

Research Skills (Write a Bibliometric Paper)

Session 3: Keywords Selection

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 <https://publons.com/researcher/1692944>
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Abstract

Bibliometric analysis plays a pivotal role as a statistical tool in comprehending the current landscape of scientific knowledge within a specific research domain. Employing techniques like publication and citation counting, co-citation analysis, bibliographic coupling, keyword co-occurrence, and co-authorship networks, bibliometrics empowers researchers to pinpoint pertinent research challenges and generate impactful studies. Moreover, the practice of composing a bibliometric paper, either as a precursor to a literature review or within a research paper's introduction, equips researchers with the ability to articulate their objectives and methodologies with clarity and brevity. The workshop series, “Research Skills (Write a Bibliometric Paper)”, is geared toward equipping participants with indispensable skills and knowledge for conducting bibliometric research and producing top-tier research papers. "Keywords Selection" explores deep into the art of meticulously selecting effective keywords for your bibliometric research. Explore how to strategically choose and employ keywords to enhance the discoverability of your work and align it seamlessly with your research objectives.

Keywords: [Research Tools](#), Bibliometrics, Keyword Selection, Research Keywords, Discoverability

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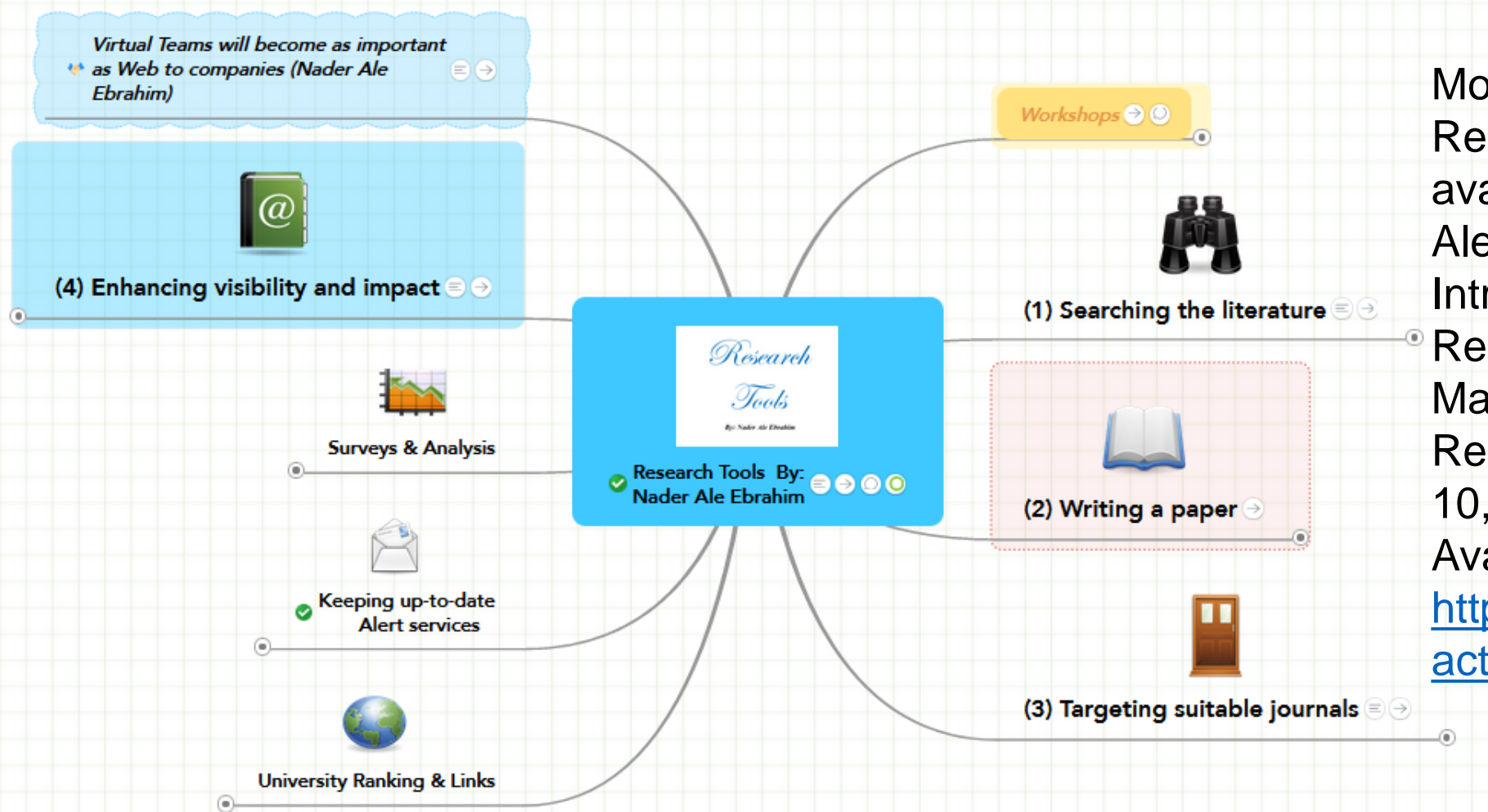
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No.	Session Title	Content Description	Date
1	Introduction to Bibliometrics	Introduction to bibliometrics and its role in research writing, Define key bibliometric measures used in research evaluation and assessment	March 9
2	Defining Your Research Objective and Analyzing Examples	How to define a clear research question or objective, Showcase examples of well-written bibliometric research papers, Analyze successful papers and identify key elements of their effectiveness	March 16
3	Keywords Selection	Effective selection and utilization of keywords in bibliometrics, Identifying and choosing search terms to retrieve relevant articles that align with research objectives	April 06
4	Navigating Data Sources	Identify and assess various data sources suitable for bibliometric research, Learn to access and utilize relevant data for in-depth analysis	April 13
5	Data Collection and Cleanup	Retrieving and cleaning data, removing duplicates, correcting errors, standardizing bibliographic information	April 20
6	Visualizing Patterns and Trends with VosViewer	Utilize VOSviewer for advanced data visualization and quantitative analysis in bibliometrics, Identify patterns and trends in research output	April 27
7	Unveiling Insights with Bibliometrix	Explore the functionalities of Bibliometrix for bibliometric analysis and data processing, Introduction to other visualization tools for quantitative analysis of bibliometric data	May 11
8	Ensuring Ethical Practices in Bibliometric Research	Understanding different types of plagiarism and the consequences of academic misconduct, Avoiding plagiarism, and ensuring ethical practices in bibliometric research	May 18
9	Crafting Impactful Bibliometric Papers	Structure bibliometric papers effectively to convey research findings and insights clearly, Highlight emerging trends, and address knowledge gaps in the relevant field	May 25
10	Enhancing Paper Quality and Analyzing Data	Criteria for evaluating the quality of papers in bibliometric research, Interpreting results, drawing conclusions about research questions/objectives, Enhance the overall quality of bibliometric papers	June 01
11	Navigating Publication: From Submission to Peer Review	Journal selection strategies for bibliometric papers, Manuscript submission process and guidelines, Understanding the peer review process, and addressing reviewer comments	June 08
12	Amplify Your Research Visibility and Impact	Implement strategies to increase research visibility and impact through effective dissemination, Leverage networking opportunities to reach a broader audience, and create a lasting impact	June 15

Research Tools Box (Mind Map)



More info about the Research Tools is available at:
Ale Ebrahim, Nader, Introduction to the Research Tools Mind Map (June 14, 2013). Research World, Vol. 10, No. 4, pp. 1-3, Available at SSRN: <https://ssrn.com/abstract=2280007>

Source: <https://www.mindmeister.com/39583892/research-tools-by-nader-ale-ebrahim?fullscreen=1#>

Assignment from
previous sessions

To-Do List Session 1: Introduction to Bibliometrics

1. Write an introduction paragraph about Bibliometrics



To-Do List Session 2: Defining Your Research Objective and Analyzing Examples

1. Find your research objectives;
2. Structure and plan your research (Draw the research map);
3. Find the top 10 bibliometrics papers in your research area identifying research objectives and questions;

4. Read:

- https://www.dlsweb.rmit.edu.au/lsu/content/2_AssessmentTasks/assess_tuts/lit_review_LL/reading.html
- Cottrell, S. (2005). *Critical thinking skills - Developing Effective Analysis and Argument*. Basingstoke: Palgrave Macmillan.
- Chapter 3 of “Creswell, J. W. (2012). *Educational research: Planning, Conducting, and Evaluating Quantitative and Qualitative Research* (4th ed.). Boston: Pearson Education, Inc”
- Chapter 3 of “Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research methods for business students* (5th ed.). Edinburgh Gate, Harlow, Essex CM20 2JE, England: Pearson Education Limited.”

3- Keywords Selection

What are the alternative words instead of "bibliometrics" on paper titles?

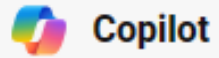
When creating paper titles, you can use alternative words or phrases to replace "bibliometrics" if the content of your paper relates to a specific aspect of bibliometrics. The choice of alternative words or phrases depends on the specific focus of your research. Here are some alternatives:

1. "Citation Analysis"
2. "Research Impact Assessment"
3. "Scientific Evaluation"
4. "Scholarly Metrics"
5. "Publication Analysis"
6. "Research Performance Metrics"
7. "Bibliographic Analysis"
8. "Citation Metrics"
9. "Research Evaluation"
10. "Academic Impact Assessment"

These alternatives may be more suitable depending on the precise nature of your research and the emphasis you want to convey in your paper title.

Source: [ChatGpt, https://chat.openai.com](https://chat.openai.com)

What are the alternative words instead of "bibliometrics" on paper titles?



Certainly! When considering alternative terms for **bibliometrics** in paper titles, you might find the following options suitable:

Research Evaluation Practices: Different countries or institutions may have varying approaches to research evaluation.

Scholarly Metrics: Highlighting the statistical methods applied to bibliographic data.

Publication Analysis: Describing the study of published works and their related metadata.

Citation Analysis: Focusing on the examination of citations within academic literature.

Impact Assessment: Emphasizing the assessment of scholarly impact based on publications.

Feel free to choose the term that best aligns with your paper's content and context!



What are the alternative words instead of "bibliometrics" on paper titles?

There are several alternative words that can be used instead of "bibliometrics" in paper titles. Some of these include:

1. **Scientometrics:** This term is often used interchangeably with bibliometrics and refers to the quantitative analysis of science and scientific publications
2. **Infometrics:** This term is also used interchangeably with bibliometrics and scientometrics and refers to the study of information and its production, dissemination, and use
3. **Librametrics:** This term was coined by Ranganathan in 1948 and was used to describe bibliometric research
4. **Altmetrics:** This term refers to the alternative metrics used to measure the impact of research outputs beyond traditional citation-based metrics

These alternative words are often used in the same context as bibliometrics and can be used to describe similar research methods and analyses.

Source: <https://www.perplexity.ai>

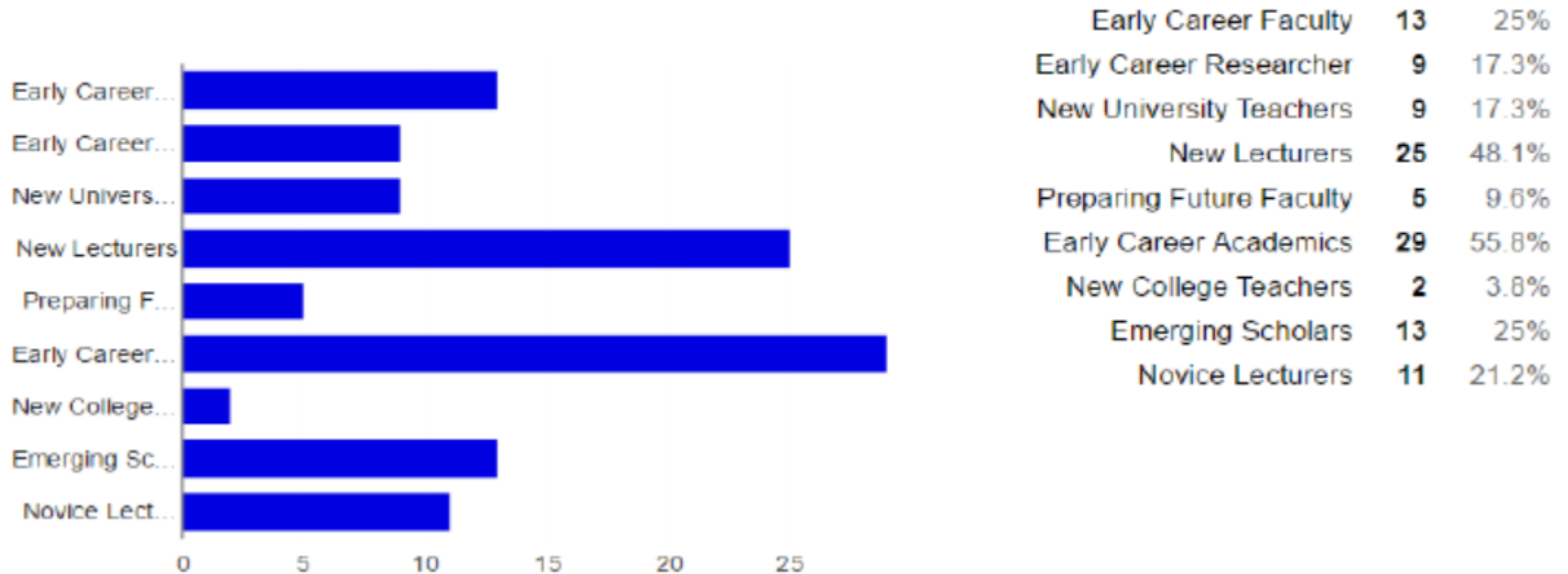
**Create an online questionnaire
for selecting the best
keywords in your research
area.**

Here is an example:

<https://forms.gle/CFiXW5eg9pmdCMnf7>

Keyword(s) used

Which keywords would you use to search for "Early Career Faculty"?



Source: Yusop, F. D., Ghaffar, F. A., Danaee, M., Firdaus, A., Hamzaid, N. A., Hassan, Z. F. A., . . . Chen, Y. M. (2020). TWO DECADES OF RESEARCH ON EARLY CAREER FACULTIES (ECFs): A BIBLIOMETRIC ANALYSIS OF TRENDS ACROSS REGIONS. *Pertanika Journal of Social Sciences & Humanities (JSSH)*, 28(1), 325 - 342. doi:10.6084/m9.figshare.12008841.v1

142 responses

[View all responses](#)

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Summary

Which keywords would you use to search for "Big Data" ?

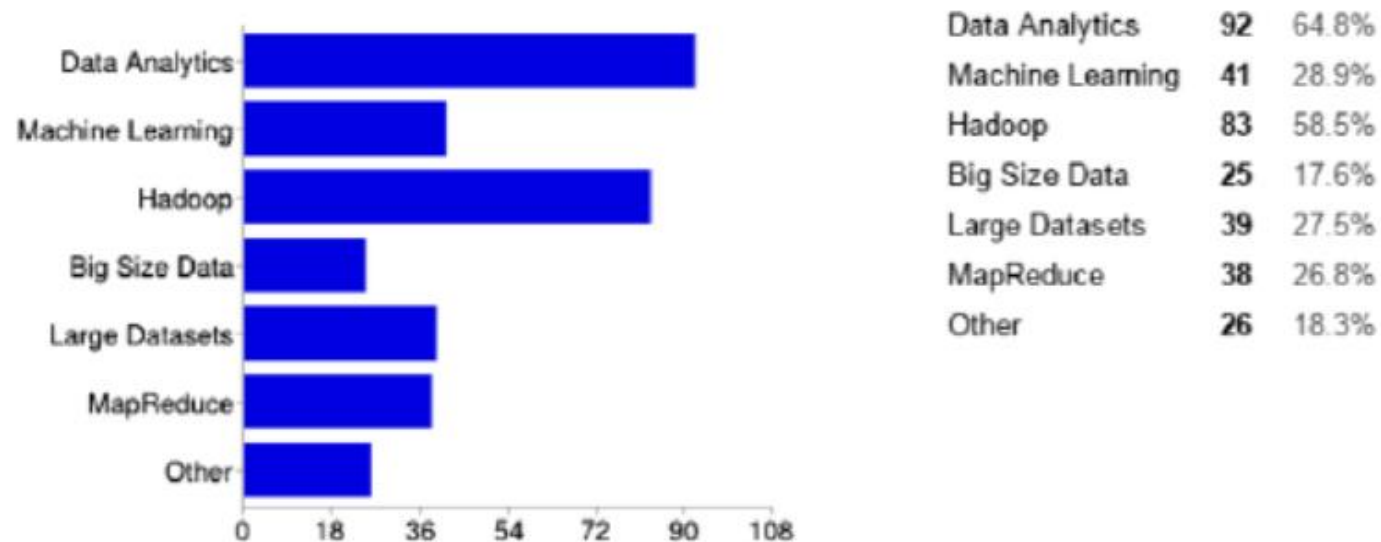


Fig. 2 Survey results (number of responses)

Source: Kalantari, A., Kamsin, A., Kamaruddin, H. S., Ebrahim, N. A., Gani, A., Ebrahimi, A., & Shamshirband, S. (2017). A bibliometric approach to tracking big data research trends. *Journal of Big Data*, 4(1), 30. <https://ssrn.com/abstract=3046448>

Table 2 Keywords phrase and search results

Keyword in title	Search term	Example	Results
Data analytics	"Data* Analytic*"	Data Analytic/s, Data-analytical, DATA-BASE ANALYTICS	264
Hadoop	"Hadoop*"	Hadoop, Hadoop-based, HadoopToSQL, HadoopRDF, HadoopM	312
Machine learning	"Machine* Learn*"	Machine/s learning, MACHINERY LEARNING, machine learners, Machinery Learners, Machine Learned, machine-learned	4466
MapReduce	"MapReduce*" OR "Map\$Reduce*"	MapReduce, Map-Reduce	752
large datasets	"Large\$ Dataset*"	Large dataset/s, larger datasets	309
Big Data	"Big Data*"	Big data, Big Datasets, Big Databases	1310
Data warehouse	"Data Warehouse*"	Data Warehouse/s	1200
Predictive analytics	"Predictive Analytic*"	Predictive analytic/s	60
No SQL	"No SQL" OR "NoSQL" OR "NoSQL Database"	No-SQL, NoSQL, No SQL	72
Unstructured data	"Unstructured Data"	Unstructured Data	82
Data science	"Data Science*"	Data Science/s	46
Sentiment analysis	"Sentiment Analy*"	Sentiment Analysis, Sentiment Analyzing, Sentiment Analyzer	303
Data centers	"Data Cent*"	Data Center/s, Data Centre/s, data centric	2384

Source: Kalantari, A., Kamsin, A., Kamaruddin, H. S., Ebrahim, N. A., Gani, A., Ebrahimi, A., & Shamshirband, S. (2017). A bibliometric approach to tracking big data research trends. *Journal of Big Data*, 4(1), 30. <https://ssrn.com/abstract=3046448>

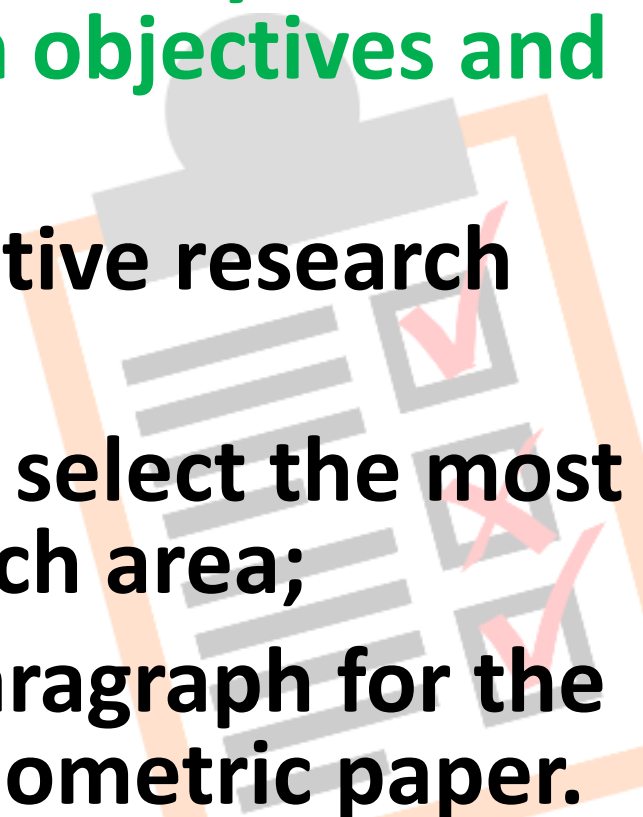
The following string query used for a title search on Scopus database, TITLE ("Family Business") OR TITLE ("Family firms") OR TITLE ("Family successor") OR TITLE ("owner-manager") OR TITLE ("insider ownership") OR TITLE ("founding-family ownership"). A total number of 3,544 documents were retrieved. The publication year 2019 (80 documents) were excluded from 3,544 documents and 3,464 documents remained. There were 204 (5.9%) open-access documents out of total publications of 3,464. It means the open access movement is not influenced so much in the field of

Source: Nordin, N., Khalid, S.-N. A., Samsudin, M. A., & Ale Ebrahim, N. (2020). Bibliometric Analysis of Publication Trends in Family Firms' Social Capital in Emerging Economies *Journal of Entrepreneurship, Business and Economics*, 8(1), 144–179.

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To-Do List Session 3: Keywords Selection

- 1. Find the top 10 bibliometrics papers in your research area identifying research objectives and questions;**
 - 2. Utilize AI tools to discover alternative research keywords;**
 - 3. Create an online questionnaire to select the most suitable keywords for your research area;**
 - 4. Write the 'Keywords Selection' paragraph for the methodology section of your bibliometric paper.**
- 



**The floor is open to questions and discussions about Research Skills, Session 3:
Keywords Selection.**



Thank you

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 <https://publons.com/researcher/1692944>
<https://scholar.google.com/citation>

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My Recent Publications

1. Haidari, S., Hashemi, Z., Jamali, S. M., & Ale Ebrahim, N. (2023). Quantitative and qualitative analysis of executive functions: a bibliometric approach. *Current Psychology*. <https://doi.org/10.1007/s12144-023-05033-x>
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2. <https://chat.openai.com/chat>
3. Kalantari, A., Kamsin, A., Kamaruddin, H. S., Ebrahim, N. A., Gani, A., Ebrahimi, A., & Shamshirband, S. (2017). A bibliometric approach to tracking big data research trends. *Journal of Big Data*, 4(1), 30. <https://ssrn.com/abstract=3046448>
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