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## The adoption of mobile banking services: A comprehensive bibliometric analysis

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### Abstract

The present research proposes a rigorous bibliometric analysis of scientific publications related to the adoption of mobile banking. The primary objective of this study is to map major academic contributions, with a view to identifying the most influential authors, most active institutions, dominant keywords, and collaborative research networks. The analysis is based on data extracted from Scopus for the period 2013–2022. The primary objective of this study is to map major academic contributions, with a view to identifying the most influential authors, most active institutions, dominant keywords, and collaborative research networks. The study adheres to the PRISMA protocol, thereby ensuring transparency, reproducibility, and rigor in the selection of articles. The results indicate a marked increase in scientific interest in the subject, characterized by a notable geographical concentration, particularly in South Asia, and a significant absence of research focusing on specific contexts such as Morocco. By providing an overview of current dynamics, limitations, and gaps in the literature, this work makes an essential and timely contribution to the structuring of the field of m-banking. It also directs future academic research towards as yet little-explored perspectives, offering valuable insights for researchers and policymakers in developing regions.

**Keywords:** Adoption, Bibliometric analysis, Mobile banking, PRISMA.

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**Transparency:** The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.

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## 1. Introduction

In the last two decades, the financial sector has experienced profound transformations, largely driven by the growing ubiquity and influence of mobile technologies [1]. Within this evolving digital landscape, mobile banking (m-banking) has become a preferred channel through which users interact with their financial institutions [2]. This trend is primarily motivated by an increasing demand for greater accessibility, speed, and flexibility in banking services across both developed and emerging economies.

However, despite the rapid proliferation of m-banking, its adoption remains heterogeneous, varying across regions due to a range of geographic, institutional, and sociocultural factors [3]. This disparity raises a fundamental research problem: although interest in mobile banking has intensified, the literature lacks a consolidated framework that captures its theoretical foundations, thematic trends, and unresolved challenges. While publications on mobile banking adoption have grown significantly in recent years, relatively few provide a coherent framework that clarifies dominant theoretical approaches, highlights key thematic trends, or identifies major gaps and uncertainties in the field. As Martí-Parreño, et al. [4] have demonstrated, bibliometric analyses provide pertinent instruments for investigating the dynamics of scientific production and for reporting on the structuring of a field [4]. However, in the context of m-banking, this approach remains negligible, impeding researchers' capacity to obtain a comprehensive and systematic overview. In particular, the absence of research focused on underrepresented regions such as North Africa, and specifically Morocco, constitutes a major gap in the literature [5].

In light of this, the present study sets out two main objectives. First, it aims to provide a critical and analytical mapping of scholarly publications on m-banking adoption from 2013 to 2022, with the goal of identifying emerging trends, influential scholars, leading institutions, and key contributing countries. Second, the study seeks to highlight persistent gaps in the literature and propose promising research directions to expand the field's conceptual and empirical reach.

To achieve these goals, the following research questions are addressed:

- How has the academic production on mobile banking evolved over time and across regions?
- Who are the most influential authors and institutions in this domain?
- Which keywords and conceptual themes dominate the scholarly discourse?
- What forms of scientific collaboration are observed, and how might they be strengthened to foster more inclusive and interdisciplinary research?

A quantitative methodology based on bibliometric analysis was utilized to address the aforementioned questions. The Scopus database, recognized for the quality of its indexing and disciplinary comprehensiveness, formed the documentary basis of the study [6]. The search, conducted on 31 December 2022, was based on the key expressions "mobile banking adoption" and "intention to use," applied to the titles, abstracts, and keywords of the publications. The present study exclusively incorporates peer-reviewed scientific articles, while eschewing conference proceedings, book chapters, and other document types. Furthermore, to ensure the comparability of results, only English-language publications were retained. The selection process followed the PRISMA protocol to ensure a reliable, traceable, and reproducible approach [7], resulting in a final corpus of 1385 articles that met all predefined criteria.

This methodological framework forms the basis for the bibliometric analysis presented in the following sections.

## 2. Method

### 2.1. Research Objectives and Questions

This study aims to conduct a comprehensive bibliometric analysis of scientific literature on mobile banking (m-banking), using Scopus as the sole data source due to its broad coverage of high-impact, peer-reviewed journals [6]. The goal is to trace the evolution of academic interest in the field, identify key trends and contributions, and highlight the factors shaping research over time.

The study focuses on three main objectives: (1) analyzing how publication trends have evolved; (2) exploring collaboration networks among researchers; and (3) identifying the most influential works in the field. Particular attention is given to mapping the scientific networks and collaborations, an area still underexplored in current literature.

The analysis is guided by the following research questions:

- How can the distribution of m-banking publications over time be characterized?
- Which researchers have made the most significant contributions to the field?
- Which countries and institutions are leading in m-banking research output and influence?

These questions form the foundation of the analytical framework and aim to provide a comprehensive view of the current state of m-banking research.

### 2.2. Selection of Data Collection Method

This study adopts a rigorous bibliometric approach to explore the evolving research landscape of mobile banking (m-banking) adoption. Bibliometric analysis, as a quantitative and systematic method, enables the examination of large volumes of scientific publications by extracting patterns of authorship, collaboration, and thematic development. By systematically analyzing the literature, it identifies key themes, leading authors and journals, frequently used keywords, and geographical trends in publication activity.

Particular attention is given to patterns of international collaboration and citation, as well as to co-authorship

networks and thematic clusters. To visualize these academic interconnections, the study employs VOSviewer, a well-established tool for bibliometric mapping [8]. Its advanced features enabled the graphical representation of co-citation, co-authorship, and keyword co-occurrence, offering a deeper understanding of the field's intellectual structure.

Unlike prior works that often focused on limited regions or time frames, this study distinguishes itself by covering a full decade (2013–2022), incorporating a wider array of metadata (keywords, author networks, country affiliations), and emphasizing underrepresented geographic regions such as North Africa. This broader scope offers a more comprehensive and inclusive overview of the field.

Bibliometric analysis here serves two main purposes: first, to trace the historical development and thematic structure of m-banking research; and second, to highlight emerging trends and underexplored areas. This dual focus provides both a descriptive synthesis and a forward-looking perspective, aimed at guiding future research and fostering a more comprehensive understanding of this dynamic field.

### 2.3. Data Collection and Analysis Approach

For this section, the methodological framework adopted for data collection and analysis is outlined, grounded in a quantitative, bibliometric approach. The primary aim was to identify and assess key scholarly contributions on mobile banking (m-banking) adoption over the past decade. This strategy supports the production of accurate and reliable insights through a systematic examination of peer-reviewed scientific literature [4].

The Scopus database was chosen as the sole source of data due to its high standards of academic quality and robust analytical capabilities. Scopus also enables detailed filtering by subject area, document type, and language, which ensures the precision and relevance of the final dataset. To maintain methodological consistency, conference papers and symposium proceedings were excluded, as their quality can vary and often lack transparency [9].

The data collection took place on December 31, 2022, using targeted keywords such as "mobile banking adoption" and "intention to use," applied to the titles, abstracts, and keywords of the retrieved documents. A clearly defined set of inclusion criteria was established to ensure the relevance and validity of the final dataset.

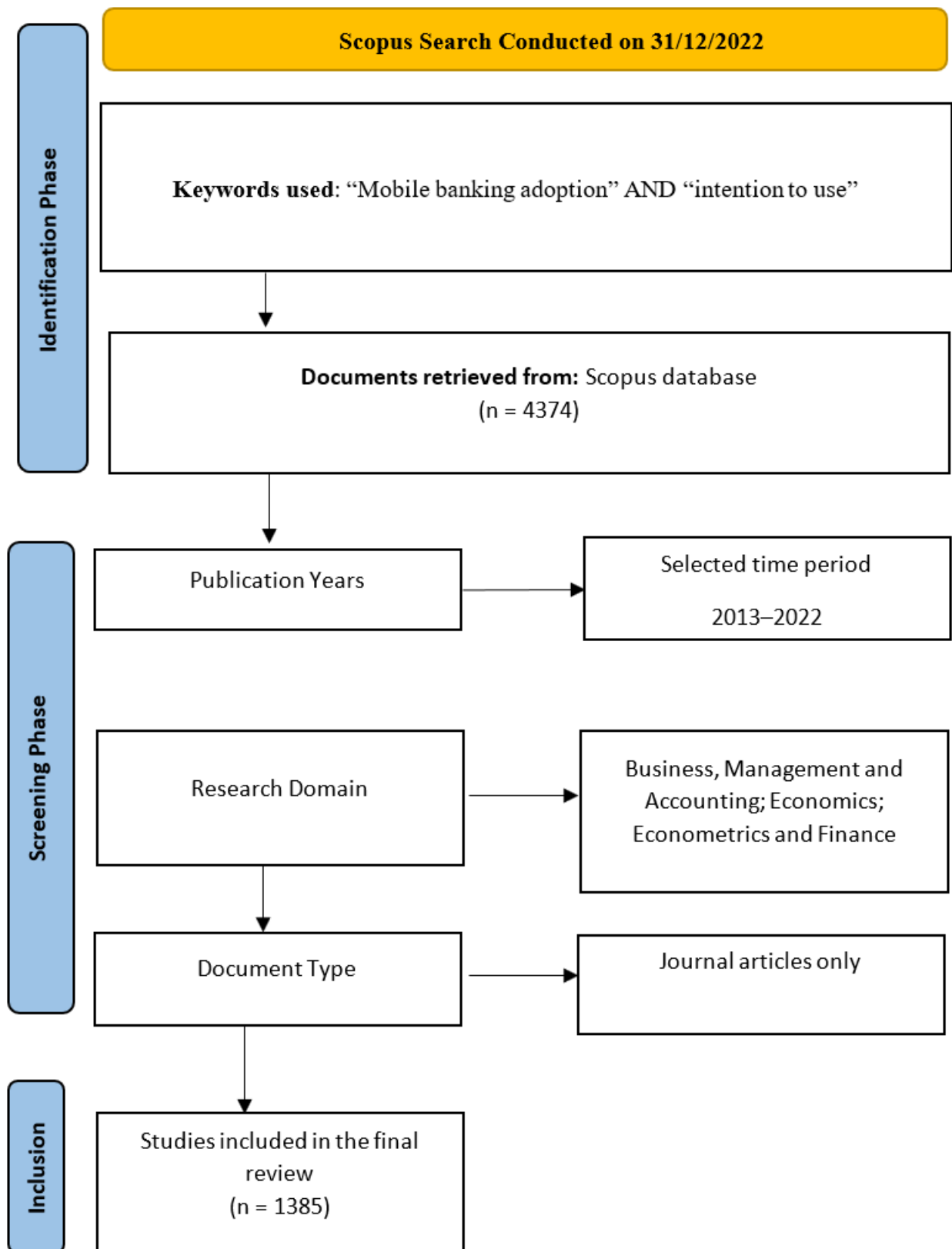
- **Publication period:** A selection of studies published between 2013 and 2022 has been included to reflect recent developments in research on the subject.
- **Language:** The articles selected were written in English, as this language dominates academic research and is widely accessible.
- **Document type:** The present study exclusively considers scientific articles that have been published in academic journals, with the exclusion of book chapters and conference proceedings.
- **Methodology:** The studies selected for review employed clearly defined quantitative or qualitative research methods. Documents that demonstrated an absence or imprecision in their methodology were discarded.
- **Disciplinary domain:** The studies selected were in the fields of commerce, management, and accounting, and were directly related to the subject. To ensure consistency of analysis, articles from irrelevant disciplines were excluded.

The following table provides a concise summary of the aforementioned criteria.

**Table 1.**  
Inclusion and Exclusion Criteria for the Reviewed Studies.

	<b>Inclusion Criteria</b>	<b>Exclusion Criteria</b>
Keywords	Mobile banking adoption and intention to use	Studies focusing on topics other than mobile banking adoption or intention to use.
Publication Year	2013 - 2022	Research published outside the 2013–2022 period.
Type of Reference	Peer-reviewed research articles	Non-peer-reviewed sources such as book chapters, conference proceedings, and similar publications.
Methodology	Quantitative, Qualitative, or Mixed methods	Studies lacking a clearly defined qualitative or quantitative methodological approach.
Database	Scopus	Articles indexed in databases other than Scopus (e.g., Web of Science, ScienceDirect, Google Scholar).
Research Domains	Business, Management, and Accounting	Studies originating from unrelated fields such as social sciences, engineering, or other non-business disciplines.
Language	English	French, Spanish, etc.

The preliminary Scopus search yielded 4,374 articles. These were then subjected to a methodical sorting process, leading to a final selection of 1,385 articles. Each stage of the process, from initial identification to final selection, was guided by PRISMA standards. As demonstrated in Figure 1, this methodology is characterized by its rigor and transparency, with each step meticulously delineated to ensure systematic progression.



**Figure 1.**  
Methodological Framework for Data Collection.

The applied framework excluded studies that did not meet the selection criteria, thereby ensuring the consistency and quality of the publications analyzed. The selected studies provide a reliable and comprehensive overview of the field of mobile banking adoption.

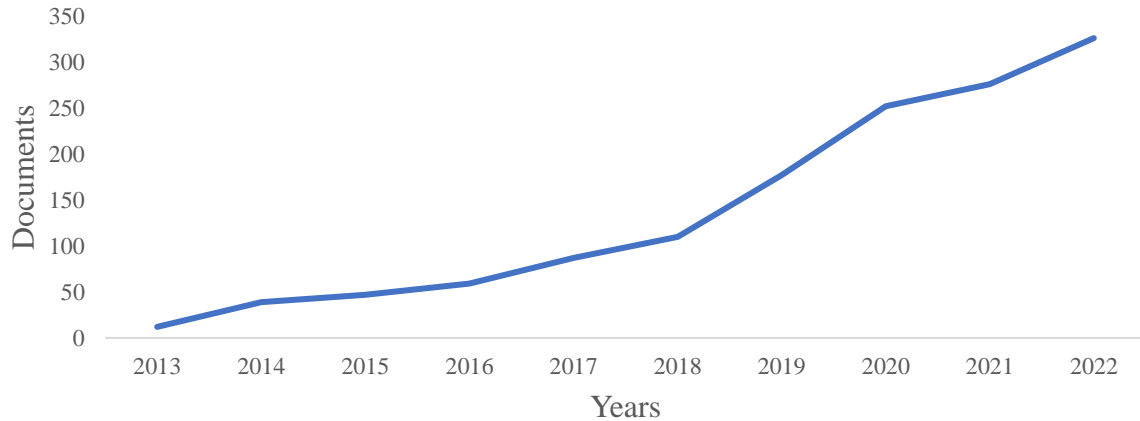
In summary, this rigorous methodology provides a solid basis for exploring the determinants of m-banking adoption. The combination of robust selection criteria and systematic implementation of the PRISMA framework ensures a thorough and high-quality bibliometric analysis. By clearly distinguishing itself from earlier, more narrowly scoped bibliometric reviews, this study offers a novel and holistic perspective on the development and structure of mobile banking research.

### 3. Results and Discussion

#### 3.1. Evolution of Publications by Year

Academic interest in m-banking has grown steadily, mirroring the digital transformation of the financial sector and the widespread adoption of mobile technologies. As shown in Figure 2, the number of publications rose significantly between 2013 and 2022. This growth reflects key developments such as the proliferation of smartphones, the rise of digital banking innovations, and behavioral shifts accelerated by the COVID-19 pandemic.

The following analysis presents a year-by-year breakdown of publication trends over this period.



**Figure 2.**

Breakdown of publications by year (2013-2022).

An examination of this trend reveals that the years 2021 and 2022 were characterized by a significant increase in the number of publications. The emergence of new mobile banking solutions, the expansion of access to these services in a variety of contexts, and an increased willingness to study user behavior in the face of these innovations are all factors that can be used to explain this peak. Furthermore, these years have also seen a sharp acceleration in digital transformations, a phenomenon that has been further compounded by the challenges posed by successive confinements.

This development should not be interpreted solely as a response to technological change. Furthermore, it reflects researchers' desire to understand the psychological, social, and economic factors influencing the adoption of m-banking. In this sense, these publications facilitate a more comprehensive understanding of the strategies employed by financial institutions to address the evolving needs of a progressively connected clientele.

The 2013-2022 period is indicative of a rapidly expanding research dynamic on m-banking adoption. As demonstrated in Figure 2, this subject has become imperative due to technological advancements and novel applications. This research encourages more focused studies on adoption factors and their impact on financial sector players.

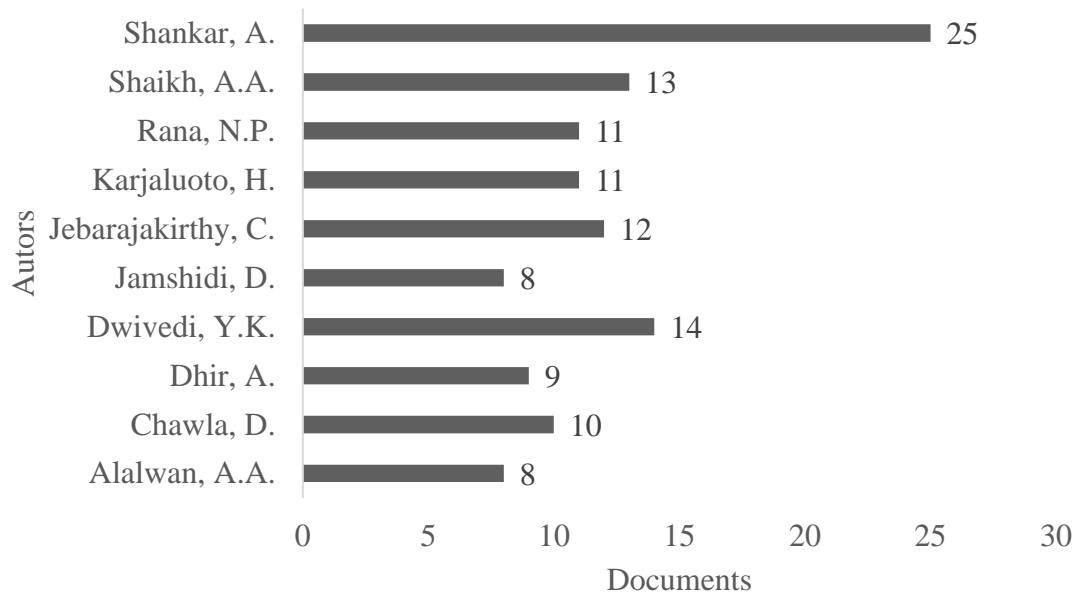
#### 3.2. The contributions of Researchers

This sub-section examines the distribution of publications by authors, focusing on two main aspects: the number of publications and the number of citations received.

##### 3.2.1. Distribution by Published Document

The distribution of academic publications is a crucial metric for evaluating researchers' engagement with m-banking adoption. Figure 3 identifies the ten authors who published the most between 2012 and 2022.

As illustrated in Figure 3, the following ten authors have been identified as those who have published the greatest number of papers.

**Figure 3.**

Top ten authors by published papers.

Source: Shankar [10]; Shaikh and Karjaluoto [11]; Rana, et al. [12]; Karjaluoto, et al. [13]; Jebarajakirthy and Shankar [14]; Jamshidi, et al. [15]; Dwivedi, et al. [16]; Dhir, et al. [17]; Chawla and Joshi [18] and Alalwan, et al. [19].

The analysis reveals substantial variations among researchers. Shankar emerges as the primary contributor, with 25 publications, reflecting his significant influence in advancing research on this subject. As demonstrated by Dwivedi, Shaikh, and Jebarajakirthy, other researchers have also demonstrated a significant level of involvement, with a number of publications between 8 and 14. Despite their comparatively limited output in comparison to that of Shankar, the research conducted by these scholars has made a significant contribution to the existing body of knowledge in this field, offering novel perspectives and approaches that have further enriched the academic discourse. The diversity of contributions emphasizes the significance of collective endeavors to enhance our understanding of m-banking adoption.

### 3.2.2. Distribution by Number of Citations

In addition to the number of publications, the impact of research is also measured by the number of citations it generates. The most-cited authors between 2012 and 2022 are listed in Table 5.

The following table presents a list of the most frequently cited authors, ranked according to the number of citations they have received.

**Table 2.**

Most cited authors by number of citations.

Rank	Author(s)	Documents	Citations
1	Dash and Paul [20]	1	647
2	Oliveira, et al. [21]	1	569
3	Kamble, et al. [22]	1	507
4	Chawla and Joshi [23]	8	494
5	Rajapathirana and Hui [24]	1	490
6	Gursoy, et al. [25]	1	455
7	Thakur and Srivastava [26]	1	427
8	Laukkanen [27]	1	422
9	Patil, et al. [28]	1	372
10	Tchamy, et al. [29]	1	375
11	Gao and Bai [30]	1	372
12	Sharma and Sharma [31]	1	364
13	Alalwan, et al. [32]	1	360
14	Alalwan, et al. [33]	1	316
15	Singh, et al. [34]	1	315
16	Madan and Yadav [35]	1	311
17	Liébana-Cabanillas and Marinkovic [36]	1	300
18	Talwar, et al. [37]	1	300
19	Muñoz-Leiva, et al. [38]	1	299
20	Al-Debei, et al. [39]	1	294

The results demonstrate that certain researchers have exerted a significant and enduring influence on the field. It is evident that Dash and Paul have attained a dominant position in the academic community, as evidenced by their work being cited 647 times. This signifies the significant and relevant impact of their contributions within the academic milieu.

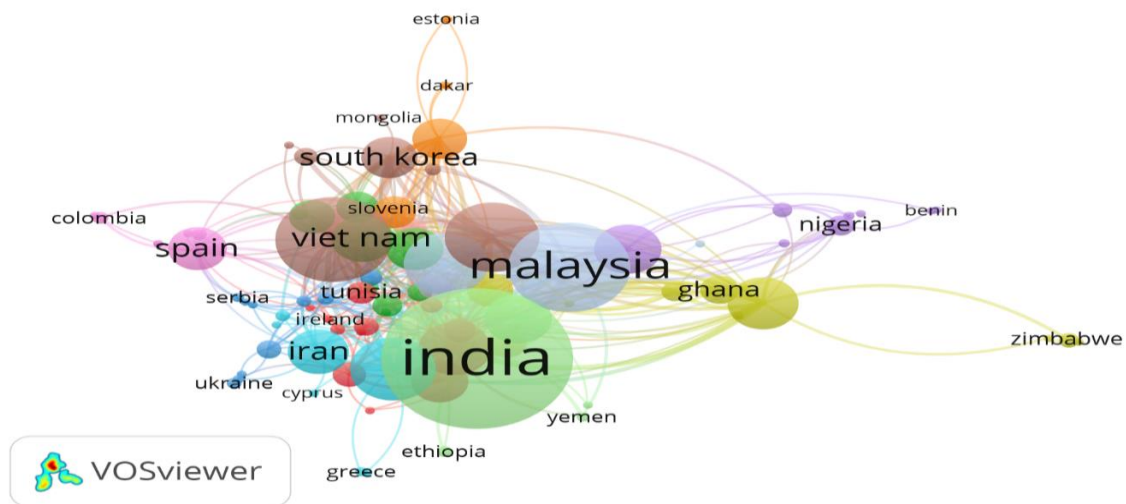
Other significant contributions are attributed to Chawla and Joshi [23] as well as Rajapathirana and Hui [14], who have received over 490 citations. These figures are indicative of their capacity to influence future research in this field. Moreover, the collaboration between Alalwan et al. [30] which has yielded 356 citations, underscores the significance of interdisciplinary approaches in generating in-depth and innovative knowledge.

The results of this study underscore the seminal contributions of researchers in this field while also emphasizing the importance of interdisciplinary collaboration in analyzing the dynamics associated with m-banking adoption.

In summary, this analysis of publications and citations highlights the key players and research dynamics that shape the study of m-banking adoption. Furthermore, it is evident that the field is characterized by a high degree of diversity, both in terms of individual contributions and collective efforts, which are in a state of constant evolution. Academic research is of pivotal significance in addressing the challenges posed by digital transformation.

### 3.2.3. Geographical Distribution of Studies by Country

The bibliometric analysis demonstrates significant disparities in the adoption of mobile banking by region. Utilizing VOSviewer software, this study underscores national contributions and identifies research areas that have been underrepresented, thereby providing a comprehensive understanding of the geographical distribution of studies.



**Figure 4.**  
Bibliometric mapping of the countries under study.

**Table 3.**  
Country rankings by number of publications.

Rank	Country	Documents	Citations	Total Link Strength
1	India	277	12247	142
2	Malaysia	141	4876	115
3	United States	130	7848	128
4	China	95	4299	91
5	United Kingdom	83	5113	98
6	Indonesia	81	1450	39
7	Saudi Arabia	63	3012	37
8	South Africa	62	2552	71
9	Pakistan	58	1906	45
10	Australia	57	3703	80
11	Vietnam	51	913	29
12	Iran	50	1545	31
13	Spain	47	2192	28
14	Bangladesh	45	1296	38
15	Jordan	45	2244	23
16	South Korea	43	1584	43
17	France	42	1430	34
18	Finland	33	2460	46
19	Taiwan	32	1338	6
20	Canada	30	1804	35

Bibliometric mapping reveals major research centers such as India and Malaysia, represented by large nodes, indicative of intense scientific activity. Other countries that have been significant contributors include South Korea, Vietnam, and Tunisia. The illustrated connections between nations, particularly between India and its Asian partners, are indicative of ongoing international collaboration.

European contributions, though more modest, are by no means negligible. Spain, Greece, and Iran are notable for the specific research that has been conducted in these countries, while African countries such as Ghana, Zimbabwe, and Nigeria are showing an increasing interest in m-banking, thereby underlining the potential of mobile banking in Africa. The following Table 3 presents the country rankings according to the number of publications.

The table illustrates the leading contributing countries, with India at the forefront, having published 277 papers, received 12,247 citations, and demonstrated a link strength of 142. This central role indicates the significance of this nation in the domain of m-banking. Malaysia follows with 141 publications and 4,876 citations, while China, the USA, and the UK complete the top five.

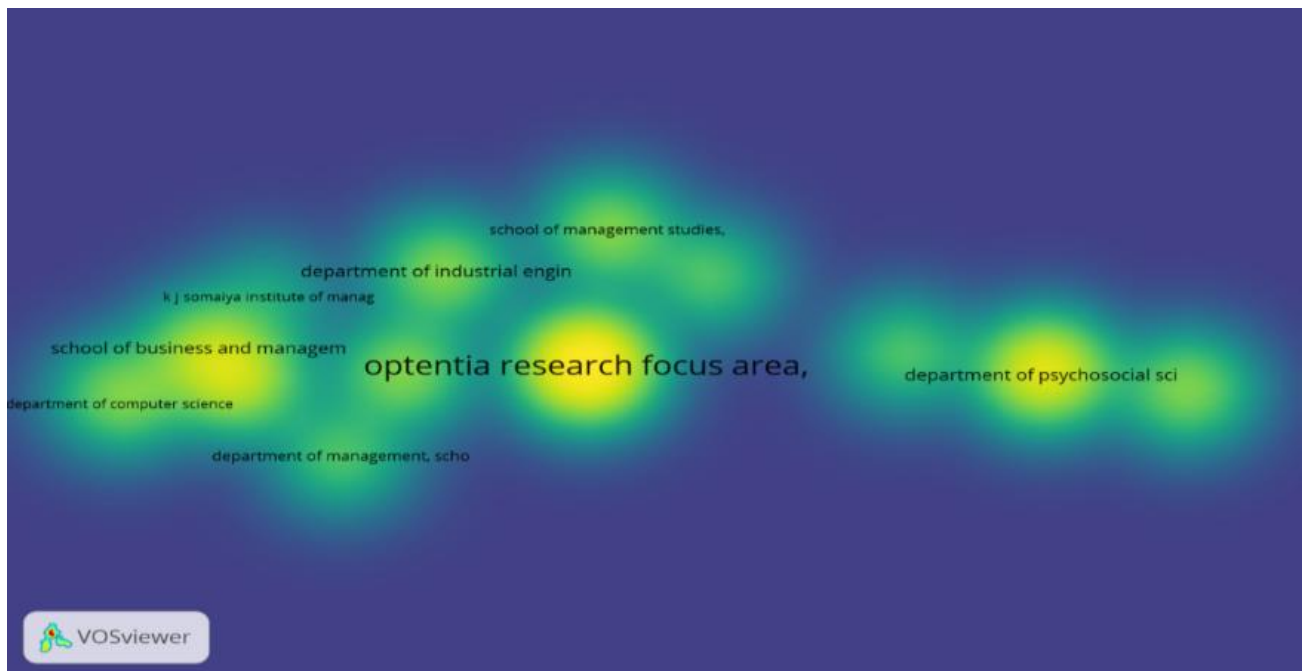
The results also reveal notable contributions from countries such as Indonesia, South Africa, Saudi Arabia, and Pakistan. These efforts indicate a global interest in m-banking adoption, although regional discrepancies persist. The strength of the overall link between countries demonstrates the importance of international collaborations to enrich research in this field.

In conclusion, this bibliometric analysis underscores the geographical diversity of m-banking studies. While certain countries continue to dominate in terms of publication volume and impact, an encouraging trend towards global collaboration and recognition is emerging. The results obtained from this study offer a more nuanced understanding of international research dynamics and the potential for future opportunities in regions that have been underrepresented to date.

### 3.3. Institutional Contributions

The application of bibliometric analysis using VOSviewer has facilitated the mapping of academic institutions' contributions to the field of m-banking adoption research. The present study focuses on data from Scopus to assess institutional productivity. As illustrated in Figure 5, academic institutions are represented according to the number of citations and documents received.

As illustrated in Figure 5, bibliometric mapping of academic institutions has been demonstrated to be a valuable tool for analysis.



**Figure 5.**  
Bibliometric mapping of academic institutions.

The results indicate the presence of academic institutions specializing in marketing and management, notably the School of Business and Management and the School of Management Studies. These institutions occupy a central position, thus confirming their major role in this theme. Conversely, notable contributions are made by departments such as the Department of Industrial Engineering and the Department of Psychosocial Science, albeit with reduced impact. However, the absence of Moroccan universities from this map reveals a significant gap and an opportunity to increase publications on the subject in the Moroccan context.

The following table presents a ranking of institutions based on the number of papers published and their total citations. This ranking aims to enhance the analysis.



**Table 4.**  
Ranking of institutions by number of papers and citations.

Rank	Keyword	Occurrences	Total Link Strength
1	Optentia Research Focus Area, North-West University, Vanderbijlpark, South Africa	9	1009
2	Amman College of Banking and Financial Sciences, Al-Balqa' Applied University, Jordan	4	733
3	College of Administrative and Financial Sciences, Saudi Electronic University, Saudi Arabia	2	704
4	School of Management, Swansea University, Swansea, United Kingdom	5	624
5	Turku School of Economics, University of Turku, Finland	4	603
6	Jaipuria Institute of Management, Noida, India	5	524
7	School of Tourism and Hospitality, University of Johannesburg, Johannesburg, South Africa	3	519
8	School of Business and Management, LUT University, Lappeenranta, Finland	3	507
9	Department of Management, University of Mauritius, Réduit, Mauritius	2	504
10	Griffith Institute for Tourism, Griffith University, Gold Coast, Australia	2	504
11	K. J. Somaiya Institute of Management, Mumbai, India	3	501
12	School of Management, Swansea University, Bay Campus, Fabian Way, Swansea, UK	2	429
13	Faculty of Business and Accountancy, University of Malaya, Kuala Lumpur, Malaysia	3	424
14	Department of Industrial Engineering and Management, Aalto University, Finland	2	411
15	Faculty of Business and Finance, Universiti Tunku Abdul Rahman, Jalan University, Malaysia	3	410
16	Department of Marketing and Market Research, University of Granada, Spain	2	400
17	Department of Management Information Systems, The University of Jordan, Jordan	2	396
18	Talal Abu-Ghazaleh Graduate School of Business, The German Jordanian University, Jordan	2	390
19	School of Management, Swansea University, Fabian Way, Swansea, UK	2	390
20	Department of Management Information Systems, King Abdulaziz University, Saudi Arabia	2	349

The data presented herein underscores the preeminence of select institutions, such as the Alkesh Dinesh Mody Institute, whose productivity and international impact are noteworthy. It is evident that other pivotal institutions, including Amman College and the College of Administrative and Financial Sciences, have substantiated their standing through a substantial number of citations.

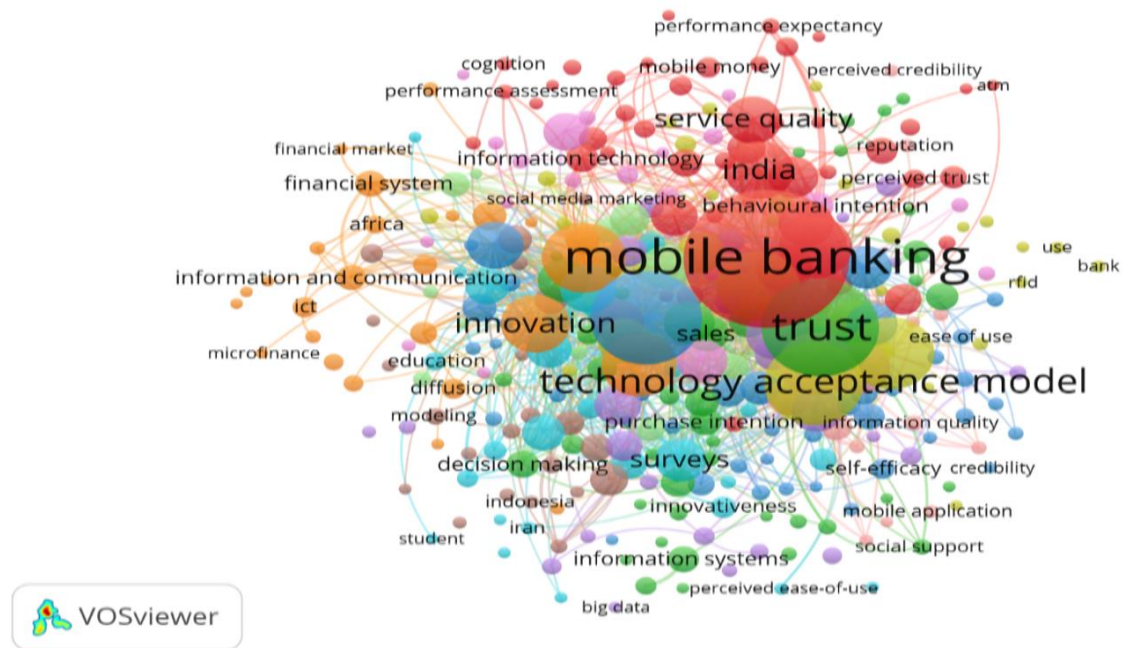
Research on the adoption of m-banking has been conducted in various geographical locations, with major institutions situated in countries such as India, Jordan, Saudi Arabia, and several other regions. This diversity indicates a global interest in the subject, although contributions remain predominantly concentrated in business and marketing schools. These institutions primarily explore the strategic and behavioral dimensions, emphasizing the factors influencing consumer adoption of these technologies.

The paucity of Moroccan contributions to this field of research underscores the necessity for further exploration and development. Moroccan researchers stand to benefit from this potential by joining international networks and raising the country's academic profile.

In summary, the bibliometric study under consideration highlights the significant contributions of institutions primarily located in India, Southeast Asia, and the Middle East in the field of m-banking research. The geographical diversity of the contributors indicates the universality and importance of the subject.

### 3.4. Principal Keywords and Investigative Themes

The present study undertakes an analysis of the predominant keywords in recent research. The co-occurrence method, when applied with the VOSviewer tool, was able to successfully identify the most frequent terms in the literature. As illustrated in Figure 6, these terms appear in the publications more than 20 times on average.



**Figure 6.**  
Bibliometric mapping of the most frequent keywords.

A thorough analysis of the mapping reveals significant terms such as "mobile banking," "trust," "total addressable market (TAM)," "adoption," and "perceived usefulness." These keywords reflect the central concerns of researchers in the field of m-banking adoption. Furthermore, concepts such as "Behavioral Intention," "Perceived Risk," and "Social Influence" emerge as significant determinants. This emphasizes the importance of user perceptions, particularly regarding perceived usefulness, satisfaction, and associated risks.

The following table summarizes the most frequently encountered keywords and their connection strength in the literature. In the corpus of research, the term 'mobile banking' is the most prevalent, appearing 198 times. This is followed by 'trust' (122 occurrences) and 'technology adoption' (112 occurrences). The findings of this study substantiate the notion that trust and perceived usefulness exert a pivotal influence on the adoption decision.

**Table 5.**  
Summary of the most frequent keywords and their occurrence.

Rank	Keywords	Occurrences	Total Link Strength
1	Mobile banking	198	385
2	Trust	122	266
3	Technology adoption	112	325
4	Technology acceptance model	95	254
5	Tam	77	218
6	Banking	74	222
7	Adoption	74	208
8	Perceived usefulness	64	209
9	Utaut	64	169
10	Perceived risk	62	135
11	Innovation	57	160
12	India	57	136
13	Perceived ease of use	48	159
14	Internet banking	48	99
15	Behavioral intention	43	134
16	Service quality	43	88
17	Consumption behavior	42	137
18	Social influence	42	115
19	Satisfaction	41	72
20	Structural equation modeling	40	132
21	Surveys	37	156
22	Mobile payment	37	104
23	Structural equation modelling	37	100
24	Attitude	37	96

Rank	Keywords	Occurrences	Total Link Strength
25	Utaut2	37	70
26	Electronic commerce	36	102
27	Intention	36	88
28	Technology acceptance	36	76
29	Social media	36	65
30	Customer satisfaction	35	59
31	Intention to use	34	117
32	M-banking	32	45
33	Covid-19	32	51
34	Internet	31	127
35	Financial inclusion	31	36
36	Mobile commerce	30	68
37	Mobile banking	29	139
38	Sales	29	125
39	Developing countries	29	88

The employment of terminology associated with the global context, including but not limited to "Covid-19," "Financial Inclusion," and "Developing Countries," serves to substantiate the impact of global occurrences and socio-economic factors on the adoption of m-banking. The global pandemic has led to a significant increase in the demand for digital banking solutions, particularly in developing countries.

Concurrently, the employment of sophisticated methodologies, exemplified by the utilization of terminologies such as "Structural Equation Modeling," is indicative of the advanced approaches that have been utilized in preceding studies. The utilization of these tools facilitates the comprehension of the intricate interrelationships between variables, thereby ensuring the validity of conclusions derived from the analysis. However, it is noteworthy that there is a paucity of research conducted in the Moroccan context. This lacuna presents a valuable opportunity for research that is oriented towards local particularities, incorporating cultural and economic dimensions.

In order to provide a more comprehensive interpretation of the data, a qualitative approach will be adopted in conjunction with this bibliometric analysis. Employing NVivo 10, a comprehensive review of publications will facilitate the identification of the primary findings, the exploration of data collection methods, and the identification of the theories mobilized in previous studies.

Furthermore, a content analysis will be conducted in accordance with the principles of the PRISMA method. The employment of this method will facilitate the systematic review of publications, enabling the identification of methodologies employed and the limitations of extant work. This flexible and rigorous approach will contribute to a comprehensive and integrated exploration, which is essential for robust and relevant academic research.

In conclusion, the bibliometric analysis provides a solid basis for examining the determinants of m-banking adoption. It is argued that the publication in question offers valuable insights into the subject by highlighting trends, key concepts, and research opportunities, thereby facilitating a more comprehensive understanding of this constantly evolving phenomenon.

#### 4. Conclusion

The objective of this study was to undertake a systematic and rigorous examination of the extant scientific literature concerning the adoption of mobile banking. This was achieved by employing a bibliometric methodology that utilized the Scopus database. The present approach was adopted in order to map the major research dynamics over the period 2013-2022, with a view to identifying dominant trends, key contributors, the most active institutions, as well as persistent gaps.

The findings corroborate the increasing scholarly interest in m-banking, particularly since 2019, with a notable rise in publications in 2021 and 2022. This period of heightened activity aligns with accelerated technological change and increased digitalization of banking services, developments driven by the health crisis. Analyses indicate that notions of trust, perceived risk, perceived usefulness, and intention to use remain central to scientific concerns. Furthermore, India, Malaysia, China, and the United States are responsible for the majority of scientific output, both in volume and influence. In contrast, Maghreb countries, especially Morocco, are underrepresented, highlighting a significant regional imbalance.

The present work is original in several respects. The present study is notable for its adoption of a comprehensive bibliometric approach, a rarity in the field of mobile banking research. The approach is focused exclusively on the adoption of mobile banking, integrating temporal, geographical, institutional, and thematic dimensions. Furthermore, the PRISMA protocol is employed to ensure the transparency and reproducibility of the article selection process, whilst the advanced features of VOSviewer are utilized to visualize collaboration and co-citation networks.

The reliability of the analysis depends on the relevance and richness of the database used. Scopus, a platform recognized for the quality of its metadata and interdisciplinary coverage, has enabled the acquisition of a robust sample of 1,385 scientific articles. This dataset provides a solid empirical foundation for exploring the contours of academic research in this field. The article offers a valuable overview of the journals, authors, and institutions shaping scientific production in the field of m-banking.

Nevertheless, it is important to emphasize certain specificities of the local context that merit further investigation in

future research. The Moroccan case, for instance, is characterized by specific issues such as the structure of the banking sector, levels of financial inclusion, consumers' perception of technology, and digital regulation. These contextual elements, as yet scarcely documented in extant literature, have the potential to enhance comparative analyses and contribute to a more nuanced understanding of the mechanisms of m-banking adoption in emerging countries.

In practical terms, the implications of this research are numerous. For banking decision-makers, it sheds light on the major levers for acceptance of mobile banking services, which can guide the development of more targeted strategies in terms of awareness, application design, and customer relationship management. This study provides reliable benchmarks for assessing the digital maturity of markets and adapting support measures, which will doubtless be of great interest to investors and regulators alike. In conclusion, the present study provides a structured basis for the formulation of novel hypotheses and the identification of hitherto unobserved lacunae in the extant literature, particularly with regard to the interactions between cultural, economic, and technological variables.

This research provides a comprehensive yet critical perspective on the current state of scientific production regarding the adoption of m-banking. It engenders a range of stimulating reflections that facilitate a more profound understanding of the logic underpinning the appropriation of this technology across diverse contexts. By highlighting geographical imbalances, recurring themes, and knowledge networks, it invites us to reconsider the future directions of academic work within a more inclusive and contextualized framework.

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