



Bibliometric analysis of research trends in competitive advantage and sustainability of MSMEs: A systematic review of Scopus scientific publications

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Abstrak

Objective: The researcher wants to map research with the leading research theme of competitive advantage to assess the sustainability of micro, small and medium enterprises in the world.

Design/Methodology- the research uses bibliometric methods by analyzing data collection methods on articles indexed by Scopus with findings of 779 articles on the topic. Data processing is carried out using the VOSviewer application, which analyzes and provides graphics and images of literature that have been researched clearly and in-depth.

Findings- research topics with predetermined themes have been widely researched and published in international journals indexed by Scopus; the topic theme extends to other topics that are still related to the main topic. Many authors wrote together from different agencies and countries and published in many journals with 470 journal publishers.

Practical implications: These findings can guide management practitioners, especially those who research the topics raised to develop SMES, where the development of discussions increasingly extends to other topics. Originality/value - only a few have been researched using bibliometrics, which is expected to be used as a guide for future researchers.

Keywords: *Competitive advantage, Sustainability, SMEs, Bibliometric analysis.*

INTRODUCTION

The global economy has experienced several financial, political, and security crises. Currently, the world is characterized by political tensions, which have led to war in the Middle East or in Europe, where there was a war between Urians and Ukrainians (Kasych, 2023, p. 21). Micro, Small and Medium Enterprises (MSMEs) have a significant role in the global economy (Sternad et al., 2013). The existence of technology and social media has made it easier to interact with customers, making it easier to exchange information, making it easier to know customer needs, enabling opportunities for innovation and improving company performance (Muna et al., 2022). Knowledge becomes a competitive advantage for small and medium-sized businesses to compete with other organizations (van Zyl et al., 2022). The industry needs a strategy to strengthen itself and have international competitiveness, especially MSMEs, which are closely related to globalization (Kang et al., 2016). Its development requires a lot of information, including

research conducted globally on micro, small and medium enterprises in various countries, including America (Ahmad et al., 2017).

In order to develop amidst globalization in the embrace of competitiveness supported by competitive advantage, many small and medium businesses face problems due to the digital transformation that is occurring (Lee & Lan, 2009). For the survival of small businesses, aggressiveness is needed to explore competitive advantages so that they can be competitive (Ogbari et al., 2018). Technological developments encourage entrepreneurs to use technology to gain a competitive advantage and optimize performance (Zaidi et al., 2021). Competitive advantage is an important concept where dynamic market realities and competitors' innovation capacity make it difficult for companies to create goals and maintain sustainable performance (Fabrizio et al., 2022). Apart from adapting to technology, it is necessary to form business clusters, apart from being a means of increasing competitive advantage, the existence of entrepreneur communication forums also makes it easier for the government to provide guidance and provide business incentives to business groups (Piperopoulos & Scase, 2007), because another problem is business capital (Chauhan et al. al., 2021).

Several studies have raised the theme of competitive advantage using a bibliometric analysis approach (Sgambati & Gargiulo, 2022). Competitive advantage has become an area of ongoing research in strategic management science and is used as a business strategy in organizations based on achieving competitive advantage (Nayak et al., 2022). Apart from that, research groups and methods were also carried out to advance abilities and potential (Zhaisanova & Mansurova, 2024). For this reason, it is necessary to understand the latest research trends related to competitive advantage and performance to identify trends, patterns and research directions (Tavoletti & Taras, 2023).

METHODS

This research began with an analysis that included bibliometric references and citations (Zhaisanova & Mansurova, 2024). Also, collecting articles on the theme of competitive advantage (Nayak et al., 2022) explores research to create a basis for mapping understanding to improve the quality of input based on broader literature (Abdul Halim et al., 2017). A Scopus search limited to scientific journals with the keywords Competitive advantage and SMEs Performance found 779 articles without limiting the year of research. We have used a scientific mapping approach to review the literature under study, a method for reviewing using bibliometric analysis methods.

Bibliometrics is a rigorous set of methods for exploring and analyzing large amounts of scientific data (Maione et al., 2023). Bibliometric analysis provides a systematic application of literature reviews to ensure the reliability of the information used. This system uses the VOSviewer program to create and visualize relationships between sources and identify authors, extracting better insights from publications in Scopus-indexed journals (Tavoletti & Taras, 2023).

RESEARCH RESULTS AND DISCUSSION

Various analyses, including the keywords Competitive advantage and Performance SMEs, classifying authors, country distribution, quotation sources, analysis of document and organization quotations, citations and also classification of related scientific developments (Fabrizio et al. ., 2022; Zhaisanova & Mansurova, 2024). This analysis is used to produce thematic clusters or streams. Bibliometric analysis was carried out on information from articles searched from Scopus with the keywords Competitive Advancing and Performance SMEs, linking 779 articles with a total of 1839 search keywords obtained using VOSviewer, where we ranked the journals.

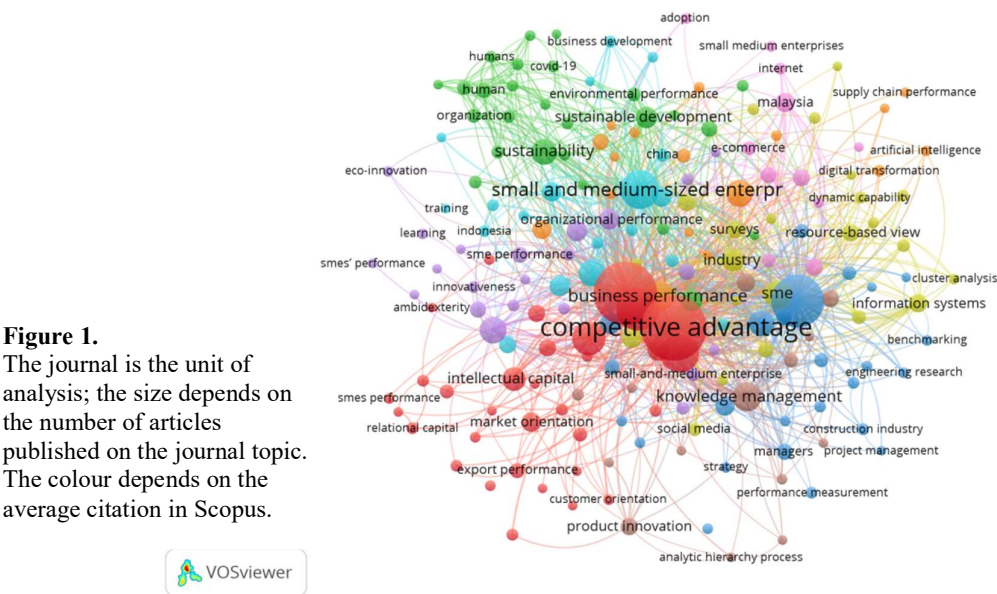


Figure .1 Illustrates network analysis of the keywords Competitive Advantage and Performance SMEs, as shown in the image above (Abid et al., 2023). Other keywords that often appear are innovation, performance, knowledge management, form performance, commerce, sustainability, competitiveness, business performance, entrepreneurial orientation and several other keywords (Chauhan et al., 2021), where the keywords that have the most negligible relationship to The keywords supply chain performance, strategic flexibility and proactiveness are likely to become opportunities for developing research related to the primary key (Anwar, 2018).

Table 1 Author organization, output and citations

Organization	Documents	Citations
faculty of management sciences, international islamic university islamabad, islamabad, Pakistan	3	102
school of management, universiti sains malaysia, penang, malaysia	3	42
department of applied informatics, university of macedonia, thessaloniki, Greece	3	28
universiti sains malaysia, Malaysia	4	23

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universiti sains malaysia, penang, malaysia	3	9
faculty of management, multimedia university, cyberjaya, malaysia	3	4
universiti utara malaysia, malaysia	3	3

Ranking based on citations from author organizations with citations and the number of documents published according to the first theme of the number of documents Universiti Ilmu Malaysia, Malaysia has 4 published documents with 23 citations, Faculty of Management Sciences, International Islamic University Islamabad, Islamabad, Pakistan with 3 published documents with a total of 102 citations, School of management, university Ilmu Malaysia, Penang, Malaysia 3 documents with citations 42, Department of applied informatics, University of Macedonia, Thessaloniki, Greece 3 documents with 28 citations, Universiti Ilmu Malaysia, Penang, Malaysia 3 documents with 9 citations where the total number of agencies is 1541 organizations. (Chigori et al., 2024) (Aladaileh et al., 2024) From this explanation, it is necessary to group the results by country.

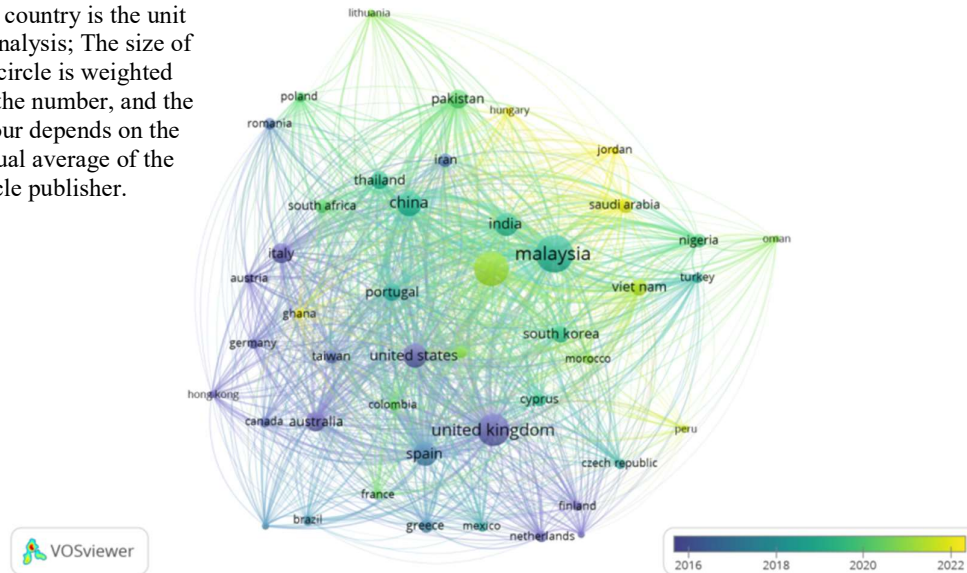
Table 2. Country of journal publication

Country	Documents	Citations	Total link strength
Malaysia	110	1401	18006
Indonesia	96	967	8543
United kingdom	84	3220	12685
China	51	832	11372
Spain	48	1688	10379
United states	48	1520	8446
India	41	989	5600
Australia	31	789	7389
Italy	31	964	4026
Pakistan	30	803	7940

Journal publications are based on countries with the most popular publications with citations and millions of total link strengths from publications that have been systematically analyzed. Meanwhile, based on the number of published documents by country, the most written in Malaysia with 110 documents with 1402 citations with a total link strength of 18006; Indonesia has the second most documents with 96 documents, but the citations are behind the United Kingdom with 3220 citations with a total link strength of 12685 followed by several documents from other countries. Figure 2 corresponds to reference (Laila et al., 2024). This is a picture of the citation relationship between countries based on the relationship between the documents cited.

Figure 2.

The country is the unit of analysis; The size of the circle is weighted for the number, and the colour depends on the annual average of the article publisher.



The results of testing using VOSviewer on documents cited by the author and the year, date and colour show the relationship between the authors and the citation made by the author, thus drawing the line of the relationship (Zhaisanova & Mansurova, 2024). One hundred four countries are writing Scopus-indexed articles on the topics being researched.

Figure 3.

Document Citation: Size determines the number of documents that are frequently cited.

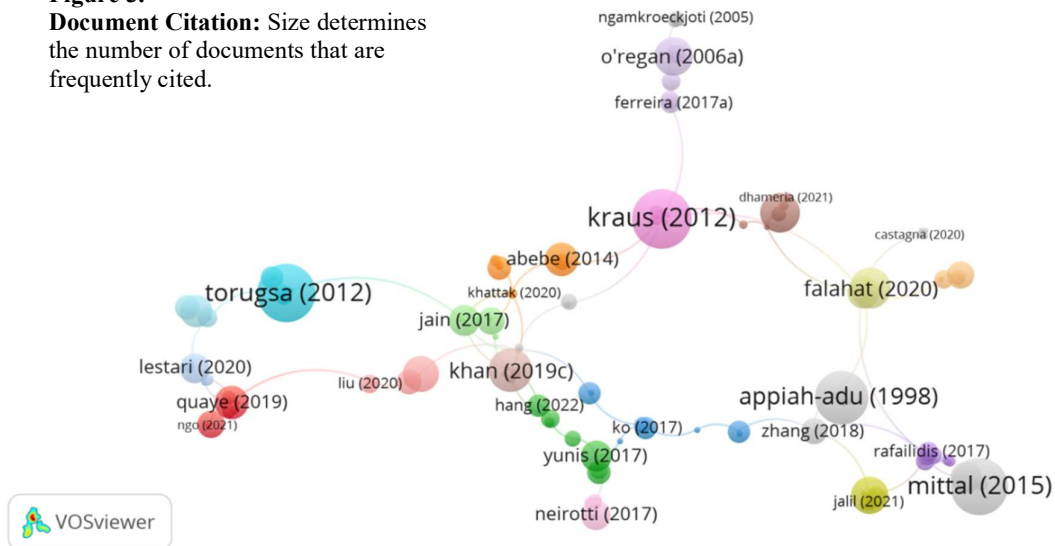
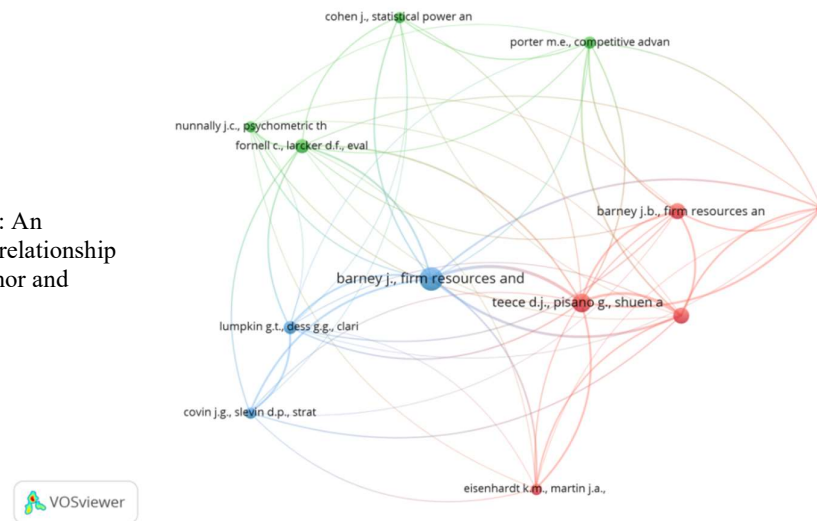


Figure 4.
Cited references: An overview of the relationship between Co-author and author.



The test illustrates the relationship between co-authors and authors who write together in scientific publications on the same topic, a total of 2032 authors, where Barney J., Firm Resources and Sustained Competitive Advantage, Journal of Management, 17, 1, pp. 99-120, (1991), as well as references to the network of relationships between appropriate authors (Thelwall et al., 2023), are authors who are often cited on this topic with cited references (Sun et al., 2024).



Figure 5.
Cited references: Size determines the number of references that are frequently cited.



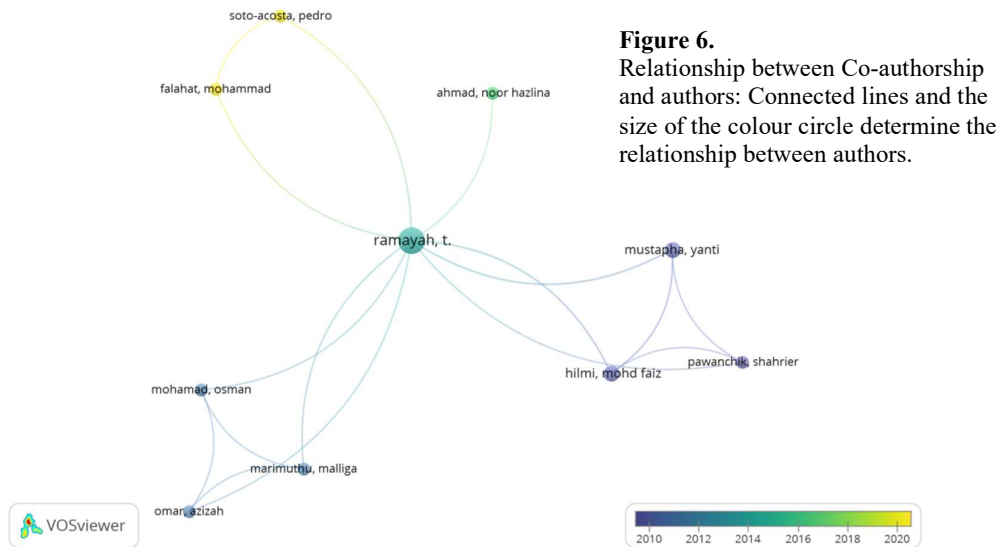
The co-author network highlights the number of articles published by each author on a topic; the score increases as the colour changes from dark blue, green, and purple to red. Two authors are on the co-author network with each and the average of article results. This data processing is in line with research (Li et al., 2024) from the results of Figure 5. which are described in Table 3. The table is sorted based on the number of citations and the total linguistic strength of authors with publications related to the main topic in research (Fontenot & Mastorovich, 2024; Yang et al., 2024).

Based on the findings, the relationship between citation references between authors is listed in the following table:

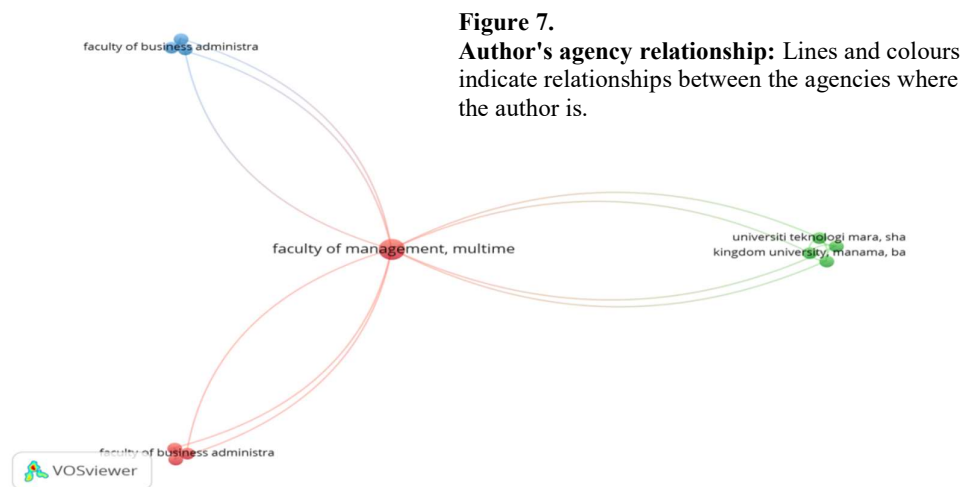
Table 3. Authors of topics studied, Citations and Total links

Cited Reference	Citations	Total link strength
barney j., firm resources and sustained competitive advantage, journal of management, 17, 1, pp. 99-120, (1991)	90	85
teece d.j., pisano g., shuen a., dynamic capabilities and strategic management, strategic management journal, 18, 7, pp. 509-533, (1997)	57	84
wernerfelt b., a resource-based view of the firm, strategic management journal, 5, 2, pp. 171-180, (1984)	40	66
barney j.b., firm resources and sustained competitive advantage, journal of management, 17, 1, pp. 99-120, (1991)	40	39
fornell c., larcker d.f., evaluating structural equation models with unobservable variables and measurement error, journal of marketing research, 18, 1, pp. 39-50, (1981)	34	41
lumpkin g.t., dess g.g., clarifying the entrepreneurial orientation construct and linking it to performance, academy of management review, 21, 1, pp. 135-172, (1996)	29	38
porter m.e., competitive advantage: creating and sustaining superior performance, (1985)	23	27
grant r.m., the resource-based theory of competitive advantage: implications for strategy formulation, california management review, 33, 3, pp. 114-135, (1991)	22	37
nunnally j.c., psychometric theory, (1978)	20	17
eisenhardt k.m., martin j.a., dynamic capabilities: what are they?, strategic management journal, 21, 10-11, pp. 1105-1121, (2000)	20	28
covin j.g., slevin d.p., strategic management of small firms in hostile and benign environments, strategic management journal, 10, 1, pp. 75-87, (1989)	20	32
cohen j., statistical power analysis for the behavioral sciences, (1988)	20	16

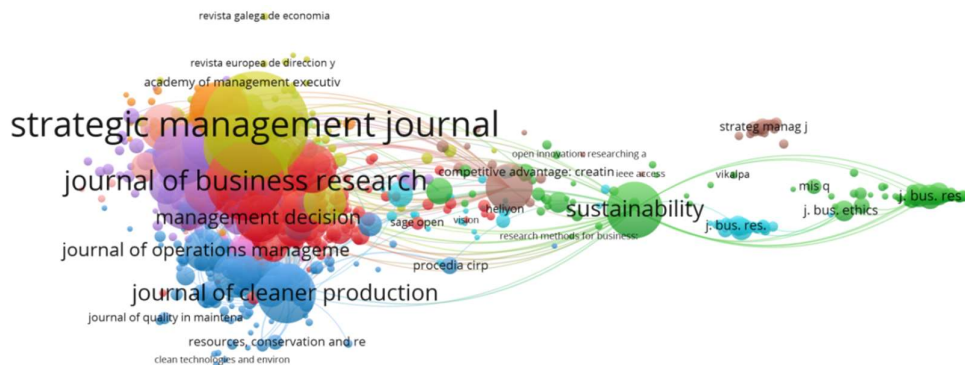
The number of citations based on articles written by Barney J., Firm Resources and Sustained Competitive Advantage, Journal of Management, 17, 1, pp. 99-120, (1991) with 90 citations with 85 links cited by teece d.j., pisano g., shuen a., dynamic capabilities and strategic management, strategic management journal, 18, 7, pp. 509-533, (1997) with 57 citations with 84 links wernerfelt b., a resource-based view of the firm, strategic management journal, 5, 2, pp. 171-180, (1984), barney j.b., firm resources and sustained competitive advantage, journal of management, 17, 1, pp. 99-120, (1991), and followed by articles written by other authors in line with research published in the journal Ischemic stroke pathophysiology: A bibliometric and visualization analysis from 1990 to 2022 (Bao et al., 2024).



The image above illustrates the relationship between co-authorship and author, where an author wrote with several others. This shows the collaboration line between authors where the colour shows the year of writing (Ab Aziz et al., 2024; Meng et al., 2024; Zhang et al., 2024). Ramayah has a network with other journal authors (Abdul Halim et al., 2017; Falahat et al., 2020, 2022; Hilmi et al., 2010, 2011; Marimuthu et al., 2011, 2012), next, it is illustrated based on Figure 7. It is a network of author agencies;



For each of the 12 cited references, the citation's total link strength and other cited references will be calculated. The cited reference with the most liberal total link strength will be selected where the network of authors from the faculty of management is the institution that has the most extensive collaborative network with other institutions (Sgambati & Gargiulo, 2022).



Gambar 8.

Type of analiysis dengan pilihan Co-citation unit of analysis cited sources

The main subject is discussed in several journals, most of which is the Strategic Management Journal, followed by the Journal of Business Research, Journal of Cleaner Production, and other publishers, which also discuss other sustainability-related topics, which is depicted in Table 4 in order based on the number of citations for the journal.

Table 4. Journal publisher, Citations and Total links

Source	Citations	Total link strength
strategic management journal	1597	96206
journal of business research	856	61011
journal of management	588	39868
journal of marketing	504	33335
industrial marketing management	493	35529
academy of management journal	490	33141
journal of cleaner production	488	31474
academy of management review	459	29985
sustainability	459	23803
journal of small business management	414	27974
journal of intellectual capital	343	17129

Searches were found based on journal search keywords with types of competitive advantage related to the keyword sustainability published in strategic management journals with the most citations, with 1,597 citations and 96,206 shares shared. This topic became the most researched topic in journal publications, business research journals, management journals, and many other journal publishers in the field of management.

CONCLUSION

Discussions on the topic of competitive advantage and sustainability of SMEs have experienced rapid development, where competitive advantage has been widely discussed and published, reaching 779 published articles indexed by Scopus, which 2032 authors

have written with 1541 writing agencies. With a journal publishing organization of 470 journals. With a joint study based on author keywords of 1839 keywords with a Keyword Index 1326. Analysis with VOSviewer also analyzed the number of countries that published on this topic, as many as 104 countries,

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