OPEN GOVERNMENT STUDIES: A BIBLIOMETRIC ANALYSIS

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Abstract
The aim of this research is to analyze open government research bibliometrics. This research uses a qualitative approach with bibliometric analysis methods. The data used in this research is of secondary type, originating from the Scopus database. Data was collected using the Publish or Perish application using the keyword "open government". The data obtained was then analyzed using the VOSviewer application to obtain a bibliometric map generated from keywords for all papers. Based on the results of this research, there were 160 papers over a period of 37 years. The first open government paper was published in 1986. There were 241,891 citations, 146 h-index, and 150 g-index, which shows that this paper has high impact and productivity. In this paper, there are 137 keywords grouped into 16 clusters. From these keywords, 2056 total link strengths and 567 occurrences were obtained. The keywords that dominate this paper are e-government, collaborative governance, transparency, public participation, and accountability. This shows that global open government research focuses on these concepts.

Keywords: Bibliometric Analysis; Open Government; Open Government Studies

INTRODUCTION

In the recent decade, many people in various nations throughout the world have viewed open government to be a potent tool for carrying out administrative reform and government transformation (S. A. Afandi, Afandi, & Erdayani, 2022). The origins of open government can be traced back to the legal codification of Athens, Greece, but the Visigothic Code of the Kingdom of Sweden is seen as the start of current open government programs that prioritize citizens' access to information (Moon, 2020). Open government is a trend in public management reform that strives to create a transparent and collaborative government structure that differs from market-oriented and bureaucratic principles (S. A. Afandi, Erdayani, & Afandi, 2023; Ingrams, 2020). Although the concept of open government is not new, numerous societal circumstances and improvements in information and communication technologies have influenced how it is conceptualized (Tai, 2021; Wirtz, Weyerer, & Rösch, 2019).

The Obama administration defined open government as the intensive use of information and communication technology to facilitate government transparency, citizen participation, and public collaboration (Ingrams, Piotrowski, & Berliner, 2020; Prastya, Misran, & Nurmandi, 2021). Since the 2000s, numerous governments have championed open government as a desirable aim. Open governance is as crucial as New Public Management was in the 1980s (Moon, 2020). Open government projects are currently being implemented widely not only in...
Western democratic countries, but also in developing countries such as Asia and Africa (M. Afandi & Afandi, 2018). Many countries around the world have designed and implemented initiatives related to information access, transparency, participation, and collaboration as part of an open government strategy (S. A. Afandi, Afandi, Erdayani, & Afandi, 2023; J. R. Gil-Garcia, Gasco-Hernandez, & Pardo, 2020a). Many governments have expanded open government; for example, the Obama administration announced the Open Government Directive in 2009 and played a key role in establishing the Open Government Partnership (OGP), a multinational effort to promote open government around the world (S. A. Afandi, Afandi, & Anugerah, 2023; Moon, 2020; Schmidthuber & Hilgers, 2021).

The Open Government Partnership is founded on the belief that open government is more accessible, responsive, and accountable to citizens, and that enhancing the relationship between society and government has long-term and exponential advantages for everyone. The OGP is a broad cooperation with national and local members (Gao, Janssen, & Zhang, 2021). The Open Government Partnership currently includes 77 countries and 106 local governments representing over two billion people. Globally, almost 4,000 promises have been made (Erdayani, Afandi, & Afandi, 2023a). This study aims to analyze the bibliometrics of open government studies.

LITERATURE REVIEW

The origins of open government can be traced back to the codification of Athenian law in Greece, but the Visigothic Code of the Kingdom of Sweden is considered the beginning of a modern open government initiative that pays attention to citizens’ right to information (Moon, 2020). Open government has become an important strategy for administrative reform that has encouraged countries around the world to design and implement initiatives related to access to information, transparency, participation, and collaboration (J. R. Gil-Garcia, Gasco-Hernandez, & Pardo, 2020b).

Openness has been considered one of the most important characteristics of a democratic government. Historically, a number of aspects were highlighted in order to promote openness in the public sector (S. A. Afandi, Erdayani, & Afandi, 2024; Heywood, 2014). The old term open government refers to the freedom of information made available to citizens so that they can hold government authorities transparent and accountable, emphasizing the contribution of freedom of information laws to increased transparency, accountability, and public trust, although their contribution is often constrained by the political environment. Traditional approaches to freedom of information are being reconsidered and reshaped as web technologies offer new channels whereby more information can be provided simultaneously to many anonymous people beyond the constraints of time and space (S. A. Afandi, 2024; Moon, 2020).

This has led to open government initiatives that emphasize the reuse of public information as well as the proactive provision of public information before citizen requests. There have been dramatic changes in many aspects in the shift from conventional freedom of information approaches to citizens’ right to know (so-called old open government) to newer open government approaches, both at the country level (i.e., open government data from the US) and at international levels such as open government partnership (S. A. Afandi, Afandi, Erdayani, et al., 2023; S. A. Afandi, Erdayani, Afandi, & Afandi, 2022).

Since the Obama Memorandum for Heads of Departments and Executive Agencies in 2009, open government has attracted enormous public and academic attention (Ruijer & Meijer, 2020). Open government aims to create a transparent and collaborative government through the involvement of citizens (Zulfa & Afandi, 2023). Open government wants to make government more efficient and prepare it to face the challenges of the digital era (Subedi, Nyamasvisva, &
Pokharel, 2022). Currently, open government is popular in various parts of the world, including the European Union, Australia, and Asia (Wang & Shepherd, 2020). Open government is not a new concept and has historically been used in a variety of contexts. However, open government is still a growing area of research. For this reason, this open government study is interesting to do (S. A. Afandi, Afandi, & Erdayani, 2023).

METHODS

This study employs a qualitative technique in conjunction with bibliometric analysis approaches. Bibliometric analysis is a method for analyzing scientific literature in a certain field or topic. This strategy is used to discover patterns and important insights in scientific literature (Erdayani, Afandi, & Afandi, 2023b, 2024; Gaviria-Marin, Merigó, & Baier-Fuentes, 2019; Kulsum et al., 2022). This study makes use of secondary data from the Google Scholar database. The Publish or Perish application with the keyword "open government" was used to collect research data. Data from the Publish or Perish application is saved in the RIS file format, entered into the Mendeley application to complete the detailed file section, particularly the keyword section, and then saved in the RIS file format to be analyzed using the VOSviewer application to generate a bibliometric map based on the keywords used in scientific literature.

RESULTS AND DISCUSSION

Scholars find open government studies to be highly appealing. The initial research paper for this subject was discovered in 1986 and is listed in the Scopus database. There have been 160 publications, 241,891 citations, 146 h-index, and 150 g-index in the previous 37 years. Researchers' productivity and influence on published articles are gauged by the H-index. The number of research papers published and the number of citations obtained from other publications serve as the foundation for this index. The g-index is an individual author citation metric, much like the h-index. On the other hand, the distribution of citations the researcher's publication obtained is used to generate this index. This index additionally considers the average quantity of citations.

Figure 1
Network Visualization

Source: Processed by the Author, 2024

In the image above, there are no duplicate keywords. Identical keywords found in multiple papers are counted as a single keyword. To avoid overlapping, certain keywords are not included in this image. With labels and circles, this image represents keywords. Label and circle sizes are dictated by their relative weights. The larger the resulting label and circle, the more frequently a keyword appears (Gaviria-Marin et al., 2019). The given image splits terms into 16 groups (table 1) and different hues. The lines connecting keywords represent linkages, and the closer the keywords are together, the stronger the connection (Ham, Koo, & Lee, 2019; Lnenicka & Saxena, 2021).
<table>
<thead>
<tr>
<th>Cluster</th>
<th>Keyword</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>accountability, community empowerment, community involvement, coordination mechanism, data disclosure, data distribution, data quality, decision information, decision structure, deliberation participation, democratic decision, democratic development, democratic evolution, democratic system, digital participation</td>
</tr>
<tr>
<td>2</td>
<td>access information, access justice, access power, administrative accountability, audit system, budget determination, budget distribution, budget expenditure, budget management, bureaucratic structure, civil society, collaboration process, transparency</td>
</tr>
<tr>
<td>3</td>
<td>public consultation, public discussion, public distrust, public environment, public initiative, public interest, public involvement, public management, public participation, public policy, public provision, public rights</td>
</tr>
<tr>
<td>4</td>
<td>e-government, political leader, political manipulation, political polarization, political process, political risk, power abuse, power control, privacy protection, privacy rights</td>
</tr>
<tr>
<td>5</td>
<td>institutional capacity, internal audit, judicial control, judicial system, law enforcement, legal accountability, legislative oversight, minority group, minority rights</td>
</tr>
<tr>
<td>6</td>
<td>policy information, policy legitimacy, policy planning, policy quality, political accountability, political culture, political decisions, political exploitation, political influence</td>
</tr>
<tr>
<td>7</td>
<td>public trust, rational decision, reporting system, responsive participation, rights protection, sensitive information, service quality, social accountability, social involvement</td>
</tr>
<tr>
<td>8</td>
<td>collaborative governance, social justice, social mobilization, social network, social transformation, technology investment, technology utilization, vertical accountability</td>
</tr>
<tr>
<td>9</td>
<td>participatory budget, participatory democracy, participatory participation, partnership governance, policy design, policy evaluation, policy impact</td>
</tr>
<tr>
<td>10</td>
<td>distributive responsibility, evaluation mechanism, external audit, flexible leadership, general elections, good governance</td>
</tr>
<tr>
<td>11</td>
<td>government accountability, government capabilities, government communications, government efficiency, government innovation, government interests</td>
</tr>
<tr>
<td>12</td>
<td>government responsibility, government responsiveness, government structure, hierarchical relationship, hierarchical structure, horizontal accountability</td>
</tr>
<tr>
<td>13</td>
<td>horizontal relationship, inclusive dialogue, inclusive solutions, independent mechanism, information flow, information freedom</td>
</tr>
<tr>
<td>14</td>
<td>information openness, information overload, information quality, information response, information sharing, information updates</td>
</tr>
<tr>
<td>15</td>
<td>monitory democracy, network accountability, networked structure, open data, opinion polarization, participation platform</td>
</tr>
<tr>
<td>16</td>
<td>process accountability, process transparency, program quality, public aspirations, public capacity, public communication</td>
</tr>
</tbody>
</table>

Source: Processed by the Author, 2023
The open government publication has 137 keywords and 16 clusters. Keyword clusters are created by connecting lines between keywords (Figure 1), so that each keyword in the same cluster is strongly connected to the others. Keywords with large labels and circles (Figure 1), on the other hand, are based on total link strength and occurrences scores.

There are 2056 total link strengths and 567 occurrences of all open government paper keywords. E-government (total link strength 151 & occurrences 44), collaborative governance (total link strength 138 & occurrences 38), transparency (total link strength 126 & occurrences 35), public participation (total link strength 116 & occurrences 32), and accountability (total link strength 105 & occurrences 29) are keywords that dominate. Total link strength represents a keyword's total link strength, whereas occurrences represents a keyword's total appearance in all articles (Safarov, 2019). The terms listed above are most familiar to academics and are fundamental topics in open government investigations.

**E-Government**

E-government refers to the application of information and communication technology in the government sector. E-government is the use of digital technology to provide public services, improve administrative efficiency, increase transparency, and increase citizen participation in government decision-making processes (T. M. Harrison, Guerrero, Burke, & Cook, 2021; Kassen, 2020). E-government has the ability to change government relationships with citizens, businesses, and various government entities (Bertot, Gorham, Jaeger, Sarin, & Choi, 2019; Chan, 2019).

The government has utilized various information technologies, such as the internet, computers, mobile devices, and information systems, to provide electronic access to various government services and information. The implementation of e-government varies from local to national and even international levels (Milić, Veljković, & Stoimenov, 2021; Nam, 2019). Many countries have introduced e-government initiatives as part of efforts to modernize public administration and provide better services to their citizens (Abu-Shanab, 2020; Al-Jamal & Abu-Shanab, 2020).

Implementation of e-government varies between countries and depends on the readiness of technological infrastructure, the level of digital inclusion, and public awareness of technology. Some examples of e-government applications include central and local government portals, application-based government services, and electronically integrated public administration systems (Machado & Oliveira, 2019; Vinogradovaa & Moiseevaa, 2019). Currently, the application of e-government continues to increase. This is an implication of global calls to reform the public sector with the aim of improving public services (Ganapati & Reddick, 2022; Unsworth & Townes, 2018). Information and communication technology is believed to be able to bridge the gap between government and society through connectivity, thereby bringing government closer to the public. Through this method, the delivery of services to the public is
much faster and easier than traditional methods, which are characterized by waste of time and bureaucratic obstacles (Kassen, 2019; Twizeyimana & Andersson, 2019).

Collaborative Governance

Collaborative governance refers to an approach to decision-making and management in which government, the private sector, and civil society organizations collectively work together to identify, design, and implement solutions to complex issues (Amsler & Foxworthy, 2019; Meijer, Lips, & Chen, 2019). This approach aims to achieve better results through participation, information sharing, mutual understanding, and coordination between the parties involved (Millard, 2018).

Collaborative governance requires the realization of social justice in fulfilling public interests. Collaborative governance is a type of governance where public and private actors work collectively in different ways, using certain processes and establishing laws and regulations for the provision of public goods (Karamagioli, Staou, & Gouscos, 2019; Maulana, 2020). Public stakeholders (government) sit together with related parties (private sector and society) to make public decisions, which are the result of consensus through a dialogue process.

Collaborative governance involves people working constructively across the boundaries of public institutions, levels of government, and the public, private, and civil spheres to implement unattainable public goals (Amsler, 2019). Collaborative governance has placed a lot of emphasis on voluntary collaboration and horizontal relationships between sectoral participants because demands from the public often exceed the capacity and role of a single public organization and require interaction between a wide variety of organizations related to and involved in public activities (Ansell & Gash, 2019; Newman, Barnes, Sullivan, & Knops, 2018).

Collaborative governance can be seen as supervision that encompasses the extensive literature on networks, partnerships, and third-party government, as well as the equally extensive literature on democratic governance, citizen and stakeholder engagement, and consensus building (R. Gil-Garcia, Gasco-Hernandez, & Pardo, 2020). Collaborative governance was not only developed to satisfy vague notions of more inclusive decision-making but rather to involve multiple ways of knowing in a continuous problem-solving process (Détienne, Porwol, Scarano, & Malandrino, 2019).

Transparency

Government transparency is the principle that the public has the right to access government documents and procedures in order to understand their government’s actions. Transparency underlies public trust in government and ensures that power is executed responsibly and in the public interest (Coglianese, 2019; Ruiter & Détienne, 2020). Without transparency, there will be corruption, misallocation of resources, and injustice in policymaking (Matheus & Janssen, 2020; Ruvalcaba-Gomez, Alejandroa, & Renteria, 2020).

Transparency prevents information imbalances that can harm the public interest. Information must be presented in a way that allows citizens to understand it, use it, and ultimately act on it (T. Harrison & Sayogo, 2019; Lourenço, 2020a). In today’s digital era, this concept is becoming increasingly relevant. Modern technology provides a platform where two-way interaction between government and citizens is not only possible but essential. Transparency in this era means collaboration and active participation.

Culture and social beliefs influence transparency. There is a correlation between high social trust and a transparent government. This shows that transparency is not only about policies and mechanisms but also about interpersonal relationships and social networks in society (Dawes & Helbig, 2020; Marijn Janssen, Ricardo Matheus & Weerakkody, 2020). Government transparency is an ideal condition that aims to ensure the government works in a way that can be understood, monitored, and accounted for by the public (Reggi & Sharon, 2019).
Government transparency is also about building a mutually beneficial working relationship between the government and the public.

**Public Participation**

Public participation refers to the involvement of citizens in the process of decision-making, planning, implementation, and evaluation of public policies. Public participation is the foundation of an inclusive, democratic, and sustainable society (Evans & Campos, 2020; Gagliardi et al., 2019). This gives citizens an active role in shaping their own destiny and helps build a more equitable environment. Participation is not only about making decisions but also about influencing the political agenda and having a significant role in the political process (Wijnhoven, Ehrenhard, & Kuhn, 2020). Effective public participation occurs through rational and diverse discussions in public spaces, which encourage the creation of shared understanding and democratic decision-making.

Public participation theory is a conceptual framework used to understand, analyze, and describe how society is involved in decision-making processes, politics, and other public activities. This theory provides a view of how public participation can influence policies, democratic processes, and overall social development (Gajendra, Xi, & Wang, 2020; Wirtz et al., 2019). The public participation index is a measure used to assess the extent to which society is involved in political and social decision-making processes (Schmidthuber, Piller, Bogers, & Hilgers, 2019).

The public participation index provides an overview of the health of democracy and the level of public involvement in decision-making. Such indices can assist governments and civil society organizations in identifying participation trends and changes over time (Schmidthuber, Hilgers, Gegenhuber, & Etzelstorfer, 2019; Sivarajah, Weerakkody, Waller, Morgan, & Glikman, 2020). This index can also be used as a tool to motivate policy changes that support more active public participation (Lee & Kwak, 2022). In many developed countries, public participation is not only seen as a right but also as a responsibility and opportunity to be involved in shaping more inclusive policies and decision-making (Scholl & Luna-Reyes, 2019).

**Accountability**

Government accountability is a basic principle that requires the government to be responsible for its actions and decisions toward the public. Government accountability is one of the pillars of democracy that ensures that the government acts in the public interest and prevents abuse of power (T. Harrison & Sayogo, 2019; Wong & Welch, 2019). Government accountability ensures that government policies and programs are implemented in a manner that is efficient, effective, and in accordance with the public interest. It also promotes integrity, ethics, and professionalism in public governance (Lourenço, 2020a). Without strong accountability, there is a huge risk of corruption, abuse of power, and public distrust of government institutions.

Government accountability is a crucial element in maintaining the integrity and sustainability of good state governance. This concept has many dimensions and deep impacts, especially in the context of open government and democracy. Accountability is closely related to transparency (Park & Gil-Garcia, 2020; Saxena & Muhammad, 2018). These two concepts complement each other. With accountability, the government is expected to work openly, allowing the public to access information and data related to government policies and actions. Transparency makes it easier for the public to understand the basis for decision-making and identify potential problems or discrepancies in government policies and actions.

Accountability ensures the government and its officials are accountable for their decisions and actions. This allows for a mechanism to hold the government accountable to explain and account for its actions, including in the event of errors or irregularities (Lourenço, 2020b; Stamati, Papadopoulos, & Anagnostopoulos, 2020). In today's information age, public trust can
quickly be eroded due to rumors or misleading information. Accountability ensures that the government communicates honestly and openly with the public, building and maintaining trust.

CONCLUSIONS

The concept of open government has attracted world attention in the last few decades. The popularity of open government became increasingly apparent after the formation of the Open Government Partnership in 2011. If open government is seen as a medium for administrative reform and government transparency, the Open Government Partnership is a multi-national effort to promote open government to all governments in the world. Based on the resulting bibliographic map, the five keywords that dominate this paper are e-government, collaborative governance, transparency, public participation, and accountability.

The concept of e-government refers to the use of digital technology to provide public services, improve administrative efficiency, increase transparency, and increase citizen participation in government decision-making processes. The concept of collaborative governance refers to a type of governance where public and private actors work collectively in different ways, using certain processes and establishing laws and regulations for the provision of public goods. The concept of government transparency refers to the principle that the public has the right to access government documents and procedures in order to understand their government's actions. Transparency underlies public trust in government and ensures that power is executed responsibly and in the public interest.

The concept of public participation refers to the involvement of citizens in the process of decision-making, planning, implementation, and evaluation of public policies. Public participation is the foundation of an inclusive, democratic, and sustainable society. This gives citizens an active role in shaping their own destiny and helps build a more equitable environment. The concept of government accountability refers to the basic principle that requires the government to be responsible for its actions and decisions toward the public. Government accountability is one of the pillars of democracy, which ensures that the government acts in the public interest and prevents abuse of power.

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