"Evolution of Comparative Studies on Public and Private Sector Banks Using a Bibliometric Review"

Devendra Kumar Gupta
Research Scholar, S. G. R. P. G. College, Dobhi – Jaunpur
Dr. Aman Kumar
Assistant Professor, Commerce, S. G. R. P. G. Collage, Dobhi – Jaunpur

Abstract

This is a bibliometric review and study of comparative research on public and private sector banks that is intended to trace how scholarly literature has evolved, what aspects it has covered in the past 20 years, and which topics it has addressed regarding the same in the past five years. Based on the data obtained with the help of the Scopus database, 150 publications published in 115 sources were considered to determine growth patterns, the most effective authors and journals, patterns of collaboration, and predominant research topics. The results depict an excellent and consistent increase in the academic output with the growth rate of 11.62 percent per annum indicating a growing concern in banking performance evaluation in the light of liberalization, globalization and regulatory reforms. The journal articles are becoming the leading source of knowledge sharing, whereas the authorship pattern demonstrates that the culture of collaborative research is advancing with the increasing international co-authorship. The most commonly used analytical tool is identified to be the CAMELS framework, and efficiency, risk, profitability, and financial performance have always been prioritized. With the flow of time, the themes of research have grown to governance, sustainability, financial innovation, and intellectual capital. In general, it can be stated that the study demonstrates the maturity and international applicability of comparative banking studies and provides meaningful comments to scholars, policy-makers, and practitioners who want to improve the banking performance and financial stability.

Keywords: Public Sector Banks, Private Sector Banks, Bibliometric Analysis, CAMELS Model, and Banking Performance.

Introduction

Banking sector is very important in the economic growth of any nation as it brings about financial intermediation, raises savings, and encourages investments within the economy. In this industry, both the state and the privately-owned banks serve varied ownership, regulatory and managerial practices, which tend to lead to disparities in performance, efficiency, and stability. The comparative assessment of the public and the private sector banks has become an emerging field of academic and policy-making studies as financial systems have become more competitive and liberalized, in particular, after liberalization and globalization. Bibliometric analysis in this respect brings a structured and objective methodology of evaluation of the growth, framework, and intellectual domain of available literature.

In the current bibliometric review, the authors study the development of comparative research on public and private sector banks during a long period of time, between 2001 and 2025, based on the information received in the Scopus database. The materials of the analysis are based on 150 published works, 115 of which were published in journals, book chapters, conference papers, reviews, and a few retracted studies. The dataset represents a strong and expanding literature that has been backed by the fact that the growth rate is 11.62 percent per annum which is a clear indication of the growing interest among scholars on the area of performance comparisons in banking. The mean age of documents is 7.17 years, which indicates that although the basic studies are performed, the sphere is still interested in new and topical ones. Moreover, it possesses 23.39 on average citation per document, which shows the scholarly impact and applicability of this literature.

Statements of the publication reality mean that 135 out of 150 documents are articles, which proves that peer-reviewed journal articles are the major source of publishing the results of research in the field. The linear growth trend of articles indicates that there is a consistent and positive trend with little production during the early years of 2000s, and a significant rise in the following years. This movement can be attributed to greater access to banking information, regulatory changes and an increase in the attention to performance measurement models like the CAMELS model that assesses banks in terms of capital adequacy, asset quality, management efficiency, earnings, liquidity and market risk sensitivity.

Authorship examination shows that the research community is moderately scattered with 366 authors with 24 single-authored documents only, which suggests that collaborative research is highly favored. The mean number of authors per document is 2.61 and the international co-authorship rate is 23.33 percent which show an increasing collaboration on an institutional and national level. This type of collaboration contributes to the methodological rigor, the comparative level, and the applicability of the research findings to the whole world. Although some authors, like Singh S become a little more prolific, the world of research is never dominated by a particular scholar which implies distributed expertise and a good academic diversity.

Comparative banking research is interdisciplinary and global as institutional and country-level collaborations also attest to. Universities, business schools, and research institutes oftentimes team up in order to deal with extended performance problems in various regulatory and economic settings. On the conceptual level, the co-occurrence investigation of keywords shows high levels of thematic consistency, as the theme of bank performance, government and commercial sector banks, CAMELS, efficiency, risk, and profitability recurs. Altogether, this bibliometrician work is a good representation of the development, design, and thematic changes in the comparative banking studies, which can be of great value to both academics, policymakers, and practitioners.

Table 1: CAMELS Model, Banking Efficiency, Financial Performance.

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2001:2025
Sources (Journals, Books, etc.)	115
Documents	150
Annual Growth Rate %	11.62
Document Average Age	7.17
Average citations per doc	23.39
References	1192
DOCUMENT CONTENTS	
Keywords Plus (ID)	217
Author's Keywords (DE)	453
AUTHORS	
Authors	366
Authors of single-authored docs	24
AUTHORS COLLABORATION	
Single-authored docs	24
Co-Authors per Doc	2.61
International co-authorships %	23.33
DOCUMENT TYPES	
Article	135
book chapter	4
conference paper	6
Retracted	2
Review	3

Literature Review

Alam, S. M. S., Chowdhury, M. A. M., and Razak, D. B. A. (2021). Research evolution in banking performance: a bibliometric analysis, the literature clearly points out that banking performance is a very important issue that helps the economy to develop and to stabilize by effectively allocating the surplus money on productive activities. Efficiency and productivity change have been popular among academicians as one of the indicators of performance in banks. The initial research (1991-2010) has focused on mergers, technological development, deregulation and transition economies as key performance determinants. After the financial crisis of 20082009, the focus of the research (201015) changed to the issues of corporate governance, including risk management, compensation, and capital adequacy. In the latest research (20162021), the scope has been extended to sustainability, human capital performance, green banking, and CSR. DEA and GMM are the most methodological forms of empirical analysis.

Uwuigbe, O. R., & Fakile, A. S. (2012). Influences of board size on financial performance of banks: The case of listed banks in Nigeria, the literature review confirms the importance of corporate governance and the size of boards in the determination of the firm performance concerning the mixed empirical evidence in various

studies (Arun and Turner, 2002; Dalton et al., 1999). The study aim was to determine the effect of the board size on the financial performance of the Nigerian banks. The data was collected through secondary sources using annual reports and the NSE Fact Book as secondary sources which were analyzed through the aid of regression analysis and correlation analysis (Yermack, 1996). The findings showed that the board size and Return on Equity had a significant negative relationship, which endorsed agency theory. Such limitations as the focus on listed banks over a certain period and the effects of these limitations on the generalizability are found.

Alkhatib, A. (2012). ***Financial performance of Palestinian commercial banks*****. International Journal of Business and Social Science,** the literature review has observed that the conventional financial ratios such as ROE and ROA are limited and market-based (Tobin Q) and economy based (EVA) performance measures are adopted to conduct an overall analysis (European Central Bank, 2010; Khizer et al., 2011). The aims are to compare the performance of the Palestinian banks in terms of size, credit risk, efficiency and asset management. The analysis will entail correlation and multiple regression analysis of yearly data between 2005 and 2010. Findings reveal that most of the variables have important effects on the performance, with the exception of credit risk. Such restrictions as the small sample size and the use of retrospective ratio analysis can be considered limitations of future forward-looking measures.

Muiruri, J. K., & Ngari, J. M. (2014). Implications of financial innovations on financial performance of commercial banks in Kenya. The literature review identifies the importance of financial innovations like credit cards, mobile banking, internet banking, and agency banking towards improving the performance of a bank (Mishra and Pradhah, 2008; De Young et al., 2007). The intention of the study is to make an empirical evaluation of the effect of these innovations on the financial performance of the Kenyan commercial banks. Based on the descriptive research design, primary data were used (questionnaires) and secondary data were used (financial reports 2008-2012) to analyze the data through correlation and regression analysis. Findings showed that financial innovations have a positive impact on profitability which explained 61.8% of the variation in performance. Limitations are reverse causality and scope of only Kenyan banks that might impact generalizability.

Pinto, P., Hawaldar, I. T., Rahiman, H. U., Rajesha, T. M., & Sarea, A. (2017). An evaluation of financial performance of commercial banks. The literature review has shown a broad number of studies done on Islamic and conventional bank performance in different parts of the world, and focus is put on efficiency, risk management and enduring crisis (Haron, 2004; Zaman and Movassaghi, 2001; Alkassim, 2005). Research investigates the determinants of profitability, macroeconomic effects and efficiency of the operations with some mixed results on the influences of macro shocks and leverage ratios (Mathuva, 2009; Kassim & Majid, 2010). The purpose of the reviewed research is to assess the financial performance of Bahraini banks and to test the relationships between the profitability, capital adequacy, leverage, and efficiency. In terms of methodology, the papers will utilize regression analysis, correlation, and ratio analysis of data on annual reports, and a series of years. The tendencies are usually weak or non-significant but even some signs of crisis influence are provided. Small sample sizes and period-specific results are some of the limitations to generalizing.

Makkar, A., & Singh, S. (2013). Analysis of the financial performance of Indian commercial banks: A comparative study. In the literature review, the banking sector is identified as a key contributor to the growth of an economy, with the CAMEL-based models being used to evaluate the performance of individual banks in different settings (Wirnker and Tanko, 2006; Kosmidou, 2008; Sangmi and Nazir, 2010). Past researchers investigated how CAMEL parameters can be used to determine the quality of assets, the profitability, and the risk management. The current study will assess and compare the financial performance of the Indian banks operating in the public and the private sector by applying the CAMELS framework. Methodologically, it utilizes the secondary data in the form of bank reports and RBI publications and then ratios are applied according to CAMELS and then t-tests are used to compare the ratios. Findings have shown that the performance of the banks in the private sector is better than that of the banks in the public sector, but can be statistically inconsequential. Weaknesses are that secondary data relied upon and it did not include foreign banks and it was also limited to quantitative measurements, implying that extensive research in the future that includes qualitative variables could be conducted.

Jha, S., & Hui, X. (2012). A comparison of financial performance of commercial banks: A case study of Nepal. The study in this research paper was a comparative study on financial performance of 18 commercial banks in Nepal that included 2005-2010 time period. This was aimed at comparing banks based on their ownership structure and finding performance determinants based on the CAMEL model ratios. Using the descriptive financial analysis and multivariate regression, the research established that the public sector banks were inefficient compared to their counterparts. Moreover, capital adequacy, interest expenses, and net interest margin had a great impact on the return on assets.

Al-Musali, M. A. K., & Ku Ismail, K. N. I. (2014). Intellectual capital and its effect on financial performance of banks: Evidence from Saudi Arabia. This paper explores how Intellectual Capital (IC) is characterized by the financial performance of Saudi Arabian listed commercial banks with the aim of determining the components of Intellectual Capital that lead to the performance of banks. The study used Value-Added Intellectual Coefficient (VAIC) approach in conducting the research survey on all the 11 listed banks between the years 2008 and 2010. The results have shown that the overall IC performance of Saudi banks is low with positive correlation to financial performance. In particular, the banks were detected to be the most effective in terms of creating value through Human Capital Efficiency (HCE) whereas Capital Employed Efficiency (CEE) was the most important source of profitability.

Table 2: PRISMA Table

Research Objectives	• To analyze the annual scientific production and growth trends • To identify the most relevant authors, sources (journals) • To examine collaboration patterns among authors, institutions, and countries • To identify major research themes, thematic evolution, and keyword co-occurrence patterns
Data Selected	**Scopus**
Time Period Covered	All year's available documents in the database from 2001 to 2024
Review Context	Articles, Book Chapters, Conference papers, retracted and Review
Key Searched	"Public sector banks" OR "private sector banks" OR "commercial banks" OR "banking sector" "comparative study" OR "comparative analysis" OR "performance comparison" "AND bank* OR banking "financial performance" OR "bank performance"
	Bibliometric Analysis of the documents for evaluation of Public and private Banks

The trend of the increased number of articles represents a certain and steady rise of the academic attention to the comparative research of the public and private sector banks. Starting with a minimal number of publications at the beginning of the 2000s, the number of articles grows slowly at first, and faster in the later years, which is the evidence of an increase in the relevance of banking performance assessment, primarily, with the models such as CAMELS. The positive linear trend points to the steady growth annually, which is supported by the annual growth of 11.62. This trend indicates the rise in scholarly interest, greater access to data and policy and managerial salience, making article-based research the most frequent, powerful representative of this literature.

Diagram 1 : Growth Trend of Articles

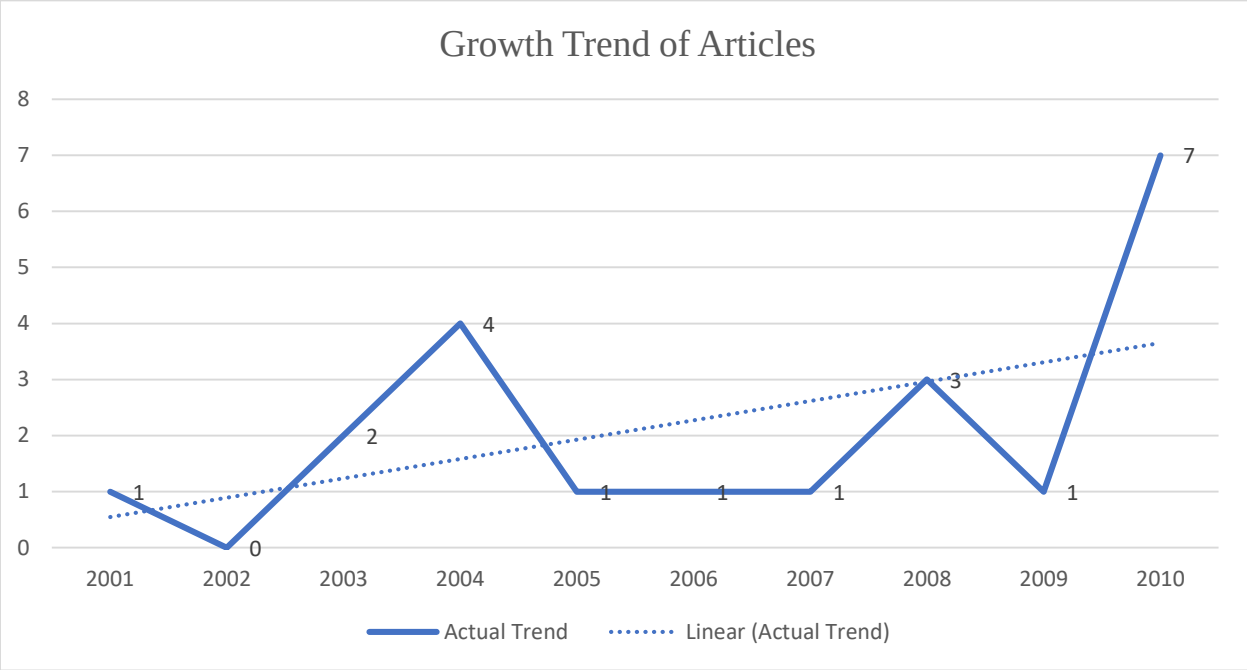
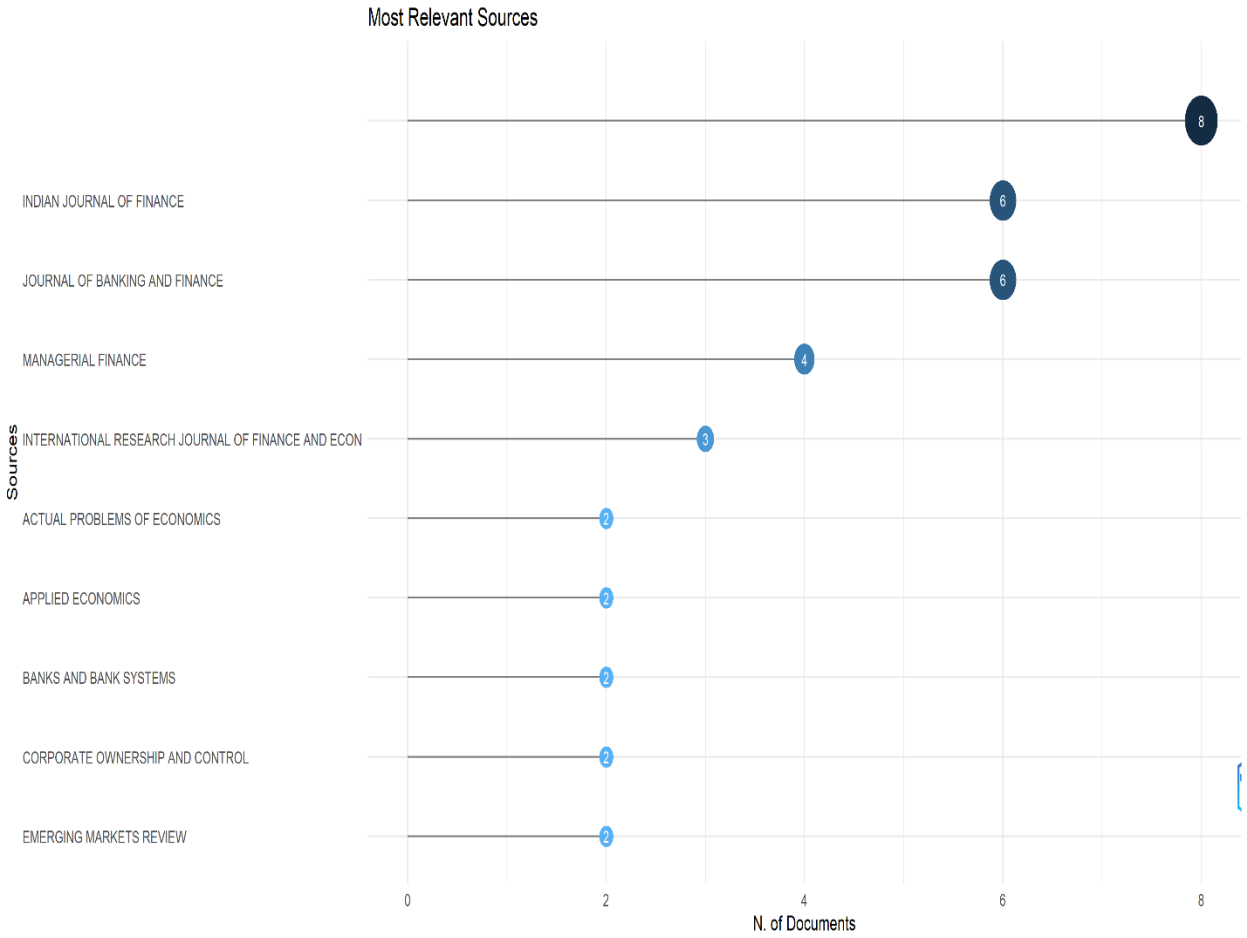


Table 3: ***Most Relevant Authors***

Author	Articles	Articles Fractionalized
SINGH S	7	2.75
DONG Y	3	1.00
MICHAEL M	3	0.83
SHARMA S	3	1.17
ALEMU T	2	0.67
BABU S	2	0.58
BANDYOPADHYAY T	2	0.67
DINESH GP	2	0.58
GHOSH S	2	0.83
HOU W	2	0.50

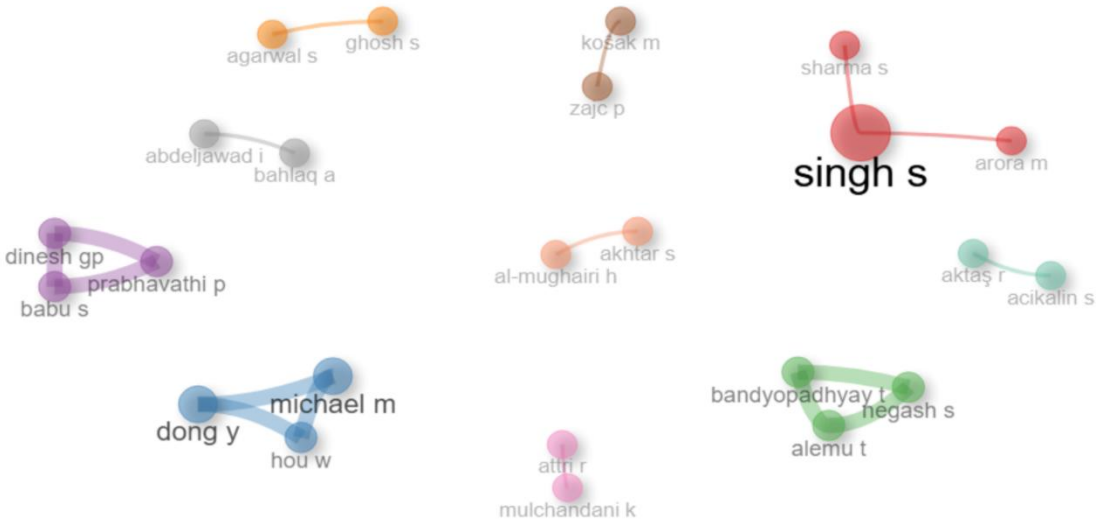
Most Relevant Authors analysis shows that the authorship structure in the field is of moderate level of concentration. The most prolific contributor is Singh S, whose output in terms of articles and fractionalization is the greatest, which is an indication of individual constant participation. The productivity of other authors like Dong Y, Sharma S and Michael M is moderate and indicates a small group of consistent in contributing researchers as opposed to a single scholar taking the center stage. The variation in the number of total articles and fractionalized number indicates practices of collaboration in research. In general, the trend indicates an emerging research field with shared knowledge, in which various authors publish every now and then, which in turn promotes the heterogeneity of opinions and knowledge accumulation.

Diagram 2: Most Relevant Sources



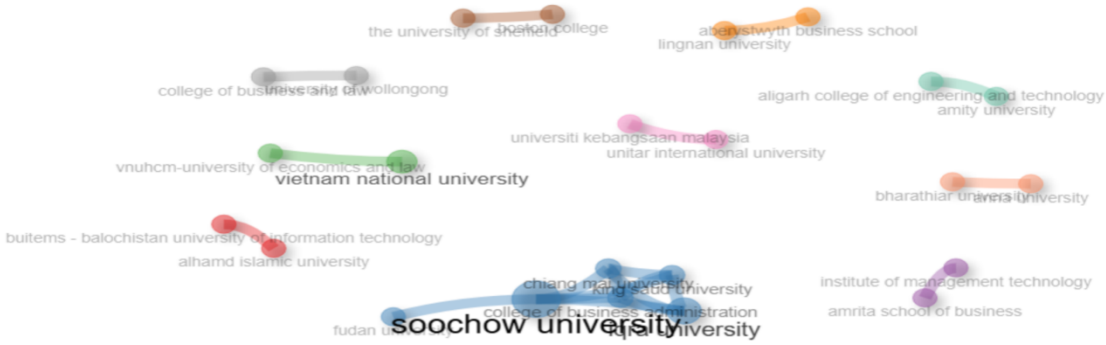
The analysis of the most relevant sources indicates that research comparing public and private sector banks is published across a variety of academic journals, though not concentrated in a single one. Several core journals consistently appear, suggesting they are closely related to themes such as banking performance, financial analysis, and research based on the CAMELS framework. The spread of publications across different sources reflects an interdisciplinary interest that spans finance, economics, and management. This dispersion highlights growing academic involvement and wider visibility, while also showing that the field is evolving dynamically without a single central hub for publication.

Diagram 3: Collaboration of Authors



The Collaboration of Authors analysis reveals that the strong inclination towards collaborative research is very high when it comes to the studies that compare the public and the private sector banks. The number of single-authored documents with 24 out of 150 is very small, showing that the field is evidently dominated by the multi-authored ones, which means that the researchers find it easier to form a collaboration in order to explore the complexity of banking performance analysis. The mean 2.61 co-authors per document indicate small yet efficient research groups, which permit methodological rigor and analysis using data. Also, the rate of international co-authorship (23.33) is indicative of increasing cross-country collaboration, thereby increasing comparative viewpoints and generalizability of results. These collaborative trends show exchange of knowledge between institutions and regions, which leads to improved quality of research and greater academic impact. On the whole, the collaboration of authors in this field reveals the well-developed and network-like research environment, in which shared knowledge is an indicator of further analytical investigation, the variety of methods, and the further development of the literature.

Diagram 4: Collaborations of Institutions



The Collaboration of Institutions analysis demonstrates that there is growing inter-institutional collaboration in the comparative studies on the research on the banks of the government and the business. Data-intensive and multidisciplinary character of the banking performance studies is often reflected in universities, business schools, and research institutes as a form of collaboration. These partnerships allow access to a variety of data sets, methodological skill and contextual knowledge, especially in CAMELS-based assessments. Institutional associations also increase credibility of the research and make it easier to be published in reputed journals. The existence of cross-nation institutional linkages also signifies banking research globalization, which makes it possible to compare the regulating and economic setting. Altogether, the institutional collaboration enhances the level of analysis, encourages the sharing of resources, and contributes to the gradual development and academic maturity of this research sphere.

Diagram 5: Collaboration of Countries

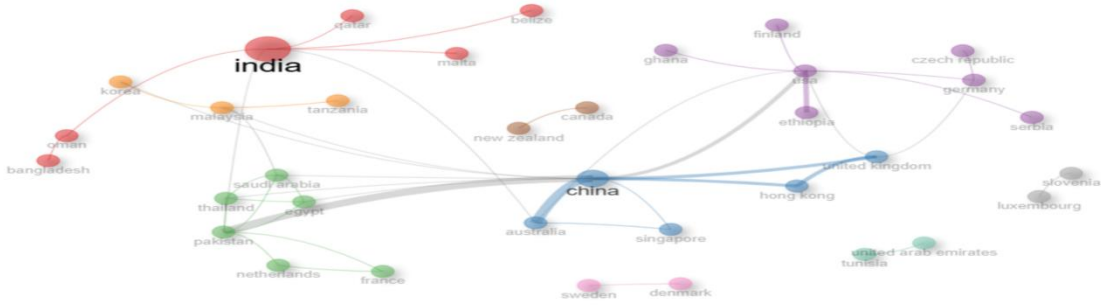
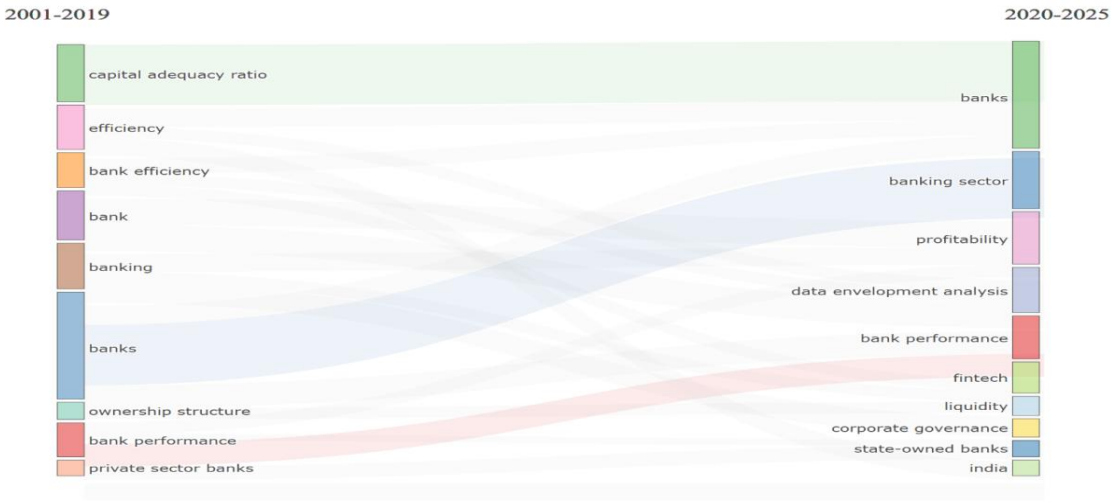


Diagram 6: Collaboration of Countries



As shown in the Collaboration of Countries analysis, there is an increasing amount of international involvement in studies on comparative research of government and private sector banks. Even though a significant portion of publications is based on single country studies, cross-border academic collaboration comes through the international co-authorship. Different countries engage in research to make comparisons of their banking systems which operate in varying regulatory systems, economic circumstances and financial systems. These cross-country collaborations enhance the scope of analysis and enhance external validity of results especially when it comes to CAMELS-based performance assessment. The collaboration at a country level also encourages sharing of knowledge between the developed and emerging economies to enhance comparative insights. On the whole, it can be stated that the trend presupposes a slowly globalizing world of research, in which international cooperation is growing and adds to the increased research quality, widened perspectives, and to the in-depth insights into the processes of global banking performance.

Diagram 7: Keyword co-occurrence

The Keyword Co-occurrence analysis indicates that the research field of comparative studies of the public and the private sector banks is organized in a very coherent and structured way with the themes. The keywords that were frequently used include bank performance, public sector banks, private sector banks, CAMELS, and financial performance, which shows that much attention is paid to performance assessment frameworks. The strong correlation between the terms is an indication that the researchers tend to combine several elements of CAMELS to offer holistic evaluations. New correlations with the efficiency, risk and profitability keywords indicate the changing research interests and improvement of methods. All in all, the network of co-occurrence demonstrates conceptual integrity, thematic maturity and a sense of focus on performance-based comparative analysis in the banking literature.

Findings and Conclusion

Findings:

The bibliometric analysis shows a large and continuous increase in comparative research on public and private sector banks in 2001-2025, and the growth rate is 11.62 per year, which indicates the continual academic and policy attention. The literature is dominated by journal articles, which underline the importance of this medium as the main tool of sharing the banking performance research. The pattern of authorship indicates high-level collaboration with the average number of authors per paper of 2.61 and growing international collaboration, which contributes to high levels of methodological rigor and international relevance. There is a relatively distributed authorship system, and not a single scholar is leading the industry, which denotes good academic diversity. Thematic analysis validates CAMELS framework as the main method of analysis as it has been revealed that there is constant focus on efficiency, risk, profitability, and financial performance. As time progressed, research

themes have changed their traditional performance measures to incorporate governance, sustainability, innovation and intellectual capital.

Conclusion:

In general, the research shows that comparing the performance of public and private sector banks is a well-established and widely studied area globally. The CAMELS model has proven to be a useful and frequently applied tool for assessing bank performance. New trends indicate that the banking sector is adapting to updated regulatory standards, technological progress, and sustainability concerns. The growing number of studies, collaboration among researchers, and relevance of the topic suggest strong potential for future research. This also provides valuable insights to scholars, supervisors, and banking professionals looking to improve financial stability and performance **outcome.**

Suggestions (Based on the Above Study)

1. Future studies need to go further beyond the CAMELS model to incorporate the qualitative aspects like governance quality, customer satisfaction, and digital service efficiency.

2. The comparative studies can involve foreign banks with public and private sector banks to have a more detailed assessment of performance.

3. The researchers are encouraged to use the latest analytical methods like machine learning, panel VAR, and dynamic efficiency models to measure the changing banking risks.

4. More emphasis should be paid to sustainability, ESG practices, and green banking as new determinants of the bank performance.

5. Findings using the CAMELS model should assist policymakers in creating differentiated regulation and supervision policies of the banks in the public and the private sector.

6. The banks in the public sector need to focus on the efficiency of management and quality of assets to eliminate the performance gap between them and the private banks.

7. To be stable in the long term, risk management and capital adequacy should be enhanced by the private sector banks.

8. It is advised that more cross-country comparative studies should be conducted to increase the generalizability of the results globally.

9. Scholar's ought to enhance the multi-disciplinary approach to learn the knowledge of economics, finance, technology and management.

10. Future research needs to be based on longer time horizons and real time data to capture better structural changes and post crisis banking dynamics.

REFERENCES: -

- Uwuigbe, O. R., & Fakile, A. S. (2012). The effects of board size on financial performance of banks: A study of listed banks in Nigeria. *International Journal of Economics and Finance, 4*(2), 260-267. http://dx.doi.org/10.5539/ijef.v4n2p260
- Alkhatib, A. (2012). Financial performance of Palestinian commercial banks. *International Journal of Business and Social Science, 3*(3). http://ssrn.com/abstract=2432513.
- Muiruri, J. K., & Ngari, J. M. (2014). Effects of financial innovations on the financial performance of commercial banks in Kenya. *International Journal of Humanities and Social Science, 4*(7), 51-57.
- Pinto, P., Hawaldar, I. T., Rahiman, H. U., Rajesha, T. M., & Sarea, A. (2017). An evaluation of financial performance of commercial banks. *International Journal of Applied Business and Economic Research*, 15(22, Part 2), 605-618.
- Makkar, A., & Singh, S. (2013). Analysis of the financial performance of Indian commercial banks: A comparative study. *Indian Journal of Finance*, 41(5), 41-49.
- Jha, S., & Hui, X. (2012). A comparison of financial performance of commercial banks: A case study of Nepal. *African Journal of Business Management, 6*(25), 7601–7611.
- Al-Musali, M. A. K., & Ku Ismail, K. N. I. (2014). Intellectual capital and its effect on financial performance of banks: Evidence from Saudi Arabia. *Procedia - Social and Behavioral Sciences, 164*, 201–207.
- Alam, S. M. S., Chowdhury, M. a. M., & Razak, D. B. A. (2021). Research evolution in banking performance: a bibliometric analysis. *Future Business Journal, 7*(1). https://doi.org/10.1186/s43093-021-00111-7
- Alkhatib, A. (2012). Financial performance of Palestinian commercial banks. *International Journal of Business and Social Science, 3*(3), 175–184.
- Arun, T. G., & Turner, J. D. (2002). Financial sector reform in developing countries. *World Economy, 25*(7), 1015–1037.
- Berger, A. N., & Humphrey, D. B. (1997). Efficiency of financial institutions. *European Journal of Operational Research, 98*(2), 175–212.
- Dalton, D. R., Daily, C. M., Johnson, J. L., & Ellstrand, A. E. (1999). Number of directors and financial performance. *Academy of Management Journal, 42*(6), 674–686.
- DeYoung, R., Lang, W. W., & Nolle, D. L. (2007). How the Internet effects bank performance. *Journal of Banking & Finance, 31*(4), 1033–1060.
- Haron, S. (2004). Determinants of Islamic bank profitability. *Global Journal of Finance and Economics, 1*(1), 11–33.
- Kassim, S. H., & Majid, M. S. A. (2010). Impact of financial shocks on Islamic banks. *International Journal of Islamic and Middle Eastern Finance, 3*(4), 291–305.
- Kosmidou, K. (2008). The determinants of banks' profits in Greece. *Managerial Finance, 34*(3), 146–159.
- Makkar, A., & Singh, S. (2013). Analysis of the financial performance of Indian commercial banks. *Indian Journal of Finance, 7*(3), 41–49.

- Mathuva, D. (2009). Capital adequacy, cost income ratio and profitability of banks. *International Journal of Accounting and Finance, 1*(1), 1–12.
- Mishra, A., & Pradhan, B. B. (2008). Financial innovation and effectiveness of monetary policy. *Reserve Bank of India Occasional Papers, 29*(2), 1–32.
- Muiruri, J. K., & Ngari, J. M. (2014). Effects of financial innovations on bank performance. *International Journal of Humanities and Social Science, 4*(7), 51–57.
- Ongore, V. O., & Kusa, G. B. (2013). Determinants of financial performance of commercial banks. *International Journal of Economics and Financial Issues, 3*(1), 237–252.
- Pinto, P., Hawaldar, I. T., Rahiman, H. U., Rajesha, T. M., & Sarea, A. (2017). Evaluation of financial performance of commercial banks. *International Journal of Applied Business and Economic Research, 15*(22), 605–618.
- Sangmi, M. U. D., & Nazir, T. (2010). Analyzing financial performance of commercial banks. *International Journal of Financial Management, 1*(1), 17–38.
- Uwuigbe, O. R., & Fakile, A. S. (2012). Board size and financial performance of banks. *International Journal of Economics and Finance, 4*(2), 260–267.
- Yermack, D. (1996). Higher market valuation of companies with small boards. *Journal of Financial Economics, 40*(2), 185–211.