



International Regulation and Bank Performance: A Bibliometric Analysis

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ABSTRACT

Banking regulation has progressively evolved as a central mechanism for enhancing bank performance, financial stability, and systemic resilience. In the aftermath of the global financial crisis, regulatory frameworks have shifted from predominantly microprudential approaches toward more integrated macroprudential perspectives. Nevertheless, despite the expansion of the literature, its intellectual structure and global influence remain insufficiently synthesized. Against this backdrop, this study aims to systematically map the scientific production on international banking regulation and banking performance. To this end, a large-scale bibliometric analysis was conducted using data from Web of Science, Scopus, ScienceDirect, SSRN, and EconLit, covering the period up to January 2026. After deduplication, 9,095 publications were examined using bibliometrix, SciVal, and VOSviewer, with a focus on thematic structures, collaboration networks, and normalized citation impact. The findings indicate a marked increase in publications, particularly after 2015, in line with Basel III implementation and post-pandemic regulatory challenges. Moreover, the literature is primarily structured around financial stability, systemic risk, and risk management. Citation indicators further reveal a strong global impact, with a significant share of highly cited publications and an average FWCI above the world benchmark. Overall, the results point to a growing shift toward a resilience-oriented regulatory paradigm, offering relevant insights for both researchers and policymakers.

Keywords: Banking Regulation, Bank Performance, Basel III, Financial Stability, Bibliometric Analysis

JEL Classifications: G21, G28, E58

1. INTRODUCTION

Banking systems play a central role in economic growth by mobilizing savings, allocating credit, and facilitating financial stability, yet they are inherently prone to market failures arising from information asymmetry, moral hazard, and systemic externalities (Barth et al., 2013). To address these vulnerabilities, banking regulation has evolved as a core policy instrument aimed at safeguarding depositor interests and maintaining confidence in financial systems (Goodhart, 2010). Early regulatory approaches were predominantly microprudential, focusing on bank-level solvency through capital adequacy and supervisory oversight, but the global financial crisis exposed the limitations of this framework in containing system-wide risk (Brunnermeier and

Pedersen, 2009). In response, regulatory paradigms shifted toward macroprudential regulation, emphasizing financial stability, interconnectedness, and procyclicality mitigation as explicit policy goals (International Monetary Fund Annual Report; Financial Statements, 2014). The Basel III framework institutionalized this dual regulatory objective by strengthening capital and liquidity standards while introducing countercyclical and systemic buffers to enhance banking sector resilience (Basel Committee on Banking Supervision [Basel III: A Global Regulatory Framework for More Resilient Banks and Banking Systems - Post BCBS Meeting - Revised Version June], 2011).

Alongside regulatory transformation, scholarly interest in the relationship between banking regulation and performance has intensified, particularly concerning its implications for

profitability, efficiency, risk-taking behavior, and systemic stability (Beltratti and Stulz, 2012). However, existing empirical studies often report mixed findings, reflecting heterogeneity in regulatory design, institutional quality, and economic conditions across jurisdictions (Brunnermeier & Oehmke, 2013). More recently, the regulatory–performance discourse has expanded to incorporate emerging challenges related to digital finance, fintech innovation, climate-related financial risk, and cybersecurity, further complicating performance assessment in banking systems (Financial Stability Board, 2021). Despite the rapid growth of this literature, a comprehensive synthesis of its intellectual structure, thematic evolution, and global research impact remains limited. Parallel bibliometric efforts in adjacent banking topics, such as ESG performance (Galletta et al., 2023) and fintech-driven profitability (Najaf et al., 2024), highlight the timeliness of a dedicated synthesis on banking regulation and performance.

This study addresses this gap by providing a large-scale bibliometric analysis of research on international banking regulation and banking performance. Unlike prior narrative or empirical reviews, this study offers a systematic, data-driven mapping of publication trends, keyword structures, collaboration networks, and citation impact, with particular emphasis on field-weighted citation influence and recent regulatory developments. The novelty of this work lies in integrating bibliometric network analysis with normalized citation metrics to reveal how regulatory paradigms shape contemporary banking performance research.

Accordingly, the aim of this study is to systematically map and evaluate the global scientific literature on banking regulation and banking performance.

The specific objectives are to:

- i. Analyze publication trends and disciplinary distribution;
- ii. Identify influential keywords, authors, institutions, and countries;
- iii. Examine thematic evolution and network centrality structures; and
- iv. Assess citation impact using field-weighted indicators.

2. METHODOLOGY

2.1. Search Strategy

A comprehensive and systematic search strategy was employed to capture the global literature on international banking regulation and banking performance on 5 databases as shown in Table 1. Bibliographic data were retrieved from Web of Science Core Collection, Scopus, ScienceDirect, SSRN, and EconLit to ensure broad disciplinary and methodological coverage. Database-specific Boolean search strings were developed using combinations of regulation-related terms (e.g., banking regulation, financial regulation, Basel I-III, macroprudential regulation) and performance-related outcomes (e.g., performance, profitability, efficiency, financial stability, risk-taking). Searches were conducted in the title, abstract, and keyword fields, with syntax adapted to the technical requirements of each database. The dataset covered publications indexed from database inception (1978 for Web of Science and equivalent earliest indexed years

across other databases) through January 2026. Particular emphasis was placed on literature published in the last 5 years, reflecting heightened scholarly and policy interest following Basel III implementation, post-pandemic financial stress, and emerging regulatory challenges. Publications were included if they explicitly examined banking regulation, prudential policy, or regulatory frameworks in relation to bank-level or system-level performance outcomes. Studies focusing on unrelated sectors (e.g., healthcare, artificial intelligence, or non-financial regulation) were excluded following title and abstract screening.

2.2. Eligibility Criteria and Study Selection

To ensure methodological transparency and reproducibility, explicit eligibility criteria were applied during study selection. Publications were included if they examined international banking regulation, prudential regulatory frameworks, or supervisory mechanisms and evaluated banking performance outcomes such as profitability, efficiency, financial stability, or risk-taking behavior. The analysis incorporated peer-reviewed journal articles, conference papers, working papers, and review articles to capture both established and emerging scholarly contributions. Only publications written in English were included to maintain consistency in bibliometric processing and interpretation. Publications were excluded if they focused exclusively on non-banking financial institutions without regulatory-performance relevance, lacked essential bibliographic metadata required for bibliometric analysis, represented editorials, book reviews, or commentary articles, or constituted duplicate records.

2.3. Data Analysis

The bibliometric analyses were conducted using a combination of specialized analytical platforms to ensure robust quantitative and network-based evaluation of the literature. The R package *bibliometrix* was employed for descriptive bibliometric analysis, including annual scientific production, citation metrics, top contributing authors, institutions, countries, and keyword frequency analysis. *SciVal* was used to assess advanced citation indicators, particularly Field-Weighted Citation Impact (FWCI), top-10% cited publications, and normalized citation performance at the author, institution, and country levels. Field-Weighted Citation Impact (FWCI) was used as a normalized indicator to evaluate the relative citation influence of publications within the dataset. FWCI values were obtained using the *SciVal* analytical platform, which derives citation benchmarking from the Scopus-indexed subset of the retrieved records. The metric compares the actual citation count of each publication against the expected citation performance of similar publications within the same subject area, document type, and publication year. Because *SciVal* relies on Scopus coverage, FWCI analysis was conducted only on records that could be matched to Scopus-indexed outputs. The FWCI calculations were therefore based on the available matched subset of publications rather than the entire bibliometric dataset. Citation metrics and ranking analyses were further used to identify highly influential publications and contributors within the field. Network visualization and mapping of keyword co-occurrence, co-authorship, and thematic structures were performed using *VOSviewer*, enabling graphical representation of clusters and temporal trends. For quantitative network characterization,

Table 1: Database search strategy and retrieved publication counts

Database	Recommended search terms (title/abstract/keywords)	Number of articles
Web of Science	("international bank regulation" OR "global banking regulation" OR "banking regulation" OR "prudential regulation" OR "capital regulation" OR "financial regulation" OR "Basel Accord" OR "Basel I" OR "Basel II" OR "Basel III" OR "macroprudential regulation") AND (bank* OR "banking sector" OR "commercial bank*" OR "financial institution*") AND (performance OR profitability OR efficiency OR "financial stability" OR risk OR "risk-taking" OR resilience OR "credit growth" OR "bank soundness")	3340
Scopus	("Banking regulation" OR "financial regulation" OR "Basel III" OR "prudential regulation") AND (bank* OR "financial institution*") AND (performance OR profitability OR stability OR risk-taking)	1535
Science direct	("Banking regulation" OR "financial regulation" OR "Basel III" OR "prudential regulation") AND (bank OR "financial institution") AND (performance OR profitability)	8233
SSRN	("Bank regulation" OR "Basel III" OR "prudential regulation") AND bank* AND (performance OR risk OR profitability)	156
EconLit	Bank regulation	11
	Bank Performance	2

Source: Authors

Table 2: Centrality analysis of keyword co-occurrence network

Rank	Keyword	Degree centrality	Betweenness centrality	Closeness centrality	Interpretative role in the network
1	Financial stability	88	0.0051	0.5231	Core thematic anchor linking regulation, risk, and performance research
2	Banking	86	0.0032	0.4976	Central operational concept connecting institutional and policy studies
3	Financial regulation	81	0.0051	0.5204	Key regulatory framework integrating multiple performance dimensions
4	Financial crisis	71	0.0091	0.5455	Bridge between regulatory reforms and systemic risk discussions
5	Banking regulation	69	0.0102	0.5543	Critical intermediary linking policy instruments and bank outcomes
6	Risk management	69	0.0298	0.5829	Highest bridging role across thematic clusters
7	Basel III	68	0.0022	0.4928	Dominant international regulatory standard influencing capital adequacy
8	Systemic risk	68	0.0062	0.5258	Connects macroprudential regulation with financial stability
9	Banks	67	0.0075	0.5258	Institutional focus grounding empirical banking studies
10	Monetary policy	65	0.0131	0.5635	Links regulatory policy with macro-financial performance outcomes

Source: Authors

Table 3: Centrality analysis of co-authorship network

Rank	Authors	Degree centrality	Betweenness centrality	Closeness centrality	Eigenvector centrality	Interpretative role in the network
1	Moudud-ul-Huq, S.	4	0.0009	0.8000	0.0000	Most collaborative author, serving as a key local hub
2	Abedin, Mohammad Zoynul	3	0.0007	1.5000	0.0000	Highly accessible node with strong proximity to collaborators
3	Ashraf, B.N.	3	0.0000	0.7059	0.0000	Central contributor within a cohesive collaboration cluster
4	Rahman, M.M.	3	0.0000	0.5455	0.0000	Active collaborator with moderate network reach
5	Zheng, C.J.	3	0.0000	0.3750	0.0000	Participates in focused, localized co-authorship ties
6	Berger, Allen N.	2	0.0000	0.1333	1.0000	Structurally influential through connections with key authors
7	Chen, Minghua	2	0.0000	0.2857	0.0000	Contributor embedded within a specialized research group
8	Chen, S.	2	0.0000	0.3333	0.0000	Maintains stable but limited collaborative linkages
9	Hasan, Iftekhhar	2	0.0002	0.4000	0.0000	Acts as a minor bridge between distinct author groups
10	Jeon, Bang Nam	2	0.0000	0.3333	0.0000	Contributes to interconnected but non-central clusters

Source: Authors

Table 4: Country-level scholarly output and citation impact

Rank	Country	Scholarly output	Views count	Field-weighted citation impact (FWCI)	Citation count (excluding self-citations)
1	United States	776	51,583	2.25	24,783
2	China	747	37,895	2.52	20,959
3	United Kingdom	678	57,204	2.83	23,385
4	Germany	328	32,657	3.17	13,094
5	France	323	31,513	3.21	14,372
6	Italy	320	34,745	3.49	10,557
7	Australia	230	27,167	3.63	9,653
8	India	199	28,462	4.31	8,494
9	Spain	197	24,059	3.67	7,421
10	Canada	159	10,776	2.96	4,332

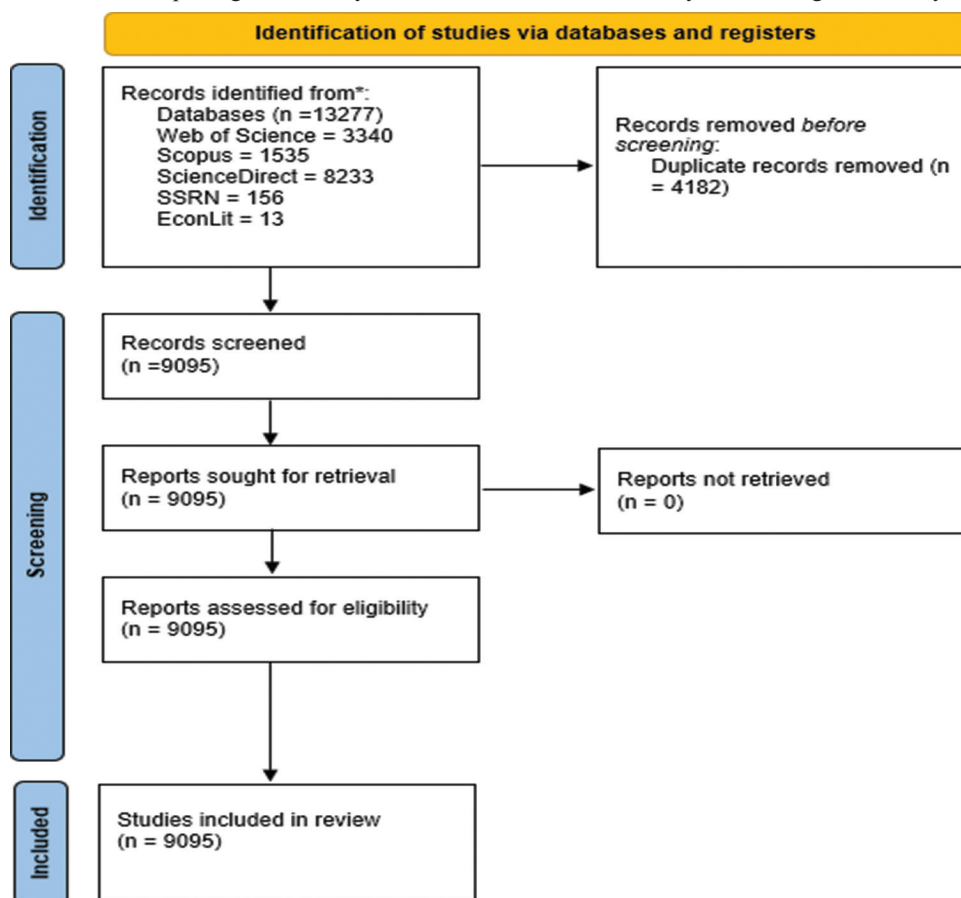
Source: Authors

Table 5: Institutional research productivity and citation performance

Rank	Institution	Scholarly output	Views count	Field-weighted citation impact (FWCI)	Citation count (excluding self-citations)
1	CNRS	85	4,725	1.50	2,102
2	Southwestern University of Finance and Economics	57	2,228	1.44	1,133
3	Federal Reserve Bank	57	2,332	1.63	1,486
4	World Bank	52	3,679	3.18	3,199
5	European Central Bank	50	2,415	1.87	1,559
6	Centre for Economic Policy Research, London	48	2,048	1.59	1,409
7	University of Oxford	46	5,247	6.70	1,973
8	University college London	43	7,052	8.69	4,421
9	University of Sydney	42	6,019	6.76	2,411
10	University of Zurich	39	3,416	5.91	1,210

Source: Authors

Figure 1: Preferred Reporting Items for Systematic Reviews and Meta-Analyses flow diagram of study selection



Source: Authors

centrality assessments (degree, betweenness, closeness, and eigenvector centrality) were conducted using network analysis tools, with .net files generated from VOSviewer and imported for centrality computation. This integrated multi-tool approach allowed for comprehensive mapping of intellectual structure, collaboration patterns, and citation impact within the research domain.

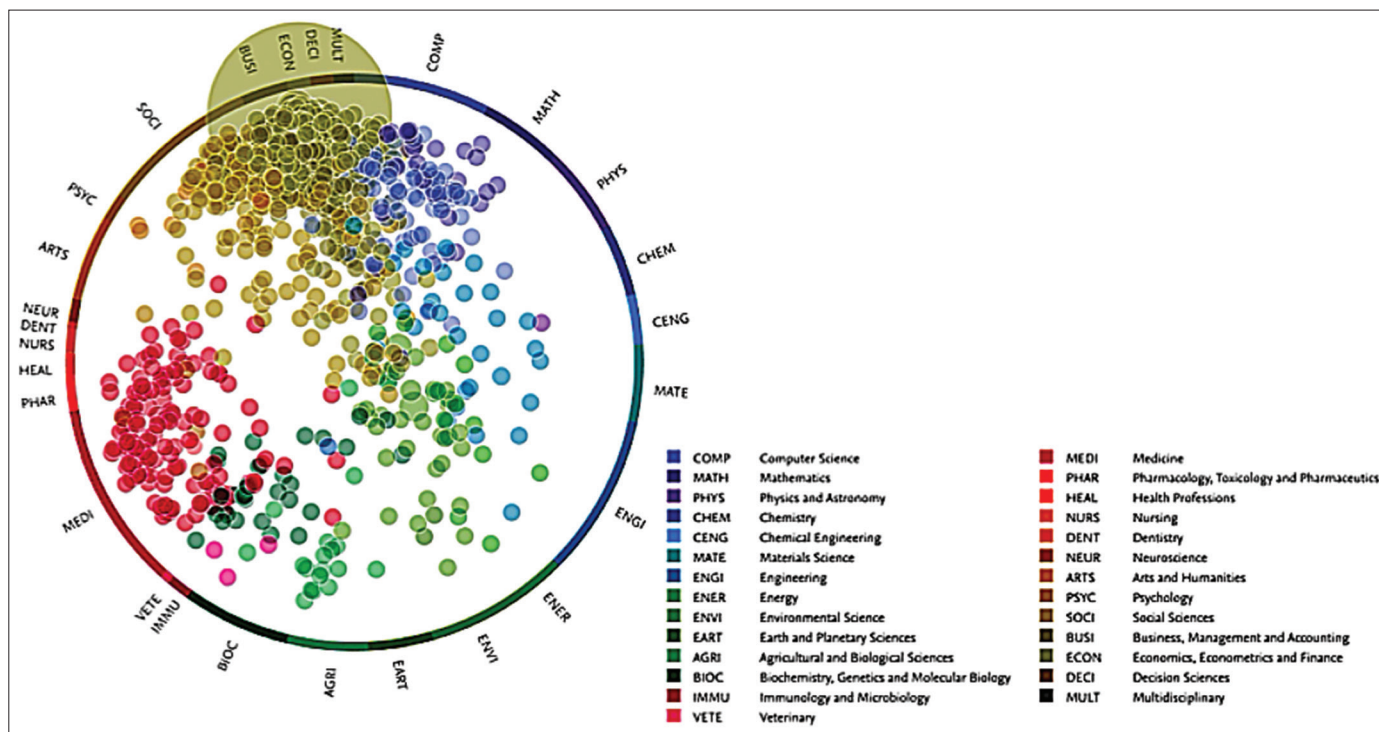
3. RESULTS

3.1. Distribution of Literature

The study selection process followed a PRISMA-style screening framework (Figure 1). A total of 13,277 records were retrieved through the comprehensive database search. Following systematic

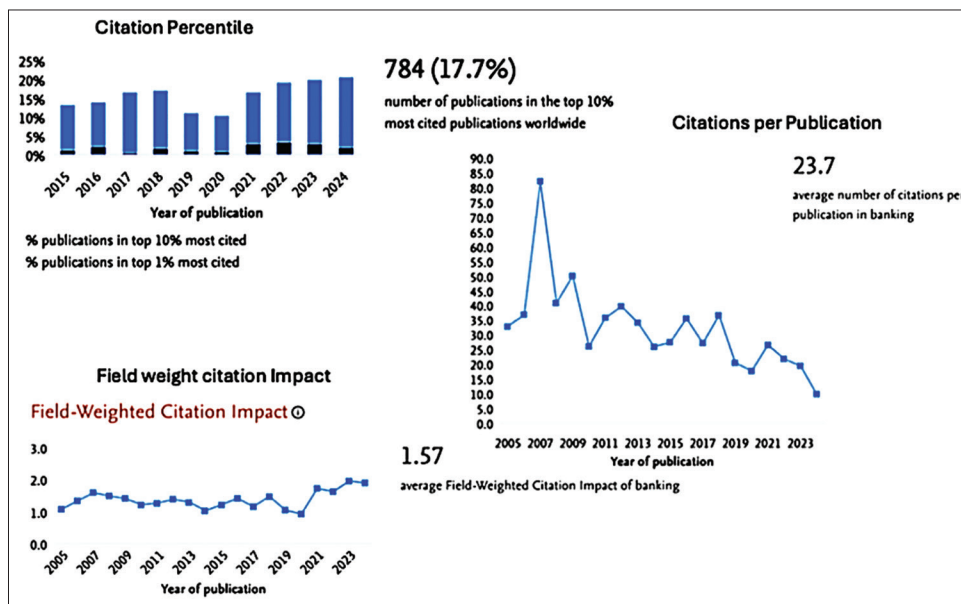
deduplication, 9,095 unique publications were retained for bibliometric analysis. The topic-wise classification of the dataset, based on dominant ASJC subject categories, reveals a strongly multidisciplinary research landscape. The largest scholarly output clusters are concentrated within Economics, Econometrics and Finance, Business, Management and Accounting, and Decision Sciences, underscoring the core economic and regulatory foundations of the literature. Substantial cross-disciplinary contributions are also observed from Social Sciences, Computer Science, Engineering, and Environmental Sciences, reflecting the integration of digital finance, systemic risk modeling, sustainability, and climate-related financial regulation into banking research. Bubble size analysis indicates that finance-oriented

Figure 2: Disciplinary distribution of publications on international banking regulation and banking performance based on ASJC subject categories



Source: Author’s elaboration using VOSviewer

Figure 3: Annual scientific production trends in international banking regulation and banking performance research (1978-2026)



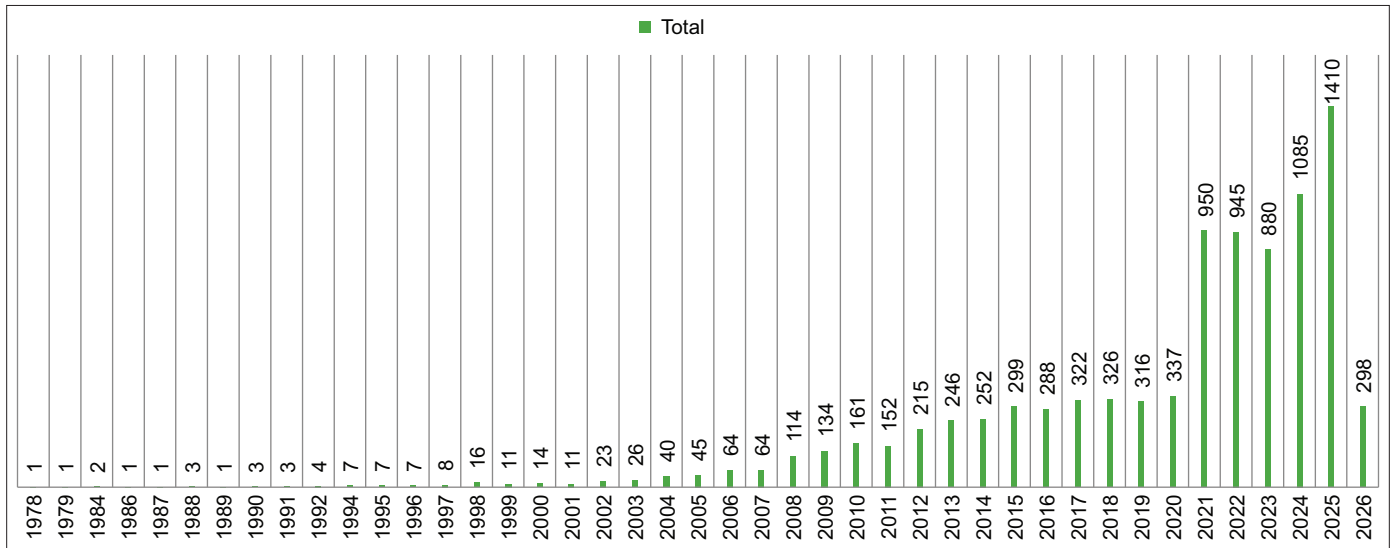
Source: Author’s elaboration using Scopus data and SciVal

disciplines dominate publication volume, while the dispersion of bubbles across multiple subject areas highlights the growing interdisciplinarity of regulatory banking research (Figure 2).

Analysis of highly cited publications underscores both disciplinary depth and cross-sectoral influence. Among banking-focused studies, the most influential article is “Bank regulation and supervision: What works best?” (Barth et al., 2004), published in the Journal of Financial Intermediation, with 1,349 citations (FWCI = 16.43), reflecting its foundational contribution to

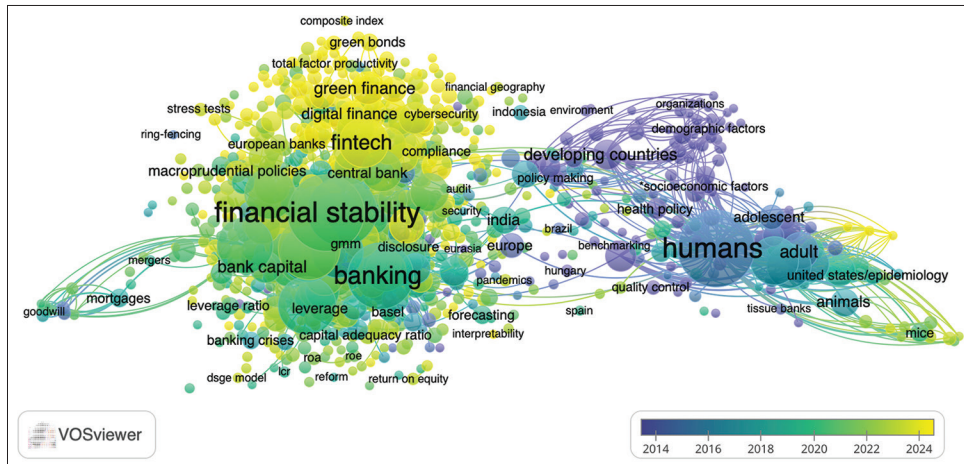
understanding regulatory effectiveness and supervisory structures. Similarly, “The credit crisis around the globe: Why did some banks perform better?” (Beltratti and Stulz, 2012), published in the Journal of Financial Economics, has accumulated 872 citations (FWCI = 25.39), providing influential empirical insights into the relationship between regulatory environments and bank performance during periods of systemic stress. Collectively, these highly cited banking-specific contributions reinforce that the core of the literature remains grounded in regulatory design, supervision quality, and resilience-based performance assessment, even as the

Figure 4: Annual publication trend in international banking regulation and banking performance research (1978-2026)



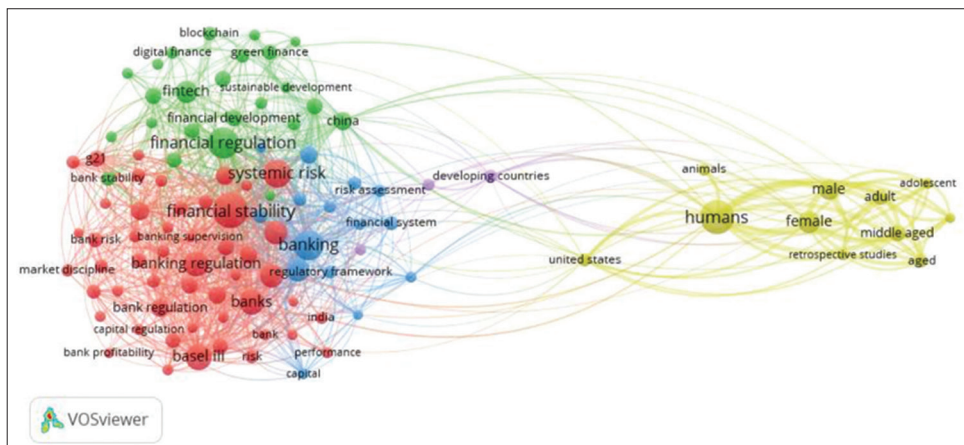
Source: Authors

Figure 5: Keyword co-occurrence network map of international banking regulation and banking performance research



Source: Author's elaboration using VOSviewer

Figure 6: Clustered keyword co-occurrence network in banking regulation and performance research

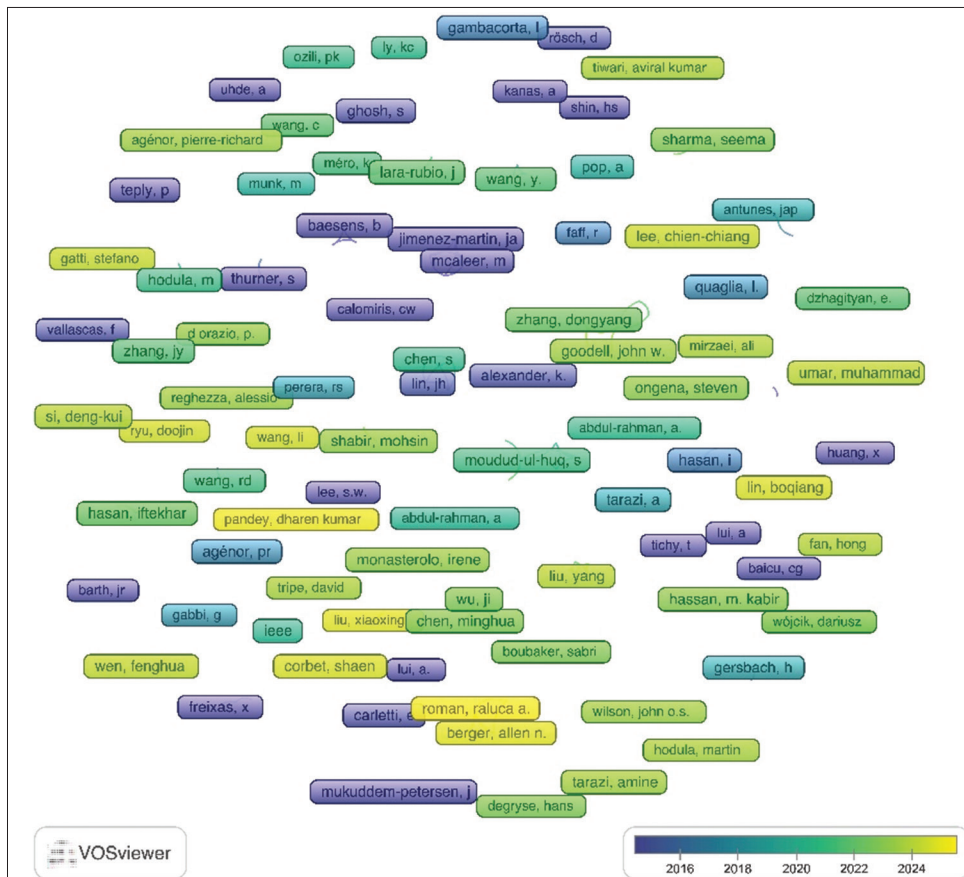


Source: Author's elaboration using VOSviewer

field expands toward broader interdisciplinary policy debates.

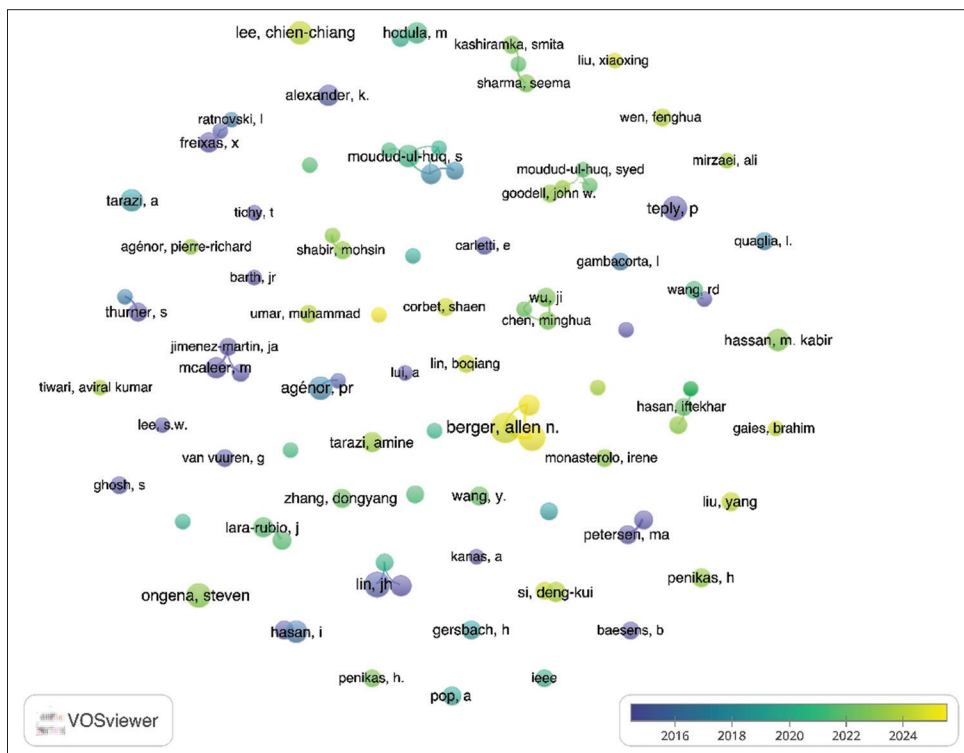
PRISMA-style flow diagram illustrating the identification, screening, eligibility assessment, and final inclusion of publications

Figure 7: Temporal co-authorship network of authors in banking regulation and performance research



Source: Author's elaboration using VOSviewer

Figure 8: Author collaboration and influence network in banking regulation and performance research



Source: Author's elaboration using VOSviewer

investigating international banking regulation and banking performance. A total of 13,277 records were identified across five databases (Web of Science, Scopus, ScienceDirect, SSRN, and EconLit). After duplicate removal, 9,095 unique publications were retained and included in the bibliometric analysis.

Circular cluster map showing disciplinary classification of publications using ASJC subject categories. Node colors indicate subject domains, while clustering demonstrates thematic overlap and interdisciplinary expansion of banking regulation research across finance, technology, sustainability, and policy-related fields.

3.2. Citation metrics Analysis

The citation metrics indicate a strong and sustained scholarly impact of research in the banking domain, particularly when assessed using field-normalized indicators. Between 2015 and 2024, a total of 784 publications (17.7%) were positioned within the top 10% most cited publications worldwide, demonstrating that a substantial proportion of banking-related research achieves high international visibility and influence after accounting for disciplinary citation differences. The average citations per publication over the longer period (2005-2024) stood at 23.7, with notable peaks in the mid-to-late 2000s reflecting the heightened citation activity surrounding the global financial crisis. More importantly, the Field-Weighted Citation Impact (FWCI) averaged 1.57, indicating that publications in banking were cited 57% more frequently than the global average for comparable outputs in the same subject areas, year, and document type. Temporal trends reveal a recovery and upward trajectory in FWCI after 2020, reaching values close to 2.0 in recent years, suggesting increasing relevance and resonance of contemporary banking research. These citation trends are illustrated in Figure 3. Overall, these citation patterns confirm both the quality and sustained global impact of the literature, with field-weighted metrics underscoring its influence beyond volume-based citation counts.

Panel A shows publications ranked among the top 10% most cited worldwide. Panel B illustrates average citations per publication across years. Panel C presents Field-Weighted Citation Impact trends, reflecting normalized global citation influence.

3.3. Overall Publication Range

The analysis of publication trends reveals a clear and sustained growth in scholarly interest in international banking regulation and banking performance over the past four decades. From the late 1970s through the mid-1990s, research output remained sparse, reflecting the relatively limited global regulatory coordination during this period. A gradual increase is observed from the early 2000s, coinciding with the expansion of cross-border banking activities and the growing relevance of prudential oversight frameworks. Notably, a marked acceleration in publications occurs after the global financial crisis of 2007-2008, highlighting intensified academic and policy attention toward capital adequacy, risk management, and systemic stability. The upward trajectory becomes particularly pronounced from 2015 onward, with a sharp surge during the post-2020 period, likely driven by Basel III implementation, macroprudential reforms, and the regulatory challenges posed by COVID-19-induced financial stress. Overall,

the trend demonstrates the increasing centrality of regulatory mechanisms in shaping banking performance and financial stability in an interconnected global financial system. Figure 4 illustrates this evolution.

Bar chart illustrating the annual scientific production of publications related to international banking regulation and banking performance from 1978 through 2026. The figure demonstrates minimal scholarly output during early decades, followed by gradual growth beginning in the early 2000s. A substantial increase in research productivity is observed after the global financial crisis, reflecting intensified academic and policy interest in regulatory frameworks, capital adequacy, and systemic risk management. The steep upward trajectory from 2015 onward highlights the expanding influence of Basel III implementation, macroprudential regulatory reforms, and post-pandemic financial stability research. The slight decline in 2026 reflects partial-year indexing at the time of data extraction.

3.4. Key-Word Co-Occurrence Analysis

3.4.1. Temporal trends

The temporal keyword analysis illustrates a clear evolution in the thematic focus of research on international banking regulation and performance over time. Earlier studies, concentrated predominantly before 2014, were anchored around core banking concepts such as banking, bank capital, leverage, capital adequacy, and financial stability, reflecting post-global financial crisis concerns surrounding solvency, risk containment, and regulatory reforms. During the mid-period (2015-2018), the literature diversified toward macroprudential policies, stress testing, Basel frameworks, and financial stability monitoring, indicating a shift from micro-level bank performance to system-wide resilience and regulatory effectiveness. More recent publications (2019-2024) demonstrate a pronounced thematic expansion, with emerging keywords such as green finance, digital finance, fintech, cybersecurity, and green bonds, highlighting the integration of sustainability, technological innovation, and environmental risk into regulatory and performance discourse. Simultaneously, increased attention to developing countries, policy making, and pandemic-related factors underscores the growing global, inclusive, and adaptive orientation of contemporary banking regulation research. Figure 5 maps these temporal shifts in the keyword network.

Node size represents keyword frequency, links indicate thematic co-occurrence, and color gradients reflect chronological evolution of research themes from traditional regulatory topics toward emerging domains such as fintech and green finance.

3.4.2. Top key words

The analysis of the top 100 keywords reveals a well-structured intellectual landscape clustered around four dominant thematic groups, highlighting the multidimensional nature of research on international banking regulation and performance. The largest cluster centers on banking regulation and financial stability, encompassing frequently occurring keywords such as banking regulation, Basel III, capital regulation, bank risk, and bank profitability, reflecting strong emphasis on prudential frameworks and post-financial crisis reforms. A second prominent cluster

relates to systemic risk and regulatory supervision, including terms such as systemic risk, bank supervision, regulatory framework, and risk assessment, underscoring concerns about contagion, resilience, and macroprudential oversight. The third cluster captures financial development and innovation, with keywords such as financial regulation, digital finance, fintech, green finance, and sustainable development, indicating an emerging research stream linking regulation with technological advancement and sustainability goals. A smaller, distinct cluster comprises demographic and contextual terms (e.g., humans, adult, developing countries), reflecting interdisciplinary spillovers and data-source influences. Collectively, these clusters demonstrate a progression from traditional regulatory-performance relationships toward broader systemic, technological, and sustainability-oriented perspectives. The cluster structure is visualized in Figure 6.

The centrality assessment of the keyword co-occurrence network highlights the structural importance of core regulatory and stability-related concepts within the literature on international banking regulation and performance. Financial stability emerges as the most influential node, exhibiting the highest degree centrality (Degree = 88) and substantial closeness (0.523), underscoring its central role in linking diverse research themes. Closely following, banking (Degree = 86; Betweenness = 0.0032) and financial regulation (Degree = 81; Betweenness = 0.0051) function as major connective hubs, reflecting their broad integration across performance, risk, and policy discussions. Keywords such as financial crisis (Degree = 71; Betweenness = 0.0091) and banking regulation (Degree = 69; Betweenness = 0.0102) demonstrate elevated betweenness values, indicating their bridging role between regulatory frameworks and crisis-driven analyses. Notably, risk management shows the highest betweenness centrality (0.0298) despite a moderate degree (69), emphasizing its critical intermediary function across thematic clusters. Additional influential nodes include Basel III, systemic risk, banks, and monetary policy, each exhibiting high degree and closeness centrality. Collectively, these patterns confirm that stability- and risk-oriented concepts anchor the intellectual structure of the field while facilitating cross-thematic knowledge integration. The full centrality metrics are reported in Table 2.

3.5. Co-Author Analysis

3.5.1. Temporal leaders

The temporal co-authorship analysis, conducted with a minimum threshold of five co-occurrence links, identified a network of 160 influential authors, revealing both leadership patterns and collaborative evolution within the field of international banking regulation and performance. Early contributors, predominantly active prior to 2016, formed the foundational knowledge base, focusing on capital regulation, financial stability, and prudential oversight. From 2017 onward, the network expanded substantially, marked by the emergence of highly connected authors who served as key collaboration hubs and facilitated cross-institutional research linkages. Notable central figures demonstrated sustained productivity and strong co-authorship ties, indicating leadership roles in shaping regulatory-performance discourse. The most recent phase (2020-2024) shows increased participation from authors

based in emerging economies, reflecting the globalization of research and growing attention to developing-country banking systems. The color gradient further illustrates a shift toward newer collaborative clusters, suggesting dynamic renewal of the author network. Overall, the co-author analysis highlights a transition from concentrated, senior-led collaborations to more diversified and internationally interconnected research teams driving contemporary scholarship in this domain. The temporal co-authorship network is depicted in Figure 7.

Node size indicates author productivity, links represent co-authorship relationships, and color gradients reflect the chronological evolution of research collaborations.

3.5.2. Top authors

The co-authorship analysis of the top 100 authors reveals a moderately fragmented yet thematically coherent collaboration structure within the literature on international banking regulation and performance. The network is organized into several distinct clusters, each representing research communities focused on complementary themes such as banking regulation, financial stability, systemic risk, and bank performance. Prominent clusters are anchored by influential authors including Berger, Allen N., Moudud-ul-Huq, S., Hasan, Iftexhar, and Agénor, Pierre-Richard, who act as intellectual reference points within their respective groups. Smaller clusters reflect regionally oriented collaborations, particularly involving scholars from Asia and emerging economies, highlighting the global expansion of research activity in this field. The spatial dispersion of nodes indicates limited cross-cluster co-authorship, suggesting that collaborations remain largely within specialized research domains. The temporal color gradient further shows that earlier contributors laid the foundational regulatory-performance discourse, while newer authors (post-2020) are increasingly shaping emerging topics such as sustainability, financial innovation, and risk governance. Overall, the author clusters demonstrate a balance between established scholarly leadership and growing diversification of international research collaborations. Figure 8 displays the corresponding author collaboration network.

Node size represents author productivity and citation influence, spatial clustering indicates collaboration patterns, and color gradients reflect temporal evolution of scholarly contributions.

The centrality assessment of the co-authorship network provides insights into influential authors and collaboration structures within the literature on international banking regulation and performance. Based on degree centrality, Moudud-ul-Huq, S. emerges as the most connected author (Degree = 4; Betweenness = 0.0009), indicating a prominent collaborative role and moderate brokerage capacity within the network. Authors such as Abedin, Mohammad Zoynul (Degree = 3; Betweenness = 0.0007) and Ashraf, B.N. (Degree = 3; Betweenness = 0.0000) also demonstrate strong collaborative presence, though with limited intermediary influence. Similarly, Rahman, M.M. and Zheng, C.J. (Degree = 3 each) contribute as locally influential nodes within specific collaboration clusters. Notably, Berger, Allen N. exhibits a lower degree (Degree = 2) but a non-zero eigenvector centrality, highlighting his structural

importance through association with influential collaborators rather than network density. Hasan, Iftexhar shows measurable betweenness (0.0002), suggesting a bridging role across author groups. Overall, the low betweenness values across the top authors indicate a decentralized collaboration structure, characterized by small, tightly knit research teams rather than dominant, highly centralized author hubs. The corresponding centrality indicators are summarized in Table 3.

3.5.3. Top countries

The country-level analysis demonstrates that research on international banking regulation and performance is predominantly driven by advanced economies, with notable contributions from emerging markets. The United States leads in scholarly output ($n = 776$), reflecting its strong academic infrastructure and central role in global financial governance. China ($n = 747$) and the United Kingdom ($n = 678$) closely follow, underscoring their growing influence in regulatory, banking, and financial stability research. European countries such as Germany, France, Italy, and Spain exhibit high field-weighted citation impact ($FWCI > 3.0$), indicating strong research quality and global relevance. Notably, India ranks among the top contributors with a comparatively lower output ($n = 199$) but the highest $FWCI$ (4.31), highlighting the substantial impact and citation visibility of its research. Australia and Canada also demonstrate strong citation performance relative to output. Overall, the findings (see Table 4) indicate a geographically diversified yet impact-driven research landscape, with both developed and emerging economies shaping contemporary banking regulation scholarship.

3.6. Institutional Contribution

The institutional analysis highlights a diverse mix of academic, policy-oriented, and central banking organizations contributing to research on international banking regulation and performance. CNRS emerges as the most productive institution (85 publications), reflecting its broad engagement in financial economics and regulatory research. Policy-focused institutions such as the World Bank, Federal Reserve Bank, and European Central Bank demonstrate comparatively high citation influence, underscoring the practical and policy relevance of their outputs. Among academic institutions, University College London and the University of Oxford stand out for exceptional research impact, with remarkably high field-weighted citation impact ($FWCI = 8.69$ and 6.70 , respectively), despite moderate publication volume. Similarly, the University of Sydney and University of Zurich exhibit strong citation performance, indicating high-quality and internationally visible research contributions. The presence of institutions from Europe, Asia, Australia, and North America reflects the global and interdisciplinary nature of scholarship in this domain. Overall, the findings indicate that while research output is distributed across institutions, citation impact is particularly concentrated among leading universities and global policy institutions. Detailed productivity and citation metrics are presented in Table 5.

4. DISCUSSION

The present bibliometric findings provide robust evidence that research on banking performance is fundamentally structured

around regulatory frameworks, financial stability, and risk management, aligning closely with the evolution of international banking regulation documented in the empirical literature. The dominance of keywords such as financial stability, banking regulation, Basel III, and systemic risk in both frequency and centrality analyses confirms that regulatory capital, liquidity standards, and prudential oversight remain the primary lenses through which banking performance is evaluated. This is consistent with prior studies demonstrating that stronger regulatory environments are associated with improved bank resilience and lower probability of distress, albeit with heterogeneous effects on profitability and credit supply (Barth et al., 2013; Beltratti and Stulz, 2012).

Our temporal and citation-based results further show a clear intensification of scholarly attention in the post-2010 period, coinciding with the implementation of Basel III and the global shift toward macroprudential regulation. The elevated Field-Weighted Citation Impact and the substantial share of publications in the top 10% most cited globally indicate that regulation-performance studies exert influence well beyond the banking literature, reinforcing arguments that financial regulation plays a systemic macroeconomic role (Brunnermeier and Pedersen, 2009; Goodhart, 2010). The identification of risk management as a key bridging keyword suggests that performance outcomes are increasingly interpreted through risk-adjusted frameworks rather than traditional profitability metrics alone.

Notably, the multidisciplinary dispersion observed in the topic classification highlights the expanding scope of banking regulation research into areas such as digital finance, sustainability, and climate-related risk. This aligns with recent literature emphasizing that emerging risks fintech innovation, cybersecurity, and environmental exposures are reshaping regulatory priorities and performance assessment in banking systems (“FSB Publishes Annual Report on Implementation and Effects of Financial Regulatory Reforms, [Financial Stability Board]” 2020). Overall, our findings suggest that contemporary banking performance research reflects a transition from narrow efficiency-focused evaluations toward a broader stability- and resilience-oriented regulatory paradigm, underscoring the enduring and evolving role of regulation in shaping banking outcomes. In both advanced and emerging banking systems, Basel III capital and liquidity standards have produced heterogeneous effects on bank profitability and efficiency, an empirical pattern that is fully consistent with this paradigm shift (Aljifri and Vladimirov, 2023; Boutros et al., 2024).

Banking regulation has long been framed as a response to market failures arising from information asymmetry, moral hazard, and systemic externalities inherent in financial intermediation. Early microprudential approaches emphasized individual bank solvency through capital adequacy and depositor protection, whereas post-global financial crisis reforms marked a decisive shift toward macroprudential regulation aimed at safeguarding system-wide stability (Beltratti and Stulz, 2012) (Barth et al., 2013). Our bibliometric findings strongly corroborate this evolution. The dominance of keywords such as financial stability, banking regulation, Basel III, and systemic risk, together with their high

degree and betweenness centrality, confirms that contemporary research conceptualizes banking performance primarily through a stability- and resilience-oriented regulatory lens rather than narrow profitability measures. The tightening of macroprudential tools has similarly been shown to attenuate bank systemic risk, especially under inflation-targeting regimes and in emerging economies marked by elevated inflation uncertainty (Chen et al., 2023; Chen et al., 2025).

The structural emphasis on Basel III's multi-pillar architecture capital regulation, supervisory review, and market discipline is further reflected in the prominence of risk management as a bridging concept within the keyword network. This suggests that banking performance is increasingly assessed on a risk-adjusted basis, aligning with empirical evidence that stronger capital and liquidity requirements enhance bank resilience while exerting heterogeneous effects on lending and profitability across jurisdictions (Brunnermeier & Oehmke, 2013) (Basel Committee on Banking Supervision, 2011). Our temporal analysis reinforces this interpretation, showing intensified scholarly output and citation impact in the post-2015 period, coinciding with Basel III implementation and expanded macroprudential mandates.

Importantly, the multidisciplinary dispersion observed in subject classification and the emergence of keywords related to digital finance, fintech, green finance, and climate risk indicate that banking performance is now evaluated within a broader regulatory ecosystem. This aligns with recent policy literature highlighting the need for adaptive regulatory frameworks capable of addressing technological innovation, cybersecurity, and environmental risk without undermining financial intermediation (International Monetary Fund Annual Report 2014: Financial Statements) ("FSB Publishes Annual Report on Implementation and Effects of Financial Regulatory Reforms [Financial Stability Board]," 2020). Overall, our findings suggest that banking performance research has transitioned from efficiency-centric evaluations toward a regulatory paradigm centered on resilience, systemic stability, and long-term sustainability, underscoring the enduring yet evolving role of regulation in shaping banking outcomes. The explicit integration of climate-related financial risks into the Basel Committee's revised core principles, together with the entry into force of the European Union's 2024 banking package (CRR III/CRD VI), illustrates how prudential frameworks are now deliberately expanding toward sustainability, ESG, and digitalisation as structural dimensions of banking performance (Basel Committee on Banking Supervision, 2024; Financial Stability Board, 2024; Mardini, 2025).

This study has several limitations that should be acknowledged when interpreting the findings. First, although multiple databases were used for comprehensive retrieval, the final bibliometric analyses relied on standardized citation data, which may underrepresent regionally focused journals or non-English publications not fully indexed in major databases. Second, bibliometric methods inherently emphasize publication and citation patterns rather than causal relationships; therefore, the observed prominence of regulatory themes does not directly imply regulatory effectiveness or performance outcomes at the

bank level. Third, highly cited multidisciplinary publications particularly those outside core banking and finance journals may influence citation-based indicators such as field-weighted citation impact, potentially inflating perceived cross-disciplinary influence. Fourth, author and institutional name disambiguation, despite careful cleaning, may still involve minor inaccuracies that affect collaboration and centrality measures. Finally, the analysis primarily captures formal academic discourse and does not fully reflect regulatory implementation nuances, informal policy debates, or supervisory practices that influence real-world banking performance. These limitations highlight the need for cautious interpretation of bibliometric dominance as intellectual influence rather than definitive empirical validation.

Future research can build on this study in several meaningful ways. First, integrating bibliometric findings with empirical bank-level data would allow direct examination of how specific regulatory frameworks influence performance metrics such as profitability, efficiency, and risk-adjusted returns. Second, longitudinal policy evaluation studies could assess how regulatory reforms particularly Basel III and emerging macroprudential tools affect banking performance across different economic cycles and institutional contexts. Third, future bibliometric work could apply thematic evolution and topic modeling techniques to more precisely capture emerging regulatory domains, including climate-related financial risk, digital banking regulation, and cybersecurity supervision. Expanding analysis to include regional regulatory frameworks and developing economies would further enhance understanding of heterogeneity in regulatory effectiveness. Additionally, incorporating altmetrics and policy citation data could provide insights into the real-world policy influence of academic research beyond traditional citations. Finally, future studies may benefit from combining bibliometric mapping with qualitative policy analysis or expert interviews, enabling deeper exploration of how regulatory design translates into supervisory practice and banking performance outcomes. A further avenue concerns the convergence between climate-, technology-, and governance-related prudential reforms, where bibliometric mapping could draw on parallel work in fintech adoption, digital banking risk, and post-pandemic supervisory analysis (Najaf et al., 2024; Mardini, 2025).

5. CONCLUSION

This bibliometric analysis provides a comprehensive and data-driven synthesis of the global research landscape on international banking regulation and banking performance, drawing on 9,095 unique publications identified after deduplication from an initial pool of 13,277 records. The findings demonstrate a clear and sustained expansion of scholarly attention, particularly following the 2007-2008 global financial crisis and the subsequent implementation of Basel III, with publication growth accelerating markedly after 2015 and intensifying further in the post-2020 period. Citation analysis confirms the strong influence of this body of work, with 17.7% of publications ranking among the top 10% most cited globally and an average Field-Weighted Citation Impact (FWCI) of 1.57, indicating citation performance 57% above the world average.

Keyword co-occurrence and centrality assessments reveal that financial stability, banking regulation, systemic risk, and risk management form the intellectual core of the literature, underscoring a decisive shift from profitability-centric evaluations toward risk-adjusted and resilience-oriented measures of banking performance. The prominence of risk management as a high-betweenness node highlights its role as a conceptual bridge linking regulation, performance, and macro-financial stability. Country- and institution-level analyses further show that while advanced economies dominate output, emerging economies—most notably India, with the highest FWCI (4.31)—exert disproportionate citation influence, reflecting the growing global relevance of regulatory-performance research.

From a policy and practice perspective, these findings suggest that effective banking performance is increasingly understood as an outcome of robust prudential and macroprudential regulation, institutional capacity, and adaptive governance frameworks capable of addressing digitalization, sustainability, and climate-related risks (Financial Stability Board, 2024). By systematically mapping thematic evolution, collaboration structures, and normalized citation impact, this study offers valuable insights for regulators, policymakers, and scholars, reinforcing the central role of regulation in shaping resilient and sustainable banking systems while identifying priority directions for future empirical and policy-oriented research.

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