

# Advocacy Coalition Framework in The Public Policy Analysis: Using A Bibliometric

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## ABSTRACT

The Advocacy Coalition Framework (ACF) was initially examined in 1987 within the domain of public policymaking and continues to be applicable across numerous research sectors. A literature review pertaining to the implementation of ACF was conducted from 1987 to 2006, encompassing 80 ACF applications, and again from 2007 to 2014, encompassing 161 ACF applications. Following that, numerous literature reviews on the application of ACF are frequently examined in accordance with research fields. As a result, this study will investigate the evolution of the ACF framework and its application in a variety of research fields, as well as the ways in which ACF solves research problems. The objectives of this study are as follows: (1) To describe and analyse research clusters or patterns exist in the bibliometrics of the Advocacy Coalition Framework (ACF) literature; (2) To analyze the most impactful authors, journals, institutions, and countries that contributed to the topics; (3) To explore the development of the ACF framework based on problems in each research field and its impact on public policy analysis (4) To explore and offer future research streams offer opportunities in the public policy analysis and ACF. Bibliometrics and content analysis are employed in this study to examine a range of ACF frameworks. Analysis of data obtained from the Clarivate Analytics Web of Science (WoS) database was conducted utilizing the software applications R, Histcite, and VOSviewer. The findings of the study will be submitted to the Policy Studies Journal (Scopus Q1, SJR 1.97).

**KEYWORDS:** Advocacy Coalition Framework, Bibliometrix, Policy Analysis, Public Policy

## 1. Introduction

For at least the past three decades, the ACF has been observed. Several studies have been started since the 1980s in states and central governments, especially in western countries (Jenkins-Smith, H. C., Nohrstedt, D., Weible, C. M., & Sabatier 2014; P. A. Sabatier 1987; P. A. E. Sabatier and Jenkins-Smith 1988; P. A. Sabatier and Jenkins 1993; P. A. Sabatier and Smith 1999). To compare research on the use of the advocacy coalition framework in non-Western countries that don't have a democratic system, studies were also done in China to confirm the characteristics and factors that affect them (Li & Weible, 2021).

ACF is used as an analytical framework to understand advocacy coalitions, policy learning and policy change processes in complex circumstances (Pierce et al., 2020). The ACF framework contributes to understanding various public policy issues in various fields of study such as the environment policy (Baulenas, 2021; Emam et al., 2020; Ghinoi et al., 2023; Kammerer & Ingold, 2021; Nicolle & Leroy, 2017; Safitri et al., 2023; Smith et al., 2015; P. M. Wagner et al., 2021; Ylä-Anttila et al., 2018), renewable energy or energy policy (Berardo & Holm, 2018; Fischer et al., 2017), or socio-political policy (Buckton et al., 2019; Dinour, 2015; Fergie et al., 2019; Putri et al., 2023; Smith & Weishaar, 2018). Moreover, this ACF framework study was also studied in various geographical areas such as in the USA (Breunig et al., 2016; Kendy et al., 2017; Loftis & Mortensen, 2018; Morçöl et al., 2022; Weible & Heikkilä, 2016), Europe (Berning & Sotirov, 2024; Dean, 2022; Sabatier, 1998; Smith et al., 2015; Sotirov & Storch, 2018) and even Asia (Hughes & Meekling, 2017; Li & Wong, 2020a; Somokanta et al., 2021; Zhou et al., 2021). These studies examine ACF in the areas of advocacy coalition, policy learning as an effort to explain how the process of policy change occurs and is determined for public policy making.

Advocacy Coalition Framework is an approach that refers to the role of a group of actors who are actively involved and form a network of cooperation in the process of making public policy (Gronow & Ylä-Anttila, 2019; P. Wagner & Ylä-Anttila, 2018). These policy actors consist of government organizations and non-government organizations that tend to form advocacy coalitions in line with their policy beliefs in the public policy-making process (Stritch, 2015). The Advocacy Coalition Framework identifies that policy beliefs are the most significant factor underlying the behavior of actors involved in the public policy-making process to form a coalition (Sotirov & Winkel, 2016). These coalitions of actors often compete to implement their views on a desired policy based on their resources, so policy outcomes will depend on coalitions between actors involved in policy-making with better resources (Gronow & Ylä-Anttila, 2019).

The Advocacy Coalition Framework is a theoretical framework that emphasizes the role of advocacy coalitions in policymaking, where actors with different beliefs and views coordinate with each other to influence the policy-making process. (Kammerer & Ingold, 2021). The Advocacy Coalition Framework focuses on long-term policy conflicts among multiple advocacy coalitions that shape policy change (Sotirov & Winkel, 2016). Based on the Advocacy Coalition Framework, the main determinant of public policy outcomes is the constellation and power relations among various coalitions of actors

involved in the policy-making process (Ingold et al., 2017a).

The ACF has been regularly reviewed (Jenkins-Smith, H. C., Nohrstedt, D., Weible, C. M., & Sabatier, 2014; Pierce et al., 2017a; Sabatier & Jenkins, 1993; Sabatier & Smith, 1999). This approach emphasizes three things, namely: (1) advocacy coalition in the policy subsystem; (2) policy oriented learning, this stage explains the process of coalition members receiving information, maintaining belief systems, and producing strategies, as well as policy brokers as mediators between conflicting coalitions; and (3) policy changes at this stage are based on the results of advocacy coalitions and learning processes and stable and dynamic elements will influence changes at the core of the policy or only at the secondary level (Sabatier, P., 2007).

Policy Learning is a key focus in the Advocacy Coalition Framework which is defined as “enduring alterations of thought or behavioral intentions that result from experience and which are concerned with the attainment or revision” (Pierce et al., 2017b). Policy Learning can also be defined as the process of changing the knowledge, beliefs, or behavior of policy actors based on their learning and experience in the policy-making process (Ingold et al., 2017a). Policy Learning occurs when policy actors use experience and information to make changes or adjustments to beliefs so as to encourage policy adaptation (Ingold et al., 2017b; Sotirov & Winkel, 2016). Policy Learning is a change in belief that occurs when policy actors consider other alternatives based on their information and experience to achieve policy objectives (Pierce et al., 2020). The integration of knowledge with the underlying values and causal assumptions that comprise the core beliefs of the advocacy coalition is the focus of policy learning (Sabatier, 1988).

Policy Change is described in the Advocacy Coalition Framework as the result of interactions between advocacy coalitions in the public policy-making process (Ingold et al., 2017a). Policy Change will occur when there are internal and external factors that affect policy beliefs and the balance of power between the coalition of actors in policy making (Ingold et al., 2017; Sotirov & Winkel, 2016; Stritch, 2015). Policy Change can occur through policy debates that occur among coalitions of actors who are actively involved in the policy-making process (Ingold et al., 2017). New information is a key driver of policy learning across the coalition of actors, and policy learning is ultimately found to be the cause of Policy Change (Leifeld, 2013). Policy Change is the result of the interaction between external factors and internal factors in the policy subsystem which reflects the ability of advocacy coalitions to integrate their core beliefs into a policy (Pierce et al., 2020). The Advocacy Coalition Framework explains that Policy Change can occur through four pathways, namely External Subsystem Events, Internal Subsystem Dynamics, Policy-Oriented Learning, and Cross-Coalition Policy Learning (Pierce et al., 2017a).

ACF literature reviews were also carried out for several fields, for example ACF which was implemented in China (Li & Weible, 2021; Li & Wong, 2020b). Later the ACF was also applied in Sweden to explore policy changes in Swedish coastal and marine conservation, identifying advocacy coalition factors—focusing on internal and external events, policy learning, and negotiated agreements that explained different outcomes in the disputed national park planning process (Sandström et al., 2020) (Sandström, Morf, and Fjellborg 2020). This research aims to analyze the use of discourse to resolve problems related to coordination between advocacy coalitions in the process of gradual and transformative institutional change related to public policy (Vieira, 2019).

According to various empirical applications and literature reviews on ACF, there is a gap in the development of ACF as a framework for policy analysis in various fields and research studies that needs to be addressed. The literature review conducted on various ACF applications from 1987 to 2006, as well as subsequent literature reviews on ACF applications from 2007 to 2014, were unable to fill this literature gap (Pierce et al., 2017b; Weible et al., 2009). Based on the current literature gaps, this study's problems can be formulated as follows:

RQ 1: Who are the most impactful authors, journals, institutions, and countries that contributed to the topics?

RQ 2: What research clusters or patterns exist in the bibliometrics of the Advocacy Coalition Framework (ACF) literature?

RQ 3: How have these ACF clusters developed and its impact on public policy analysis?

RQ 4: What are the promising future research avenues?

## **2. Methods**

The researcher intend to provide an overview of the literature on the development of ACF research in public policy analysis studies over the 10-year period of 2015–2023 through a literature review. Specifically, the researcher conducted in three stages, as illustrated in Figure 1. we collected the details of relevant articles from the Clarivate Analytics Web of Science (WoS) collection, the most reputable database utilized by many scholars performing the bibliometric analysis. We complimented the existing list of applications with searches on Web of Science using “advocacy coalition framework\*” and “advocacy coalition\*” as key words for searches.

We introduce in this research to visually search and explore scientific publications and generate a protocol based on the PRISMA protocol and the PRISMA statement (Rethlefsen et al., 2021). We determine the include and exclude process to determine the number of articles as follows; (1) Include Publication years: 2015-2023; (2) Include Document types: Article;

(3) Include Web of Science Index: Social Sciences Citation Index (SCCI), Science Index Expanded (SCI-EX); (4) Include Language: English.

We employed a combination of software to answer research questions and analyze the data: R-Package (R-Studio) (Aria & Cuccurullo, 2017), HistCite, and VOSviewer (van Eck & Waltman, 2010), open source software. R-package was a numerical research tool for scientometrics and bibliometrics that includes activities for integrating cataloguing, conducting a systemic review, and constructing data arrays for cross-analysis, scholarly cooperation assessment, and co-word evaluation (Maretti et al., 2019). HistCite was software that created a graphical representation of the texts. It aids academics in comprehending information collections shown as a historiography diagram, relying on the pathways or citation linkages between commonly referenced publications (Alon et al., 2021) . Finally, VOSviewer was a remote technique for visualizing scientometric networks (Moosa & Shareefa, 2020). These three software were employed for several purposes. First, an R-package using Biblioshiny was used to seek the distribution of the author, article, journal, topic, citation, and title of the paper. Next, we performed HistCite to identify the paper's author, citation, and title. Finally, VOSviewer was utilized to visualize the research cluster and main topics. The data were processed using Microsoft Excell and presented as figures, tables, and graphics.

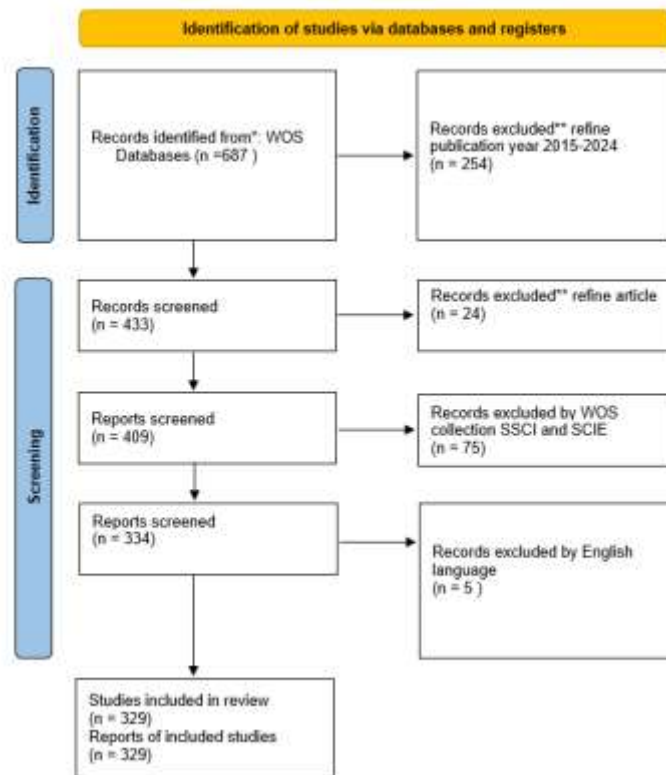


Figure 1. Prisma Flow Diagram

Source: (Rethlefsen et al., 2021)

### 3. Results and Discussion

#### Main Information

Table 1 shows that 329 articles were published in 145 journals. The contribution of the authors to the theme of the Advocacy Coalition Framework was 762 authors during the period 2015-2024. The average development of publications per year is - 7.91%, the average number of citations per document is 14.75 and the number of cited references is 16,314.

Table 1. Main Information

About Data	
Description	Results
Timespan	2015-2024
Sources (Journals)	145
Documents	329
Annual Growth Rate %	-7.91
Document Average Age	4.38

Average Citations Per Document	14.75
References	16314
<b>Document Contents</b>	
Keyword Plus (ID)	814
Author's Keyword (DE)	1041
<b>Authors</b>	
Authors	762
Authors of Single-Authored Docs	71
<b>Authors Collaboration</b>	
Single-Authored Docs	77
Co-Authors Per Doc	2.9
International Co-Authorships %	31.61
<b>Document Type</b>	
Article	324
Article; Early Access	5

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

There were 77 single-author articles out of 329 published articles. The average number of articles that have more than one author is 2.9 with the percentage of author collaboration between countries in scientific publications is 31.61%. The keywords used from 329 journals that discuss the ACF theme are 1041 and the plus keywords processed are 814.

#### The Most Impactful Authors, Journals, Articles, Institutions, and countries that Contributed to the Topics

Figure 2 also shows the average number of citations of articles on Advocacy Coalition Framework in a particular year after publication. Based on Figure 2, it is found that the highest average number of citations of articles on Advocacy Coalition Framework is in 2017 as much as 3.69. Furthermore, the lowest average number of article citations about the Advocacy Coalition Framework was in 2023 as much as 1.25. The results of the analysis of the development of citations to scientific articles on the Advocacy Coalition Framework in the Web of Science (WoS) database from 2015-2023 showed fluctuating development (up and down), while in 2024 as of July the average number of citations to articles was 1.2.

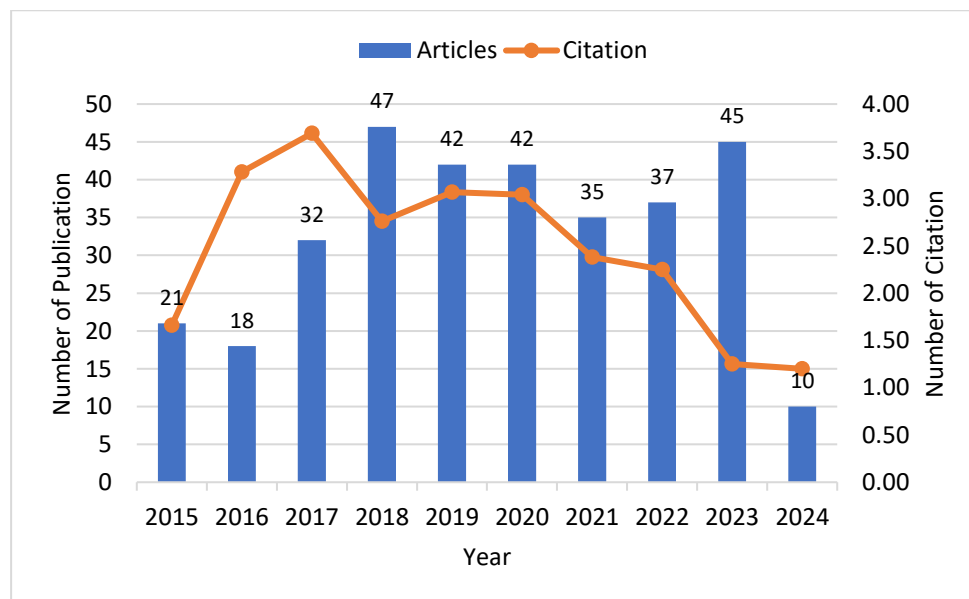


Figure 2. Annual Scientific Production dan Average Citations Per Year

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

Figure 3 shows the 10 (ten) most relevant sources that focus on publishing articles on the Advocacy Coalition Framework. Based on Figure 3, it is found that Policy Studies Journal is the most relevant source related to articles on Advocacy Coalition Framework with a total of 29 articles. Other relevant sources are Review of Policy Research with 21 articles, Policy Sciences with 16 articles, Energy Research & Social Science and Land Use Policy with 10 articles, Forest Policy and Economics with 8 articles, and several other sources.

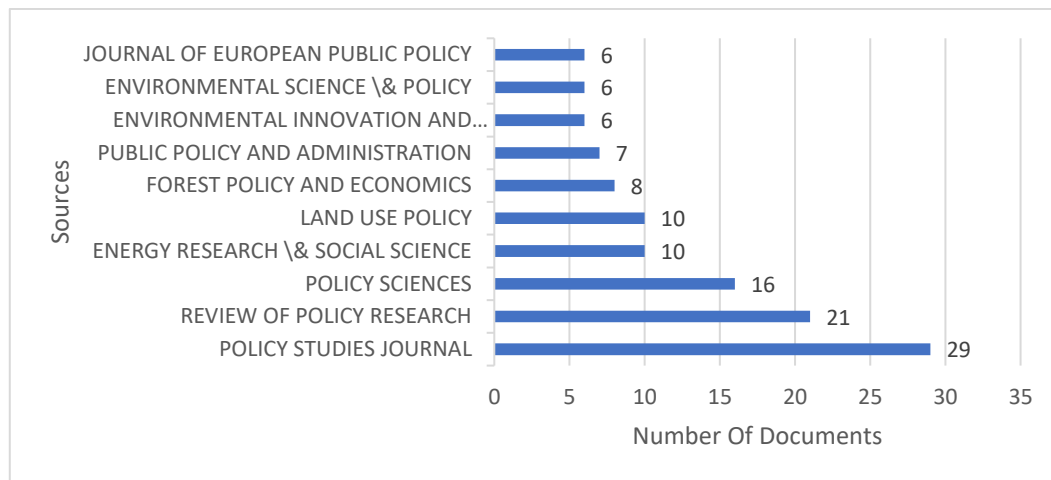


Figure 3. Most Relevant Sources

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

Information on most relevant sources shows that ACF as one of the analytical frameworks in the policy process can be published in journals whose scope or focus is public policy such as policy studies journals, review of policy research, policy sciences, public policy and administration, and journal of european public policy. In addition, it is linked to the field of study in several journals such as land studies in land use policyr, forest and economics problems in forest policy and economics journals and environment problem policy in environmental science and policy and also environmental science and policy.

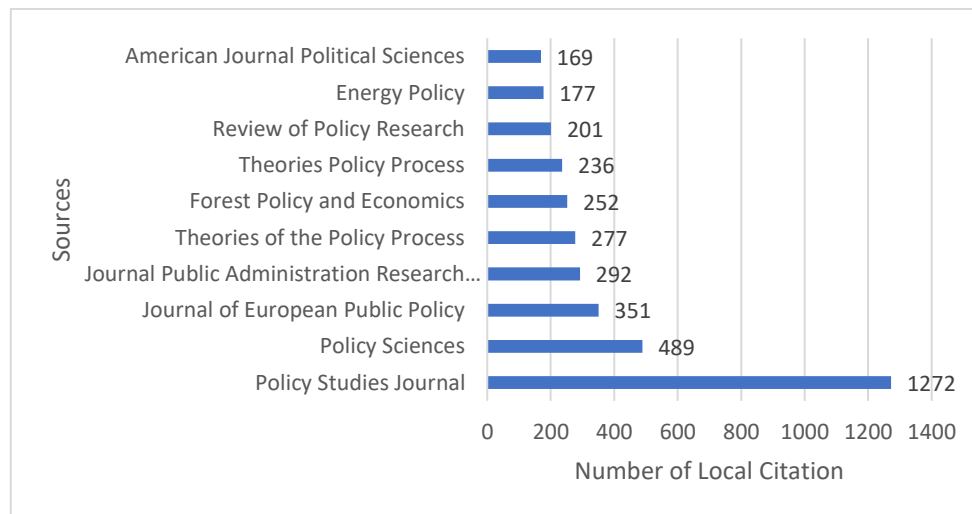


Figure 4. Most Local Cited Sources

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

Among the 10 relevant sources related to the article on Advocacy Coalition Framework, the most cited source locally was Policy Studies Journal with 1,272 citations, followed by Policy Sciences with 489 citations, and Journal of European Public Policy with 351 citations. This shows that not always the most relevant sources have an impact on the most locally cited sources. The data shows that in the most relevant sources, for example, the policy studies journal is most relevant with the highest number of citations. However, this cannot be applied to the journal of european public policy at number ten in the most relevant sources but in the most local cited sources it is the third most referenced or cited.

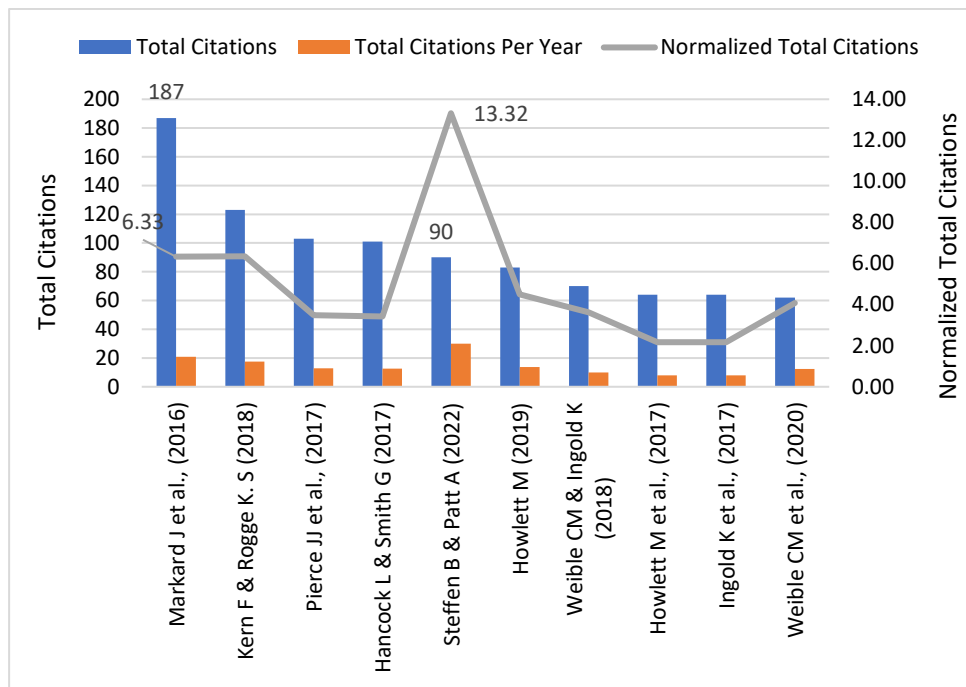


Figure 5. Most Global Cited Documents

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

This figure 5 shows that the most citation global document on advocacy coalition framework is 187 citations with an article discussing Socio-Technical Transitions and Policy Change - Advocacy Coalitions in Swiss Energy Policy (Markard et al., 2016). This article has a total citations per year of 20.78 and a normalized total citation of 6.33. However, the fifth most cited article with 90 citations has higher citations, namely citations per year of 30.00 and normalized total citation of 13.22. This article was published in 2022 by reviewing (Steffen & Patt, 2022). Normalized total citations show that the number of citations by taking into account the year of publication and the number of citations per year will determine the level of citation normality of an article.

Table 2. Most Global Cited Documents

Authors	Journals	Total Citations	Title
Markard J et al., (2016)	Environmental Innovation and Societal Transitions	187	Socio-Technical Transitions and Policy Change- Advocacy Coalitions in Swiss Energy Policy
Kern F & Karoline S. R (2018)	Environmental Innovation and Societal Transitions	123	Harnessing Theories of the Policy Process for Analysing the Politics of Sustainability Transitions: A Critical Survey
Pierce JJ et al., (2017)	Policy Studies Journal	103	There and Back Again: A Tale of the Advocacy Coalition Framework
Hancock L & Garry S (2017)	International Journal of Mental Health and Addiction	101	Critiquing the Reno Model I-IV International Influence on Regulators and Governments (2004-2015)-the Distorted Reality of "Responsible Gambling"
Steffen B & Patt A (2022)	Energy Research & Social Science	90	A Historical Turning Point? Early Evidence on How the Russia-Ukraine war Changes Public Support for Clean Energy Policies
Howlett M (2019)	Public Policy and Administration	83	Moving Policy Implementation Theory Forward: A Multiple Streams/Critical Juncture Approach
Weible CM & Ingold K (2018)	Policy & Politics	70	Why Advocacy Coalitions Matter and Practical Insights About Them
Howlett M et al.,	Australian Journal of	64	Moving Policy Theory Forward: Connecting



(2017)	Public Administration		Multiple Stream and Advocacy Coalition Frameworks to Policy Cycle Models of Analysis
Ingold K et al., (2017)	Policy Studies Journal	64	Drivers for Policy Agreement in Nascent Subsystems: An Application of the Advocacy Coalition Framework to Fracking Policy in Switzerland and the UK
Weible CM et al., (2020)	Policy Studies Journal	62	Sharpening Advocacy Coalitions

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

The number of citations is not always linear with the number of document publications in journals each year, so normalized total citation is based on the number of citations and years to measure the normalization of a document. An example of a document with the highest normalized total citation is in 2022 through a document with the title A historical turning point? Early evidence on how the Russia-Ukraine war changes public support for clean energy policies (Steffen & Patt, 2022). This document examines changes in support for the clean-energy transition process in Europe which are apparently influenced by external systems, namely war conditions in other countries. ACF as a framework is used to evaluate and assess the process of policy change.

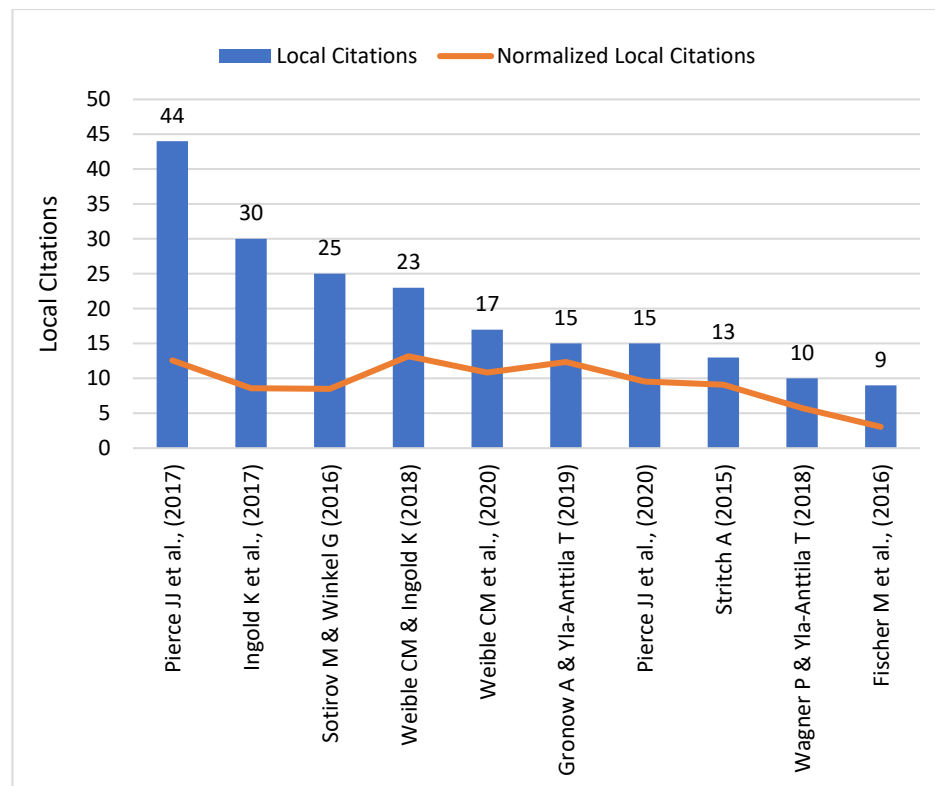


Figure 6. Most Local Cited Documents

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

In the most locally cited document, the same thing happened that the document on advocacy coalition framework with 44 citations with the article (Pierce et al. 2017) was not followed by the highest normalized total citation. This article is quite widely cited because it is one of the articles with a literature review approach. Furthermore, the article with the highest normalized total citation rate of 13.18 discusses why advocacy coalitions matter and practical insights about them (Weible and Ingold 2018).



Figure 7. Countries' Scientific Production

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

Figure 7 shows the number of article publications in the 10 (ten) most relevant countries about the Advocacy Coalition Framework from 2015 to 2024. Based on Table 14, it is known that authors from USA, Switzerland, UK, Germany, Australia, Canada, China, Finland, Sweden, and Netherlands have published articles on Advocacy Coalition Framework in 2015. During the 2015-2024 period, every year the USA has always been the country that produces the most scientific articles on the Advocacy Coalition Framework, including in 2024. Figure 7, it is known that the publication of scientific articles on Advocacy Coalition Framework is mostly produced by researchers from the USA with a total of 271 articles. Switzerland occupies the second highest position after the USA with the number of articles produced is 92 articles, then followed by the UK with a total of 91 articles. This data reinforces that the application of ACF is not only from the country where ACF was first formulated but even extends to Asia.

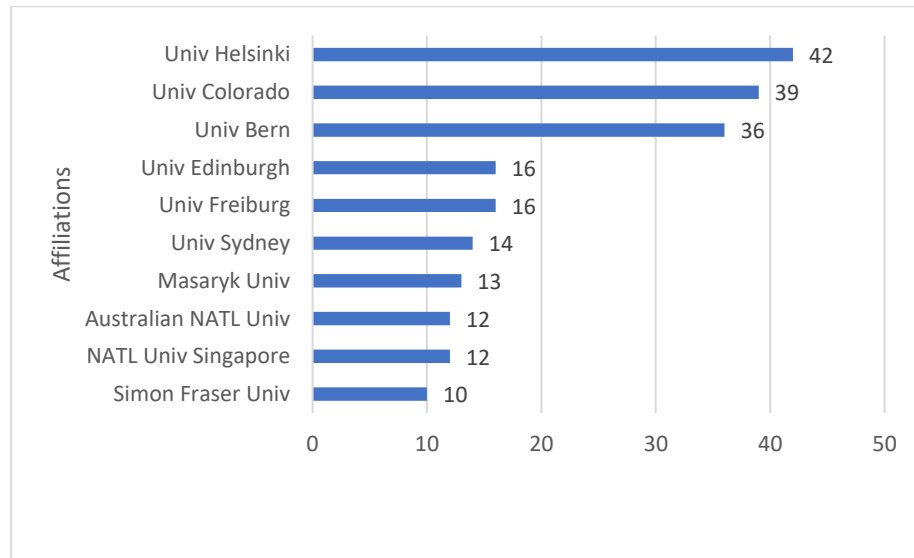


Figure 8. Most Relevant Affiliations

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

The most relevant affiliation section shows the top 10 (ten) affiliations of the authors of articles on Advocacy Coalition Framework in 2015-2024. Based on Figure 3.7, it is known that most of the authors of scientific articles on Advocacy Coalition Framework in 2015-2024 came from Helsinki University with a total of 42 articles. Then followed by authors from Colodaro University with 39 articles, Bern University with 36 articles, and various other universities.

### Co-Word Analysis

In Table 3, we show the top 10 keywords that appear most frequently in the development of articles on Advocacy Coalition Framework in the Web of Science (WoS) database from 2015 to 2024. Based on Table 3.2, it is known that Advocacy Coalition Framework is the most frequently occurring keyword with a total frequency of 109.



Table 3. Most Frequent Word

Words	Occurrences
Advocacy Coalition Framework	109
Policy Change	44
Policy	32
Policy Process	27
Advocacy	23
Public Policy	23
Advocacy Coalitions	17
Climate Change	16
Policy Learning	14
Energy Policy	13

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

The word cloud also shows words that often appear from 329 article publications in the sources. These words are from the keyword author, title or abstract of the article. Words that look smaller than other words show the occurrences of these words in various articles or in other words rarely used. From various applications of ACF co word analysis that emerged, it shows that ACF has an impact on the process, especially at the meso level of policy formulation analysis, namely policy change and policy process. The process aims to determine the value of various coalitions that interact to share beliefs, source strategies between coalitions that can encourage conflict between actors in coalition as an effort to make policy changes. However, what needs to be understood is that policy changes that occur are not only the impact of the interaction process between coalitions, but also determined by stable parameters and external systems that also determine policy changes

### Trends Topic

The most popular topics or themes in scientific publications on Advocacy Coalition Framework in the 2015-2024 period are related to Advocacy Coalition Framework with 31 frequencies, and related to Climate Change Policy with 6 frequencies.

Table 4. Trend Topics (Titles-Trigrams)

Term	Frequency	Year (Q1)	Year (Median)	Year (Q3)
Advocacy Coalition Framework	31	2017	2019	2021
Climate Change Policy	6	2018	2020	2022

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

Table 4 explains that the trend topics of Advocacy Coalition Framework during 2015-2024 can be classified into two research trends, namely Advocacy Coalition Framework and Climate Change Policy. Advocacy Coalition Framework started in 2017 (Q1) while Climate Change Policy in 2018 (Q1). The trend topic results show that the application of ACF and environmental policy is the most popular to study. The involvement of various stakeholders in a fairly complex environmental policy study is very helpful for understanding the beliefs and strategies of various coalitions. However, limitations in various articles show that measuring beliefs is a very challenging endeavor. Therefore, through bibliometrics, we can map out how articles can measure beliefs more accurately by using more innovative and accountable methods, which are presented in the next thematic section.

### Thematic Map and Thematic Evolution as Cluster

Figure 9 related to the Thematic Map shows a visualisation of a collection of themes or topics that appear in the scientific literature related to the Advocacy Coalition Framework. Through the Thematic Map, it can be understood the core topics in the development of research related to the Advocacy Coalition Framework. There are 4 quadrants (Q1-Q4) on the Thematic Map, namely the Upper Right Quadrant (Q1) known as Motor Themes, Lower Right Quadrant (Q4) known as Basic Themes, Upper Left Quadrant (Q2) known as Niche Themes, and Lower Left Quadrant (Q3) known as Emerging or Declining Themes.

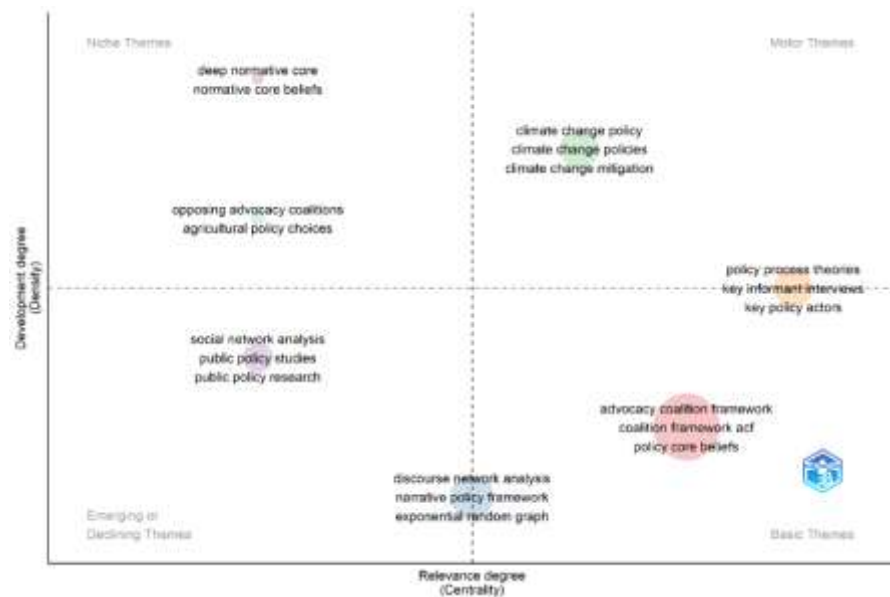


Figure 9. Thematic Map

Source: (Processed from the results of R Studio (Biblioshiny) and Excel 2023)

Quadrant 1 (Motor Themes) is the main themes or important concepts as a driver of research development related to Advocacy Coalition Framework. Based on Figure 9, it can be seen that the Motor Themes are Climate Change Policy, Climate Change Politics, and Climate Change Mitigation.

Quadrant 4 (Basic Themes) are the main themes that consistently emerge to underlie the development of research related to the Advocacy Coalition Framework. Based on Figure 9, it can be seen that the Basic Themes are Advocacy Coalition Framework, Coalition Framework ACF, and Policy Core Beliefs.

Quadrant 2 (Niche Themes) are themes that are specifically or specifically developed and have an important role in the scientific literature related to the Advocacy Coalition Framework but are generally not dominant. Based on Figure 9, it can be seen that the Niche Themes are Deep Normative Core, Normative Core Beliefs, Opposing Advocacy Coalitions, and Agricultural Policy Choices.

Quadrant 3 (Emerging Themes) are themes that have begun to emerge and develop in the scientific literature related to the Advocacy Coalition Framework so that they become the object of research, although not yet fully dominant. Based on Figure 9, it can be seen that the Emerging Themes are Social Network Analysis, Public Policy Studies, and Public Policy Research.

However, based on Figure 9, it can also be seen that there are several themes that intersect with each other. First, themes related to Policy Process Theories, Key Informant Interviews, and Key Policy Actors that intersect between Quadrant 1 and Quadrant 4. This shows that these three themes are important as driving themes and themes that underlie the development of research related to the Advocacy Coalition Framework. Second, themes related to Discourse Network Analysis, Narrative Policy Framework, and Exponential Random Graph that intersect between Quadrant 3 and Quadrant 4. This shows that these three themes are basic themes that are developing into research objects in the scientific literature related to the Advocacy Coalition Framework.

In accordance with the Vos Viewer data based on meta data from a data base of 329 articles with each word appearing 10 times, it produces 5 clusters, namely; (1) Advocacy Coalition Framework and Climate Change: another sub-discussion is energy policy related to climate change and uses one of the methods of Discourse Network Analysis; (2) Climate Change and Policy Network: another sub-discussion is linking with Network Analysis, Stakeholder Analysis, and Subsystem; (3) Advocacy Coalition and Social Network Analysis: another sub-discussion is linking with coordination, belief, power, and institutions; (4) Policy Learning and Policy Process: another sub-discussion is linking with coordination ideas, lessons and public policy; (5) China and Policy Change.

There are some differences with the data management on the biblioshiny thematic map, which is divided into 4 quadrants and there are several themes that are being developed in the advocacy coalition framework study, as follows; (1) Quadrant 1 (Motor Themes) is Climate Change Policy, Climate Change Politics, and Climate Change Mitigation; (2) Quadrant 2 (Basic Themes) is Advocacy Coalition Framework, Coalition Framework ACF, and Policy Core Beliefs; (3) Quadrant 3 (Niche Themes) is Deep Normative Core, Normative Core Beliefs, Opposing Advocacy Coalitions, and Agricultural Policy Choices; (4) Quadrant 4 (Emerging Themes) is Social Network Analysis, Public Policy Studies, and Public Policy Research.

However, outside of these themes, there are themes that intersect with each other, namely; (1) Between motor themes and basic themes, namely Policy Process Theories, Key Informant Interviews, and Key Policies, which show that these three themes are important as driving themes and themes that underlie the development of research related to the Advocacy Coalition Framework; (2) Between emerging themes and basic themes related to Discourse Network Analysis, Narrative Policy Framework, and Exponential Random Graph. This shows that these three themes are basic themes that are developing into research objects in the scientific literature related to the Advocacy Coalition Framework.

Therefore, future research can pay attention to the following recommendations; (1) Studies on Advocacy Coalition Frameworks can be carried out using various methods such as Discourse Network Analysis, Stakeholder Analysis, Social Network Analysis, Multiple Stream Frameworks, and the Policy Narrative Framework, which is still not widely used; (2) Some themes in the niche themes quadrant can still be developed further such as the issue of Deep Normative Core, Normative Core Beliefs, Opposing Advocacy Coalitions, and Agricultural Policy Choices. Recommendations for future research focus more on data validity by applying various research methods that can explain the advocacy coalition formed. In addition, emphasizing that the level of belief in coalitions that can change along with the process of policy change so as to encourage the sharing of knowledge, sources and strategies.

#### 4. Conclusion and Limitation

From the bibliometric analysis of 329 articles derived from the Web of Science data base in 2015-2024 on the Advocacy Coalition Framework, the following conclusions can be drawn:

- 1) The most impactful authors seen from the number of articles produced are Yla-Anttila T with 14 articles, while the authors whose articles are most cited are Ingold K with 86 citations with the number of articles, namely 12. Then the most relevant journal discussing the advocacy coalition framework is the Policy Studies Journal which has been published since 2015 with 1272 citations. The institution or affiliation that has the most impact on studying the theme of advocacy coalition framework is Helsinki University with 42 publications even though its publication began in 2016. The country of origin of the author who contributes the most to studying the advocacy coalition framework is the USA with 85 articles and the only Asian country that is ranked 8th most impactful is China.
- 2) The review of advocacy coalition frameworks formed 5 clusters and 4 quadrants according to themes and subthemes. Cluster 1 Advocacy Coalition Framework and Climate Change; Cluster 2 Climate Change and Policy Networks; Cluster 3 Advocacy Coalition and Social Network Analysis; Cluster 4 Policy Learning and Policy Processes; Cluster 5 China and Policy Change. Then the themes are divided based on quadrants, namely Quadrant 1 (Motor Themes) namely Climate Change Policy, Climate Change Politics, and Climate Change Mitigation; Quadrant 4 (Basic Themes) namely Advocacy Coalition Framework, Coalition Framework ACF, and Policy Core Beliefs; Quadrant 2 (Special Themes) namely Deep Normative Core, Normative Core Beliefs, Opposing Advocacy Coalitions, and Agricultural Policy Options; Quadrant 3 (Emerging Themes) namely Social Network Analysis, Public Policy Studies, and Public Policy Research.
- 3) ACF Cluster can then be developed on various studies in accordance with trend analysis, namely Advocacy Coalition Framework and Climate Change as well as the development of research methods used for ACF studies.
- 4) Future research on advocacy coalition frameworks can be carried out with various methods such as Discourse Network Analysis, Stakeholder Analysis, Social Network Analysis, Multiple Stream Frameworks, and the Policy Narrative Framework which is still not widely used. Some themes in the niche themes quadrant can still be developed further such as the issue of Deep Normative Core, Normative Core Beliefs, Opposing Advocacy Coalitions, and Agricultural Policy Choices.

#### 5. Limitation

This research certainly has limitations in data processing and the database used, so the following can be recommended:

- 1) The database used in this literature review only uses Web of Science, so for further research, we can compare data sourced from Scopus.
- 2) Processing of co-occurrence data and keywords used in biblioshiny and vos viewer which show little difference, it would be better to use hitscite.

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