



ARTIFICIAL INTELLIGENCE, ACCOUNTABILITY, AND GOOD GOVERNANCE IN PUBLIC ADMINISTRATION: A BIBLIOMETRIC ANALYSIS

KAMU YÖNETİMİNDE YAPAY ZEKA, HESAP VEREBİLİRLİK VE İYİ YÖNETİŞİM: BİBLİYOMETRİK BİR ANALİZ

Merve Deniz PAK GÜRE¹

ABSTRACT

Artificial intelligence is transforming how public decisions are made, and the question of who oversees these decisions and how is also becoming increasingly important. This study maps the bibliometric structure and thematic development of research on artificial intelligence, accountability, and good governance in public administration. Using the Web of Science Core Collection, 484 publications (1999–2025) were analysed through performance analysis and science mapping in VOSviewer. The field is relatively young, rapidly growing, and interdisciplinary, with research concentrated in public administration, law, and information science and led by the United States, China, and European countries. The literature is organised around transparency, accountability, ethics, and algorithmic decision-making, with recent works increasingly focusing on generative AI and algorithmic governance. Citizen-facing mechanisms such as contestation, complaint, redress, and external oversight remain far less visible at the author-keyword level. Future research should connect AI governance more closely with administrative justice, citizen remedies, and external oversight.

1- Doç. Dr., Başkent Üniversitesi, mervedenizpak@gmail.com, ORCID: 0000-0001-7060-3729

Submitted/Gönderim: 31.07.2026, **Revised/Revizyon:** 11.09.2026, **Accepted/Kabul:** 15.09.2026.

To Cite/Atıf: Pak Güre, M.D. (2026). Artificial Intelligence, Accountability, and Good Governance in Public Administration: A Bibliometric Analysis., TCA Journal/Sayıştay Dergisi, 37(142), 477-508. <https://doi.org/10.52836/sayistay.2008184>

ÖZ

Yapay zekâ kamusal kararların alınma biçimini dönüştürürken, bu kararların kim tarafından ve nasıl denetleneceği sorusu da önem kazanmaktadır. Bu çalışma, kamu yönetiminde yapay zekâ, hesap verebilirlik ve iyi yönetim literatürünün bibliyometrik yapısını ve tematik gelişimini haritalamaktadır. Web of Science Core Collection'dan elde edilen 484 yayın (1999-2025), performans analizi ve VOSviewer ile bilimsel haritalama aracılığıyla incelenmiştir. Bulgular genç, hızla büyüyen ve disiplinlerarası bir alana işaret etmektedir. Alan kamu yönetimi, hukuk ve bilgi bilimi çevresinde yoğunlaşmakta ve ABD, Çin ve Avrupa ülkeleri tarafından yönlendirilmektedir. Literatür şeffaflık, hesap verebilirlik, etik ve algoritmik karar verme etrafında örgütlenmekte, daha yeni çalışmalar üretken yapay zekâ ve algoritmik yönetime yönelmektedir. İtiraz, şikâyet, telafi ve dış denetim gibi yurttaş odaklı mekanizmalar ise yazar anahtar kelimeleri düzeyinde görece az görünür kalmaktadır. Gelecekteki araştırmaların yapay zekâ yönetişimini idari adalet, yurttaş başvuru yolları ve dış denetimle daha güçlü biçimde ilişkilendirmesi önerilmektedir

Keywords: Artificial Intelligence, Public Administration, Accountability, Good Governance, Bibliometric Analysis.

Anahtar Kelimeler: Yapay Zeka, Kamu Yönetimi, Hesap Verebilirlik, İyi Yönetişim, Bibliyometrik Analiz.

INTRODUCTION

Artificial intelligence (AI) has become an increasingly important issue in public administration. AI-supported systems are used in public service delivery, decision support, automation, data analysis, and risk assessment. These systems can strengthen administrative capacity and enable faster and more data-informed public services (Henman, 2020; Kuziemski & Misuraca, 2020). At the same time, their use changes how public authority is exercised. AI systems may influence how citizens are classified, how cases are prioritized, how risks are assessed, and how decisions are justified. For this reason, public sector AI raises questions of accountability, transparency, explainability, fairness, human oversight, privacy, and public trust (Margetts, 2022; Mišić et al., 2025). Studies focusing on Türkiye also discuss AI in public administration through digital transformation, service delivery, decision support, accountability, transparency, and legal-ethical safeguards (Akman et al., 2024; Ölmez & Bayrak, 2025; Kaya, 2024; Karabulut, 2025; Kasap & Nalcı Arıbaş, 2026). Therefore, AI in public administration should be approached as a governance issue shaped by institutional responsibility, public values, and citizens' relationship with the state.

In public sector AI, accountability is a key concern: when algorithms shape administrative decisions, responsibility becomes spread out and difficult to pin down. When AI is used in decision support, risk assessment, or service delivery, responsibility may be distributed between public officials, institutions, software developers, data systems, and algorithmic models. This can create accountability gaps, especially when decisions are difficult to explain or review (Busuioc, 2021; Loi & Spielkamp, 2021; Bracci, 2023). Trustworthy AI in digital government therefore requires transparency, explainability, human oversight, fairness, and institutional mechanisms that allow public decisions to be examined and justified (Harrison & Luna-Reyes, 2022; Bignami, 2022). In the Turkish context, studies also emphasize the need to connect AI use in public administration with transparency, accountability, legal compliance, human oversight, data protection, and ethical safeguards (Efe, 2022; Karabulut, 2025; Kasap & Nalcı Arıbaş, 2026; Yamak, 2025; Bozdoğanoglu, 2025). These concerns show why AI in public administration should be examined within the broader framework of good governance and public oversight. In this study, good governance is understood as the set of principles and institutional arrangements through which public authority is exercised in a lawful, answerable, and citizen-oriented manner. Building on this definition, the study distinguishes three levels of accountability in AI governance. The first comprises governance principles such as transparency, explainability, fairness, and human oversight. The second comprises citizen rights and procedures, including contestability, complaint, appeal, and redress. The third comprises oversight institutions such as courts, ombudsman offices, and external and supreme audit bodies. This framework guides the analysis of how accountability is represented in the literature.

The growing interest in AI in public administration has produced several reviews and bibliometric studies (Table 1). Zuiderwijk et al. (2021) and Wirtz et al. (2021) synthesized the content of selected articles to build research agendas for AI in public governance and the public sector. Aristovnik et al. (2024) mapped a large Scopus corpus on AI in public administration and compared it with the business sector. Babšek et al. (2025) combined a bibliometric overview with a content analysis of the most-cited articles on AI adoption. These studies show that the field is expanding and that ethics, regulation, transparency, accountability, and trust have become visible themes. In each of them, however, the corpus is defined broadly by AI and the public sector,

and accountability is treated as one of several themes. The present study differs in three respects. Its dataset is built around the intersection of AI, public administration, and accountability or good governance. Its research questions ask how accountability is represented in this literature rather than how the field as a whole is structured. Its analysis adds a concept-level check of the visibility of citizen-facing mechanisms such as contestability, complaint, redress, administrative justice, and ombudsman oversight both as author keywords and in titles and abstracts. Bringing these mechanisms into AI governance mapping connects the field with related work on algorithmic accountability, public sector litigation, and the right to an effective remedy (Wieringa, 2020; Kaun, 2022; O’Sullivan, 2024).

Table 1: Comparison with Previous Reviews of AI in Public Administration

Study	Data	Research focus	Level of analysis
Zuiderwijk et al. (2021)	26 articles	Implications of AI use for public governance; research agenda	Systematic review of article content
Wirtz et al. (2021)	189 articles	Overview of AI research in the public sector; research agenda	Quantitative and qualitative analysis of article content
Aristovnik et al. (2024)	1,758 public administration and 2,163 business documents (Scopus, up to 2022)	AI research in public administration compared with the business sector	Bibliometric mapping of growth, countries, sources, and keywords
Babšek et al. (2025)	3,149 Scopus documents; 200 most-cited articles analysed in depth	AI adoption, applications, and challenges in public administration	Bibliometric description and content analysis
This study	484 WoS articles and reviews (1999–2025) retrieved with a query requiring an accountability or good governance term	Representation of accountability in public sector AI research; visibility of citizen-facing mechanisms	Bibliometric mapping combined with keyword and title/abstract visibility analysis of citizen-facing concepts

This study aims to map the bibliometric structure and thematic development of the literature on AI, accountability, and good governance in public administration. In doing so, the study makes two main contributions. First, it is among the first bibliometric analyses to position the intersection of AI, accountability, and good governance in public administration as its explicit analytical focus, rather than treating accountability as one theme among many within broader public sector AI mapping. Second, it systematically traces the visibility of citizen-facing accountability concepts such as contestability,

complaint mechanisms, administrative justice, remedies, and ombudsman oversight at the keyword and title/abstract levels. Accordingly, the following research questions guided the analysis:

- RQ1. What is the temporal, disciplinary, and geographical structures of the literature on AI, accountability, and good governance in public administration, in terms of publication trends, research areas, sources, publishers, and country-level collaboration?
- RQ2. What conceptual clusters and temporal keyword patterns characterize the literature, as revealed by keyword co-occurrence, thematic clustering, and overlay analysis?
- RQ3. How is accountability represented in the literature across the three levels of governance principles, citizen rights and procedures, and oversight institutions?

1. METHODS

1.1. Research Design

This study was designed as a descriptive bibliometric analysis to map the structure and thematic development of the literature on AI, accountability, and good governance in public administration. Bibliometric analysis enables the quantitative examination of scientific publications through indicators such as publication counts, citation patterns, source distribution, collaboration networks, and conceptual structures (Passas, 2024). In this study, bibliometric analysis was used through two complementary approaches: performance analysis and science mapping. Performance analysis was used to describe the annual distribution of publications, Web of Science (WoS) research areas, sources, publishers, and the most productive countries. Science mapping was used to examine the relational structure of the literature through keyword co-occurrence analysis, thematic clustering, density visualization, overlay visualization, and country co-authorship mapping.

1.2. Data Source and Search Strategy

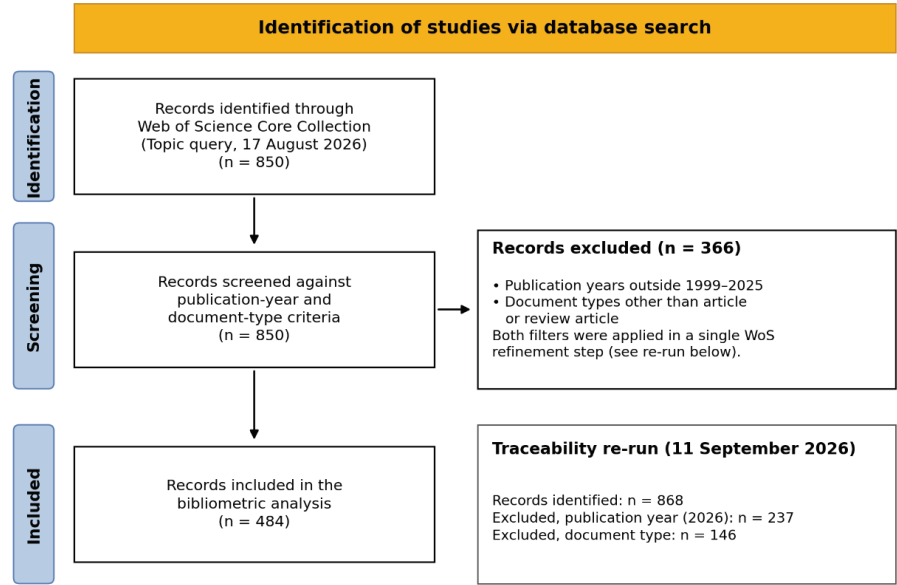
The bibliographic data were retrieved from the Web of Science Core Collection (WoS) on 17 August 2026. WoS was selected for its standardized metadata, citation data, author keywords, and export options compatible

with bibliometric mapping tools. The search was conducted in the Topic field, which covers titles, abstracts, author keywords, and Keywords Plus. The query combined three blocks: AI and related algorithmic technologies, public administration and the public sector, and good governance and accountability concepts, including citizen-facing mechanisms. Because the third block required at least one accountability- or good-governance-related term, the corpus is oriented toward these themes by construction. The analysis therefore describes the internal structure of an accountability-focused corpus rather than the entire public-sector-AI literature.²

The query returned 850 records. Articles and review articles published between 1999 and 2025 were retained, including early-access articles, and no language or country restriction was applied. Thirty-five records released as early access in 2025 but carrying a 2026 publication year in WoS were retained and counted under 2025. The publication-year and document-type filters were applied together in a single WoS refinement step, which removed 366 records and yielded 484 publications (Figure 1). Because the number of records removed by each criterion was not recorded, the query was re-run on 11 September 2026 to document the distribution of exclusion reasons. Of the 868 records returned, 237 were excluded on publication-year grounds and 146 on document-type grounds. Minor differences from the original retrieval are expected because WoS continuously indexes new records.

2- The following query was used: ("artificial intelligence" OR "machine learning" OR "algorithmic decision making" OR "algorithmic decision-making" OR "automated decision making" OR "automated decision-making") AND ("public administration" OR "public sector" OR "public service" OR "digital government" OR "e-government" OR "smart government") AND ("good governance" OR accountability OR transparency OR ethics OR "human rights" OR fairness OR bias OR "algorithmic accountability" OR "public value" OR "administrative justice" OR contestability OR complaint OR grievance OR redress OR remedy OR remedies OR ombuds OR appeal OR "administrative appeal" OR "administrative review" OR "judicial review" OR "external audit" OR "external oversight" OR "independent oversight" OR "supreme audit institution" OR "access to justice" OR "right to explanation" OR "due process")

Figure 1: Flow Diagram of the Record Selection Process



1.3. Data Analysis

Descriptive bibliometric analyses were conducted using the WoS “Analyze Results” function. These analyses included the annual distribution of publications, research areas, sources, publishers, and the most productive countries. Since WoS may assign a single publication to more than one research area, percentages for research areas were treated as non-mutually exclusive. Network analyses were conducted using VOSviewer version 1.6.21.

For the keyword co-occurrence analysis, the unit of analysis was author keywords, and the counting method was full counting. Author keywords were available for 444 of the 484 records, so the analysis was based on these records. The minimum number of occurrences of a keyword was set at five. Before harmonization, the dataset contained 1,486 distinct author keywords, and 1,246 of them (83.8%) appeared in only one record. A threshold of five kept the network readable while retaining the recurring vocabulary of the field. Because this threshold also determines whether citizen-facing concepts appear as network nodes, a sensitivity check was conducted at thresholds of four and three. The thesaurus used for this check is provided in the

supplementary material. The clusters generated by VOSviewer were examined and labelled by the author through an interpretive reading of the keywords included in each cluster.

The visibility of citizen-facing accountability concepts (Table 5) was assessed in two steps using the exported WoS records. First, author keywords expressing each concept were identified, and the highest number of records for any single keyword was noted. Second, the titles and abstracts of the 484 records were searched for the terms listed in the note to Table 5. Because term matches can include unrelated uses, each matching record was read in context and coded by the author into one of three categories: (a) the term was used in another sense or as part of a proper name, such as “aesthetically appealing” or “human oversight” within AI systems; (b) the concept was used in its own sense but not as a safeguard over AI-supported decisions, such as AI used to classify citizen complaints; and (c) the concept was discussed as a safeguard over AI-supported public decisions. The full coding is provided in the supplementary material.

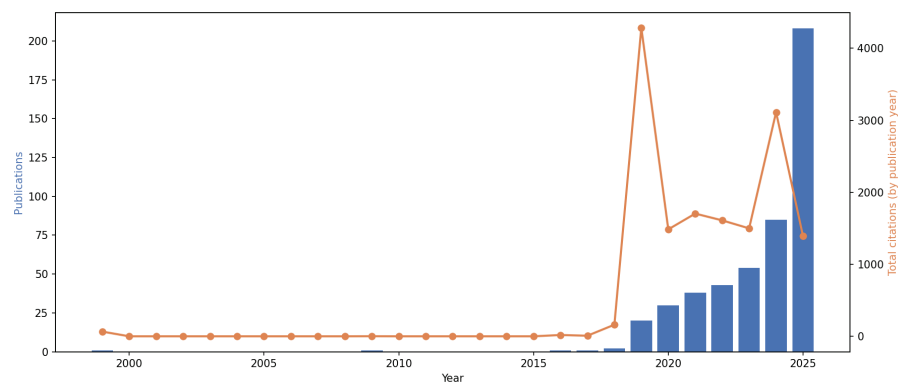
For the country co-authorship analysis, the unit of analysis was countries, the counting method was full counting, and the minimum number of documents per country was set at 5. The largest connected component was visualized in the network map.

2. RESULTS

The results follow the three research questions, moving from the general profile of the corpus to its conceptual structure and, finally, to the visibility of citizen-facing accountability mechanisms.

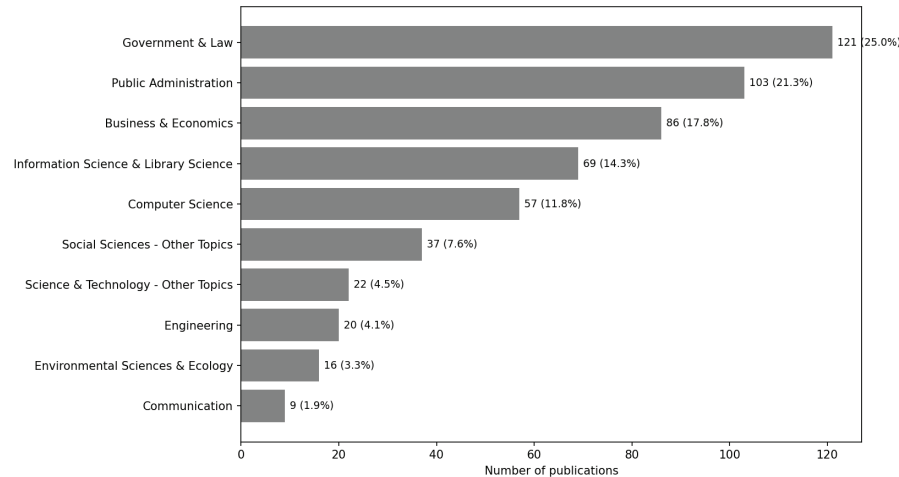
2.1. Publication, Disciplinary, and Geographical Profile

Figure 2: Publications and Citations Over Time (1999–2025)



Publications remained scarce until 2018, with one or two records per year, and rose steadily from 2019 (20) to 2024 (85), reaching 208 in 2025 (Figure 2). The 2025 figure includes records released as early access in that year and should be read as a sign of accelerating output rather than a final annual count. Citation totals do not follow publication counts. The highest totals belong to 2019 and 2024, reflecting a few highly cited studies.

Figure 3: Distribution of Publications by Research Areas



Note: Research areas are based on the WoS classification. Percentages are not mutually exclusive because a single publication may be assigned to more than one research area.

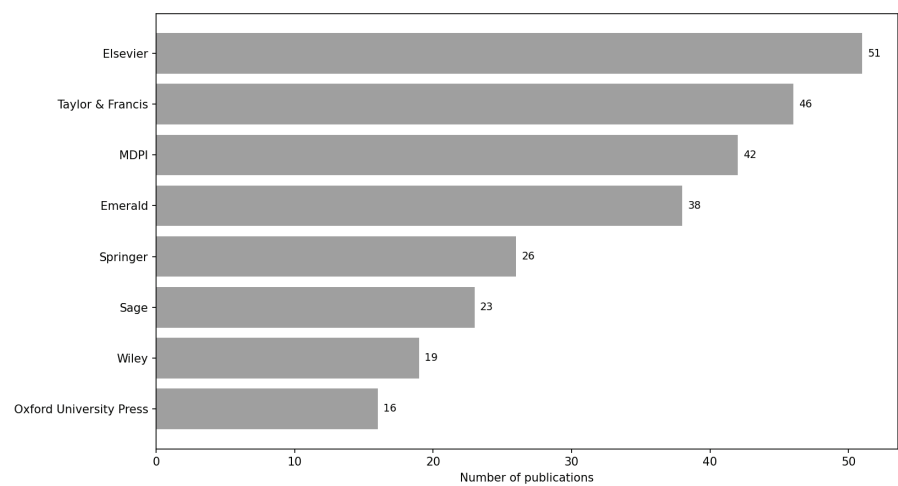
Government & Law had the highest number of records (121; 25.0%), followed by Public Administration (103; 21.3%), Business & Economics (86; 17.8%), Information Science & Library Science (69; 14.3%), and Computer Science (57; 11.8%) (Figure 3).

Table 2: Top 10 Sources by Citation Count

Rank	Source	Documents	Citations
1	Nature Machine Intelligence	1	2,864
2	Government Information Quarterly	34	2,036
3	Cognitive Computation	1	1,373
4	International Journal of Public Administration	2	692
5	Public Management Review	8	530
6	Journal of Public Administration Research and Theory	5	432
7	Public Administration Review	4	390
8	Telecommunications Policy	1	347
9	AI & Society	11	334
10	Energies	1	291

Government Information Quarterly stands out as the central outlet, combining high productivity (34 documents) with high citation accumulation (2,036 citations). Several other sources, such as Nature Machine Intelligence and Cognitive Computation, enter the list through a single highly cited article (Table 2).

Figure 4: Distribution of Publications by Publishers



Elsevier (51), Taylor & Francis / Routledge (46), MDPI (42), and Emerald (38) published the most records, which is consistent with the disciplinary profile above (Figure 4).

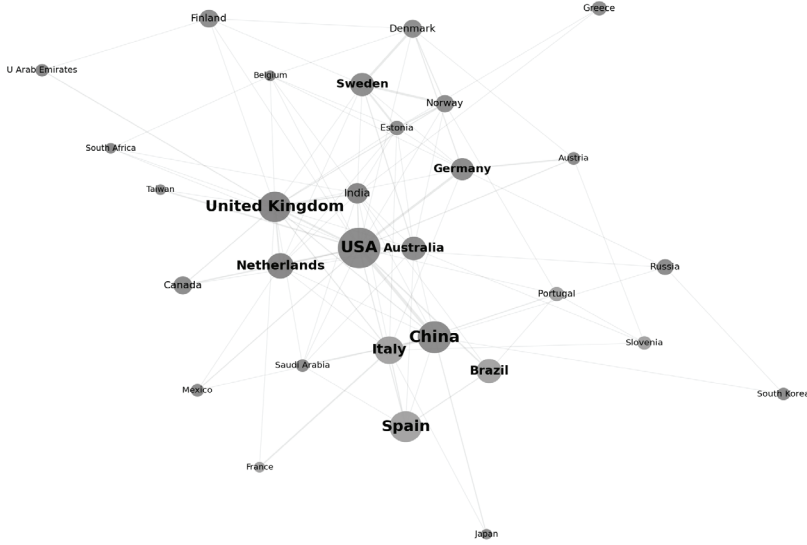
Table 3: Ten Most Cited Documents in the Dataset

Rank	Authors (Year)	Title	Source	WoS Times Cited
1	Jobin, A. et al. (2019)	The global landscape of AI ethics guidelines	Nature Machine Intelligence	2,864
2	Hassija, V. et al. (2024)	Interpreting Black-Box Models: A Review on Explainable Artificial Intelligence	Cognitive Computation	1,373
3	Wirtz, B. W. et al. (2019)	Artificial Intelligence and the Public Sector—Applications and Challenges	Int. J. of Public Administration	654
4	Busuioc, M. (2021)	Accountable Artificial Intelligence: Holding Algorithms to Account	Public Administration Review	382
5	Kuziemski, M. & Misuraca, G. (2020)	AI governance in the public sector: Three tales from the frontiers of automated decision-making	Telecommunications Policy	347
6	Lindgren, I. et al. (2019)	Close encounters of the digital kind: A research agenda for the digitalization of public services	Government Information Quarterly	325
7	Yigitcanlar, T. et al. (2020)	Contributions and Risks of AI in Building Smarter Cities	Energies	291
8	Madan, R. & Ashok, M. (2023)	AI adoption and diffusion in public administration: A systematic literature review	Government Information Quarterly	280
9	Neumann, O. et al. (2024)	Exploring artificial intelligence adoption in public organizations	Public Management Review	269
10	Alon-Barkat, S. & Busuioc, M. (2023)	Human-AI Interactions in Public Sector Decision Making	J. of Public Admin. Research and Theory	258

Note: Documents were ranked by WoS times-cited counts at the time of retrieval; these counts change over time.

Beyond two broad AI references (Jobin et al., 2019; Hassija et al., 2024), the most cited public-administration studies were Wirtz et al. (2019), Busuioc (2021), and Kuziemski and Misuraca (2020) (Table 3). The prominence of accountability- and governance-oriented studies among them is consistent with the thematic structure reported below.

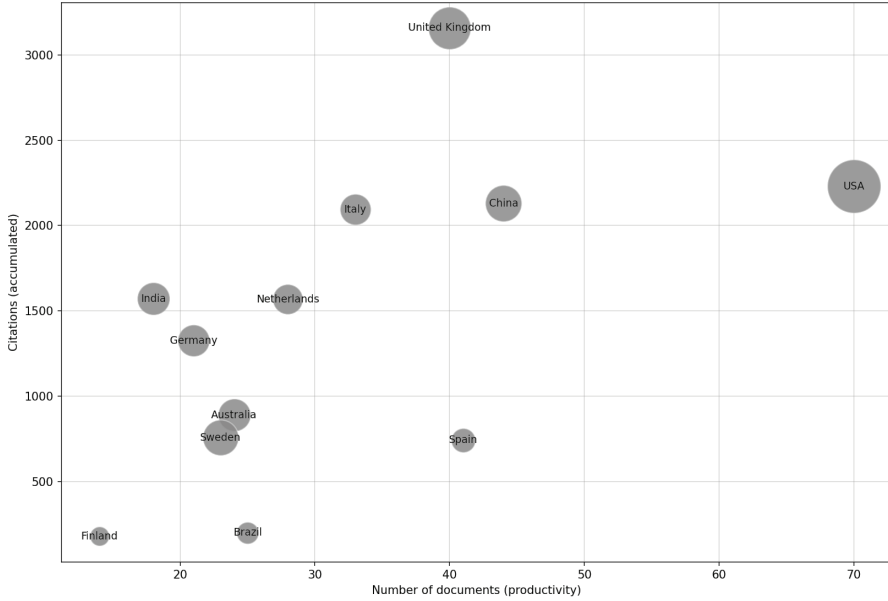
Figure 5: Country Co-authorship Network Map



Note: Node size shows the number of publications by country; links indicate international co-authorship relations, and colors show collaboration clusters.

Thirty countries met the threshold of five documents and formed the largest connected network (Figure 5). The USA and China were the most prominent nodes, while the United Kingdom, Spain, the Netherlands, Italy, Germany, and Sweden formed a closely connected European group.

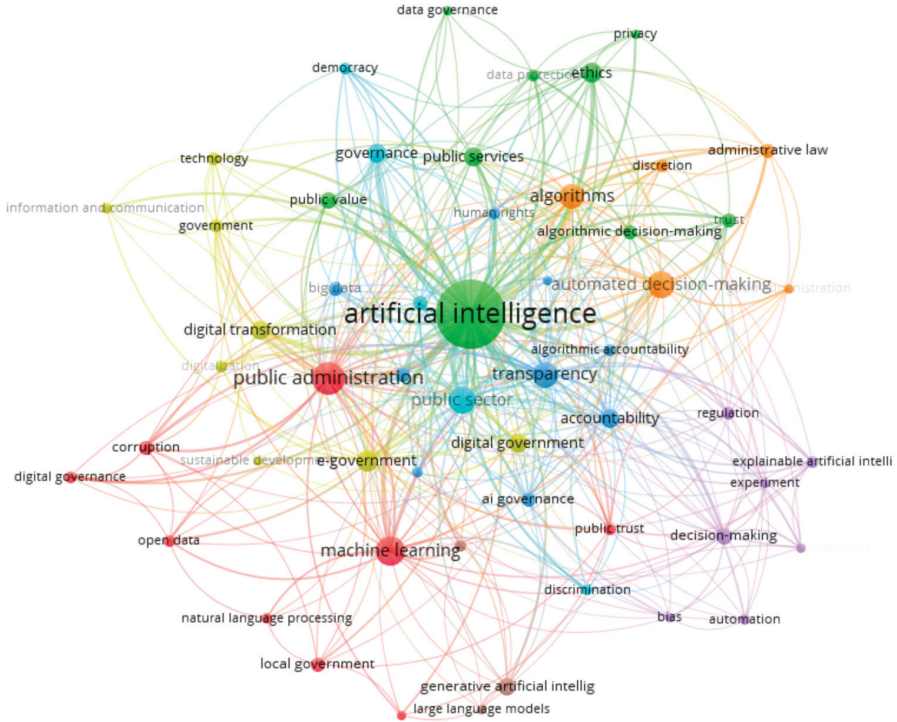
Figure 6: Productivity and Citation Accumulation of the Most Productive Countries



Productivity and citation accumulation do not always coincide (Figure 6). The USA and China lead in output, but the United Kingdom records the highest citation total (3,160) and the highest citations per document (79.0) despite fewer documents (40). It is followed by Italy (63.5), Germany (63.1), and the Netherlands (56.0), while Spain (18.1) and Brazil (8.0) show lower values. The USA has the strongest international co-authorship links. Because raw citation counts depend on publication age and a few highly cited works, these values indicate visibility rather than quality.

2.2. Conceptual Structure and Temporal Development of Keywords

Figure 7: Keyword Co-occurrence Network Map



Note: Larger nodes indicate keywords that appear more frequently in the publications. Lines show keywords that are used together in the same publications. Colors represent thematic clusters generated by VOSviewer.

The most prominent keywords were “artificial intelligence,” “public administration,” “machine learning,” “automated decision-making,” “public sector,” “transparency,” “e-government,” “ethics,” “governance,” and “accountability” (Figure 7). The network also included rights-related keywords such as “human rights,” “bias,” “discrimination,” “privacy,” and “data protection,” and recent terms such as “generative artificial intelligence” and “large language models.” Keywords directly related to ombudsman institutions, complaints, redress, external audit, appeals, and contestability did not appear as nodes (Section 3.3).

Figure 8: Density Visualization of Keyword Co-occurrence



Note: Brighter areas show keywords that appear more frequently and have stronger connections with other keywords.

The density map shows the same core (Figure 8). The brightest area lies around “artificial intelligence,” “public administration,” “machine learning,” “automated decision-making,” “transparency,” “accountability,” “ethics,” and “digital government.” Rights-related terms appear with lower density, and citizen-facing mechanisms remain outside the dense core.

Table 4: Thematic Clusters of Keywords Generated by VOSviewer

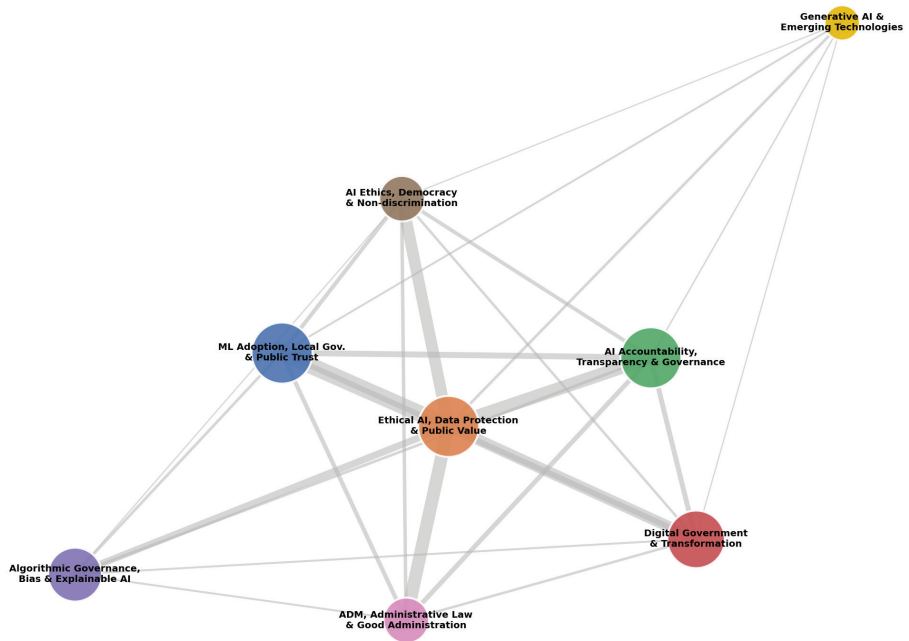
Cluster	Keywords	Thematic Label
Cluster 1	corruption; digital governance; local government; machine learning; natural language processing; open data; public administration; public trust; technology adoption	Machine Learning Adoption, Local Government, and Public Trust
Cluster 2	algorithmic decision-making; artificial intelligence; data governance; data protection; ethics; privacy; public services; public value; trust	Ethical AI, Data Protection, and Public Value

Cluster	Keywords	Thematic Label
Cluster 3	accountability; AI governance; algorithmic accountability; big data; human rights; public policy; public procurement; public sector innovation; transparency	AI Accountability, Transparency, and Public Governance
Cluster 4	digital government; digital transformation; digitalization; e-government; government; information and communication technologies; sustainable development; technology	Digital Government and Digital Transformation
Cluster 5	algorithmic governance; automation; bias; decision-making; experiment; explainable artificial intelligence; regulation	Algorithmic Governance, Bias, and Explainable AI
Cluster 6	AI ethics; democracy; discrimination; governance; public sector	AI Ethics, Democracy, and Non-discrimination
Cluster 7	administrative law; algorithms; automated decision-making; discretion; good administration	Automated Decision-Making, Administrative Law, and Good Administration
Cluster 8	generative artificial intelligence; large language models; smart city	Generative AI and Emerging Technologies

Note: Clusters were generated by VOSviewer; thematic labels were assigned by the author.

The eight clusters combine technology-related terms, such as “machine learning,” “automated decision-making,” and “large language models,” with governance-related terms, such as “accountability,” “transparency,” “ethics,” and “administrative law” (Table 4).

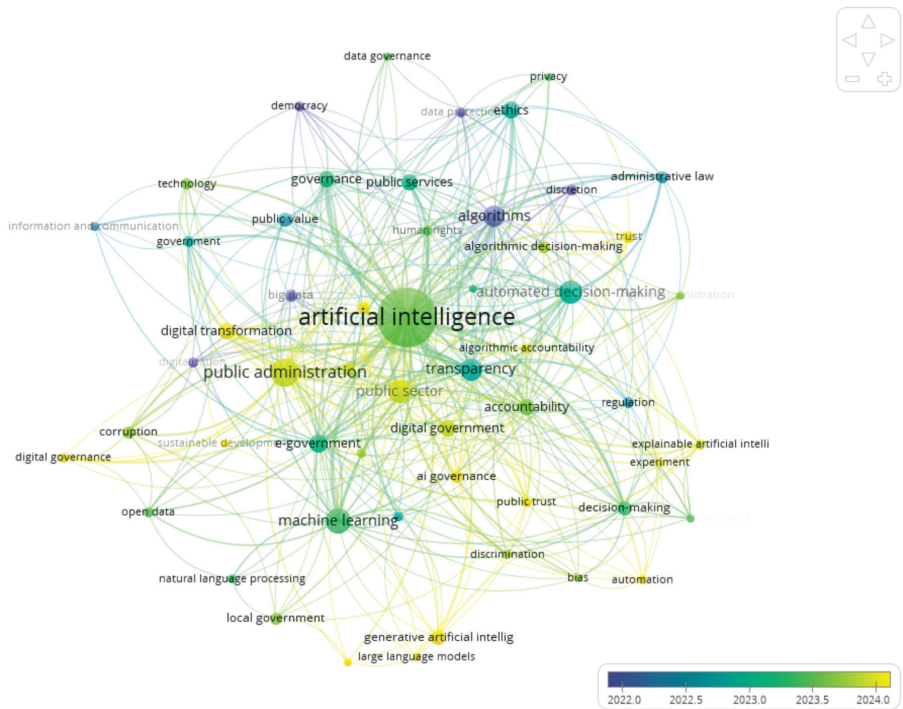
Figure 9: Thematic Synthesis of Keyword Co-occurrence Clusters



Note: Author-developed synthesis of the eight VOSviewer clusters. Node size reflects the number of keywords in each cluster; link thickness reflects the number of publications in which keywords from two clusters co-occur.

The field is organized around a central ethical-AI and data-governance core, which is strongly connected to accountability and transparency, digital government, and administrative law (Figure 9). Generative AI forms a smaller and more peripheral cluster.

Figure 10: Overlay Visualization of Keyword Co-occurrence by Average Publication Year



Note: Colors indicate the average publication year of the documents in which each keyword appears. Keywords closer to yellow represent more recent topics in the dataset.

“Generative artificial intelligence,” “large language models,” “explainable artificial intelligence,” “digital governance,” “algorithmic governance,” and “digital transformation” are among the keywords with the most recent average publication years (Figure 10). Keywords related to rights and legal safeguards, such as “human rights,” “administrative law,” and “data protection,” are scattered across the periphery of the network.

2.3. Visibility of Citizen-Facing Accountability Mechanisms

The third research question asks how visible citizen-facing accountability mechanisms are within this corpus (Table 5). Complaint, grievance, redress, ombudsman, external and supreme audit, oversight, appeal, judicial review, contestability, and administrative justice were all included in the search query. A record could therefore enter the corpus through any of these terms appearing in its title, abstract, author keywords, or Keywords Plus. The keyword network, however, is based on author keywords only, and a term included in the query need not be used as an author keyword. None of these concepts reached the minimum threshold of five occurrences as a single author keyword. The strongest term was “administrative justice” (3 records), followed by “public complaint,” “supreme audit institutions,” “contestability,” and “judicial review” (2 records each). “Ombudsman,” “oversight,” and “appeal” did not appear as author keywords at all. By contrast, transparency (35), ethics (20), and accountability (18) far exceed this threshold. A sensitivity check showed that this pattern does not depend on the chosen threshold. Lowering the threshold to four increased the network to 76 keywords, and no citizen-facing concept it was included. At a threshold of three, the network grew to 122 keywords, and “administrative justice” was the only citizen-facing concept to appear as a node.

Table 5: Visibility of Citizen-Facing Accountability Concepts in the Dataset

Concept	Author-keyword occurrences (max single term)	Title/ abstract: term matches	Relevant uses (b + c)	As safeguard over AI-supported decisions (c)	Network node (≥5)?
Ombudsman	0	1	1	1	No
Oversight (any use)	1	23	13	9	No
Appeal	0	13	5	4	No
Complaint mechanisms	2	16	16	2	No
Redress / remedy	1	8	4	4	No
Due process	1	10	10	10	No
External / supreme audit	2	4	4	1	No
Judicial review	2	5	5	4	No
Contestability	2	2	2	2	No
Administrative justice	3	5	4	4	No

Note: "Author-keyword occurrences" is the highest number of records in which any single author keyword expressing the concept appears. Title and abstract search terms (* indicates truncation): ombudsman: ombuds*; oversight: oversight; appeal: appeal*; complaint mechanisms: complaint*, grievance*; redress/remedy: redress*, remed*; due process: "due process"; external/supreme audit: "external audit*", "supreme audit*"; judicial review: "judicial review"; contestability: contestab*; administrative justice: "administrative justice". Coding categories (b) and (c) are defined in Section 2.3. The exact phrases "external oversight" and "independent oversight" occur in no title or abstract. The full coding is provided in the supplementary material.

Titles and abstracts give a fuller picture, but raw term counts overstate engagement with these mechanisms. Of the 13 records containing "appeal," five used the term in the sense of an administrative or legal appeal. Of the 23 records mentioning "oversight," 13 referred to institutional or regulatory oversight, and most of the others referred to human oversight within AI systems. The complaint category shows a different pattern. All 16 records referred to citizen complaints, but only two treated complaints as a safeguard against automated decisions. Most used AI to classify, predict, or manage complaints. Three of the four records on supreme audit institutions (SAIs) examined AI as a tool for audit work, and only one also addressed the audit of AI used by public bodies. Due process, judicial review, contestability, and administrative justice were the concepts most consistently discussed as safeguards over AI-supported decisions. Taken together, these results suggest that citizen-facing mechanisms are present in the literature but sit at the periphery of its keyword structure. When they do appear, they are often treated as areas where AI is applied rather than as means of holding AI-supported decisions to account. Including these terms in the query gave them a real opportunity to surface, which makes their low visibility at the author-keyword level informative. This finding concerns how authors frame their work and does not show that these mechanisms are absent from the substantive content of the literature.

3. DISCUSSION

The analysis points to an interdisciplinary field at the intersection of public administration, law, information science, computer science, and management studies (Wirtz et al., 2019; Wirtz et al., 2021; Rizk & Lindgren, 2024). The discussion is organized around four themes: the rapid expansion of the literature, the growing attention to algorithmic governance, the centrality of accountability and good governance principles, and the limited visibility of citizen-facing mechanisms.

The rapid expansion of AI-related public administration literature shows that AI has become a central issue for contemporary public governance. Earlier digital government debates focused mainly on e-government, online service delivery, data infrastructures, and administrative modernization (Dunleavy & Margetts, 2025). Reviews of public sector AI show that the field now addresses organizational, legal, ethical, and governance-related implications of AI use in public administration, alongside questions of technological adoption (Henman, 2020; Babšek et al., 2025). Policy-oriented discussions link government use of AI with improved public services but also point to risks such as biased data, weak transparency, accountability gaps, and declining citizen trust (OECD, 2025). In the Turkish literature, similar discussions address AI as part of the broader digital transformation of public services, with an emphasis on service delivery, administrative efficiency, decision support, and citizen-oriented public administration (Tanrıverdi, 2021; Efe, 2022; Kaya, 2024). Overall, this literature reflects a shift from viewing AI as a technical extension of digital transformation to approaching it as a governance issue that requires design, implementation, monitoring, and justification in public administration.

The keyword structure of this study shows that terms related to digital government and digital transformation appear together with terms such as algorithmic decision-making, automated decision-making, AI governance, administrative law, and discretion. This pattern, together with the overlay analysis, suggests that more recent research shows a growing orientation toward algorithmic governance themes. Public authorities therefore need to govern algorithmic systems while using them as instruments of governance (Kuziemski & Misuraca, 2020). This changes the roles and action spaces of officials and citizens, raising questions about discretion, legitimacy, and citizens' experiences of public decisions (Wihlborg et al., 2016; Alon-Barkat & Busuioc, 2024). Turkish studies also discuss AI-supported public administration in relation to decision-making authority, administrative discretion, algorithmic power, and the legal limits of AI-supported administrative action (Yolcu & Ozan, 2024; Akay, 2025). Algorithmic governance should therefore be understood as an institutional and normative transformation that requires attention to good administration, human oversight, explainability, procedural fairness, and the rule of law (Roehl & Cromptvoets, 2025).

The prominence of accountability, transparency, ethics, and human rights in the keyword structure should be read with the design of the corpus in mind. Because the search query required at least one accountability or good governance term, the centrality of these concepts partly reflects how the dataset was built. Within this corpus, they show that public sector AI is framed within a broader governance debate that includes efficiency, service innovation, legitimacy, and public values. Algorithmic accountability requires meaningful oversight, interpretable systems, clear responsibility arrangements, and mechanisms that make institutions answerable for AI-supported decisions (Busuioc, 2021; Loi & Spielkamp, 2021; Bracci, 2023). From a good governance perspective, transparency, explainability, fairness, privacy, non-discrimination, human oversight, and public trust are closely related to democratic administration, procedural justice, public values, and the legitimacy of public authority (Margetts, 2022; Sigfrids et al., 2022; Mišić et al., 2025). Studies focusing on the Turkish context also discuss similar concerns regarding transparency, accountability, data protection, administrative predictability, and clearer legal and institutional safeguards (Mutlu & Öncü, 2024; Karabulut, 2025).

The limited visibility of contestability, complaint mechanisms, administrative justice, and ombudsman oversight represents a distinct finding. These concepts were also part of the search query, yet they rarely appeared as author keywords. In terms of the three-level framework set out in the Introduction, the keyword structure is dominated by governance principles, while citizen rights and procedures and oversight institutions remain peripheral. These two levels are what make accountability actionable for citizens. The title and abstract analyses add nuance. Several of these mechanisms are discussed in the literature, but often as areas where AI is applied, such as the automated handling of complaints, rather than as safeguards against AI-supported decisions. The pattern therefore concerns how authors frame their work and which concepts they place at the centre. It does not show that these ideas are absent from the literature. Citizens affected by AI-supported administrative decisions need ways to understand, question, correct, appeal, or complain about decisions that affect access to public services, welfare benefits, immigration procedures, or other rights-related outcomes. Contestability literature shows that meaningful challenge requires explanation, human review, procedural support, and usable channels

of recourse (Lyons et al., 2021; Karusala et al., 2024; Langer, 2024). From an administrative justice perspective, automated public decision-making should remain compatible with reason-giving, reviewability, procedural fairness, and the right to seek a remedy against administrative errors or unlawful decisions (Tomlinson, 2020; Suksi, 2021). Public oversight institutions, including courts, ombudsman offices, and independent review bodies, can support this accountability infrastructure by examining whether algorithmic practices comply with legality, fairness, transparency, proportionality, and good administration (Bignami, 2022; Hogan-Doran, 2017; Kronblad et al., 2024). In the Turkish context, recent studies link AI-supported administrative decisions with unclear responsibility mechanisms, limited complaint channels, digital profiling risks, and the possible role of the Ombudsman Institution in AI-related administrative grievances (Karabulut, 2025; Erdoğan, 2025; Gürbey, 2025).

External public audit deserves particular attention in this agenda. SAls examine the legality, regularity, and performance of public spending, and algorithmic systems increasingly shape how public resources are allocated. In the mapped literature, however, SAls appear mainly as users of AI for their own audit work. A smaller body of research shows that they can also audit algorithmic systems. The Polish Supreme Audit Office found that the profiling system used in public employment services was ineffective and could lead to discrimination, and the tool was later withdrawn (Kuziemska & Misuraca, 2020). The Netherlands Court of Audit reported that government agencies gave little consideration to the ethical aspects of their algorithms (Genaro-Moya et al., 2025). Recent frameworks propose audit criteria that cover data governance, legality, bias, transparency, and performance across the life cycle of AI systems, and some draw on the assurance logic of financial auditing (Lam et al., 2024; Brand et al., 2025). Ateş (2025) adds auditability and contestability to these criteria and links public auditing with democratic oversight. In Türkiye, studies on the Turkish Court of Accounts have so far focused on AI as a support for audit work (Özdemir & Yelboğa, 2025; Uzun & Uzun, 2025). Auditing the algorithmic systems of audited entities in terms of data quality, legality, explainability, discrimination risk, and value for money is a natural next step for external audit. This step would allow SAls to act as oversight institutions that hold AI-supported administration to account, alongside courts and ombudsman offices.

Taken together, these themes point to a cumulative logic. Public sector AI gives rise to algorithmic governance, which raises questions of accountability, transparency, and ethics. These concepts are highly visible in the mapped literature. Administrative justice, citizen remedies, and ombudsman and external oversight are far less developed, even though these mechanisms turn accountability from an institutional principle into an enforceable safeguard for citizens. This progression provides an analytical map of where scholarly attention is concentrated and where it is limited, rather than making a causal claim.

4. LIMITATIONS

This study has several limitations. First, it relied on a single database, and publications indexed only in Scopus, Dimensions, or Google Scholar might have been underrepresented. Second, it included only articles and review articles. Debates on contestability, administrative justice, and ombudsman oversight are often developed in legal monographs and policy reports, which may partly explain the low visibility of these concepts. Third, the 484 records were not screened for relevance at the title or abstract level, so the dataset may include studies that relate only indirectly to the aim of the study. Fourth, because the query required an accountability or good governance term, the maps describe the internal structure of an accountability-focused corpus rather than the entire public-sector-AI literature. Fifth, keyword co-occurrence analysis captures how authors label their work rather than the full content of the literature. The title and abstract coding reduces this limitation, but it was carried out by a single coder. Sixth, publication and citation data are a snapshot taken in mid-2026. Finally, the labelling of clusters involved interpretive judgment. Future studies could combine databases and document types, compare accountability concepts with a broader public-sector-AI corpus, and complement bibliometric mapping with systematic review methods.

CONCLUSION

This study mapped the bibliometric structure and thematic development of the literature on AI, accountability, and good governance in public administration, using a dataset of 484 publications retrieved with a search query deliberately expanded to capture citizen-facing accountability concepts. The mapping shows a rapidly expanding, interdisciplinary field

focusing on digital transformation, automated decision-making, AI governance, transparency, and accountability, with more recent works concentrating on generative AI and algorithmic governance. Within this accountability-focused corpus, contestability, complaint mechanisms, administrative justice, external oversight, and ombudsman oversight remain far less visible at the level of author keywords, even though the corresponding terms were included in the search. When these mechanisms appear in titles and abstracts, they are often treated as areas of AI application rather than as safeguards for citizens.

Future research should give greater attention to the less visible areas identified in this mapping, particularly contestability, complaint mechanisms, administrative justice, and ombudsman oversight. Studies should examine how citizens can understand, question, correct, appeal, or complain about AI-supported administrative decisions in concrete public service contexts. More empirical research is needed in areas such as welfare, migration, taxation, local government, risk assessment, and public service delivery, where algorithmic systems may directly affect rights, benefits, and access to services. Research should also examine how ombudsman institutions, courts, and audit bodies can review AI-supported decisions. The role of external public audit bodies and SAs in scrutinizing algorithmic decision-making appears especially promising and underexplored, particularly in contexts such as Türkiye, where audit and oversight institutions are central to administrative accountability. In this way, future scholarship can move the debate on AI governance toward a more concrete agenda centered on administrative justice, remedies, and accountable public oversight.

DECLARATIONS

Ethics Committee Approval: This study did not involve the recruitment of, or data collection from, human participants; it analysed publicly available bibliographic metadata retrieved from the Web of Science Core Collection. Ethics committee approval was therefore not required.

Funding: The author received no financial support for the research, authorship, or publication of this article.

Conflict of Interest: The author declares that there is no conflict of interest.

Originality: This article is original, has not been published elsewhere, and is not under review by any other journal.

REFERENCES

- Akay, H. (2025). Yeni Kamu İşletmeciliği ve Algoritmik İktidar: Devletin Karar Verme Süreçlerinde Yapay Zekanın Rolü. *Nevşehir Hacı Bektaş Veli Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, Sosyal Bilimlerde Yapay Zeka: Kuram, Uygulama ve Gelecek Perspektifleri Özel Sayısı*, 336–351.
- Akman, E., Aksu, D., & Can, Y. (2024). Kamu Denetçiliği Kurumu’nun Kamu Personeli Rejimi Konusunda Almış Olduğu Tavsiye Kararlarını ChatGPT Değerlendirebilir Mi? *Afyon Kocatepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 26(Özel Sayı), 133–149. <https://doi.org/10.33707/akuiibfd.1463116>.
- Alon-Barkat, S., & Busuioc, M. (2023). Human–AI Interactions in Public Sector Decision Making: “Automation Bias” and “Selective Adherence” to Algorithmic Advice. *Journal of Public Administration Research and Theory*, 33(1), 153–169. <https://doi.org/10.1093/jopart/muac007>.
- Alon-Barkat, S., & Busuioc, M. (2024). Public Administration Meets Artificial Intelligence: Towards a Meaningful Behavioral Research Agenda on Algorithmic Decision-Making in Government. *Journal of Behavioral Public Administration*, 7(1), 1–19. <https://doi.org/10.30636/jbpa.71.261>
- Aristovnik, A., Umek, L., & Ravšelj, D. (2024). Artificial Intelligence in Public Administration: A Bibliometric Review in Comparative Perspective. In M. Trajanović, N. Filipović, & M. Zdravković (Eds.), *Disruptive Information Technologies for a Smart Society: Proceedings of the 13th International Conference on Information Society and Technology (Lecture Notes in Networks and Systems, Vol. 872, pp. 126–140)*. Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-50755-7_13
- Ateş, H. (2025). Algorithmic Systems and Democratic Oversight in Public Auditing. *Sayıştay Dergisi*, 36(139), 681–709. <https://doi.org/10.52836/sayistay.1731625>
- Babšek, M., Ravšelj, D., Umek, L., & Aristovnik, A. (2025). Artificial Intelligence Adoption in Public Administration: An Overview of Top-Cited Articles and Practical Applications. *AI*, 6(3), Article 44. <https://doi.org/10.3390/ai6030044>
- Bignami, F. (2022). Artificial Intelligence Accountability of Public Administration. *The American Journal of Comparative Law*, 70(Suppl. 1), i312–i346. <https://doi.org/10.1093/ajcl/avac012>
- Bozdoğanoglu, B. (2025). Kamu Yönetiminde Dijitalleşme Sürecinin Bireylerin İyi Yönetim Hakkına Etkisi: Akıllı Yönetimlerde Yapay Zeka Teknolojisi Kullanımının Değerlendirilmesi. *Sayıştay Dergisi*, 36(139), 743–770. <https://doi.org/10.52836/sayistay.1771754>

- Bracci, E. (2023). The Loopholes of Algorithmic Public Services: An "Intelligent" Accountability Research Agenda. *Accounting, Auditing & Accountability Journal*, 36(2), 739–763. <https://doi.org/10.1108/AAAJ-06-2022-5856>
- Brand, D., Hoffmann, M., & Van der Merwe, J. (2025). Development of Effective Methods and Tools for the Auditing AI Algorithms by Supreme Audit Institutions. *JeDEM - eJournal of eDemocracy and Open Government*, 17(3), 106–140. <https://doi.org/10.29379/jedem.v17i3.1049>
- Busuioc, M. (2021). Accountable Artificial Intelligence: Holding Algorithms to Account. *Public Administration Review*, 81(5), 825–836. <https://doi.org/10.1111/puar.13293>
- Dunleavy, P., & Margetts, H. (2025). Data Science, Artificial Intelligence and the Third Wave of Digital Era Governance. *Public Policy and Administration*, 40(2), 185–214. <https://doi.org/10.1177/09520767231198737>
- Efe, A. (2022). Yapay Zeka Ortamındaki Dijital Kamu Yönetiminin Yol Haritası. *Kamu Yönetimi ve Teknoloji Dergisi*, 4(1), 99–130. <https://doi.org/10.58307/kaytek.1185712>
- Erdoğan, O. (2025). Karar Verme Sürecinde Yeni Bir Yaklaşım: Yapay Zeka Ombudsmanlığı. *Ombudsman Akademik*, (22), 47–78. <https://doi.org/10.32002/ombudsmanakademik.1602388>
- Genaro-Moya, D., López-Hernández, A. M., & Godz, M. (2025). Artificial Intelligence and Public Sector Auditing: Challenges and Opportunities for Supreme Audit Institutions. *World*, 6(2), Article 78. <https://doi.org/10.3390/world6020078>
- Gürbey, S. (2025). Elektronik Devlet Süreçlerinde Dijital Profillemeye ve Kişisel Veri Riski: Genel Bilgi Toplama (GBT) Sistemi ve Kamu Denetçiliği Kurumu Kararları Üzerine Bir İnceleme. *Journal of Political Administrative and Local Studies*, 8(2), 122–136. <https://doi.org/10.37460/jpaljournal.1840357>
- Harrison, T. M., & Luna-Reyes, L. F. (2022). Cultivating Trustworthy Artificial Intelligence in Digital Government. *Social Science Computer Review*, 40(2), 494–511. <https://doi.org/10.1177/0894439320980122>
- Hassija, V., Chamola, V., Mahapatra, A., Singal, A., Goel, D., Huang, K.-Z., Scardapane, S., Spinelli, I., Mahmud, M., & Hussain, A. (2024). Interpreting Black-Box Models: A Review on Explainable Artificial Intelligence. *Cognitive Computation*, 16(1), 45–74. <https://doi.org/10.1007/s12559-023-10179-8>
- Henman, P. (2020). Improving Public Services Using Artificial Intelligence: Possibilities, Pitfalls, Governance. *Asia Pacific Journal of Public Administration*, 42(4), 209–221. <https://doi.org/10.1080/23276665.2020.1816188>

- Hogan-Doran, D. (2017). Computer Says 'No': Automation, Algorithms and Artificial Intelligence in Government Decision-Making. *Judicial Review: Selected Conference Papers: Journal of the Judicial Commission of New South Wales*, 13(3), 345–382.
- Jobin, A., Ienca, M., & Vayena, E. (2019). The Global Landscape of AI Ethics Guidelines. *Nature Machine Intelligence*, 1(9), 389–399. <https://doi.org/10.1038/s42256-019-0088-2>
- Karabulut, N. (2025). Kamu Yönetiminde Yapay Zeka Destekli Otomatik Karar Verme Sistemleri: Türkiye Bağlamında Bir Değerlendirme. *Necmettin Erbakan Üniversitesi Siyasal Bilgiler Fakültesi Dergisi*, 7(1), 151–183. <https://doi.org/10.51124/jneusbf.2025.112>
- Karusala, N., Upadhyay, S., Veeraraghavan, R., & Gajos, K. Z. (2024). Understanding Contestability on the Margins: Implications for the Design of Algorithmic Decision-Making in Public Services. In *Proceedings of the 2024 CHI Conference on Human Factors in Computing Systems* 1–16. ACM. <https://doi.org/10.1145/3613904.3641898>
- Kasap, E. M., & Nalcı Arıbaş, N. (2026). Yapay Zeka Etiği: Türkiye Ulusal Stratejisi ve Uluslararası Belgeler Üzerinden Karşılaştırmalı Bir Değerlendirme. *Journal of Management Theory and Practices Research*, 7(1), 1–21. <https://doi.org/10.71284/jmtp.2026711>
- Kaun, A. (2022). Suing the Algorithm: The Mundanization of Automated Decision-Making in Public Services Through Litigation. *Information, Communication & Society*, 25(14), 2046–2062. <https://doi.org/10.1080/1369118X.2021.1924827>
- Kaya, E. (2024). Kamu Yönetiminde Dijital Dönüşüm ve Yapay Zeka Uygulamaları. *Hitit Ekonomi ve Politika Dergisi*, 4(2), 126–141.
- Kronblad, C., Essén, A., & Mähring, M. (2024). When Justice Is Blind to Algorithms: Multilayered Blackboxing of Algorithmic Decision-Making in the Public Sector. *MIS Quarterly*, 48(4), 1637–1662. <https://doi.org/10.25300/MISQ/2024/18251>
- Kuziemski, M., & Misuraca, G. (2020). AI Governance in the Public Sector: Three Tales from the Frontiers of Automated Decision-Making in Democratic Settings. *Telecommunications Policy*, 44(6), Article 101976. <https://doi.org/10.1016/j.telpol.2020.101976>
- Lam, K., Lange, B., Bili-Hamelin, B., Davidovic, J., Brown, S., & Hasan, A. (2024). A Framework for Assurance Audits of Algorithmic Systems. In *Proceedings of the 2024 ACM Conference on Fairness, Accountability, and Transparency* 1078–1092. <https://doi.org/10.1145/3630106.3658957>

- Langer, C. (2024). Decision-Making Power and Responsibility in an Automated Administration. *Discover Artificial Intelligence*, 4(1), Article 59. <https://doi.org/10.1007/s44163-024-00152-1>
- Lindgren, I., Madsen, C. Ø., Hofmann, S., & Melin, U. (2019). Close Encounters of the Digital Kind: A Research Agenda for the Digitalization of Public Services. *Government Information Quarterly*, 36(3), 427–436. <https://doi.org/10.1016/j.giq.2019.03.002>
- Loi, M., & Spielkamp, M. (2021). Towards Accountability in the Use of Artificial Intelligence for Public Administrations. In *Proceedings of the 2021 AAAI/ACM Conference on AI, Ethics, and Society* 757–766. ACM. <https://doi.org/10.1145/3461702.3462631>
- Lyons, H., Velloso, E., & Miller, T. (2021). Conceptualising Contestability: Perspectives on Contesting Algorithmic Decisions. *Proceedings of the ACM on Human-Computer Interaction*, 5(CSCW1), 1–25. <https://doi.org/10.1145/3449180>
- Madan, R., & Ashok, M. (2023). AI Adoption and Diffusion in Public Administration: A Systematic Literature Review and Future Research Agenda. *Government Information Quarterly*, 40(1), Article 101774. <https://doi.org/10.1016/j.giq.2022.101774>
- Margetts, H. (2022). Rethinking AI for Good Governance. *Daedalus*, 151(2), 360–371. https://doi.org/10.1162/daed_a_01922
- Mišić, J., van Est, R., & Kool, L. (2025). Good Governance of Public Sector AI: A Combined Value Framework for Good Order and a Good Society. *AI and Ethics*, 5(5), 4875–4889. <https://doi.org/10.1007/s43681-025-00751-3>
- Mutlu, A. E., & Öncü, R. N. (2024). İdarenin Eylem ve İşlemlerinin Öngörülebilirliği ve Yapay Zeka Kullanımı. *Balıkesir Üniversitesi Hukuk Dergisi*, 1(2), 186–213.
- Neumann, O., Guirguis, K., & Steiner, R. (2024). Exploring Artificial Intelligence Adoption in Public Organizations: A Comparative Case Study. *Public Management Review*, 26(1), 114–141. <https://doi.org/10.1080/14719037.2022.2048685>
- OECD. (2025). Governing with Artificial Intelligence: The State of Play and Way Forward in Core Government Functions. <https://doi.org/10.1787/795de142-en>
- O'Sullivan, M. (2024). Artificial Intelligence and the Right to an Effective Remedy. In M. Balcerzak & J. Kapelańska-Pręgowska (Eds.), *Artificial Intelligence and International Human Rights Law* 196–213. Edward Elgar Publishing. <https://doi.org/10.4337/9781035337934.00019>
- Ölmez, M., & Bayrak, B. (2025). Kamu Kurumlarında Yapay Zekânın Dijital Yönetişime Etkisi: Kamu Denetçiliği Kurumu İncelemesi. *ASSAM Uluslararası Hakemli Dergi*, 26, 50–63. <https://doi.org/10.58724/assam.1596586>

- Özdemir, H., & Yelboğa, A. (2025). Yapay Zekâ Destekli Denetimin Kamu Harcamalarındaki Rolü: Sayıştay Örneği. *Sayıştay Dergisi*, 36(139), 771–802. <https://doi.org/10.52836/sayistay.1793520>
- Passas, I. (2024). Bibliometric Analysis: The Main Steps. *Encyclopedia*, 4(2), 1014–1025. <https://doi.org/10.3390/encyclopedia4020065>
- Rizk, A., & Lindgren, I. (2024). Automated Decision-Making in the Public Sector: A Multidisciplinary Literature Review. In M. Janssen, J. Cromptvoets, J. R. Gil-Garcia, H. Lee, I. Lindgren, & A. Nikiforova (Eds.), *Electronic Government: EGOV 2024 Lecture Notes in Computer Science*, Vol. 14841, 237–253. Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-70274-7_15
- Roehl, U., & Cromptvoets, J. (2025). Inside Algorithmic Bureaucracy: Disentangling Automated Decision-Making and Good Administration. *Public Policy and Administration*, 40(2), 322–350. <https://doi.org/10.1177/09520767231197801>
- Sigfrids, A., Nieminen, M., Leikas, J., & Pikkuaho, P. (2022). How Should Public Administrations Foster the Ethical Development and Use of Artificial Intelligence? A Review of Proposals for Developing Governance of AI. *Frontiers in Human Dynamics*, 4, Article 858108. <https://doi.org/10.3389/fhumd.2022.858108>
- Suksi, M. (2021). Administrative Due Process When Using Automated Decision-Making in Public Administration: Some Notes from a Finnish Perspective. *Artificial Intelligence and Law*, 29(1), 87–110. <https://doi.org/10.1007/s10506-020-09269-x>
- Tanrıverdi, A. A. (2021). Yapay Zekanın Kamu Hizmetinin Sunumuna Etkileri. *Adalet Dergisi*, (66), 293–314.
- Tomlinson, J. (2020). Justice in Automated Administration. *Oxford Journal of Legal Studies*, 40(4), 708–736. <https://doi.org/10.1093/ojls/gqaa025>
- Uzun, Y., & Uzun, F. N. (2025). Algoritmik Denetim Çağında Sayıştay: Yapay Zekâ Destekli Kamu Denetiminin Olanakları ve Sınırları. *Sayıştay Dergisi*, 36(139), 711–742. <https://doi.org/10.52836/sayistay.1761414>
- Wieringa, M. (2020). What to Account for When Accounting for Algorithms: A Systematic Literature Review on Algorithmic Accountability. In *Proceedings of the 2020 Conference on Fairness, Accountability, and Transparency* 1–18. ACM. <https://doi.org/10.1145/3351095.3372833>
- Wihlborg, E., Larsson, H., & Hedström, K. (2016). The Computer Says No! A Case Study on Automated Decision-Making in Public Authorities. In *2016 49th Hawaii International Conference on System Sciences (HICSS)*. 2903–2912. IEEE. <https://doi.org/10.1109/HICSS.2016.364>

- Wirtz, B. W., Langer, P. F., & Fenner, C. (2021). Artificial Intelligence in the Public Sector: A Research Agenda. *International Journal of Public Administration*, 44(13), 1103–1128. <https://doi.org/10.1080/01900692.2021.1947319>
- Wirtz, B. W., Weyerer, J. C., & Geyer, C. (2019). Artificial Intelligence and the Public Sector: Applications and Challenges. *International Journal of Public Administration*, 42(7), 596–615. <https://doi.org/10.1080/01900692.2018.1498103>
- Yamak, Y. (2025). Yapay Zeka ile İlgili Güncel Düzenleme Çalışmaları: AB, ABD ve Türkiye Açısından İncelenmesi. *Bilgi Teknolojileri ve İletişim Dergisi*, 3(1), 35–68.
- Yigitcanlar, T., Desouza, K. C., Butler, L., & Roozkhosh, F. (2020). Contributions and Risks of Artificial Intelligence (AI) in Building Smarter Cities: Insights from a Systematic Review of the Literature. *Energies*, 13(6), Article 1473. <https://doi.org/10.3390/en13061473>
- Yolcu, F. S., & Ozan, M. S. (2024). Teknoloji Tabanlı Karar Alma Modeli Olarak Yapay Takdir Yetkisi: Türk Kamu Yönetimi İçin Bir Değerlendirme. *Bingöl Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 8(2), 165–183. <https://doi.org/10.33399/biibfad.1572770>
- Zuiderwijk, A., Chen, Y.-C., & Salem, F. (2021). Implications of the Use of Artificial Intelligence in Public Governance: A Systematic Literature Review and a Research Agenda. *Government Information Quarterly*, 38(3), Article 101577. <https://doi.org/10.1016/j.giq.2021.101577>

KAMU YÖNETİMİNDE YAPAY ZEKA, HESAP VEREBİLİRLİK VE İYİ YÖNETİŞİM: BİBLİYOMETRİK BİR ANALİZ

Merve Deniz PAK GÜRE

GENİŞLETİLMİŞ ÖZET

Yapay zeka (YZ), kamu yönetiminde hizmet sunumunu, karar desteğini, risk değerlendirmesini ve idari otoritenin kullanılma biçimini yeniden şekillendirmektedir. YZ destekli sistemler idari rutinlere yerleştikçe hesap verebilirlik, şeffaflık, adillik, insan denetimi ve kamu güveni konularında önemli sorular ortaya çıkmaktadır. Bu çalışma, kamu yönetiminde YZ, hesap verebilirlik ve iyi yönetim literatürünün bibliyometrik yapısını ve tematik gelişimini haritalamaktadır. Çalışma hesap verebilirliği üç düzeyde ele almaktadır. Birinci düzey şeffaflık, açıklanabilirlik ve adillik gibi yönetim ilkelerini, ikinci düzey itiraz, şikayet ve telafi gibi yurttaş haklarını ve prosedürlerini, üçüncü düzey ise mahkemeler, ombudsmanlık ve yüksek denetim kurumları gibi denetim kurumlarını kapsamaktadır. Amaç, hızla genişleyen bu alanın nasıl şekillendiğini, hangi temaların baskın olduğunu ve yurttaş odaklı hesap verebilirlik mekanizmalarının literatürde ne ölçüde görünür olduğunu ortaya koymaktır.

Çalışma, performans analizi ile bilimsel haritalamayı birleştiren tanımlayıcı bir bibliyometrik analiz olarak tasarlanmıştır. Veriler, 17 Ağustos 2026 tarihinde Web of Science Core Collection veri tabanından elde edilmiştir. Arama sorgusu şikayet, telafi, itiraz, ombudsman ve dış denetim gibi yurttaş odaklı kavramları doğrudan içerecek biçimde genişletilmiştir. Sorgu en az bir hesap verebilirlik veya iyi yönetim terimini zorunlu tuttuğundan, veri seti tasarım gereği bu temalara yöneliktir. Belge türü ve yayın yılı filtrelerinin ardından 1999-2025 yılları arasında yayımlanmış 484 makale ve derleme nihai veri setini oluşturmuştur. Bilimsel haritalama VOSviewer ile yürütülmüştür. Anahtar kelime eş-oluşum analizi yazar anahtar kelimelerine dayanmakta, en az beş tekrar eşiği kullanılmakta ve eşik üç ile dört için duyarlılık kontrolü yapılmaktadır. Ayrıca yurttaş odaklı kavramların başlık ve özetlerde hangi anlamda kullanıldığı bağlam okumasıyla kodlanmıştır.

Bulgular, literatürün 2018 yılına kadar sınırlı kaldığını, 2019'dan itibaren hızla genişlediğini ve 2025'te 208 yayına ulaştığını göstermektedir. Alan güçlü biçimde disiplinlerarasıdır. Kayıtların dörtte biri hukuk ve devlet, beşte biri kamu yönetimi alanında yer almakta, bunları işletme, bilgi bilimi ve bilgisayar bilimi izlemektedir. En üretken ülkeler Amerika Birleşik Devletleri ve Çin olmakla birlikte, belge başına en yüksek atıf ortalaması Birleşik Krallık'a aittir. Government Information Quarterly hem yayın sayısı hem de atıf bakımından

alanın merkezi dergisi konumundadır. Anahtar kelime ağı sekiz tematik kümeden oluşmaktadır. Bu kümeler etik YZ ve veri yönetişimi çevresinde birleşmekte, bu çekirdek hesap verebilirlik ve şeffaflık, dijital devlet ve idare hukuku kümeleriyle güçlü bağlar kurmaktadır. Kavramsal yapı dijital dönüşüm, otomatik ve algoritmik karar verme, YZ yönetişimi, şeffaflık, hesap verebilirlik, etik ve insan hakları etrafında örgütlenmektedir. Zamansal analiz, daha yeni çalışmaların üretken YZ, büyük dil modelleri ve algoritmik yönetim temalarına artan bir yönelim gösterdiğine işaret etmektedir.

Hesap verebilirlik, şeffaflık ve etiğin ağıın merkezinde yer alması kısmen veri setinin oluşturulma biçimini yansıtmaktadır. Çalışmanın asıl dikkat çekici bulgusu yurttaş odaklı kavramlara ilişkindir. Bu kavramlar arama sorgusunda yer almasına karşın hiçbir yazar anahtar kelimesi olarak beş tekrar eşliğine ulaşamamış ve ağda düğüm olarak ortaya çıkmamıştır. Eşik dört ve üçe düşürüldüğünde de tablo değişmemekte, eşik üçte yalnızca “idari adalet” ağına girmektedir. Başlık ve özetlerde bu mekanizmalar geçmekle birlikte ham terim sayıları görünürlüğü olduğundan yüksek göstermektedir. Örneğin “itiraz” terimi geçen 13 kaydın yalnızca beşi terimi idari ya da hukuki itiraz anlamında kullanmaktadır. “External oversight”, “independent oversight” ve “external audit” ifadeleri ise hiçbir başlık ya da özetle yer almamaktadır. Mekanizmalar geçtiğinde de çoğu zaman YZ’nin uygulandığı alanlar olarak ele alınmaktadır. Şikayet geçen 16 kaydın yalnızca ikisi şikayeti otomatik kararlara karşı bir güvence olarak tartışmakta, diğerleri şikayetleri YZ ile sınıflandırılan ya da tahmin edilen veriler olarak görmektedir. Benzer biçimde yüksek denetim kurumları literatürde çoğunlukla YZ’yi kendi denetim işlerinde kullanan kurumlar olarak yer almaktadır.

Bu çalışmanın özgün katkısı iki yönlüdür. İlk olarak çalışma, YZ, hesap verebilirlik ve iyi yönetim kesişimini açık analitik odak olarak ele alan ilk bibliyometrik çalışmalardan biridir. İkinci olarak, yurttaş odaklı hesap verebilirlik mekanizmalarının görünürlüğünü hem anahtar kelime hem de başlık ve özet düzeyinde sistematik biçimde izlemektedir. Bu yolla literatürün hesap verebilirliği ilke düzeyinde yoğun biçimde tartıştığını, buna karşılık yurttaşın itiraz ve telafi haklarını ve denetim kurumlarını görece ihmal ettiğini göstermektedir. Gelecekteki araştırmaların YZ yönetişimini idari adalet, yurttaş başvuru yolları ve dış denetimle daha doğrudan ilişkilendirmesi gerekmektedir. Sayıştay gibi yüksek denetim kurumlarının, denetlenen kurumların algoritmik sistemlerini veri kalitesi, hukuka uygunluk, açıklanabilirlik, ayrımcılık riski ve kaynak kullanımı açısından denetlemesi de önemli bir araştırma ve uygulama alanı olarak öne çıkmaktadır.