

## **Bibliometric analysis of global scientific research on Public Administration: 1923-2020**

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### **Abstract**

This study aims to perform a bibliometric analysis of documents published in the field of Public Administration during the years 1923-2020. In this bibliometric study, all Web of Science (WOS) databases were used to retrieve the publications in this field. Using a proper search strategy, 93093 records were retrieved in the WOS database from 1923 to 2020. Excel and VOSviewer software were used for bibliometric analysis and visualization of documents. The findings show that 64.31% of documents (59860 documents) were articles; most documents were published in the Public Administration Review-Journal (n= 9011). The United States (with 31930 documents), ENGLAND (with 14636 documents), and Canada (with 7104 documents) published the most documents in this field, respectively. The University of Birmingham was the most productive institution (n=1,441, 1.54 %). Meier, K. J. S was the most productive author (n= 119, 0.12%). Keywords with the highest frequency were "management", "governance", "government", "policy", "performance", "politics", "state", and "organizations". The most co-occurrence keywords existed within three clusters, the first including keywords related to policy issues, the second including author keywords about management and performance, and the third including keywords related to state and local management. The global trend of publications in the field of Public Administration has been upward, from 54 documents in 1923 to 4561 documents in 2020. This study not only presents a full view of global Public Administration research but also can contribute to future research in this field and bibliometric studies.

**Keywords:** Bibliometric Analysis, Visualization, Public Administration, Keywords Co-Occurrence Map.

### Introduction

Public administration is an essential and integral part of the government in many countries. The efficiency of public administration plays a critical role in the survival of civilizations, whereas its inefficiency leads to the decline of civilizations (Farazmand, 2012). Government management is semantically a combination of the terms Public and Administration. The term Administration means to serve, administer and do work, and Public refers to the public affairs of the community's citizens (Fry & Raadschelders, 2013). The identity of the field of public administration was established in 1930-1939 in the form of management principles and rules. It formed the activities of some institutions, such as the Social Science Research Council, the Public Administration Clearing House, and the Advisory Committee on Public Administration (Hildreth, Miller, & Rabin, 2006).

According to Lorenz von Stein (1815-1890), the study of public administration is the crown of all the sciences because the state administration must employ all human knowledge to ensure a better society and guarantee freedom for its citizens (Rutgers, 2010). Public Administration is a discipline that is highly dependent on disciplines such as economics, sociology, and psychology; thus, the scope of research topics in this field expands. For this reason, Public Administration knowledge can potentially solve community problems (Bingham & Bowen, 1994). According to Raadschelders and Douglas, the area of Public Administration is an interdisciplinary field in which the study of government is the most fundamental issue. In doing so, other fields that study government aspects should be considered. Some also argue that the boundaries of public administration should not be narrow and that the subjects and scope of study of Public Administration should be broad; because the main topic of its research, the government, is broad (Raadschelders & Lee, 2011). The importance of public administration is rooted in its essential role in governing society (Rohr, 1988). The main content of the Public Administration field includes government's organizational structure, its services, and the art of managing related issues. In other words, this field is subject to legal aspects (laws, procedures, and regulations) on the one hand and the art of governance on the other (Saylan & Sezen, 2000). According to Henry, the realm of public administration includes normative questions about the needs of governance, requires the use of technology and management, and considers the influence of individuals and organizations on the management and policy of the public sector (Henry, 1975). Public administration suffers from an identity crisis (Raadschelders, 1999). Given the nature of this discipline and the dynamic identity of the social sciences, researchers have used different approaches to understanding the nature of public administration. The American researchers have applied an inductive approach, and the European researchers have used a deductive approach (Raadschelders, 1999). In the meantime, one of the techniques that can be used to analyze the body of knowledge for a discipline and be aware of its evolution and identity is the bibliometric analysis.

Bibliometrics is the most common method for analyzing the publications of a scientific discipline. This term was first coined by Holm (1923) as a "statistical bibliography", defining it as the study of the process of explaining the history of science and technology using the counting of documents. Ranganathan then coined the term Librametry in 1948 at Aslib's Ann. Conf. in the United Kingdom (Sengupta, 1992). In 1969, Pritchard introduced the term

bibliometrics in place of statistical bibliography, defining it as the use of statistical methods in the study and the use of books and other written and recorded library materials (Pritchard, 1969). Bibliometrics is a field of research that analyzes scientific publications, citations, and information sources (Merigó, Gil-Lafuente & Yager 2015). Bibliometric analysis is a tool to determine the status of publications in a particular field and identify possible trends and gaps in existing knowledge in that field. It plays an important role in management and decision-making in science and technology (Romanelli, Fujimoto, Ferreira & Milanez, 2018).

Since the introduction of Bibliometrics by Pritchard (1969), this methodology has been widely used in the analysis of various fields such as Urban Education (Lian & Wang 2018); environmental damage (Li, Liu, Zhang & Li, 2018); Linguistics (Mohsen, Fu & Ho, 2017); Information Architecture (Taga, Oliveira Inomata, Rodrigues Vaz, Uriona Maldonado & Varvakis, 2017); fuzzy research (Merigó et al., 2015); Welding (Layus & Kah, 2015); computer science research (Uddin, Singh, Pinto & Olmos, 2015); Entrepreneurship (Landström, Harirchi & Astorm, 2012); Marketing (Seggie & Griffith 2009).

Bibliometric analysis of the field of Public Administration helps researchers become familiar with existing scientific gaps, identify leading journals, authors, institutions, and countries in this field and select their research topics with a broader perspective. Therefore, in the present study, an attempt has been made to analyze the publications of Public Administration using bibliometric techniques and to provide a comprehensive picture of the current situation in this field, publishing patterns, and its evolution. It should be stated that in the present study, while presenting the current status of the field of public administration by bibliometric analysis of scientific works in this field, the map and future perspective of this field are also drawn and indicates that which research topics should be prioritized and where be focused on in future research.

According to the points raised, the main questions that the present study seeks to answer are:

1. What is the current status of the field of public administration and what issues are in the forefront of this field?
2. What is the classification and typology of the topics presented in the field of public administration based on the published articles?
3. What is the perspective of the field of public administration and the new issues that this field seeks to address?

### **Literature review**

Examining the field of Public Administration and the published works using bibliometric techniques is one of the quintessential tasks that both determines the status quo of this field and provides guidelines to determine the future trend of this science. The following are the most important research in the field of Public Administration presented using bibliometric techniques.

Kumar, Pandey and Haldar (2020) analyzed the articles of the journal of Public Management Review (PMR) using bibliometric analysis techniques. Their Findings show that topics such as inter-organizational collaborations and public-private partnerships (PPPs), reforms in public management, management, leadership, governance, challenges, accountability, and innovation in public service organizations have been considered. Also, results showed that the journal dealt with public management reform issues in the early years.

Over time, the topics of inter-organizational collaborations, creation and co-design in public services, and strategic and operational management of public services have been considered. Most authors were from the United Kingdom, the United States, and the Netherlands. Cuccurullo, Aria and Sarto (2016) analyzed the articles of Public Management Review (PMR) using bibliometric analysis techniques. Findings show that topics such as inter-organizational collaborations and public-private partnerships (PPPs), challenges, governance, reforms in public management, management, leadership, accountability, and innovation in public service organizations have been addressed. Also journal has dealt with public management reform issues in the early years, and over time the topics of inter-organizational collaborations, creation and co-design in public services, and strategic and operational management of public services have been addressed. Most authors were from the United Kingdom, the United States, and the Netherlands. In their study, Juliani and De Oliveira (2016) analyzed the journals related to public service management from 2004-2014 using bibliometric techniques. They found that topics such as the NPM model, PSM, organizational characteristics of the sector, performance, governance, ethical aspects, local governments, job satisfaction, changes, and innovation in the public sector have been considered by the authors of these journals. Also, the analysis showed that British and American authors had published the most articles in this field. Vogel (2014) examined the status of public administration and organization studies by reviewing the top 16 European and North American journals on government organization and management studies from 2000 to 2010. This bibliographic analysis showed a high degree of separation between the field of organizational studies and Public Administration. a strong link between Public Administration and organizational studies through organization theories and network analysis and a difference between published research in Europe and North America. European research focuses more on theoretical diversity, whereas North American research focuses more on methodological diversity. Kalucza and Hattke (2020), in a bibliometric analysis, investigated 1125 articles that dealt with the subject of red tape from 1961 to 2018. The results showed that red tape had been studied more using qualitative methods in the past, but current and future researchers are using quantitative and mixed methods. Felipe, Dionéia, Monize, Joice and Juliana (2017), in a bibliometric study, analyzed 729 articles published in the Brazilian Journal of Public Administration (RAP) from 2003 to 2016. Findings show that most authors are from public institutions, and case study research has increased. Applied approaches and quantitative methodology studies have also increased. Chandra & Walker (2019) mapped the network of scientific works in the field of public management using citation network analysis and co-citation methods. They found that 949 articles on Public Administration are influenced by the ideas of Hood (1991). Concepts such as public service motivation and bureaucracy were the most common. The issue of strategy-making in public organizations is one of the topics that can be considered in future research. Berry (2017) analyzed the articles of Public Administration Review (PAR) from 1940 to 2013, using bibliometric techniques. Results showed that management in government, New Public Management, performance budgeting and management, and governance are considered in the publication. Ni, Sugimoto, & Robbin (2017) Examined the Evolution of the Field of Public Administration through a Bibliometric Analysis of 3934 articles published in the *Public Administration Review (PAR)* from 1940 to 2013 in terms of contributions, impact, gender composition, institutional and national affiliation, profession as scholar or practitioner, collaboration networks with bibliometric techniques. They found that the independence of articles from political science has increased, but most of the

references are from public administration. Regarding gender, the number of females whose articles have been published in the journal is also increasing, which is a move towards gender justice. Ropret and Aristovnik (2019) conducted a bibliometric analysis to study the Public Sector Reform from the Post-New Public Management Perspective. In this study, 16374 publications were identified from the Web of Science database; among them, 100 articles that were the most cited from 1994 to 2017 were identified. An analysis of these articles revealed that most articles are in the governance field. That related doctrines may be biased in favor of subjective, pluralistic Western ideas about governance.

Literature review in the field of public administration (PA) shows that some studies conducted with a focus on a specific topic (Cuccurullo et.al, 2016; Juliani & De Oliveira, 2016) and emphasis on a particular journal (Kumar et al., 2020; Ni, Sugimoto & Robbin, 2017). Some have been done in a limited period (Vogel, 2014; Felipe et al., 2017). Due to this, the research findings are not comprehensive in the first place, and secondly, they have considered some topics or journals in a specialized way. The present study was first defined as a general topic and focused on the field of public administration, not a specific topic to solve these problems. Moreover, it was not limited to a particular journal; each journal collected and analyzed PA-related subjects.

Reviewing the literature in the field of Public Administration bibliography, it is clear that systematic research in this field is rarely found. The present study is more innovative than previous research in the subject matter field, which has reviewed all articles in Public Management journals. Also, in terms of method, using the method of bibliometric and visualization reinforces the method and achieves new findings. The main scientific contribution of this article identifies and systematizes the knowledge produced by scientific publications in the field of public administration, which leads to the identification of scientific gaps, suggestions for new studies, and suggestions for entering new innovative areas.

### **Materials and Methods**

The Web of Science (WOS) was used in this bibliographic study. Then the publications in the field of Public Administration from the beginning of 1923 to the end of 2020 were analyzed.

According to Clarivate Analytics (2019), WOS covers more than 21,000 journals in the fields of science, social sciences, humanities, and the arts and stores more than 90 million records and 1.5 billion cited references published from the 1900s to date (Clarivate Analytics, 2019). The search spanned from 1956 to 2018 and was conducted during the fourth week of December 2019.

Four citation indexes on the WOS database were used to extract the data:

The Science Citation Index Expanded, the Social Sciences Citation Index, the Arts & Humanities Citation Index, and the Emerging Sources Citation Index.

The Web of Science (WOS) consists of a variety of databases. Of these, only four are citation databases used in bibliometric studies. Accordingly, we used those four databases. One of the unique features of these databases is the ability to search by citation. In addition, they allow users to search by title, author, source type, and author address. The search query used for data extraction from the WOS database looked like this:

WC= Public Administration

Timespan: 1923-2020.

Indexes: SCI-EXPANDED, SSCI, A&HCI, ESCI.

Since the purpose of our study was to analyze all publications in the field of Public Administration, we did not limit it to the article. Therefore, all publications were included in the study. Bibliometric indices presented in this study had a year of publication, type and language of the documents, most cited articles, most productive authors, country, and institutional affiliation source/journal title in which documents were published.

It is worth mentioning that after extracting the data, preprocessing and cleaning of the data were performed using Bibexcel software. Finally, data analysis was performed using Microsoft Excel and VOSviewer software (Van Eck, Waltman, Noyons & Buter, 2010). Microsoft Excel 2019 was run for bibliometric analysis, and VOSviewer software was for visualization and drawing scientific maps. Analyzes such as General Data, Core journals and publications, leading authors, institutions, and countries/territories were performed using Microsoft Excel software. Visualization of most frequent keywords, co-occurrence map of most frequent keywords, clustering density map of most frequent keywords, density map of most frequent keywords, and time-based map of most frequent keywords was performed using VOSviewer software. VOSviewer software is one of the most important and widely used bibliometrics software to summarize data and draw scientific maps. It is possible to draw scientific maps through citation analysis, co-authorship analysis, co-occurrence analysis, and co-citation analysis.

## Results

### General data

During the specified time, a total of 93,093 records were retrieved. Of this number, 59,860 (64.30%) were articles, while the remaining were book reviews (23,896; 25.66%), editorial material (5,487; 5.89%), proceedings papers (2,187; 2.34%), Early access (1,651; 1.67 %), etc. The primary language of retrieved records was English (89,824, 96.451 %). Other languages like Spanish (1071, 1.150 %), French (577, 0.620%), Portuguese (554, 0.595%), and Turkish (346, 0.372%) were encountered. The total number of different languages located in the retrieved articles was 11.

Analyzing the publishing trend of a field is a good indicator of the development patterns of that field. The trend of public administration field publications from the beginning of 1923 to the end of 2020 is shown in Figure 1. Overall, the movement of global publications in public administration is upward, from 54 documents in 1923 to 4561 documents in 2020. Public Administration publications have grown significantly since 2015. Findings show that 2015 (3083), 2016 (3153), 2017 (3247), 2018 (3389), 2019(4207), and finally, 2020 (4561) had the highest number of publications (Figure 1)

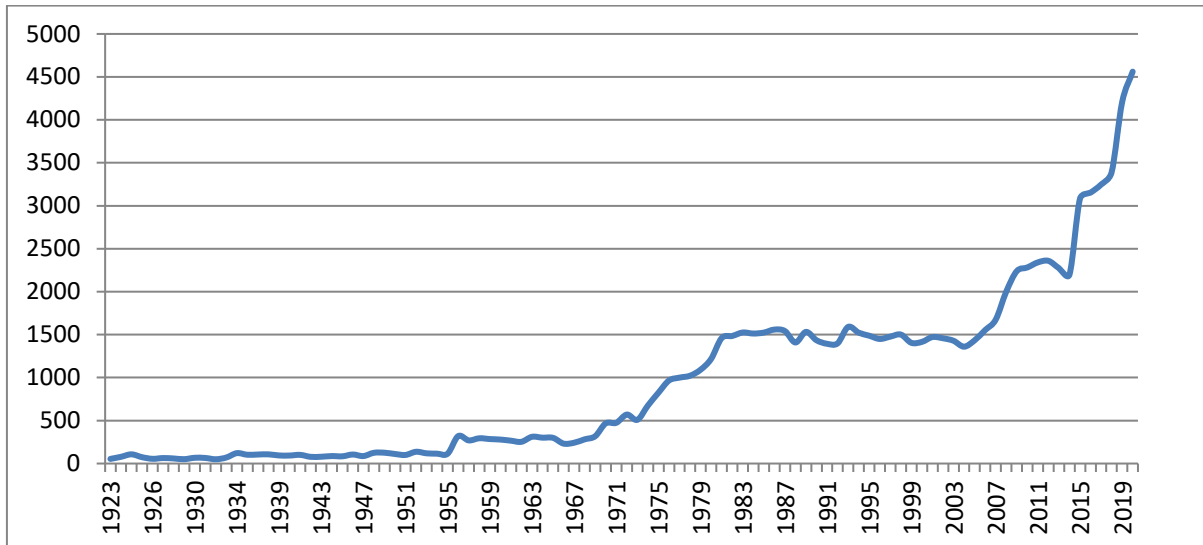


Figure 1: The frequency distribution of papers published on Public Administration (1923– 2020)

### Core journals and publications

documents on Public Administration have been published in 104 sources, including 93093. Table 1 lists the 15 journals that published the most documents in the field of Public Administration. About 55% of the records are published in these 15 journals. Among the four journals in the first quarter (Q1), four journals are in the second quarter (Q2), three journals are in the third quarter (Q3), and four journals are in the fourth quarter (Q4). The Public Administration Review, with 9,011 documents; the Public Administration Journal, with 7,100 credits; and the Journal of Social Policy, with 4,487 records, are the top three journals in the field of Public Administration, respectively. The highest h-index among the reviewed journals belongs to Public Administration Review, and The highest IF (Impact Factor) belongs to the Journal of Policy Analysis and Management.

Table 1  
Top 15 journals publishing on Public Administration (1923-2020)

Row	Journal	Country	Record Count	% of 80,920	Impact Factor 2019	Rank in Category	Quartile	H-Index	Sum of Times Cited	Average citations per item	Cite Score
1	Public Administration Review	USA	9,011	9.680 %	4.062	4 of 48	Q1	139	115,435	12.81	7.40
2	Journal of Social Policy	United Kingdom	4,487	4.820 %	2.592	16 of 48	Q1	63	22,870	5.1	3.80
3	Policy Studies Journal	USA	3,149	3.383 %	3.797	6 of 48	Q1	66	26,204	8.32	6.90
4	Journal of Policy Analysis and Management	USA	3,104	3.334 %	5.018	1 of 48	Q1	85	35,218	11.35	4.90

5	Social Policy & Administration	United Kingdom	2,610	2.804 %	1.908	21 of 48	Q2	54	18,808	7.21	3.20
6	Public Administration	England	7,100	7.627 %	1.825	23 of 48	Q2	90	47,367	6.67	4.70
7	Environment and Planning C: Government and Policy	United Kingdom	2,320	2.492 %	1.771	13 of 48	Q2	66	26,055	11.23	2.62
8	Local Government Studies	England	3,231	3.471 %	1.909	20 of 48	Q2	38	10,796	3.34	3.60
9	Public Money and Management	United Kingdom	1,941	2.085 %	1.377	34 of 48	Q3	45	14,971	7.71	2.40
10	Public Administration & Development	USA	1,938	2.082 %	1.55	30 of 48	Q3	41	12,664	6.53	2.00
11	Social Security Bulletin	USA	1,928	2.071 %	0.556	—	Q3	26	4,606	2.39	0.80
12	Canadian Public Policy/Analyse de Politiques	Canada	3,021	3.245 %	0.776	40 of 48	Q4	32	9,290	3.08	1.70
13	Australian Journal of Public Administration	Australia	2,862	3.074 %	1.057	38 of 48	Q4	41	12016	4.20	2.10
14	Canadian Public Administration/Administration Publique du Canada	Canada	2,797	3.005 %	0.765	41 of 48	Q4	26	5,576	1.99	1.40
15	Public Personnel Management	USA	1,986	2.133 %	0.897	39 of 48	Q4	42	11,591	5.84	1.70

#### Leading authors, institutions, and countries/territories

Leading authors in an academic discipline play an essential role in shaping the direction of the discipline. Observing the activities of prolific authors can lead to identifying research trends in the field, the feasibility of future scientific collaborations, and understanding research field issues for other researchers.

Table 2 shows the specifications of the top 20 authors in the field of Public Administration regarding the frequency of published documents. The specifications presented in Table 3 include the authors' first and last names, the number of articles published by each author in the field of Public Administration, the h-index, the number of citations received, the average citation per article, and the authors' organizational affiliation.

As seen in the table, in the period under review, Meier, KJS, with 119 documents from



United States Stewart, Jenny with 118 documents from Australia. Pollitt, Christopher, with 103 documents from Belgium respectively, are three world-renowned writers in Public Administration. A noteworthy point in the organizational affiliation of the world's most leading and influential researchers in Public Administration is that of the top 20 authors, nine are from the United States.

Table 2  
 List of leading authors in the field of Public Administration

Author	Record Count	% of 80,920	Affiliation/ country	h-index	Sum of Times Cited	Average citations per item
Meier, K. J. S.	119	0.128 %	American University WASHINGTON/ USA	38	4,482	37.66
Stewart, Jenny	118	0.127 %	University of Canberra / Australia	13	714	6.05
Pollitt, Christopher	103	0.111 %	KU Leuven / Belgium	21	1,341	13.02
Moynihan, D.P.	102	0.110 %	University of Wisconsin /USA	34	4,175	40.93
Coulson, A.	93	0.100 %	111 Acad, Suite 100 IRVINE, CA/ USA	7	115	1.24
Perry, James L.	89	0.096 %	Indiana University System /USA	26	4,107	46.15
Rosenbloom. DH	88	0.095 %	Renmin University / China	16	873	9.92
Leach, Steve.	87	0.093 %	De Montfort University LEICESTER/ England	8	273	3.14
Walker, RM.	86	0.092 %	City University of Hong Kong/ China	33	3,410	39.65
Howlett, M.	85	0.091 %	Simon Fraser University /Canada	29	3,399	39.99
Gummer, B.	82	0.088 %	USA	5	137	1.67
Bozeman, B.	81	0.087 %	Arizona State University /USA	24	2,414	29.8
Andrews, R.	79	0.085 %	Cardiff University /Wales	26	2,117	26.8
Boyne, G.A.	73	0.078 %	Cardiff University /Wales	34	3,574	48.96
Hood, C.	73	0.078 %	University of Oxford /England	24	6,637	90.92
Kim, S.	73	0.078 %	Kangnung Wonju National University/ SOUTH KOREA	21	2,377	32.56
Roberts, A.	73	0.078 %	University of Massachusetts Amherst /U.S. A	10	354	4.85
Peters, B. G.	71	0.076 %	University of Pittsburgh / USA	17	1,418	19.97
Rhodes, R. A. W.	70	0.075 %	University of Southampton /England	17	1,101	15.73
Lynn, L.E.	69	0.074 %	University of Chicago /USA	12	772	11.19

The leading countries in the field of Public Administration are shown in Figure 2. In this table, the name of the country, the number of scientific documents in Public Administration, and the share of each country in scientific production can be seen. As it is known, the United States, with 31,930 records, equivalent to 34.29 percent of the total output in the field of Public Administration, is in the first place, then the United Kingdom, with 15.70 percent of production, in second place, and Canada with 7.63 percent in third place.

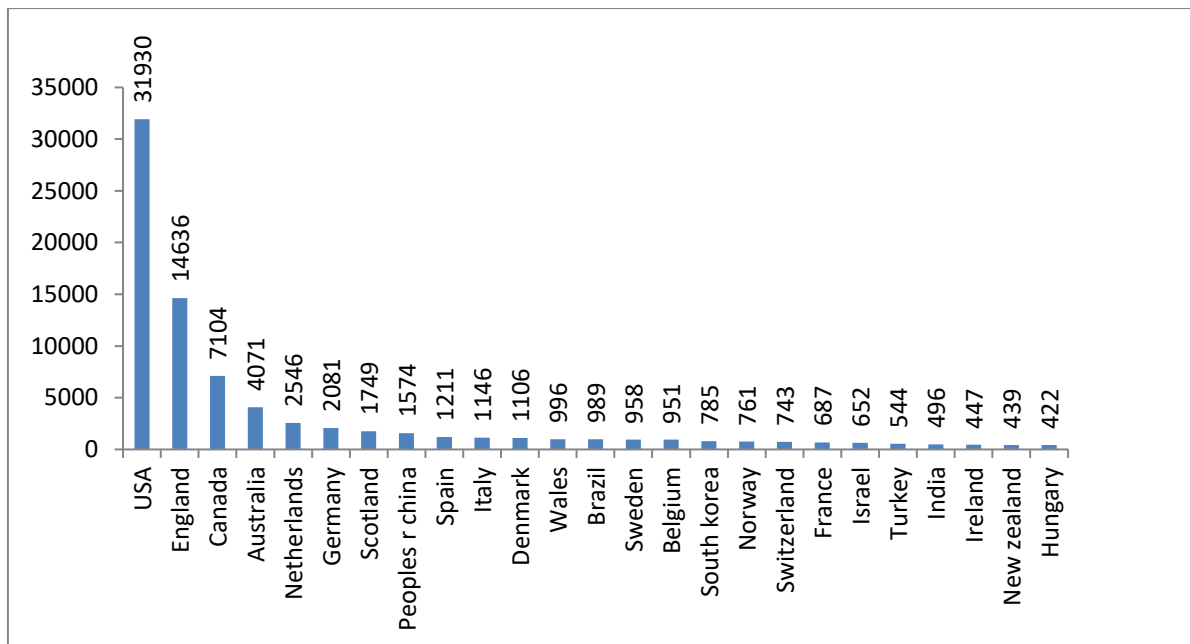


Figure 2: Leading countries in Public Administration

Analyzing the authors' articles' organizational affiliation in each field makes it possible to identify the most active universities and research institutes in that field. The top institutions and universities in the field of public administration are listed in Table 3.

The data from this table show that the University of Birmingham is recognized as the most productive university in the field of Public Administration, with 1,441 documents and the Harvard University of the United States with 836 records, and the London School of Economics and Political Science of the United Kingdom with 709 records were in the following categories. Of the 20 institutions and universities surveyed, five are in the United Kingdom, and 12 are in the United States. By comparing the data of this table and other tables that show the most leading authors and the most cited articles, it can be concluded how many top authors and most cited articles belong to these top universities and institutions.

Table 3

Top institutions and universities active in the field of public administration

Row	Organization	Country	Record Count	% of 80,920
1	University of Birmingham	England	1,441	1.548 %
2	Harvard University	USA	836	0.898 %
3	Indiana University	USA	709	0.762 %
4	University of Toronto	Canada	703	0.755 %

Row	Organization	Country	Record Count	% of 80,920
5	London School of Economics and Political Science	England	666	0.715 %
6	University of Georgia	USA	657	0.706 %
7	The University of Manchester	England	633	0.680 %
8	Australian National University	Australia	622	0.668 %
9	University of Bristol	England	560	0.602 %
10	University of Wisconsin	USA	521	0.560 %
11	Syracuse University	USA	505	0.542 %
12	Rutgers University	USA	502	0.539 %
13	University of California, Berkeley	USA	497	0.534 %
14	University of Illinois	USA	492	0.529 %
15	University of North Carolina	USA	483	0.519 %
16	Erasmus University	Netherlands	479	0.515 %
17	University of York	England	473	0.508 %
18	Arizona State University	USA	465	0.500 %
19	University of Southern California	USA	443	0.476 %
20	Florida State University	USA	422	0.453 %

Table 4 shows the specifications of the top 20 most cited articles in the field of Public Administration. As shown in Table 4, the article entitled Dilemmas in a general theory of planning, published in 1973, came in first with 5,632 citations, The science of muddling through came in second with 3,470 citations, and A public management for all seasons ranks third with 3,335 citations. According to the data in Table 3, except for four articles, all highly cited articles have been published in high-level and first-quartile (Q1) journals.

Table 4  
List of highly cited articles in the field of Public Administration

Title	First Author	Year	Source title / Quartile	Volume	Issue	Pages	Times cited	Citation per year
Dilemmas in a general theory of planning	Rittel, HWJ	1973	Policy sciences Q1	4	2	155-169	5,632	117/33
The science of muddling through	Lindblom, CE	1959	Public Administration Review Q1	19	2	79-88	3,470	55/97
A public management for all seasons	Hood, C.	1991	Public administration Q1	69	1	3-19	3,335	111/17
What works? - Questions and answers about prison reform	Martinson, R.	1974	The public interest Q3	1	35	22-54	2,367	50/36
Collaborative governance in	Ansell, C	2008	Journal of public	18	4	543-571	1,795	138/08

Title	First Author	Year	Source title / Quartile	Volume	Issue	Pages	Times cited	Citation per year
theory and practice			administrati on research and theory Q1					
Modes of network governance: Structure, management, and effectiveness	Provan, KG	2008	Journal of public administrati on research and theory Q1	18	2	229-252	1,322	101/69
An advocacy coalition framework of policy change and the role of policy-oriented learning therein	Sabatier, P.A	1988	Policy sciences Q1	21	2-3	129-168	1,308	39/64
How safe is safe enough? A psychometric study of attitudes towards technological risks and benefits.	Fischhoff, B.	1978	Policy sciences Q1	9	2	127-152	1,189	27/65
The motivational bases of public service	Perry, J.L.	1990	Public Administrat ion Review Q1	50	3	367-373	1,097	35/39
Learning from abroad: The role of policy transfer in contemporary policy-making	Dolowitz, DP.	2000	Governance -an Internationa l Journal of Policy Administrat ion and Institutions Q1	13	1	5-24	1,019	48/52
The many meanings of research utilization.	Weiss, C.H.	1979	Public administrati on review Q1	39	5	426-431	981	23/36
Up and Down with Ecology: The " Issue-Attention Cycle		1972	The public interest Q3	-	28	38-50	929	18/96
The design and implementation of cross-sector collaborations: Propositions from the literature	Bryson, John M.	2006	Public Administrat ion Review Q1	66	-	44-55	826	55/07

Title	First Author	Year	Source title / Quartile	Volume	Issue	Pages	Times cited	Citation per year
The evolution of e-government among municipalities: Rhetoric or reality?	Moon, MJ.	2002	Public Administration Review Q1	62	4	424-433	799	42/05
An Integrative Framework for Collaborative Governance	Emerson, Kirk	2012	Journal of Public Administration Research and Theory Q1	22	1	1-29	772	85/78
New public management is dead - long live digital-era governance	Dunleavy, P.	2006	Journal of public administration research and theory Q1	16	3	467-494	745	49/67
Citizen participation in decision making: Is it worth the effort?	Irvin, RA	2004	Public Administration Review Q1	64	1	55-65	709	41/71
Deprivation	Townsend P.	1987	Journal of social policy Q2	16	2	125-146	706	20/76
Beyond engagement and participation: User and community co-production of public services	Bovaird, T.	2007	Public Administration Review Q1	67	5	846-860	697	49/79
The joint-decision trap: Lessons from German federalism and European integration.	Scharpf, F.W.	1988	Public administration Q1	66	3	239-278	692	20/97

### Visualization of Most Frequent Keywords

Figure 3 shows an illustrated map of the most frequent keywords with a minimum of 20 events. The size of the circles indicates the frequency of the keywords. A larger size indicates higher frequency. As shown in Figure 3, "management", "governance", "government", "policy", "performance", "politics", "state," and "organizations" are the most frequent keywords.

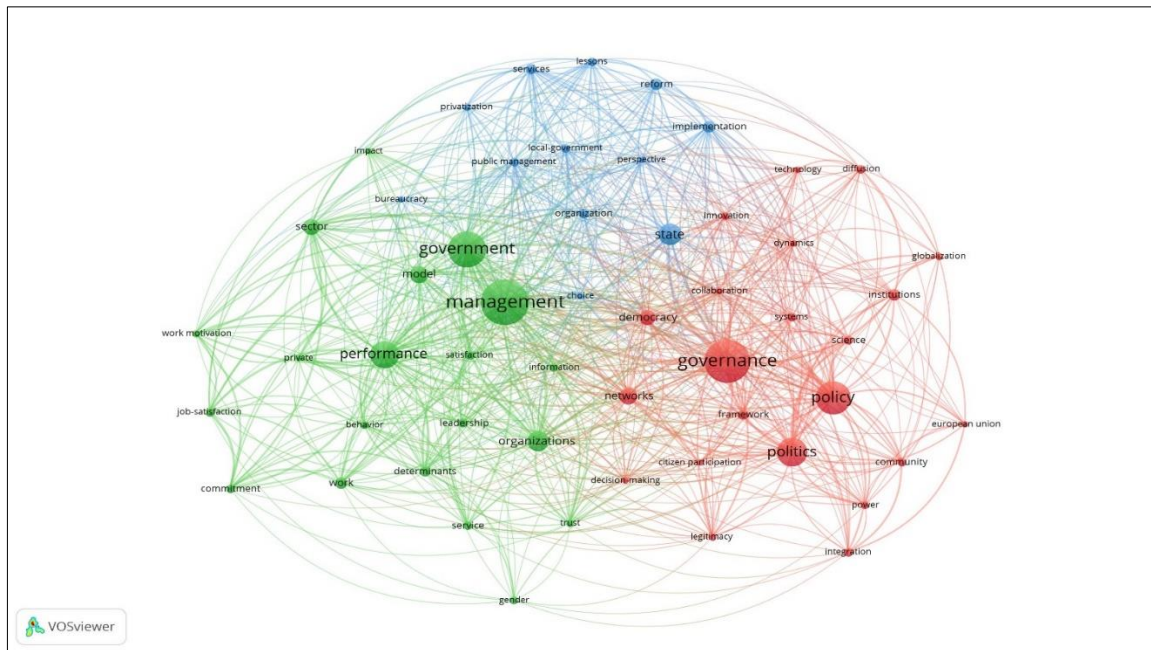


Figure 3: Co-occurrence map of most frequent keywords

Figure 4 shows the keyword clustering density map. As shown in Figure 4, this map consists of three clusters. The first cluster is marked in red. This cluster is related to policy issues. The second green cluster is connected to organizations' management and performance. The third cluster is blue and belongs to local and state administrations.

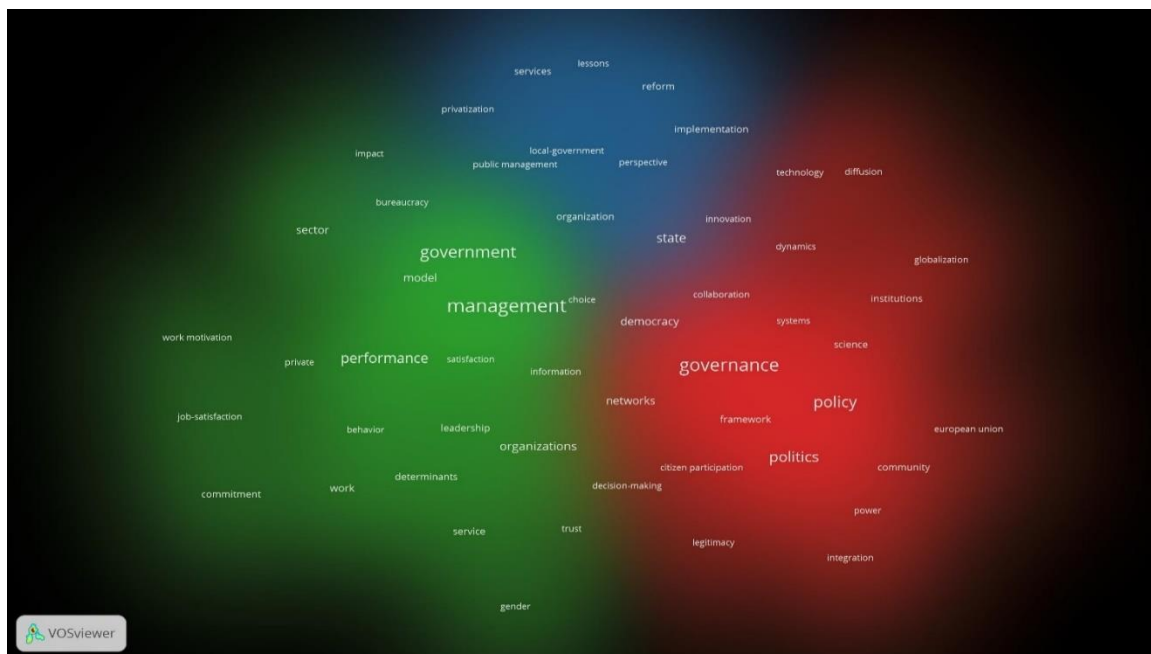


Figure 4: Clustering density map of most frequent keyword

Figure 5 shows the keyword density map. The yellow color and size of the keywords indicate the density and importance of the keywords. As you can see in the map, "management", "governance", "government", "policy," and "politics" are the hottest keywords.

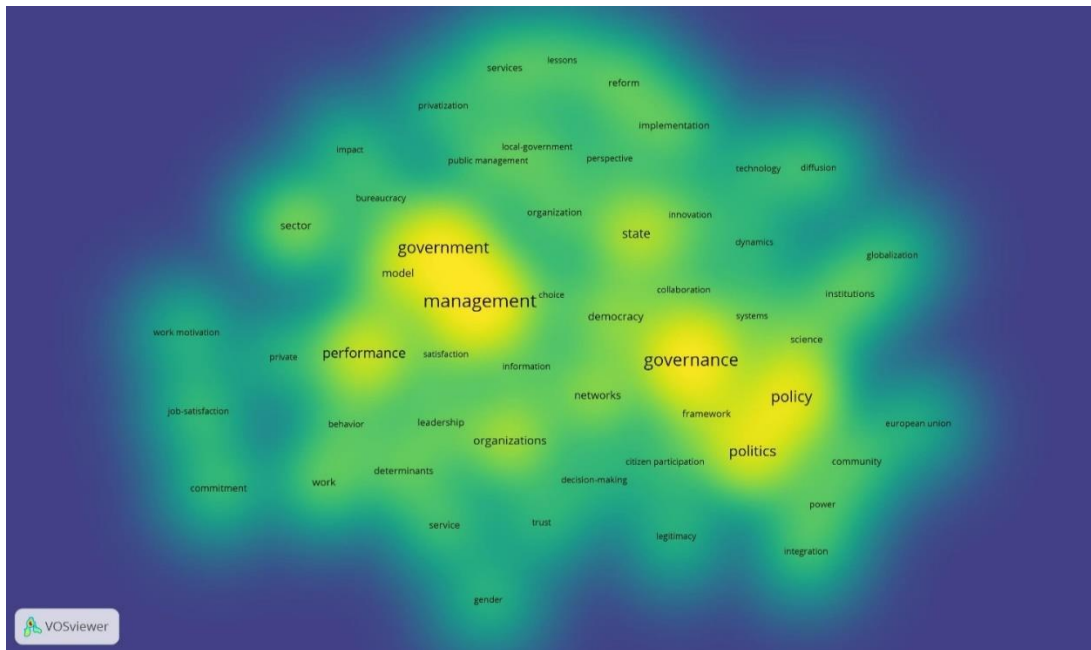


Figure 5: Density map of most frequent keywords

A time-based co-occurrence map was used to identify the evolution of Public Administration concepts. The evolution trend is shown in Figure 6. The coloring guide at the bottom of the map is marked as a colored bar as seen in the map.

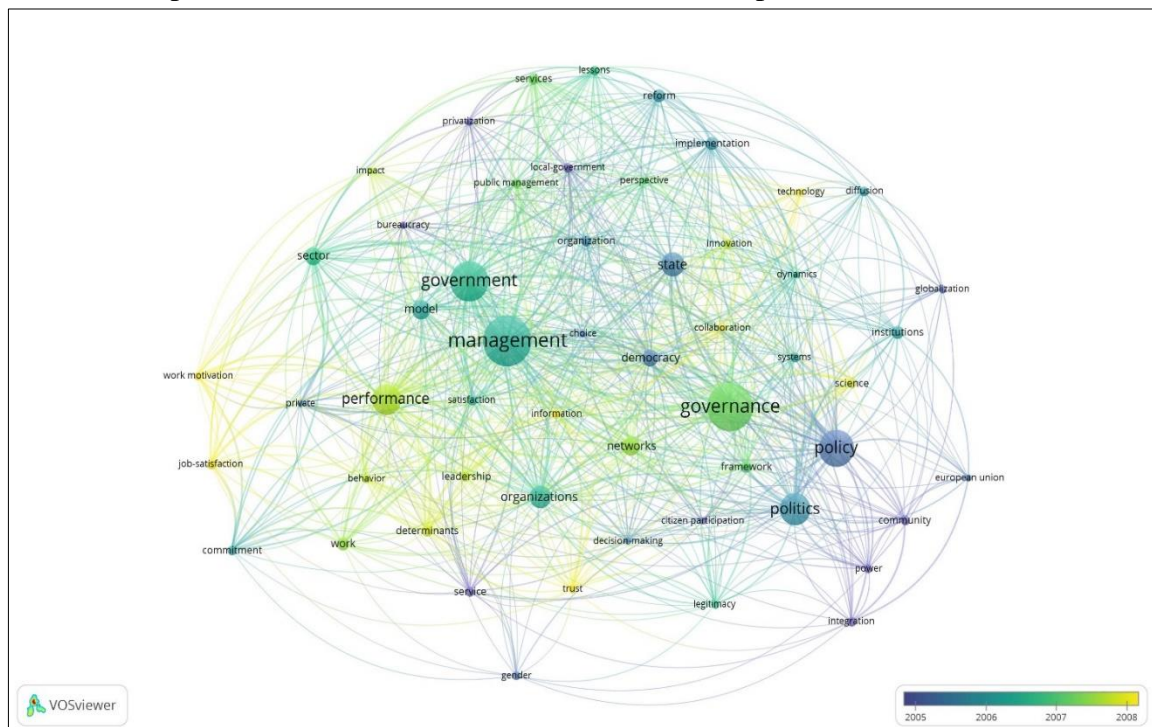


Figure 6: Time-based map of most frequent keywords

In the last decade, from 2008 onwards, concepts such as performance, trust, job satisfaction, work motivation, leadership, collaboration, innovation, technology, information, and science

have been the newest and most important concepts in Public Administration.

### Discussion

#### The core structure of public administration by Bibliometric analysis

We live in an era characterized by a considerable volume of scientific publications and has given rise to a term such as macro. The abundance of information in different scientific fields makes it difficult to achieve the existing models, such as the number of scientific publications in other fields, the extent of the impact of these publications on the scientific community, and major research trends in various fields. Furthermore, since the scientific fields are increasingly intertwined, finding a path that brings us to the beginning or endpoint of a scientific process and gives us a clear perspective on the evolution of fundamental theories in scientific fields is crucial. For this purpose, bibliometric analysis and visualization are constructive. Different research fields have used bibliometric methods to examine the impact of a particular article, a set of research in a discipline, or the whole of a subject area (Cobo, López-Herrera, Herrera-Viedma & Herrera, 2011). Quantitative evaluation of science that leads to proliferation and development can help policymakers and planners make the most of financial and human resources at a lower cost and effectively optimize the socio-economic structure.

A thorough understanding of public administration requires knowing what it deals with and its scope (Rutgers, 2010). The inductive approach can be used to identify the scope of public administration. The inductive approach refers to the study of articles published in the field of public administration to determine the topics considered in these studies and identify the scope of public administration. Accordingly, the bibliometric analysis of articles published in the field of public administration can play an essential role in determining the scope of public administration. The status quo in public administration research was selected, and an attempt was made to provide an overview of the global status. The results show that researchers have been publishing ISI articles on the subject since 1956, with a growing trend.

The number of articles has increased significantly since 2015. The maximum number of articles was published in 2015 (n=3,083), 2016 (n=3,153), 2017 (n=3,247), 2018 (n=3,389), 2019 (n=4,207), and 2020 (n=4,561). In this study, most papers published in this field were original research articles. Also, the top productive journals in the field of public administration were Public Administration Review, Public Administration, and Journal of Social, respectively. The world's top three researchers in the field of public administration are Meier, K.J. from the United States, Jenny Stewart from Australia, and Christopher Pollitt from Belgium.

These people have a prominent position as the leading authors in the field. The influence of authors in scientific disciplines is often determined by the amount of use and citation of their works. The scientific community uses research works, and citing it shows the importance and impact of that research work among the scientific community. The scientific community uses research works, and citing it shows the importance and impact of that research work among the scientific community. It is possible that authors with one or more limited research works but containing innovative and valuable ideas, citing other researchers, will gain a reputation and credibility that other scientists do not achieve even with many works.

Static analysis: extracted domains

In this study, the results from the bibliometric analysis showed that the scope of public administration could be assessed based on three domains:



### 1. Scope domain

As shown in Figure 6, the density-based clustering for keywords identifies three important issues addressed in public administration: policy-making, organizational effectiveness, regional administration, delegation, and devolution. Based on bibliometric analysis, policy-making, organizational effectiveness, and local management and delegation are the three major issues addressed in public administration research. Policy-making involves significant matters such as decision-making (Shafritz, Layne & Borick, 2005), government action plans (Peters, 2004), power through interaction between stakeholders and players (Sabatier, 2007), governance and participation (Milakovich & Gordon, 2004), etc.

Organizational effectiveness, related to public sector organizations and providing effective and efficient service delivery to citizens, is more focused on performance management (Van Dooren, Bouckaert & Halligan, 2015). De-bureaucracy and reduction of hierarchy (Farazmand, 2009), privatization and downsizing of the state (Ramesh, Araral & Wu, 2010), organizational agility (Carasco, Geluk & Peters, 2018), etc. Delegation and devolution are primary forms of local administration, paying attention to issues such as decentralization, citizen Orientation, innovation, etc. (Farazmand & Pinkowski, 2007).

### 2. Value domain

Three major issues can be identified in terms of value, including democracy and public participation (Box, 2015), efficiency and productivity in government agencies (Curristine, Lonti & Joumard, 2007), and government capacity building and citizen empowerment (Cuthill & Fien 2005). it is a kind of combination of the previous two values. Major issues such as performance and democracy appear as major concerns to the researchers, indicating the dichotomy of the value of efficiency and democracy among the schools of public administration.

### 3. Paradigm domain

If we want to categorize the findings of the present study in terms of paradigm, we would have issues related to politics, administration, policy-making, and democracy associated with the traditional public administration paradigm (Robinson, 2015), performance management and increased efficiency of government agencies related to the new public administration paradigm and public value management (Bovaird, 2002) and issues related to delegation and devolution and local administration close to the new public service paradigm (Denhardt & Denhardt, 2015), paying special attention to the citizens.

#### **Dynamic analysis:** Implication for future trends

As shown in Fig. 8, the dynamic analysis of the thematic domain indicated that more attention is paid to efficiency than to democracy efficiency in the present age, which can be analyzed in several ways. First, the levels of analysis in public administration research have shifted from the political and value levels to the functional issues and the adaptive levels and also researchers, while considering value issues such as democracy and citizen participation, have addressed the mechanisms, approaches and models of government and organization for the realization of these values such as networks and governance. Second, researchers based on a functional view to enhancing the performance of government and government agencies have referred to the issues related to network and governance, thus attempting to combine the two

values of efficiency and democracy. Also, paying attention to concepts such as collaboration, trust, information, and innovation, as shown in Fig. 8, shows the increasing role of other stakeholders in governance and government agencies over the last decade. This decentralization appearing in government agencies also indicates concepts such as job satisfaction and work motivation. Also, considering the policy, network governance shows the research orientation in the field of public administration to participatory approaches and minimizing the attention to the approach regarding the government as the only player in society. Governance approaches have shifted from legal and maximum governance to market and network and interactive governance approaches (Torfing, Peters, Pierre & Sørensen, 2012).

Accordingly, public administration research is changing from maximum governance approaches to minimum governance ones. In their study, Raadschelders & Kwang - Hoon (2011) surveyed the future of public administration. The results demonstrated that more attention is paid to qualitative and interpretive research methods, social research approaches, and citizen participation in the field of public administration. The results of the present study also revealed that the keywords such as governance and network had shaped current trends in public administration based on social and participatory approaches, and the old, considering the government's leading role, did not receive attention. In the study of Kumar et al. (2020), issues such as inter-organizational collaborations, co-creation, co-design in public services, and the strategic and operational management of public services shaped current trends in public administration. Still, in the present study, issues related to governance, networks, policy, and technology were regarded as new areas in public administration. In their research, Juliani & De Oliveira (2016) introduced new areas in public administration, including governance and innovation, which were also identified as new areas in the present study. Vogel (2014) found that the common roots in organization studies and public administration were related to network theory. In this study, the position of the networks as a new issue was introduced in the minimum governance approach. The results of the present study were consistent with those of Berry's study (2017) reviewing the literature on governance approaches, participation, and networks in the field of public administration. In their study, Ropret & Aristovnikk (2019) investigated studies conducted on governance in the field of public sector management, which was the findings of the present study.

### Conclusion

As indicated previously, governance approaches, participation, citizen orientation, network-based approaches, and innovation have shaped current trends in public administration. This direction change means the shifts from the theories of maximum governance to those of agile governance, e-government, e-governance, participatory governance, etc. Also, when comparing studies conducted with the public administration theories, it should be noted that the most current published research is based on the theory of public value management, seeking the participation and value creation of the public in the management of communities. Paying simultaneous attention to concepts such as innovation and technology, collaboration and networks in the field of public administration can result in paying more attention to concepts such as social innovation and public innovation and social co-creation in future research. In the meantime, using an active rather than a passive approach to technology in public administration can accelerate the path to social co-creation and public innovation. Therefore, the future perspective of the field of public administration is to promote citizen and public participation

to build the government's capacity.

### **Implication for practice and research**

The analysis revealed that the management style shifted towards network and participatory governance, which should address issues such as trust-building (Assens & Lemeur, 2016), resource exchange and self-regulation (Sørensen & Torfing, 2009), inter-organizational collaboration, etc. From a structural point of view, it can be said that bureaucratic structures shifted towards delegation and devolution. Special attention has been paid to issues related to coordination and coherence in policy-making and administration, including intergovernmental management, policy consistency, alignment/vertical coherence, horizontal coherence, coherent policy-making, cross-cutting policy-making, policy coordination, concerted decision-making, holistic government, joined-up policy, joined-up government (Pollitt & Hupe, 2011). Therefore, research in the field of public administration should focus on interdisciplinary studies, mechanisms, and tools, technology-based public administration, citizen engagement and crowdsourcing, citizen empowerment, and community capacity building as new research areas. Analysis of published articles in the field of PA from the perspective of gender and equality is also an important issue that should be considered in future research. Also, the important issue of designing instruments and mechanisms to involve the administration of government affairs is one of the important issues that should be considered in future research.

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### **Ethical Statement**

The study has been approved by the Ethics Committee of Hamadan University of Medical Sciences (Ethical code: IR.UMSHA.REC.1400.044).

### **Declaration of Conflicting Interests**

The authors declared no potential conflicts of interest concerning this article's research, authorship, and publication.

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