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The Evolution of Chatbot Technology in Banking: A Systematic Review and Bibliometric Perspective

Lu Tong[1,2], T. Ramayah[1*], Jiangping Li[2]

[1]School of Management, Universiti Sains Malaysia, Minden, 11800, Penang, Malaysia,

[2]School of Economics and Management, North China University of Science and Technology, No. 21, Bohai Avenue, Caofeidian New Town, Tangshan City, Hebei Province, China

Corresponding Author Email: ramayah@usm.my

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Abstract

As artificial intelligence becomes more integrated into banking, chatbots have emerged as a crucial tool for enhancing customer interactions, streamlining operations, and improving the delivery of financial services. Despite prior research exploring many aspects, the existing literature remains fragmented across disciplines. This study expands on previous research by employing systematic and bibliometric methods to identify key trends, thematic areas, and research pathways in the deployment of chatbots in banking. By synthesizing technological, managerial, and client perspectives, it provides a comprehensive understanding of chatbot implementation in financial services. Moreover, it highlights emerging trends and inadequately explored areas, offering valuable insights for future research and financial innovations. From the co-citation references, co-occurrence, keyword clusters in maps, affiliations and major countries analysis, it can provide research foci and infer future research agenda. This paper gathers articles from Web of Science database with a rigorous selection process. Scientific Procedures and Rationales for Systematic Literature Reviews (SPAR-4-SLR) protocol is adopted for analyzing literature comprehensively. There are 60 articles retained for further investigation. Furthermore, advanced analytical tools are used for bibliographic purposes, particularly VOSviewer and SCImago Graphica. The study shows that authors from India conducted the most prominent researches related to chatbots in banking industry, while few researches focusing on this topic within developed countries respectively. Fewer publications are from natural science and more articles are in social sciences. The authors request more empirical studies from developed nations. This review only limits within Web of Science dataset, future researches can expand to other database for investigations. Future study may investigate chatbot uses banking divisions to facilitate sustained sectoral advancement. The study contributes for academics as well as the practitioners in banking

industry to better understand the trends and hotpots for chatbot utilization for long-term development of the sector.
Keywords: Systematic Literature Review, Study on Chatbots, Vosviewer, Scimago Graphica, Banking Industry

Introduction

With the advent of industrial and information revolutions currently, most sectors are in the wave of information technology and face the so-called industrial 4.0 (Deepthi *et al.*, 2022). Under this situation, Sakshi *et al.* (2020) and Centobelli *et al.* (2020) point out that digital transformation, for example, Internet of things (IoT) and chatbots are prevalent in different sectors. For example, banking industry, as a crucial sector in economy, is imperative for using this kind of technology in order to keep further development. From the perspective of national development, Alt and Ibolya (2021), Ghulam and Dhruva (2024) as well as Garg (2023) argue that banking industry can be regarded as the life blood when handling financial problems and providing investment suggestions. Most of the studies introduced that artificial intelligence (AI) technology includes artificial neural network, machine learning and robotic automation (Richad *et al.*, 2019). Chatbots are one of the most crucial AI applications in banking industry for the purpose of boosting consumer satisfaction (Alhaddad, 2018), afterwards increasing the continuance intention for bank consumers (Liao *et al.*, 2009). Therefore, the major purpose of this study is to conduct the analysis relating to chatbots adoption in banking industry.

As artificial intelligence becomes more integrated into banking, chatbots have emerged as a crucial tool for enhancing customer interactions, streamlining operations, and improving the delivery of financial services. Despite prior research exploring many aspects, the existing literature remains fragmented across disciplines. This study expands on previous research by employing systematic and bibliometric methods to identify key trends, thematic areas, and research pathways in the deployment of chatbots in banking. By synthesizing technological, managerial, and client perspectives, it provides a comprehensive understanding of chatbot implementation in financial services. Moreover, it highlights emerging trends and inadequately explored areas, offering valuable insights for future research and financial innovations.

In this paper, we will explore two important terms: chatbots AND banking. Furthermore, this study will further investigate chatbots on the basis of banking industry. According to Garg (2023), “chat” can be understood as the meaning of “discussion” and “bot” stands for robot. Thus, chatbot means discussion with robots. Customers can find solutions in banking in 7/24 way. Sadok *et al.* (2022), Yarlagadda (2021) and Vijai *et al.* (2020) agree that chatbots can also provide accurate information and instant help when solving customer issues in banking sector. Furthermore, Bremke *et al.* (2023) examines that it is a good strategy for banks when adopting chatbots with AI. And in that way, loyal consumers can be gained from the perspective of marketing which leads to better banking performance to a large extent. Therefore, it is meaningful to conduct the researches related to chatbots AND banking. Therefore, the major aim of this study is to do the analysis in a bibliometric manner. In this way, the trend of chatbots usage can be understood better in banking industry.

VOSviewer and SCImago Graphica will be applied during the process of analyzing the researches by giving a graphical interface. And all the data will be gathered from Web of Science (WoS) database. Basically, this paper will introduce in the following five parts. After given the background information in the first chapter, methods used and ways of sourcing the data will be shown in the second part. Screening criteria and data filtering will also be included in this part. Results and discussion in a visualization format will be given in the third part. And finally in part 4, the most important visualization results will be introduced and the conclusion will be made at the final section.

Methods and Data Source

Methods

Bibliometric techniques originated from library and information science research involving substantial volumes of bibliographic materials. Inside the collection, large volume of bibliographic materials is involved (Broadus, 1987; Pritchard, 1969). When mentioned about the bibliometric methods for systematic literature review, the benefits are emphasized by Mukherjee *et al.* (2022). They proposed that this researching method can be adopted especially for academic researchers as well as practitioners. Furthermore, bibliometric analysis is a rigorous technique used to investigate and scrutinize extensive volumes of scientific information (Khatun *et al.*, 2021), facilitating researchers in unraveling the evolutionary intricacies within a specific field and elucidating emerging trends within that field (Donthu *et al.*, 2021). And it is also agreed by Donthu *et al.* (2021) that bibliometric way can analyze trends of the topic, especially for quantitative researches. Thus, this study will identify the bibliometric and visualization analysis with VOSviewer and Scimago Graphica as the methods for analysis. It is supported by Li *et al.* (2022) and Yang *et al.* (2021), they give the similar claim that the relationship between chatbots and banking can be found from a graphical view. Additionally, Meng *et al.* (2022) and Ren *et al.* (2022) agree that advanced outcome can be shown through visual representation.

For VOSviewer, it is a tool for analysis in a bibliometric and visualization way. Furthermore, according to Chhtrapati *et al.* (2021), McAllister *et al.* (2022), Widianingsih *et al.* (2021), Ohlan and Ohlan (2023), it is favored by many researchers because that VOSviewer has friendly interface and easier output. Upon obtaining the less complex output, significant findings can be derived from this particular software. Moreover, the SCImago Graphica tool has been selected to illustrate the mapping analysis within this research endeavor. The trends and insights can be shown from the perspectives of publication years and citation, web of science index, publication periodical, publications by countries, co-citation and co-occurrence in overlay and density way respectively. Therefore, VOSviewer and SCImago are used to analyze chatbots in banking sector in a clear bibliometric way.

The SPAR-4-SLR protocol

Systematic literature review is a methodological way to conduct literature reviews systematically. There are mainly three procedures in the whole process, including gathering and organizing related articles, followed by assessing the publications within a specified review field. A strict review guidance should be followed, facilitating the deep understanding of the literature. Moreover, this way can provide a promising agenda for improved understanding via fresh research in the review field. This scientific approach is regarded as the scientific procedures and served as the foundation for a systematic view. And it provides

rationale for systematic literature review (SPAR-4-SLR) protocol (Paul *et al.*, 2021). In this study, we will follow this protocol when investing chatbots and banking. The process is shown in Table 1 through a visible format.

Table 1
The SPAR-4-SLR Protocol

Stage	Sub-stage	Criterion	Rationales
Assembling	Identification	Research field	Chatbots and Banking
		Research question	To explore status, hot topics and future trends in chatbots AND banking. To identify the development of an agenda for chatbots AND banking.
		Source type	Inclusion: Journal
		Source quality	WoS
	Acquisition	Search mechanism and material acquisition	WoS was used as search sources.
		Search period	From 2018 to 2024
		Search keyword(s)	"chatbots" and "banking"
Arranging	Organization	Organizing codes	Journals' titles, abstract, keywords, articles type, year, country and institutions are contained.
	Purification	Article type	Documents type including "EARLY ACCESS" or "ARTICLE"
			The articles obtained from WoS are deduplicated manually by using Excel.
Assessing	Evaluation	Analysis method	VOSviewer, SCImago and excel are the tools for conducting analysis on the basis of following aspects: the number of papers published annually, the countries and authors of the articles, the affiliations and institutions in banking industry, the co-occurrence network and density of the keywords and keyword map.
		Agenda proposal method	Expanding this topic to combine different database is suggested for future research. It is suggested that more suitable techniques can be adopted for the purpose of improving the accuracy of the bibliometric analysis.
	Reporting	Reporting convention	Table, Figure and Words.
			Data is restricted to the database of WoS .
			No funding supported. We appreciate the editor's and the reviewers' insights and recommendations throughout the whole review procedure.

Data Source and Cleaning

In this research, data was gathered from Web of Science database. The researchers identify the Topic = "chatbots*" AND "banking*", and not document types = "Review Article" or

"Proceeding Paper" or "Book Chapters". Additionally, this paper adopted bibliometric tools and excel to merge and clean the existing data aiming at ensuring the validity and accuracy of the results. After careful selection process, 60 articles were filtered for visualization analysis. The research diagram which is gathered according to PRISMA principle (Liberati *et al.*, 2009) can be seen from Figure 1, following the identification, screening, eligibility, quality appraisal and data abstraction and finally analysis with the total 60 papers.

This topic begins in the year of 2018 and become quite frequently be discussed in 2021. And then it reaches to the highest level in 2023 (19 papers) with the highest citations of 349. It can be inferred that maybe in 2024 this topic will keep hot and widely discussed as shown in Figure 2.

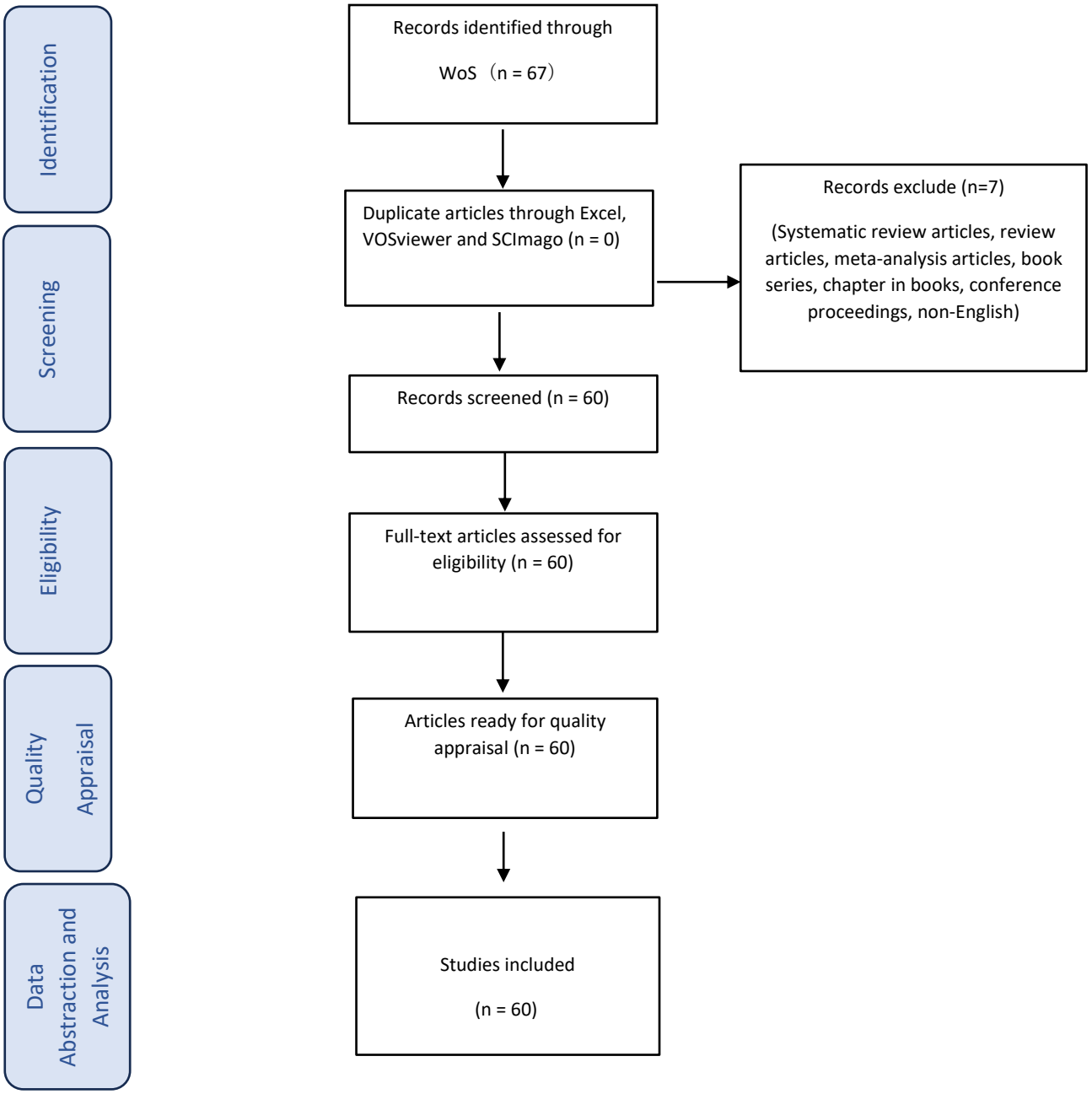

Figure 1 Search and selection of the articles on the basis of PRISMA flow diagram

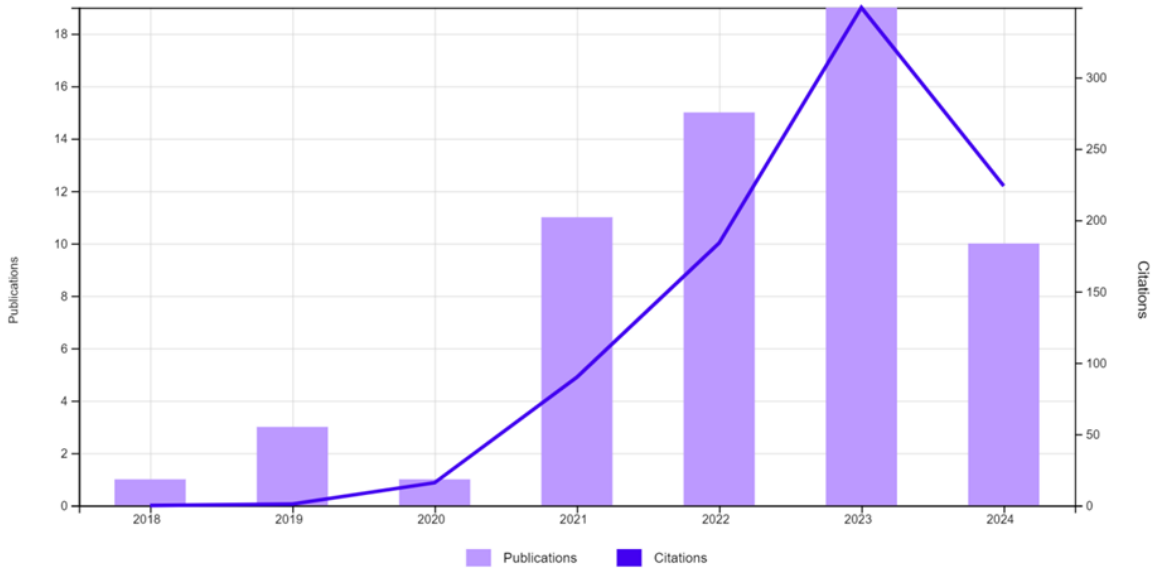

Figure 2 Publication years and citation

Additionally, the Web of Science index for these 60 items is shown in Table 2. Nearly half (48.333%) of Web of Science index data originates from ESCI, accounting for 29 articles. Social Sciences Citation Index (SSCI) publications come the second place for about 24 articles (40% of the total). The remaining portion for indexed by Science Citation Index Expanded (SCI-expanded) and Arts and Humanities Citation Index (A&HCI) as shown in the following table. But they represent a small part, 15 papers and only 2 articles, respectively.

Table 2
Web of Science index

Web of Science Index	Count	%
Arts & Humanities Citation Index (A&HCI)	2	3.333
Emerging Sources Citation Index (ESCI)	29	48.333
Science Citation Index Expanded (SCI-EXPANDED)	15	25
Social Sciences Citation Index (SSCI)	24	40

In addition, top 10 journals are presented in Table 3. Twenty-five papers, accounting for approximately 40% of the total, are published in top 10 journals, representing. Specially, they are Journal of Financial Services Marketing (5 papers), Sustainability (4 papers), International Journal of Human Computer Interaction (4 articles), Applied Sciences Basel (2 papers), Computers in Human Behavior (2 papers), Computers in Human Behavior Reports (two papers), FIIB Business Review (2 articles), International Journal of Bank Marketing (2 studies). Followed by ASLIB Journal of Information Management and Human Behavior and Emerging Technologies with 1 paper, accounting for 1.667% respectively. From Table 3, it can be seen that Journal of Financial Services Marketing is the most leading publication in the field of chatbots AND banking till now.

Table 3
Top 10 Journals for Publication

Titles of the publication	Count	%
JOURNAL OF FINANCIAL SERVICES MARKETING	5	8.333
SUSTAINABILITY	4	6.667
INTERNATIONAL JOURNAL OF HUMAN COMPUTER INTERACTION	4	6.667
APPLIED SCIENCES BASEL	2	3.333
COMPUTERS IN HUMAN BEHAVIOR	2	3.333
COMPUTERS IN HUMAN BEHAVIOR REPORTS	2	3.333
FIIB BUSINESS REVIEW	2	3.333
INTERNATIONAL JOURNAL OF BANK MARKETING	2	3.333
ASLIB JOURNAL OF INFORMATION MANAGEMENT	1	1.667
HUMAN BEHAVIOR AND EMERGING TECHNOLOGIES	1	1.667
Total	25	39.999

Apart from that, the authors of 60 articles are from 25 countries and regions on the basis of statistics. Among them, India accounts for the most predominant part of the study, 15 papers are originated in India and this country produced a significant number of existing researches on chatbots and banking. For the other countries and regions, Taiwan positions at the second place, 6 papers are published for researching. In addition, Vietnam followed at the third place, accounting for 5 papers in the research publication. Therefore, from Figure 3, we can see that India has produced a number of existing researches on chatbots in banking sector. This result is also proved Gupta (2023), traditional Indian banks are transforming from traditional-led models to developed AI models. And in that way, performance benefits are gained, for example, operating costs can be reduced to a large extent.

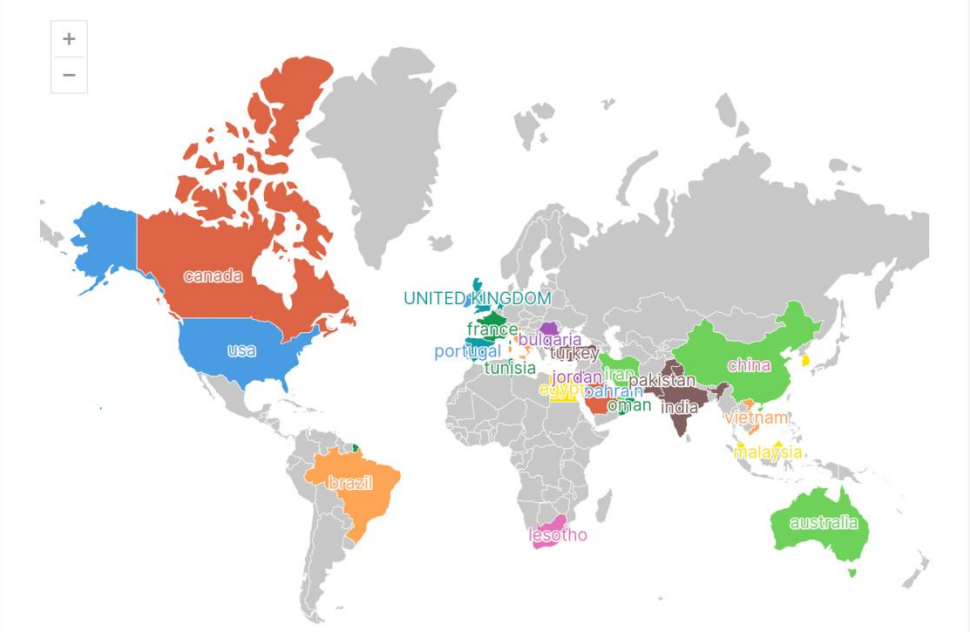

Figure 3 Publication of chatbots and banking articles by country and regions

Results and Discussion

Visualization analysis is conducted by using VOSviewer 1.6.20, the objective of this research is to investigate the hotpots and research trends of chatbots AND banking. Thus, the first part in this section will discuss the co-citation references and then co-occurrence of the topic will be given as follows.

Co-citation References

In this section, it identifies the co-citation references from banking research studies as well as chatbots. And during the process, the study has established that a referred reference must have a minimum of five citations. Among them, of the 3719 cited references, 78 meets the threshold. Nevertheless, not all of 78 of the publications are interconnected. The most linked items are shown in Figure 4. These 78 articles are clustered into 3 groups. It will introduce the cluster from the first one to the third one, respectively. Among cluster 1, 42 items are included which is colored in red. Comparatively, green group is in cluster 2 and 21 items are contained. And in cluster 3, blue is colored with the items accounting for 15 items.

When examining into a depth way, Fornell (1981) positions the largest quantity of references for co-citation (23) which is in the first group. From the visualization result, followed by the highest level, Davis (1989) comes to the second position immediately. For this co-citation reference, it has 21 co-citation references in group 2. Venkatesh (2003) comes the third place with 20 co-citation references in group 3 (links=71, total link strength=248).

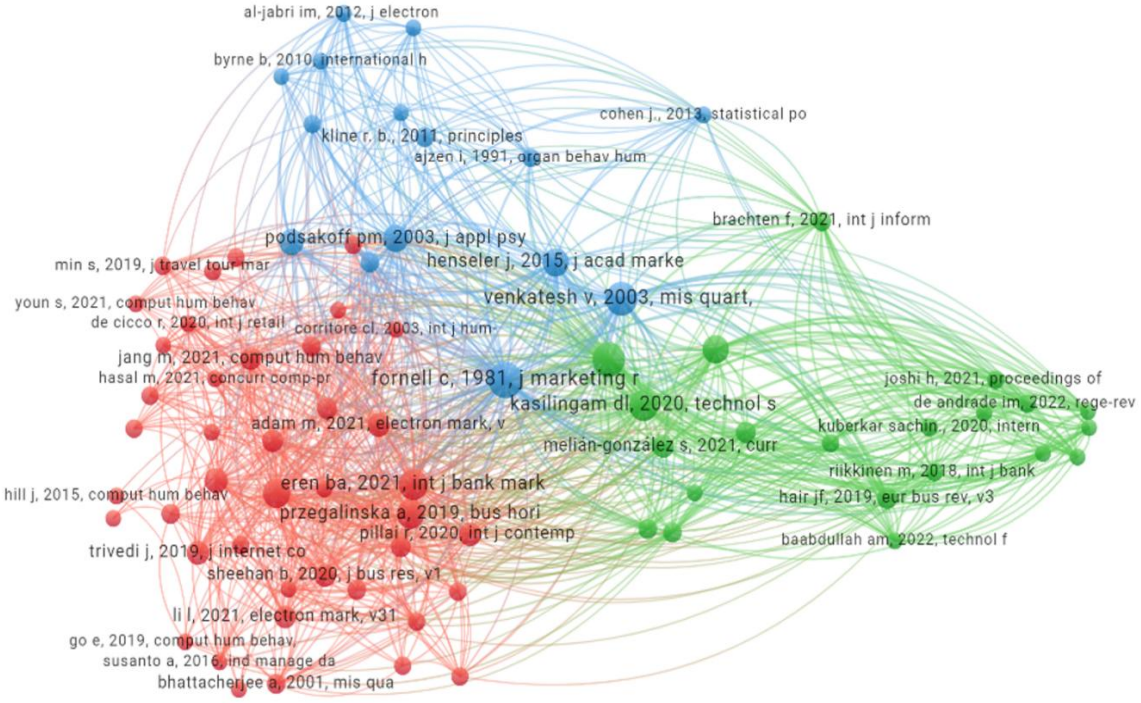

Figure 4 Groups of related articles by size

Co-occurrence Keywords

Using all the keywords, analysis related to co-occurrence will be given in the following part. It depicts in Figure 5. It describes the co-occurrence network of chatbots and banking. During the process, the minimum number of keyword occurrence is set at four, showing 37 keywords within 378 are included for the analysis. In addition, 391 links are found in this study in total. There are four clusters within the co-occurrence network. Among them, the first group which is colored in red specifies 11 keywords, focusing particularly on the adoption, banking, trust, intention, satisfaction, antecedents, customer satisfaction, impact, perceived usefulness, service quality and trust as the keywords. Adoption is the major key point, with the total link strengths 64 and occurrence 11 times. And the second key term is antecedents (Total lines count = 34, Frequency = 5). Within the keyword, banking is the third one with the total

number of 23 lines and 11 occurrences. Nine items are included in the second group which is labeled in green. And in this cluster the researches are mainly focused on banking adoption, fintech, information-technology, Insurtech, PLS-SEM, services, technology-acceptance, unified theory and user acceptance. Within these key topics, the most crucial term is banking adoption (Total line length=28, Occurrence=4). The following keyword is fintech (Total line counts=20, occurrence=4). Additionally, the third is information-technology with total link strengths 92 and occurrence 15.

Apart from that, for the topic of chatbots AND banking, acceptance is the most important word in cluster 3 (9 items included) shown with the color blue, with the total lines 77 and 44 occurrences. In this cluster, the second term is artificial intelligence (total strength line 125 with the frequency of 31). In addition, there are 8 nodes in cluster 4 with the colored yellow. Customer experience is emphasized mostly in this cluster with the total link strengths 29 and occurrences 5.

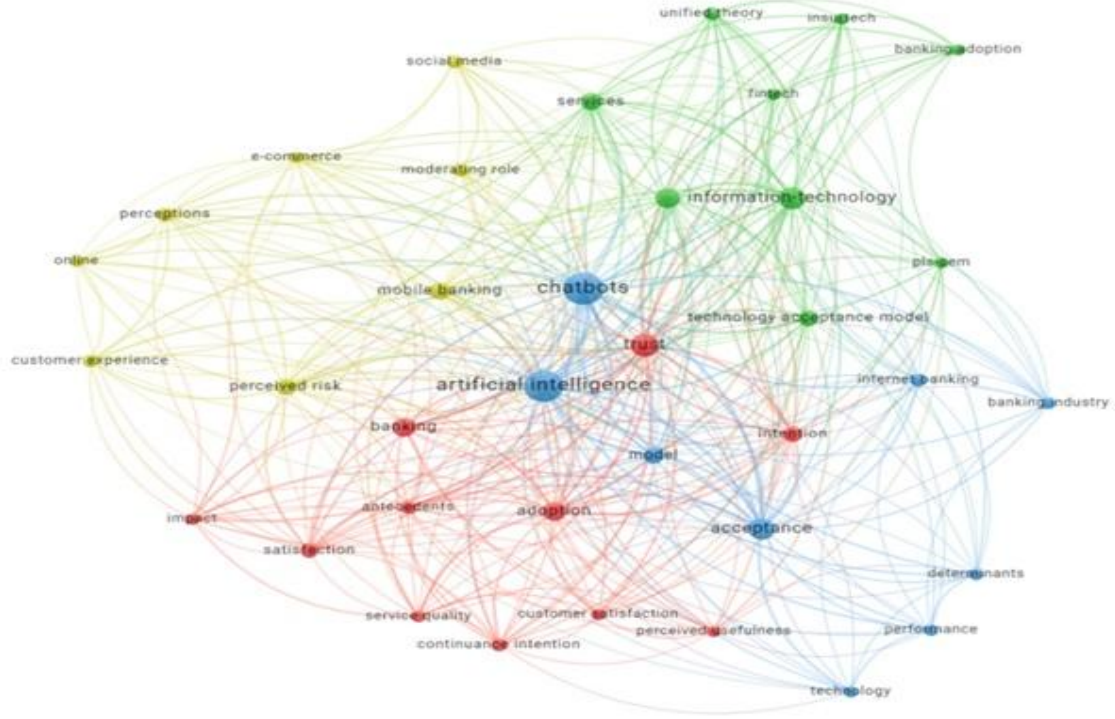

Figure 5 Keyword co-occurrence in network of chatbots and banking

In terms of chatbots AND banking, the frequency of the co-occurrence phrase clusters is displayed in Figure 6. Artificial intelligence, chatbots, trust, acceptance and information-technology are the most widely mentioned word and phrases inside the cluster. These results give researchers some insights when conducting the researches related to information technology in banking sector, especially with the artificial intelligence tool of chatbots.

Apart from that, Figure 7 depicts the chatbots AND banking term co-occurrence overlay network. From a visualization way, we can see from the figure that the most current list of the top five keywords is determined. The most crucial term is trust (total strength line=102, instances=16). Information technology is identified as the second keyword, with the total lines count at 92 and occurrence at the level of 15. The third is adoption (total link strength=64, frequency=11). Mobile banking, which is placed at the fourth position, which has nine

occurrences and 51 total strengths of lines. Additionally, intention comes at number five (occurrence=7, total strength of lines=48).

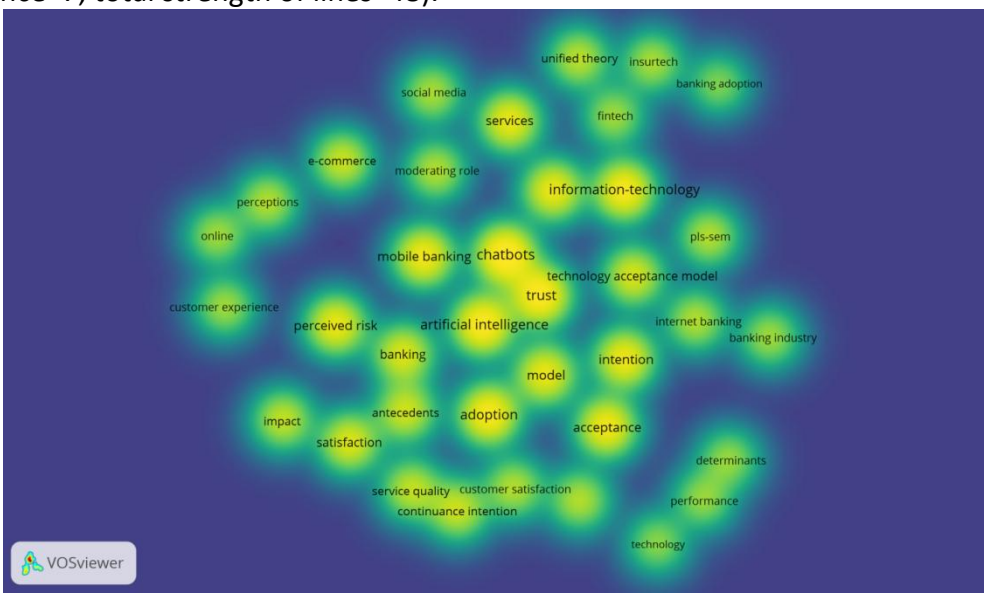

Figure 6 Keywords co-occurrence in cluster density of chatbots and banking study

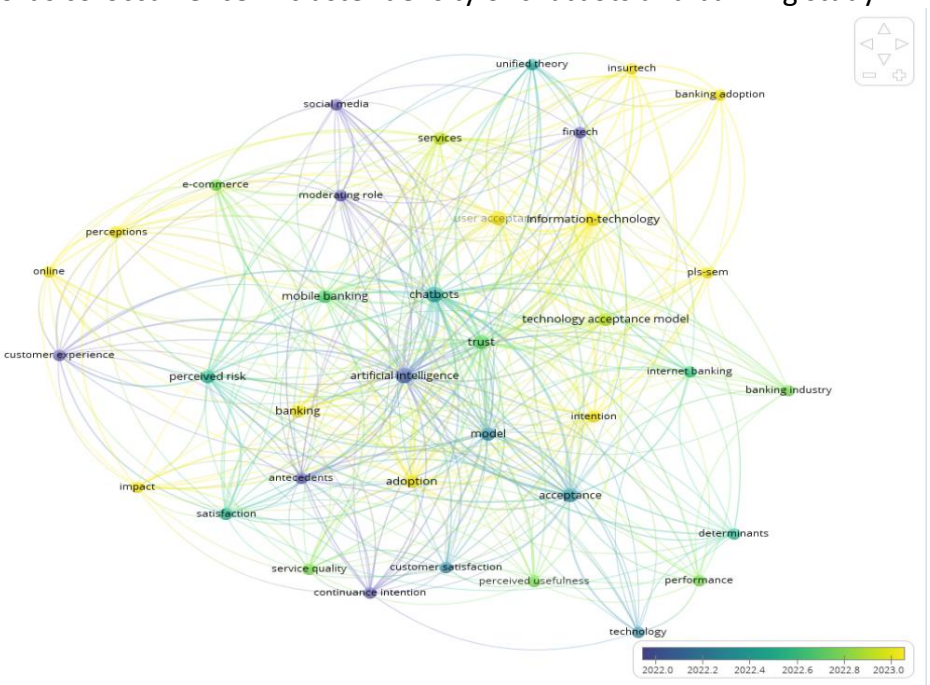

Figure 7 Keywords co-occurrence in overlay network of chatbots and banking research

Discussion

In this study, VOSviewer and SCImago Graphica are used to assess the selected datasets. Sixty articles from Web of Science are included in the selected datasets. In the following part, the descriptive analysis and keyword cloud map will be shown in a detailed way.

Affiliations of the Study

Table 4 shows the Top 10 affiliations of the study. According to the Table 4, Universität Rovira I Virgili positions the top, representing for 4 papers and 6.667% of the total. National Institute of Technology Nit System follows at the second place with 3 publications and 5% of the total.

Other institutions, for example, Christ University, University College Dublin and other six affiliations accounts for 2 publications within the top 10 institutions.

Table 4
Affiliations of the Study

Affiliations	Record Count	%
UNIVERSITAT ROVIRAI VIRGILI	4	6.667
NATIONAL INSTITUTE OF TECHNOLOGY NIT SYSTEM	3	5.000
CHRIST UNIVERSITY	2	3.333
DELHI TECHNOLOGICAL UNIVERSITY	2	3.333
HO CHI MINH CITY UNIVERSITY ECONOMICS	2	3.333
MANIPAL ACAD HIGHER EDUC	2	3.333
QUEENSLAND UNIVERSITY OF TECHNOLOGY QUT	2	3.333
TRINITY COLLEGE DUBLIN	2	3.333
UNIVERSITI KEBANGSAAN MALAYSIA	2	3.333
UNIVERSITY OF GREENWICH	2	3.333
Total	23	38.331

Keyword Cloud Map

As we can see from Figure 8, it shows the keyword cloud map for the researching terms. Generally, it can be categorized into 6 clusters which are generated from SCImago Graphica for visualization analysis. Among the six clusters, it is colored in green, blue, orange, purple, red and pink from cluster 1 to cluster 6 sequentially. The researchers found that artificial intelligence, information-technology, chatbots and trust are the main key words when discussing the topic related to chatbots in banking industry.

Figure 8 Keyword cloud map

Conclusion and Limitations

This report examines the hotpots of chatbots utilization in banking industry by using VOSviewer and SCImago Graphica. All of the publications are from 2018 and researched to

the highest level in the year of 2023 till now. All the articles are gathered from Web of Science dataset. The analyses include co-citation analysis, co-occurrence network examination, co-occurrence overlay network analysis and co-occurrence density examination. Additionally, the researchers also conduct keyword map examination. From the analysis, it can be seen that authors from India conducted the most prominent researches related to chatbots based on banking industry. And from the global statistics show that fewer publications are from natural science and more articles are in social sciences.

However, this paper gathered the data only from Web of Science dataset, this may limit the results of the findings. It suggested that in the future research, the data source can expand into some other datasets and harvest much more comprehensive results. Therefore, much more excellent publishing articles can prevent the limitations of the study.

References

Alhaddad, M. M. (2018). Artificial Intelligence in Banking Industry: A Review on Fraud Detection, Credit Management, and Document Processing. Research Berg Review of Science and Technology, 2(3), pp. 25–46.

Alt, M.-A., and Ibolya, V. (2021). Identifying Relevant Segments of Potential Banking Chatbot Users Based on Technology Adoption Behavior. Market-Tržište, 33(2), 165–183. DOI: 10.22598/mt/2021.33.2.165.

Broadus, R. N. (1987). Toward a definition of “bibliometrics.” Scientometrics, 12(5), 373–379. https://doi.org/10.1007/BF02016680.

Centobelli, P., Cerchione, R., Esposito, E., and Shashi. (2020). Evaluating environmental sustainability strategies in freight transport and logistics industry. Business Strategy and the Environment, 29(3), 1563–1574. WILEY. https://doi.org/10.1002/bse.2453.

Chhtrapati, D., Chaudhari, S. P., Mevada, D., Bhatt, A., and Trivedi, D. (2021). Research Productivity and Network Visualization on Digital Evidence: A Bibliometric Study. Science & Technology Libraries, 4, 358–372. https://doi.org/10.1080/0194262X.2021.1948486.

Deepthi, B., Gupta, P., Rai, P., and Arora, H. (2022). Assessing the Dynamics of AI Driven Technologies in Indian Banking and Financial Sector. Vision, 09722629221087371. https://doi.org/10.1177/09722629221087371.

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., and Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. Journal of Business Research, 133, 285–296. DOI:10.1016/J.JBUSRES.2021.04.070.

Garg, N. (2024). A systematic literature review on artificial intelligence technology in banking. Academy of Strategic Management Journal, 23(1), 1–20. https://www.abacademies.org/abstract/a-systemmatic-literature-review-on-artificial-intelligence-technology-in-banking-16491.html

Ghulam, Y., and Dhruva, K. (2024). Banking sector reforms in a challenging environment: An emerging financial market experience. International Review of Economics & Finance, 92, 1074–1096. https://doi.org/10.1016/j.iref.2024.02.057.

Gupta, R. (2023). Industry 4.0 Adaption in Indian Banking Sector—A Review and Agenda for Future Research. Vision, 27(1), 24-32. https://doi.org/10.1177/0972262921996829.

Khatun, R., Xiang, H., Yang, Y., Wang, J., Yildiz, G., and Ray. (2021). Bibliometric analysis of research trends on the thermochemical conversion of plastics during 1990–2020. Journal of Cleaner Production, 317, 128373. https://doi.org/10.1016/j.jclepro.2021.128373.

Liao, C., Palvia, P., and Chen, J.-L. (2009). Information technology adoption behavior life cycle: Toward a Technology Continuance Theory (TCT). International Journal of Information Management, 29(4), 309–320. https://doi.org/10.1016/j.ijinfomgt.2009.03.004.

Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., Clarke, M., Devereaux, P. J., Kleijnen, J., and Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. PLoS medicine, 6(7), e1000100. https://doi.org/10.1371/journal.pmed.1000100.

Li, L., Chi, R., and Liu, Y. (2022). The Data Visualization Analysis in Global Supply Chain Resilience Research During 2012–2022. In W. Qingyang & L.-J. Zhang (Eds.), Services Computing – SCC 2022 (pp. 1–11). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-23515-3_1. (accessed 20 July 2024).

McAllister, J. T., Lennertz, L. and Atencio Mojica, Z. (2021) 'Mapping A Discipline: A Guide to Using VOSviewer for Bibliometric and Visual Analysis', Science & Technology Libraries, 41(3), 319–348. doi: 10.1080/0194262X.2021.1991547.

Meng, F., Liao, X., Chen, H., Deng, S., Wang, L., Zhao, M., Li, H., Liu, D., Gao, G., Li, H., and Wang, J. (2022). Bibliometric and visualization analysis of literature relating to diabetic erectile dysfunction. Frontiers in endocrinology, 13, 1091999. https://doi.org/10.3389/fendo.2022.1091999.

Mukherjee, D., Lim, W. M., Kumar, S., and Donthu, N. (2022). Guidelines for advancing theory and practice through bibliometric research. Journal of Business Research, 148, 101–115. https://doi.org/10.1016/j.jbusres.2022.04.042.

Ohlan, R. and Ohlan, A. (2022) 'Scholarly Research in Food Security: A Bibliometric Analysis of Global Food Security'. Science & Technology Libraries, 42(1), 119–135. doi: 10.1080/0194262X.2022.2029728.

Paul, J, Lim, WM, O'Cass, A, Hao, AW and Bresciani, S (2021), 'Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR)'. International Journal of Consumer Studies, 45(4), O1-O16. https://doi.org/10.1111/ijcs.12695.

Pritchard, A. (1969). Statistical bibliography or bibliometrics. Journal of Documentation, 25, 348.

Ren, W., Ni, J., Jiao, W., and Li, Y. (2022). Explore the key factors of sustainable development: A bibliometric and visual analysis of technological progress. Sustainable Development., 31(3), 492-509. https://doi.org/10.1002/sd.2405.

Richad, R., Vivensius, V., Sfenrianto, S., and Kaburuan, E. R. (2019). Analysis of factors influencing millennial's technology acceptance of chatbot in the banking industry in Indonesia. International Journal of Management, 10(3). https://doi.org/10.34218/ijm.10.3.2019.011.

Sadok, H., Sakka, F. and El Maknouzi, M. E. H. (2022) 'Artificial intelligence and bank credit analysis: A review', Cogent Economics & Finance, 10(1). https://doi.org/10.1080/23322039.2021.2023262.

Sakshi, Shashi, Cerchione, R., & Bansal, H. (2020). Measuring the impact of sustainability policy and practices in tourism and hospitality industry. Business Strategy and The Environment, 29, 1109-1126. https://doi.org/10.1002/bse.2420.

Vijai, C., Suriyalakshmi, S. M., and Elayaraja, M. (2020). The Future of Robotic Process Automation (RPA) in the Banking Sector for Better Customer Experience. Shanlax International Journal of Commerce, 8(2), 61-65. DOI: https://doi.org/10.34293/commerce.v8i2.1709.

Widianingsih, I., Paskarina, C., Riswanda, R., and Putera, P. B. (2021). 'Evolutionary Study of Watershed Governance Research: A Bibliometric Analysis', Science & Technology Libraries, 40(4), 416–434. https://doi.org/10.1080/0194262X.2021.1926401.

Yang, Q., Yang, D., Li, P., Liang, S., and Zhang, Z. (2021). Resilient City: A Bibliometric Analysis and Visualization. Discrete Dynamics in Nature and Society, 1, 1-17. https://doi.org/10.1155/2021/5558497.

Yarlagadda, R. T. (2018). The RPA and AI automation. International Journal of Creative Research Thoughts (IJCRT), ISSN, 2320-2882.