

Bibliometric Analysis of Research Development of Economic Dispute Settlement

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Abstract. Economic Dispute Resolution is analyzed using bibliometric studies to clarify data on this theme based on the number of times published per year, publishers, and network analysis to identify related documents. This research uses bibliometric analysis with quantitative methods from bibliographic data collected from the Scopus database. This research was evaluated and grouped to produce impact and direction regarding this Economic Dispute Resolution, including topic clarification to explain the results of the existing analysis. This research used R and Rstudio, VOSviewer, and Microsoft Excel. We found that the Journal of World Trade and the Journal of Advanced Research in Law and Economics were the most relevant journals on Economic Dispute Resolution. This study puts forward three essential themes of economic dispute resolution research: 1) Conflict Management, 2) Dispute Resolution, and 3) International Relations. This research only analyzed data from the Scopus database. The dataset analyzed is limited to the author, number of citations, year of publication, type of document published annually, and country of issue.

Keywords: bibliometric, conflict, dispute resolution, future research development.

1 Introduction

Our analysis yielded three essential conclusions. *First*, dispute resolution is one of the most researched themes[1]. Increasing attention to dispute resolution arises from the closely related characteristics of dispute resolution systems[2]. Settlement of disputes appear through two channels, the court (*litigation*)[3] and out-of-court (*non-litigation*), which includes consultation, negotiation, conciliation[4], or expert judgment[5]. *Second*, dispute resolution can apply in various countries, including Indonesia, Hong Kong, Canada, the United States, and many others[6]. Although there are differences in the legal system in each country, dispute resolution is adjusted to the legal rules in each country[7]. Due to the increasing practice of dispute resolution, every individual has the right to find out and pay more attention to dispute resolution through scientific journals[7]. *Third*, dispute resolution has tremendous benefits, such as reducing hostility among the community and preventing mutual reports and beatings between individuals[8].

This study sought to uncover how many researchers have published on economic dispute resolution and trends in the future. It also intends to help researchers to easily know which authors, titles, or countries never have or have not done much research together. By doing so, researchers can easily find the gaps for new research.

2 Method

This study used the bibliometric method to discover the mapping of research on economic dispute resolution. The bibliometric analysis combined with the literature review show an increasingly high trend among researchers[9]. Bibliometric review is used to ensure reliability and systematic integrative validity[10]. Despite its various advantages, bibliometric analysis is rarely applied in Islamic studies, especially in economic bankruptcy dispute resolution[11]. Moreover, the method can be distinguished from other comparable review techniques at the level of a key, in-depth, insightful aspect of the phenomenon.

Bibliometrics is often used to analyze even to the level of meta-analysis in large amounts of data[12]. With the bibliometric method, scientific references can be tracked easily, including frequently cited articles and mapping of research streams and future directions in a scientific field.[13].

In the first stage, researchers conducted a literature review on related themes to ensure relevant research was carried out on bibliometric topics. In addition, the literature review helped the researchers to determine appropriate keywords and is considered to represent the scope of the research.

In the second stage, to get an idea of whether the research covered the minimum required number, the researcher looked at the number of publications that have been published. If there were hundreds of publications, say 500, it would be sufficient to warrant bibliometric analysis. The research area would be considered small, if only tens of documents were published. In this instance, applying bibliometric analysis is not justified because doing analysis on a limited scale would be redundant. It would be more acceptable to take a meta-analysis and systematic review of the existing documents in this particular situation[12]. At this stage, the researcher used the Boolean operator (TITLE-ABS-KEY (economic AND dispute) AND TITLE-ABS-KEY (resolution)) to search Scopus, which produces 1,179 documents. Filtration was continued using the Boolean operator TITLE-ABS-KEY (economic AND dispute AND resolution) AND (EXCLUDE (PUBSTAGE, "aip")) AND (LIMIT-TO (DOCTYPE, "ar")) AND (LIMIT-TO (LANGUAGE, "English")) AND (LIMIT-TO (SRCTYPE, "j")) to issue *in-press articles* and only include English documents, then 2023 documents were excluded, resulting in a final document of 690 documents.

In the third stage, the analysis was carried out on the final document search using Scopus analyzer and R and Rstudio to determine the number of documents per year by journal, author, affiliation, and country. Furthermore, the document network level was analyzed by reading visualizations through VoSviewer and processing Microsoft Excel data with co-authorship, co-citation, co-occurrence, and bibliometric (bibliometric) analysis. In this study, co-authorship and co-occurrence were used to map the development of research on the publication of economic dispute resolution themes. Co-citation determines which documents have been quoted together and which have not been quoted together. At the same time, the bibliometric coupling was used to determine the trend of writing through the most dominant network. The dendrogram was used to group objects based on their characteristics or types, which can be diagrams or graphs[14].

We used three bibliometric analysis tools. *Rstudio* is widely used to generate bibliographic data for data sets[15]. *VoSviewer* is software that can build and visualize library networks such as journals, titles, authors, and publications. In addition, *VoSviewer* can also map various types of bibliographic analysis, generate the central bibliographic database, and advanced visualization with visual labels[16].

In this study, we visualized various network analyses, including co-authorship, co-occurrence, and co-citation. Furthermore, the unit of analysis from the various networks was analyzed based on the author, source, country, and relevant keywords. The analytical tools we used were VoSviewer as a network visualization tool, Microsoft Excel, and RStudio for document analysis and visualization.

3 Result and Discussion

3.1 Most Influential Authors, Affiliates, and Countries

We provide an overview of the data collected from 690 articles over 60 years. This number includes 486 sources of articles, with an average annual growth of 5.55%, with a total of 34608 references. About 1184 papers have been written together. The review includes a scroll of 1704 keywords.

Figure 1 shows the year of 690 papers published between 1964 and 2022. With year-on-year growth starting to pick up, there is a clear indication that economic dispute resolution has become a topic of interest from 1984 onwards.

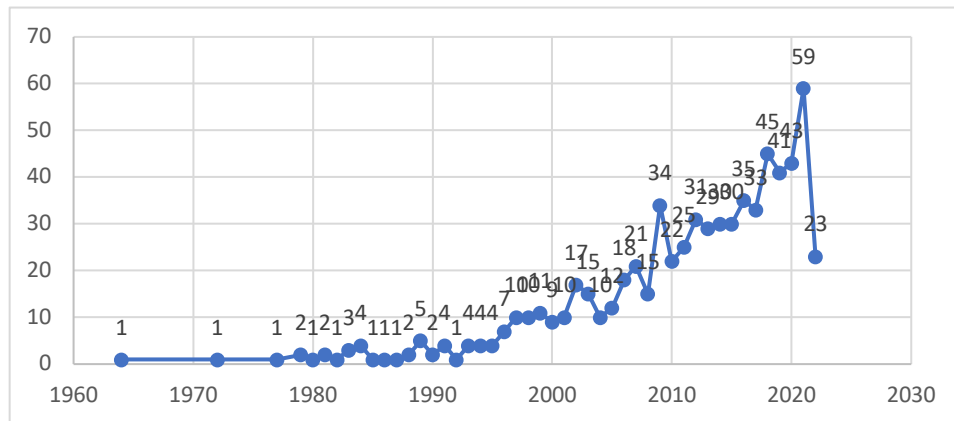


Fig. 1. Document growth per year

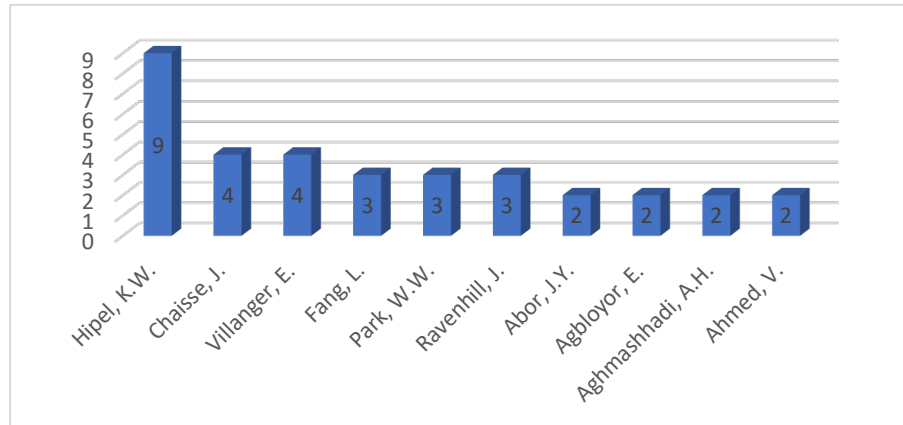


Fig. 2. The most relevant authors

Figure 2 shows the authors most related to this topic. With nine published articles, Hipel, KW is the most significant scholar. Then Chaisse, J., and Villanger, E., both published four pieces. Fang, L., Park, WW., and Ravenhill, J. are the authors of three articles. Each of the ten authors has had two articles published.

Figure 3 Presents nine out of ten affiliated institutions located in Hong Kong. This is due to being a connector for economic dispute resolution education. For example, the City University of Hong Kong is a specialized economic dispute resolution education center. We also identified five papers from Indonesia in the top ten list of affiliates.

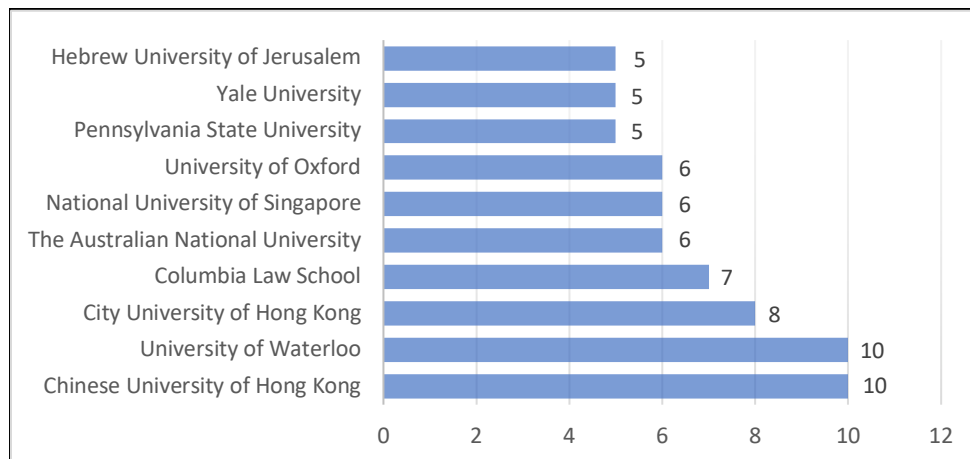


Fig. 3. The most relevant affiliation

Figure 4 explains that the countries with the most significant research contributions are the United States with 205 publications, followed by the United Kingdom with 65 publications, then Australia with 45, and Canada with 43 publications with the same number of publications as China. The top majority of countries are not Asian countries, while one of them is China, with 43 publications.

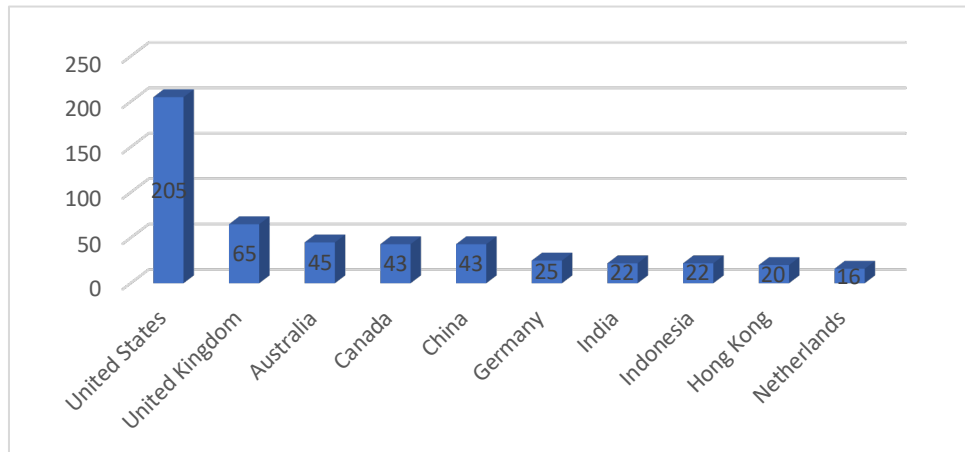


Fig. 4. Most relevant country

3.2 Citation Analysis

Citation analysis is one of the research methods in library and information science. Citation analysis uses citation counting in scientific articles. This type of analysis examines how frequently a document is mentioned, and by examining this data, conclusions can be reached about a publication's influence in a particular field.[17] Table 1 discusses the most cited author to determine how much impact the publication generates.

Table 1. Author Impact

Author	H Index	G Index	M Index	Total Citation	No of publication	Publication Year
Hipel KW	5	9	0.192	202	9	1997
Fang L	3	3	0.115	143	3	1997
Ravenhill J	3	3	0.3	24	3	2013
Abortion JY	2	2	0.5	6	2	2019
Agbloyor E	2	2	0.5	6	2	2019
Ahmed V	2	2	0.222	5	2	2014
Ahn D	2	2	0.2	8	2	2013
Bowen CP	2	2	0.105	111	2	2004
Cabling A	2	2	0.2	11	2	2013
Chan EHW	2	2	0.077	149	2	1997

3.3 Network Analysis

VoSviewer allows three types of coupling bibliographic analysis, one for journal publications and authors.[18] During our bibliographic coupling analysis, we decided to follow the lead of van Eck and Waltman (2018) and set the unit of analysis for the study to be a document and the method of analysis to be fractional.

Figure 5 provides the results resulting from the coupling bibliographic analysis of VoSviewer.

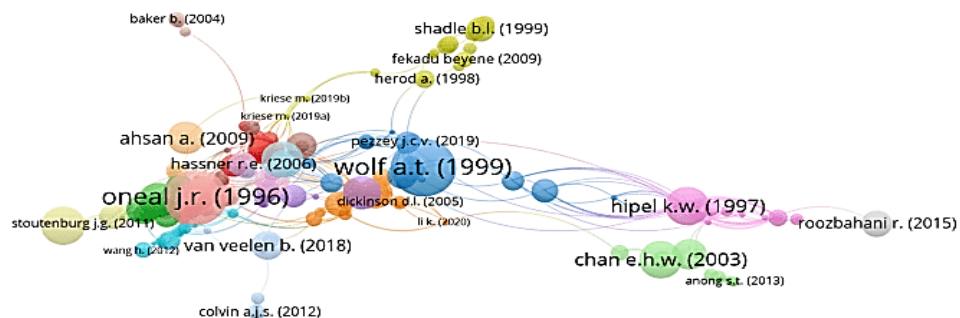


Fig. 5. Bibliometric coupling

To visualize the network between publishers, we conducted a co-citation analysis using sources from existing documents in bankruptcy dispute resolution. Co-citation analysis links articles and research topics. Figure 7 shows a visualization of the networks we analyzed. We set the minimum number of citations required at 2, resulting in 992 articles being divided into 14 groups. As a general rule, journals closely associated with one another are positioned close to the increase in shared citations that VOSviewer creates.

The positions of the 14 clusters identified from the joint-citation analysis revealed that the paper on economic dispute resolution was published in a different journal than the paper that linked to it, resulting in an era link between the sources. This was discovered by analyzing the positions of the clusters. The interconnections between the journals can be investigated with the help of Figure 6. In general, journals that are physically located near one another have a more substantial correlation, and the lines that appear demonstrate a stronger co-citation relationship. In addition, we discovered that the publications clustered within each cluster were connected by pertinent shared citations, which proved that the published papers had a significant impact.

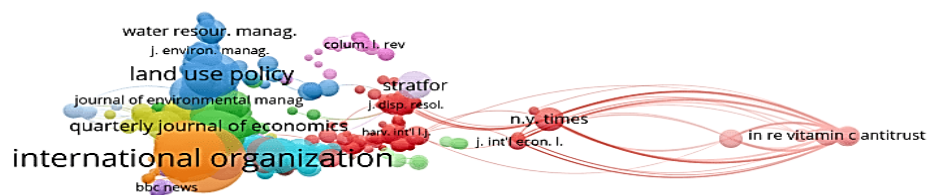


Fig. 6. Co-citation analysis

In order to account for bibliometric reviews with a more significant total number of citations, we employed fractional counting. Both the minimum number of citations for publications, set at 5, and the minimum grouping value, set at 10, are used to determine whether impact groups exist. Cluster 1 is shown in red in figure 7, and it contains a total of 24 papers. Cluster 2 is colored green, and it contains 24 sheets. Cluster 3 is colored blue, and it contains 23 papers. Cluster 4 is colored greenish yellow, and it contains 21 papers.

We went one step further in our cluster investigation by applying the fractional count method to our study of co-authorship data. The impact of multiple writers on a document is

something that fractional calculation can mitigate. We carried out two distinct analyses of co-authorship. To begin, we conducted a co-authoring investigation utilizing the nation as the primary unit of study. Second, to conduct an exhaustive investigation into the background of the documents, the minimum required number of state documents and the minimum required number of citations has been fixed at 1. Applying these criteria led to selection of 18 articles, which were then organized into six distinct categories. The findings of the investigation into co-authorship are presented in Figure 7, with the author serving as the unit of analysis.

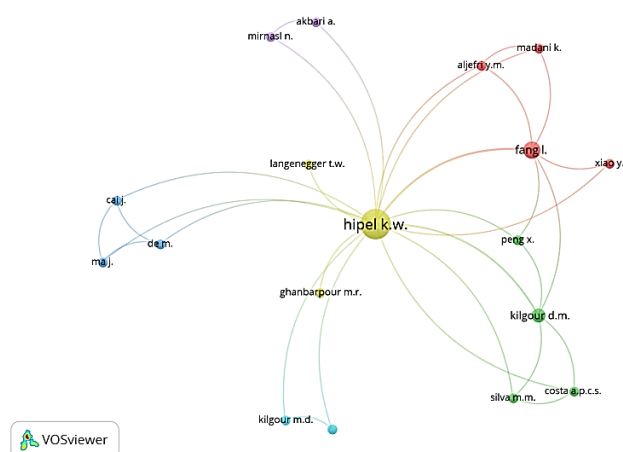


Fig. 7. Co-authorship analysis

The type of analysis we decided to use was co-occurrence, and the unit of analysis was all keywords. The minimum number of quotations required is currently set to 15. We identified three primary categories for the twenty papers. The colors red, green, and blue are used to symbolize the clusters. Table 6 contains a report of the terms, their co-occurrence, and the link strength. A link's strength can be considered a measurement of how strongly two things are associated. We discovered that the terms "conflict management," "dispute settlement," and "international relations" were the ones that came up most frequently in the results.

The co-authorship study produced outcomes that were contradictory to one another. The coupling bibliography revealed four groups for the 690 publications on economic dispute resolution that were chosen for the bibliometric evaluation. However, both co-citing and co-authorship indicated a probable fifth group. As a result, we decided to undertake a cartographic analysis to characterize the overarching study theme by using the article's keywords as our starting point.

We can finalize clusters by applying cartographic analysis with the co-occurrence method, which allows us to discover significant themes that are most frequently published. Our investigation revealed that the first cluster was connected to resolving conflicts. Conflict management publications have been extended to various sub-themes. Conflict, on the other hand, is the subject of the vast majority of studies. The second cluster highlights one of the topics that pertain to conflict resolution. International relations, an area of study focusing on ways of thinking and behaving, are grouped in the third cluster.

Following the conclusion of the primary research, we divided the 690 economic conflict resolution documents into three distinct groups for further investigation. A comprehensive

analysis of the research will be presented in the following part, which will then be followed by a discussion of potential new lines of inquiry for future study.

3.4 Research Agenda

In this part of the article, the authors continue the conversation about research groups and investigate suitable research agendas. Using a bibliometric literature evaluation process, various research gaps were identified, paving the way for future studies on economic dispute resolution. The majority of the management conflicts that were proposed by the authors in the conflict management research cluster were found to be conceptual, which brings us to our first point. There is scant empirical data to suggest that implementing such a paradigm can be maintained for the long term. Consequently, we could not find generalizable findings relating to the diverse nature of conflict management implementations in developing countries. Second, in the dispute resolution research cluster, we found various problems and solutions to overcome them in each country. There is a need for extensive conceptual and empirical analysis to help resolve the dispute. Third, in this cluster, we focus on international relations. While previous studies have proposed conceptual, integrative models of various international relations, we rarely find empirical evidence explaining a country's willingness to participate in dispute resolution. Finally, we identify good governance as an essential research group in economic dispute resolution. Recently, we have encountered discussions about the government and its role in dealing with economic dispute cases. Future research could focus on implementing alternative economic dispute resolution. Moreover, there is also a need to develop good governance for dispute resolution institutions to create comfort for all parties.

4 Conclusion

From the scientometric aspect, it can be stated that the Journal Of World Trade and the Journal Of Advanced Research In Law and Economics are the most relevant journals on Economic Dispute Resolution. Another review revealed that most studies took dispute resolution as their main topic of interest. Second, this research puts forward three essential themes of economic dispute resolution research: 1) Conflict Management, 2) Dispute Resolution, and 3) International Relations. Due to globalization, the problem or settlement of economic disputes expands relevant research. Third, we discuss several research topics for future discovery. We continue this view that future studies on economic dispute resolution will concentrate on alternative economic dispute resolution with supporting instruments. The role of dispute resolution institutions, trust systems, and convenience in service, in general, may significantly influence the selection of future research topics.

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