of academic inquiry and innovation in digital banking industries (Eck & Rousseau, 2014; Mongeon, 2015; Zupic, 2023).

3.1 Participants and data collection

A purposive sampling technique was employed to recruit informants possessing direct experience with mobile banking, either as service providers or clients. We interviewed a total of 12 people: Six banking professionals (branch managers, digital banking workers, and customer support officers) and six retail customers who regularly use mobile banking apps for everyday transactions. All participants were based in major Indonesian cities and represented different age groups and occupational backgrounds to capture diverse perspectives.

Semi-structured in-depth interviews were used to collect data. These interviews were done either in person or over secure online video conversations. Each interview lasted about 45 to 60 minutes and was recorded on audio with the participant's agreement. The interview guide focused on four main areas: (1) experiences and patterns of mobile banking usage; (2) perceptions of ease of use, usefulness, and security; (3) perceived impacts of mobile banking on service quality (speed, reliability, responsiveness, assurance, and convenience); and (4) expectations and suggestions for future digital transformation in banking services. Probing questions were used to look into specific examples, important events, and how they compare to traditional branch-based services.

3.2 Ethical considerations

The qualitative procedure followed standard research ethics. Before each interview, participants were given an information sheet that explained the objective of the research, the steps that would be taken, the risks and rewards, and their rights, including the freedom to leave at any moment without any consequences. All participants gave their written or recorded verbal consent. Pseudonyms were used in transcripts and reports to safeguard privacy, and any identifying information, like branch names or account numbers, was taken out during transcribing. The study team was the only one who could access password-protected folders that held the interview data.

3.3 Data analysis and reliability

Thematic analysis was used to look at verbatim transcripts of interview recordings. The analysis followed an iterative process: (1) familiarisation with the data through repeated reading; (2) open coding of meaningful segments related to mobile banking use, service quality, trust, and digital transformation; (3) grouping of similar codes into broader categories; and (4) development of higher-order themes that

capture recurrent patterns across participants. The first author did the first coding, and then a second coder looked at a small number of transcripts on their own. Coding discrepancies were discussed until agreement was reached to enhance inter-coder reliability.

To enhance credibility, initial themes and interpretations were disseminated to many participants (member checking) to verify if the findings accurately represented their experiences. The final themes—such as usability and convenience, security and trust, digital literacy and support, and infrastructure and reliability—were then compared with the bibliometric results to identify areas of convergence and divergence between global research trends and the Indonesian field evidence.

Table 1

Methodology and Data Retrieval Process

Step	Description
Database and Search Protocol	Record identified from Scopus database (n = 1.139), Retrieve data by applying exclusion criteria (n = 1), Retrieve data by abstract manual refinement (n = 940).
Performance and Mapping Analysis	Performance analysis: Publication, Citation, Productivity, Most influential authors, articles, Institution, Countries. Mapping analysis: Co-citation, Co-author, Co-occurrence, Thematic evolution.
Discussion and Future Direction	Popular topic, Research Trends for Future research and limitation

Source: Biblioshiny

This study aims to examine the development of digital banking research through a rigorous bibliometric approach, focusing on the intellectual structure, thematic evolution, and knowledge progression within the field. Using Scopus as the primary database, the analysis identifies and filters 1,139 records, which were refined using predefined exclusion criteria and manual abstract screening, resulting in 940 highly relevant documents for further examination. The methodological framework combines performance analysis, which looks at things like publication growth, citation impact, productivity patterns, influential authors, leading institutions, and contributing countries, with science mapping techniques like co-citation, co-authorship, co-occurrence, and thematic evolution analysis. This study systematically reveals prevailing research themes, nascent conceptual clusters, and the structural attributes of digital banking scholarship through visualization tools such as network mapping, heatmaps, and temporal trend analysis. The report also includes a thorough overview of popular themes, research paths, and known constraints. This gives clear recommendations for future digital banking research in both global and regional settings.

4. RESULTS AND DISCUSSION

4.1 PERFORMANCE BIBLIOMETRICS ANALYSIS

Using a bibliometric analysis based on a comprehensive dataset retrieved from the Scopus database, this study examined digital banking literature published between 2010 and 2026. A total of 433 published sources (including journals, books, and conference proceedings) produced 1,139 papers, showing a strong and steady interest in research that has grown by an average of 16.17% each year. The temporal characteristics indicate a mean document age of 2.08 years, demonstrating that the field is dominated by recent and contemporary scholarship, while the average of 8.097 citations per document signifies notable academic impact. Content analysis identified 2,809 Keywords Plus and 2,852 authors' keywords, illustrating the thematic richness and conceptual diversity of digital banking research. The scholarly landscape exhibits significant collaboration, featuring an average of 3.05 co-authors per document, 179 single-authored works, and an international co-authorship rate of 18.26%, so affirming the worldwide collaborative essence of research in this field.

Table 1

Main Information

Description	Results
Main Information About Data	
Timespan	**2010:2026**
Sources (Journals, Books, etc)	**433**
Documents	**1139**
Annual Growth Rate %	**16.17**
Document Average Age	**2.08**
Average citations per doc	**8.097**
References	**8706**
DOCUMENT CONTENTS	
Keywords Plus (ID)	**2809**
Author's Keywords (DE)	**2852**
AUTHORS	
Authors	**3101**
Authors of single-authored docs	**142**
AUTHORS COLLABORATION	
Single-authored docs	**179**
Co-Authors per Doc	**3.05**
International co-authorships %	**18.26**

Source: Author

4.2. PUBLICATION TRENDS

Figure 1

*Annual Scientific Production*
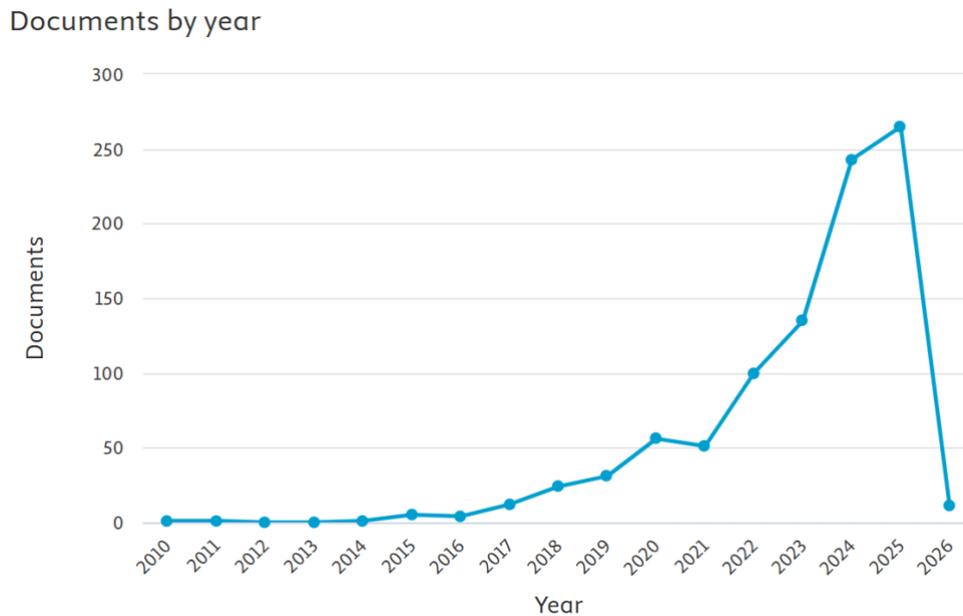
Source: Scopus

Figure 1 illustrates the annual scientific production on digital banking from 2010 to 2026, revealing a clear and sustained upward trajectory in scholarly interest over time. During the first phase (2010–2014), there were very few research papers published each year, with fewer than five. This shows that digital banking was not yet a popular research area. After 2015, there was a slow rise, and from 2017 on, when annual publications went over 10 papers, the growth became more obvious. The expansion accelerated significantly between 2019 and 2022, with output rising from approximately 30 documents in 2019 to around 100 documents in 2022, reflecting heightened academic attention driven by fintech innovation, mobile banking adoption, and digital transformation in the financial sector. The most pronounced surge occurred between 2023 and 2025, peaking at more than 260 publications in 2025, marking the most productive period in the dataset and underscoring digital banking's consolidation as a major research domain. The sharp decline observed in 2026 should be interpreted cautiously, as it is likely attributable to incomplete indexing for the year rather than a substantive reduction in scholarly activity. The trend shows a strong and accelerating development pattern overall, which is in line with how digital banking is becoming more important strategically and technologically in both academic research and business practice.
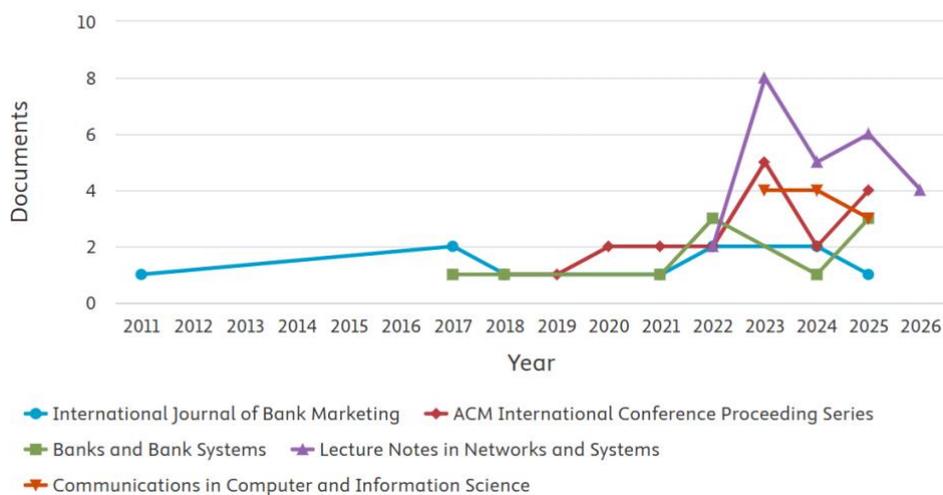
Figure 2

*Sources' Production over Time*
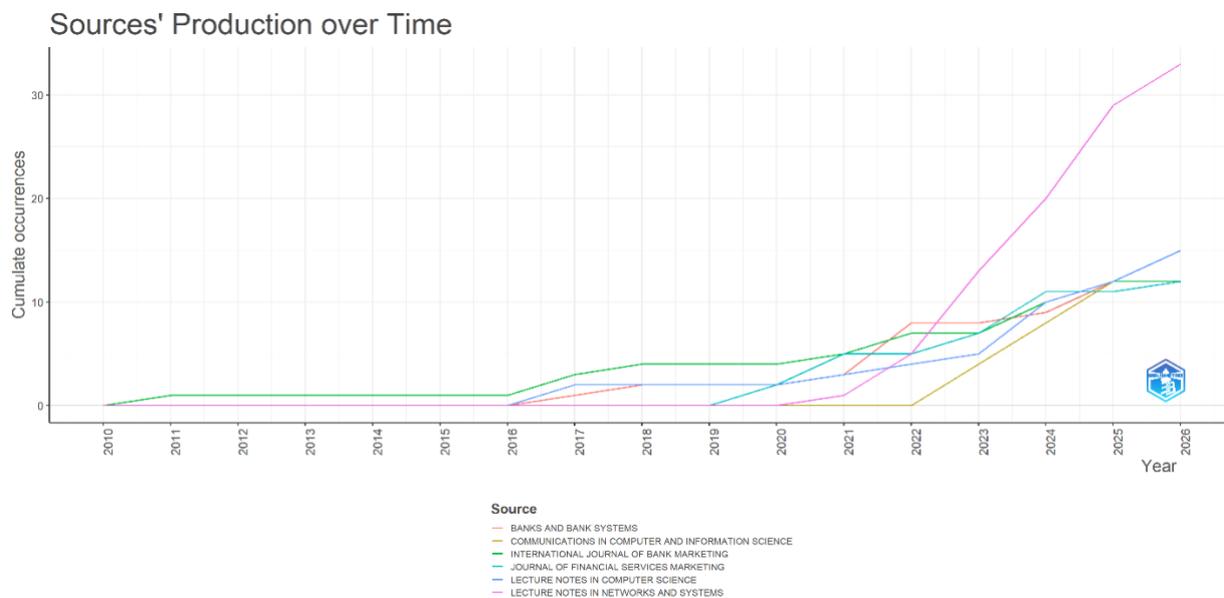
Source: Biblioshiny & Scopus

A longitudinal review of major publication sources in digital banking from 2010 to 2026 reveals a clear and sustained upward trend in scholarly contributions. During the early years (2010–2016), there weren't many publications, and they were mostly random. Only a few articles were published in journals like the International Journal of Bank Marketing and Banks and Bank Systems. Around 2017–2019, there was a slow rise, which was the first sign that digital banking was becoming a separate area of research. From 2020 onward, productivity rose markedly, driven by diversified outlets, including *Banks and Bank Systems*, *Communications in Computer and Information Science*, and the *ACM International Conference Proceeding Series*. The most pronounced growth occurred between 2022 and 2025, during which *Lecture Notes in Networks and Systems* emerged as the most prolific source, showing the steepest

cumulative increase in publications, followed by consistent contributions from *International Journal of Bank Marketing* and *Communications in Computer and Information Science*. By 2026, the distribution of publications across journals and conference proceedings had broadened substantially, indicating not only intensified academic attention but also the interdisciplinary maturation of digital banking research across finance, information systems, and computer science domains.

4.3. AUTHOR ANALYSIS AND COLLABORATION

Figure 3

Most Relevant Author
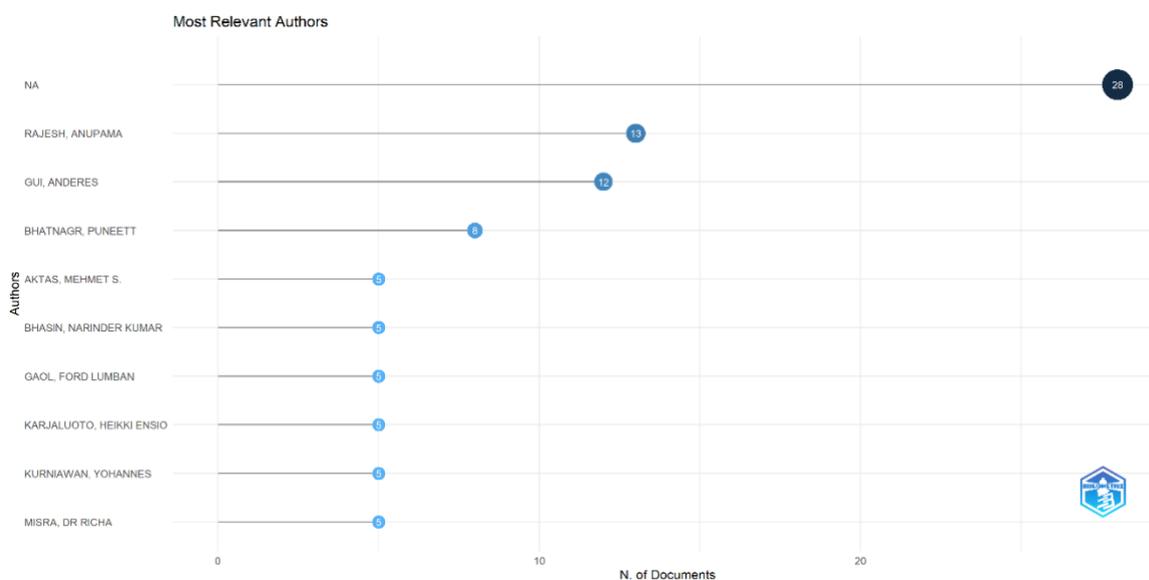
Source: Biblioshiny

The lead authorship for digital banking research is illustrated in Figure 3, which presents the most relevant authors based on the number of published documents indexed in Scopus. The category labelled *NA* appears as the most dominant contributor with 28 documents, indicating a substantial body of publications where author metadata is incomplete or aggregated, yet still reflecting a significant share of the literature. Among identified scholars, Rajesh, Anupama emerges as the most prolific author with 13 documents, followed closely by Gui, Anderes with 12 publications, highlighting their central roles in shaping empirical and conceptual discussions on digital banking. A second tier of influential contributors includes Bhatnagr, Puneett with 8 documents, while Aktas, Mehmet S., Bhasin, Narinder Kumar, Gaol, Ford Lumban, Karjaluoto, Heikki Ensio, Kurniawan, Yohannes, and Misra, Dr Richa each contributed 5 documents. This distribution shows that digital banking scholarship is based on a mix of very productive lead authors and a larger group of researchers who are always productive. Overall, the picture shows that the authorship structure is fairly concentrated. A small number of significant scholars make a big difference in knowledge creation, although a larger group of people supports the field's topic diversity and continued growth over time.

Figure 4

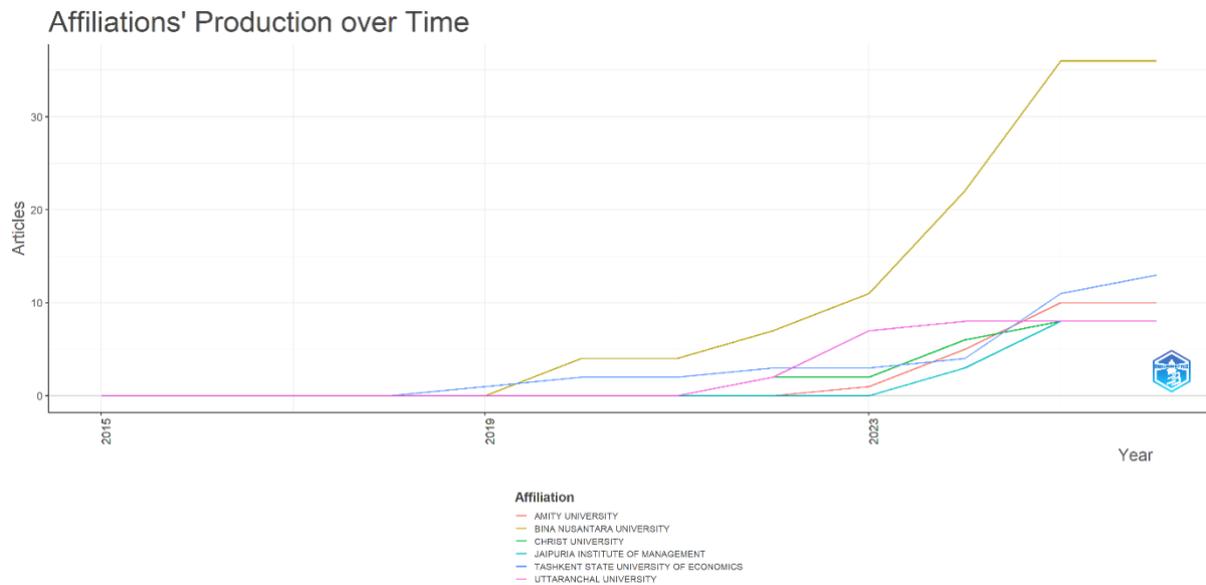*Author Production over Time*
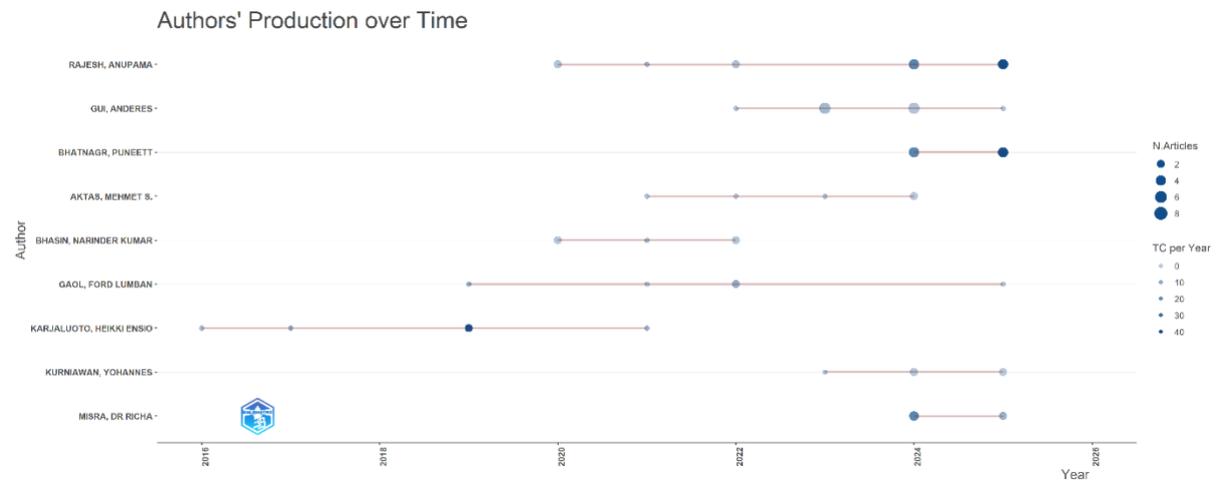
Source: Biblioshiny

      Figure 4 illustrates authors' production over time in the digital banking literature, revealing a clear pattern of gradual consolidation and recent intensification of scholarly contributionsEarly outputs are few and far between, and they come from different authors. This suggests that research was still in its early stages and not well organized until 2016. Beginning in 2017, numerous writers exhibit persistent production, as evidenced by recurring publications in successive years, indicating the establishment of solid research paths. Notably, authors such as Rajesh, Anupama; Gui, Anderes; and Bhatnagr, Puneett show increasing publication frequency after 2020, coinciding with the rapid expansion of digital banking driven by fintech innovation, platform, and post-pandemic digital acceleration. The size and density of publication markers in the most recent years (2023–2025) suggest both higher annual output and stronger citation visibility, indicating growing academic influence. Overall, the figure highlights a transition from isolated author contributions to more consistent and cumulative scholarly production, reflecting the maturation of digital banking as a coherent and increasingly institutionalized research domain.

Figure 5

Affiliations' Production over Time

Source: Biblioshiny

   Figure 5 illustrates the *affiliations' production over time* in digital banking research and reveals a clear intensification of institutional contributions in recent years. Prior to 2019, publication activity across the leading affiliations was minimal and largely stagnant, indicating that digital banking had not yet become a dominant research focus at the institutional level. From 2019 onward, a gradual increase is observable, with Bina Nusantara University emerging as the most productive affiliation, showing a sharp and sustained rise after 2021 and reaching the highest cumulative output by 2024–2025. Other institutions, including Tashkent State University of Economics, Amity University, and Uttaranchal University, demonstrate moderate but consistent growth beginning around 2022, reflecting expanding institutional engagement with digital banking themes. Christ University and Jaipuria Institute of Management exhibit later but noticeable increases, suggesting emerging research specialization rather than early leadership. Overall, the figure indicates that digital banking scholarship is increasingly driven by a small set of highly productive universities, supported by a second tier of institutions whose contributions have accelerated in the post-2021 period, highlighting both institutional concentration and the growing academic maturity of the digital banking research domain.
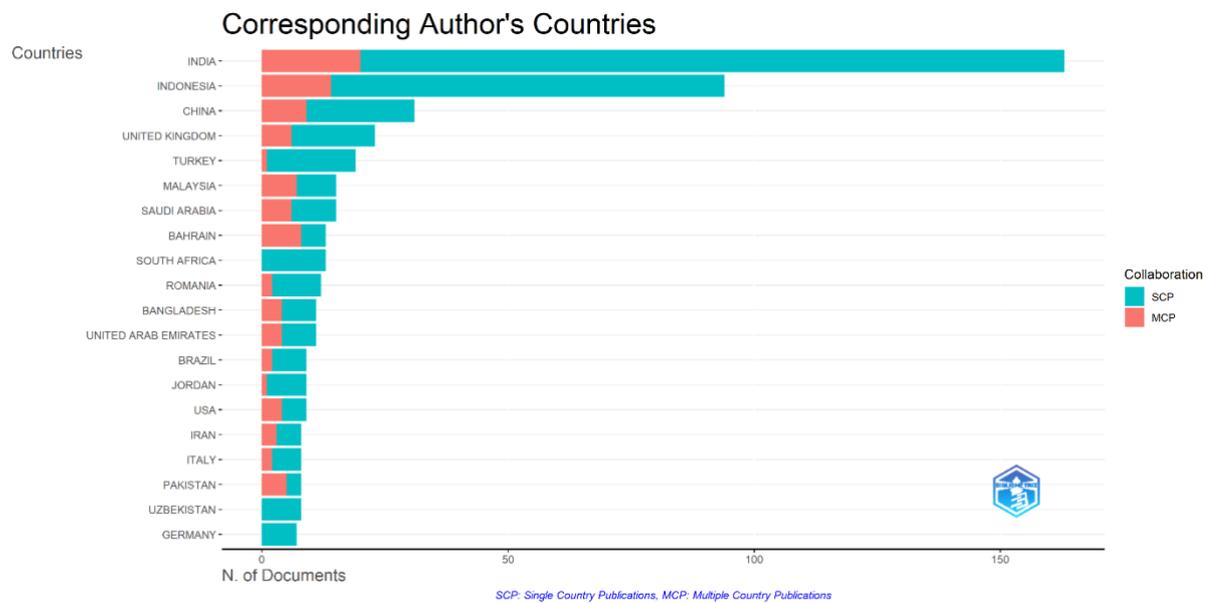
Figure 6

Corresponding Author's Countries

Figure 6 illustrates the distribution of corresponding authors' countries in digital banking research, revealing a pattern of strong regional concentration alongside growing international participation. Indonesia is the top contributor, with the most papers, which shows how quickly digital banking, fintech ecosystems, and financial inclusion objectives are growing in the country. India follows as a major contributor, indicating sustained scholarly interest driven by large-scale digital payment adoption and banking innovation. China and the United States also show substantial contributions, primarily through single-country publications, highlighting the role of advanced technological infrastructure and strong domestic research capacity in shaping digital banking scholarship. Countries like Malaysia, Turkey, and a few European nations have also made donations, which shows that both rising and developed economies are getting more involved. Overall, the fact that there are many countries involved and a lot of publications from different countries shows that digital banking research is being shaped more and more by collaboration between countries. This shows that it is important for the whole world and that digital financial revolution is happening across borders.

Figure 7

Word Cloud

Source: Biblioshiny

Figure 7 presents the word cloud analysis of digital banking research, highlighting the dominant concepts that shape this scholarly domain. The term "digital banking," which stands out the most, clearly anchors the literature because it is the main idea in all of the research. The close relationship between phrases like "banking," "fintech," "digital transformation," "mobile banking," and "financial services" shows that the banking industry is very focused on change that is driven by technology. The prominence of phrases such as "customer satisfaction," "financial inclusion," "sales," and "customer service" indicates that a considerable segment of the literature emphasizes user-centric outcomes and market performance. The words "artificial intelligence," "machine learning," "cybersecurity," and "big data" also show that banks are using more and more complex digital technology in their day-to-day operations and decision-making. The word cloud shows that most of the research on digital banking is focused on new technologies, changing services, and creating value for customers. This shows that the industry is still moving toward data-driven, inclusive, and digitally enabled financial ecosystems.

Figure 8

Documents by Subject Area
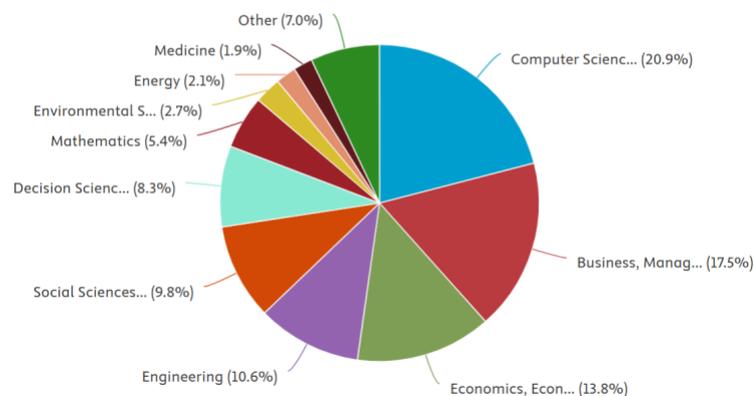
Source: Scopus

The distribution of documents by subject area illustrates the distinctly interdisciplinary character of digital banking research. Computer Science makes up the biggest part of the papers (20.9%), which shows how important information systems, software architectures, cybersecurity, and data-driven technologies are in generating new ideas in digital banking. Business, Management, and Accounting (17.5%) comes next. This shows that researchers are very interested in strategic management, customer experience, digital business models, and organizational change in the banking industry. Economics, Econometrics, and Finance make up a large part (13.8%) of the total, which shows how important financial systems, market efficiency, financial inclusion, and regulatory issues are in studies on digital banking. Engineering (10.6%) and Social Sciences (9.8%) further indicate the relevance of system design, infrastructure development, and socio-institutional perspectives, including consumer behavior and policy implications. The contributions from Decision Sciences (8.3%) and Mathematics (5.4%) indicate the utilization of quantitative modeling, optimization, and analytical decision-making frameworks. Smaller yet meaningful shares from Environmental Sciences (2.7%), Energy (2.1%), Medicine (1.9%), and other fields (7.0%) suggest emerging cross-sectoral applications and broader sustainability and societal linkages. This subject-area distribution shows that digital banking research goes beyond just one field. It combines technological, managerial, economic, and social points of view to deal with the complexity of digital transformation in the financial services business.

Figure 9

Country Scientific Production
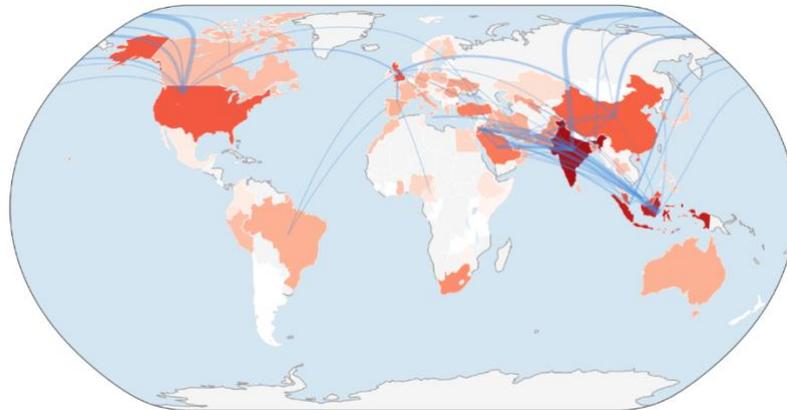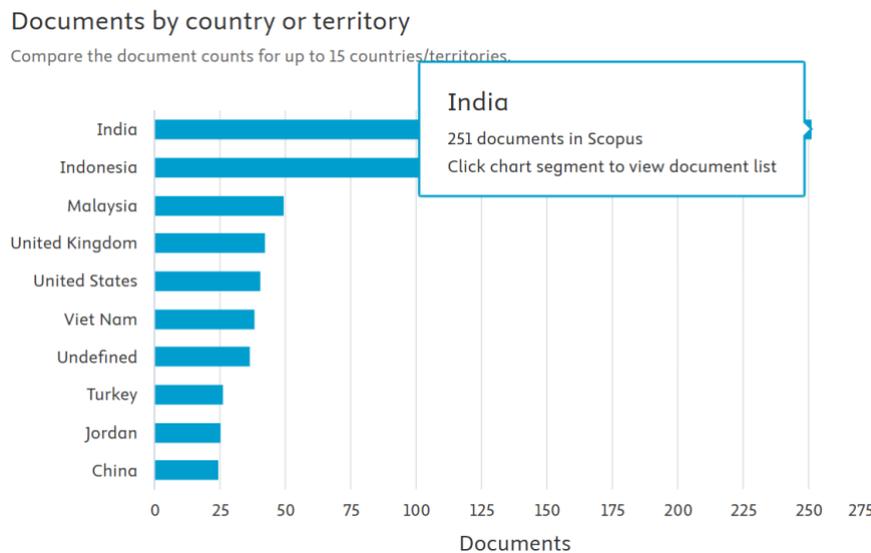
Source: Biblioshiny & Scopus

The distribution of scientific production by country reveals that digital banking research is strongly concentrated in several key regions, with Asia emerging as the dominant contributorIndia has the most Scopus-indexed documents, with about 251. This shows that it is a key player in setting the global digital banking research agenda, especially when it comes to adopting fintech, including more people in the financial system, and banking services that are powered by technology. Indonesia follows as the second-largest contributor, reflecting the rapid development of digital financial ecosystems and strong academic interest in banking digitalization within emerging economies. Malaysia also shows a lot of output, which shows that Southeast Asian experts are becoming more interested in digital banking research. Contributions from the United Kingdom and the United States indicate continued involvement from advanced economies, although at a comparatively lower volume than leading Asian countries. Extra outputs from Vietnam, Turkey, Jordan, China, and a "Undefined" category show that the international distribution is wide but not even. Overall, this pattern underscores the global relevance of digital banking research while also revealing a concentration of scientific output in developing and emerging markets, suggesting opportunities for stronger cross-country collaboration to balance research capacity, enhance knowledge exchange, and increase the global impact of digital banking scholarship.

1.2 THEORETICAL AND PRACTICAL IMPLICATIONS

This research makes significant theoretical and practical contributions to the field of digital banking by creating basic models and strategic recommendations that are contextually relevant to the evolution of modern digital banking (Balcioglu, 2025). This study theoretically expands the existing literature by emphasizing the significance of incorporating technology and human-centric components to enhance consumer experience, pleasure, and loyalty, while simultaneously mitigating opposition to digital innovation (Chauhan & Akhtar, 2022). By combining the service hints model (Dağaşaner & Karaatmaca, 2025), service profit chain (Shaikh & Karjaluoto, 2016), and interactional value formation

frameworks, this study shows that relational elements, trust, engagement, and emotional experiences are just as important as functional or cognitive characteristics (Toni et al., 2025).

The study's findings also show that psychological and emotional barriers are empirically more common than functional barriers in influencing resistance and adoption of digital banking in rapidly evolving digital transformation environments (Min et al., 2024). In order to account for resistance constructs and the influence of emotive components on consumer behavior in digital banking, it is imperative that theoretical frameworks that were previously focused on acceptance be expanded (Bagus et al., 2023).

The practical ramifications of this research are significant and relevant (Basri, 2025). Along with transaction speed and user ease, the quality of the digital experience should focus on trust, empathy, and building good relationships between customers and digital banking services (E-issn, 2021). In addition to increasing long-term engagement and loyalty, innovative features like gamification and co-creation value can help digital banking become more competitive in the market for technology-based financial services (Pourebrahimi, 2018).

One of the key goals of banks' communication strategies should be to get rid of emotional and mental obstacles (Arora & Banerji, 2024). Some examples of this are education, training in digital literacy, and message that makes clients feel less afraid and more capable (Milhem et al., 2025). It is important for managers and policymakers to establish a digital banking ecosystem that can change with new rules, security threats, and client needs (Superior et al., 2021). Strategic partnerships with fintech and changes to corporate processes and organizational structures to make them more innovative are two ways to achieve this (Gaviyau & Godi, 2025).

In light of these findings, banking institutions are expected to develop multifaceted performance metrics that assess not only financial considerations but also customer experience quality, loyalty, and the effectiveness of implemented digital innovations (Acosta-prado et al., 2024). As a result, all parties involved in the banking industry can enhance relevant services in the era of digital transformation, maximizing value for customers and companies in an environmentally friendly way (Sonal et al., 2020).

1.3 CONTRIBUTIONS AND IMPLICATIONS

This study adds something special to the literature on digital banking by providing empirical evidence of how mobile banking usage is critical to improving the quality of banking services, especially in developing countries (Bhatnagr & Rajesh, 2024). The results show that consumers' desire to utilize mobile banking is greatly affected by how useful they think it is, how easy it is to use, and how much they trust it (Tedjokusumo & R. Murhadi, 2023). When these attributes are put together, they directly improve the quality of service, customer happiness, and operational performance in banks (Jit et al., 2021). The study offers researchers and practitioners useful topics by highlighting the critical role that performance expectations and supportive environments play in fostering successful digital transformation initiatives within banks (Nguyen et al., 2023).

In practical terms, the survey recommends that in order to boost adoption rates and maintain the competitive edge provided by mobile banking platforms, banks should give priority to customer education, user-friendly interfaces, and strong security features (Pourebrahimi, 2018). The results show that efforts must be combined with in-branch support, tailored customer experience strategies, and cultural adaptation activities in order to fully benefit from digital banking services in improving service quality (Tedjokusumo & R. Murhadi, 2023). Banks are urged to develop customized marketing and communication strategies, focus on building trust, and implement targeted training programs for both customers and employees in order to address ongoing concerns about digital hazards and to increase user confidence and satisfaction (Shaikh & Karjaluoto, 2016).

In theory, your study expands the application of the Unified Theory of Acceptance and Use of Technology (UTAUT) in the context of Indonesian mobile banking by incorporating contextual factors such as perceived risk resulting from the pandemic and providing empirical support for the model's suitability (Ali, 2023). It is recommended that future research employ this sophisticated approach, which offers greater insight, to consider cultural, infrastructural, and country-specific moderation effects in the adoption of digital banking (Bhatnagr & Rajesh, 2024). All things considered, these contributions lend credence to the notion that banks must integrate digital innovation with customer-centric and context-sensitive initiatives in order to improve service inclusivity, operational quality, and sustainable growth in the digital age (Atual & Lei, 2022).

CONCLUSION

This study confirms previous research demonstrating that the adoption of mobile banking is essential to raising the standard of financial services and operational efficacy in both academic and practical contexts (Activity, 2025). Analysis reveals that perceived usefulness, usability, and trust are essential factors that substantially influence bank competitiveness and consumer happiness (Rahardjo & Darma, 2025). A visual mapping of research trends reveals key factors, prestigious journals, and the ongoing expansion of digital banking studies, even though client risk perception still needs to be taken into account (Pritjahjono et al., 2023). Even though services are becoming more and more digitalized, this expansion creates new challenges, especially when it comes to user security and different clientele groups' adoption of technology (Banking, 2023). More research comparing the effectiveness of mobile banking across regions is recommended in order to better understand adoption barriers and quality improvement strategies (Dağaşaner & Karaatmaca, 2025). Policymakers should encourage collaborative networks between banks, tech companies, and academic institutions in order to increase best practices and the impact of mobile banking for inclusive financial services (Farokhizadeh et al., 2024). Practitioners should focus on creating trust, improving user experience, and putting adaptable educational programs into place (Alayande & Adaramola, 2025).

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Nguyen Manh Hung C ARTICLE INFO Article history : Keywords : Digital Banking ; Consumer ; Perception ; Le , N . P ., Ninh , N . T . H ., Hung , N . M . (2023) Factors Influencing Customers ' Perception of Digital Banking Service Quality in Vietnam With the development of the internet , a variety of gadgets , such as laptops , tablets , and smartphones have been widely adopted by organizations for their business operations (Dasgupta & Gupta , 2019). To survive in this changing landscape , business , especially commercial banks must adapt to this reality (Gobble , 2018). In Vietnam , a strong wave of. 1–14.

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