Public Private Partnership: in a New Public Governance Perspective – Bibliometric Analysis

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Abstract. Public-Private Partnership (PPP) is becoming increasingly common in academic literature, leading to a nuanced understanding of the concept. However, this growing interest has identified the challenges academia and industry face in reaching a consensus on the major practices of PPP, particularly in public administration. Conducting a bibliometric analysis on this study, it helps in understanding research published in recent years. The evolution of public administration practices concerning PPP has emphasized its dominant role as a study focus. This study showed that PPP had contributed to many sectors in public administration, including governance, project management, public service, business development, organizational frameworks, and sustainability. In addition, public service and organizational management within the context of PPP originated as a major study stream, often accompanied by a focus on sustainable development.

Keywords: public administration, public private partnership, new public governance

1. Introduction

In Public Administration studies, New Public Management paradigm is aimed at reforming public sector governance by introducing ideas that have been successfully applied in private sector business activities [1]. In other words, NPM intends to internalize the business sector's work ethos into public sector to improve the effectiveness and efficiency of what is often perceived as slow, wasteful, and corrupt public operations [2].

In several countries, the impact of NPM paradigm is particularly significant, as the governments attempt to shift from hierarchy to market-based structures [3]. As a result, public services are increasingly provided not only by public sector but also by commercial and community organizations under contractual agreements. This shift reduces the discretion and influence of public service professionals, effectively diminishing their roles [4]. The resulting fragmentation from this market-driven method necessitates collaboration among several organizations to deliver public service [5].

The increasing complexity and interconnectivity of contemporary governance environments have driven the evolution toward a post-New Public Management (post-NPM) paradigm referred to as New Public Governance (NPG). Rooted in organizational sociology and network theory, NPG provides a conceptual framework to understand the rising fragmentation, interdependence, and uncertainty that characterize modern public management practices [6]. Unlike traditional public administration models, NPG emphasizes cooperation between public and private sectors while promoting community participation in decision-making and operations related to public service [7].

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Savas developed partnership framework involving the government, private sector, and society in service provision. Furthermore, Savas distinguishes four types of goods or services, namely pure public, pure private, toll, and collective goods. According to this framework, certain goods can only be provided by the government (pure public goods), while others are best managed by private sector (pure private goods). Some goods or services, such as toll and collective goods, require a mixed method.

Partnership pattern between the government, private sector, and community aimed at equitable distribution of infrastructure resources, can reduce poverty and influence income distribution. This occurs when increased productivity and expanded investment funds are generated by state economic actors [8]. PPP helps foster collaboration between the government and private entities is an agreement that involves a contract between the two parties involved, where both parties share assets, capabilities, risks, and revenues over a period of 20 to 30 years [9]. In addition, private sector has significantly assisted the government, specifically in providing infrastructure in developing countries. A study in Nigeria [10] showed that PPP model, including public participation mechanisms reduced community suspicions regarding project management.

2. Literature Review

The concept of "partnership" aims to create a "dreamlike team" that combines the strengths of public sector (legislation, regulation, social concerns) with those of private sector (innovation, efficiency, finance) to address public needs [11]. One of the advantages of privatization in infrastructure is the provision of capital assistance to meet public demands [12]. A large-scale survey in the United States identified key empirical reasons for infrastructure privatization, including the limited ability or expertise in managing public budgets; and challenges related to political issues, labor, and risk-sharing in implementing privatization.

PPP describes the structured relationship between the two sectors, ensuring that strengths of each are used for optimal public services [13]. A key characteristic of Public-Private Partnerships (PPPs) lies in the integration of infrastructure investment and service delivery under a long-term contractual arrangement. According to the World Bank, PPPs are defined as "a long-term contract between private party and a government entity for the provision of public asset or service, where private party bears significant risk, management responsibility, and remuneration related to performance" [14]. Similarly, the Organization for Economic Cooperation and Development (OECD) defines PPP as "long-term contractual commitments between the government and private partner, where private partner provides and finances public service using fixed assets, sharing the attached risks" [15]. The European Commission also describes PPP as a "forms of cooperation between public and private sectors to finance, build, modernize, manage, or maintain certain infrastructure or provide services" [11]. In summary, PPP as long-term partnership between stakeholders designed to achieve mutual benefits [16]. For a successful implementation, certain requirements should be met on both sides. The government needs to ensure efficient and effective administration (good governance) and show strong commitment and consistency in implementing infrastructure development with private sector support. Furthermore, private sector should have strong financial support, good credibility, and efficient operations. A successful PPP organization is mission and results-oriented, with strict controls to reduce risks, maintain consensus and commitment, and ensure legal certainty.

Private sector also needs to be credible, financially robust, have sound risk management, stable income, and experience in project management. Collaboration on infrastructure

development necessitates agreement in the distribution of funding, payment methods, and building of consensus and trust. The effective implementation of these success factors can facilitate PPP to achieve significant success.

3. Methodology

This study aimed to investigate the current state of knowledge on PPP. To achieve this objective, and in line with the scope of the studyThe keywords “public-private partnership” and “public administration” were used in combination to extract relevant literature from the Scopus database. The search was conducted on 3 October 2024 and yielded a total of 105 journal articles of record. Furthermore, This article seeks to examine the role and relevance of Public-Private Partnerships (PPP) within the framework of public administration scholarship without prioritizing any particular area, such as public service, sustainability, or governance methods.

Following this 105 articles were retained and considered for export as the final dataset to be analyzed using R software and Biblioshiny. Biblioshiny is a web-based application for visualizing and analyzing bibliometric networks. It is powered by Bibliometrix, an R package designed to perform comprehensive bibliometric analysis, including document statistics, author and country collaboration networks, thematic mapping, and keyword co-occurrence analysis. Biblioshiny enables researchers from diverse backgrounds, including those without programming expertise, to access the full functionality of Bibliometrix through an intuitive user interface.

Bibliometric analysis is a promising method in this context, widely used in library and information sciences to handle a significant volume of bibliographic material. Recent developments in digital tools and rich databases have made this method applicable to several study fields. In addition, this study used keywords co-occurrence and bibliographic coupling, categorized under science mapping.

4. Results

Public administration analysis can be conducted through a multidisciplinary method, incorporating key disciplines such as political science, management, law, economics, and culture within the field of public administration. Public Administration Studies has experienced a significant evolution. The New Public Management (NPM) paradigm emerged during the 1980s and 1990s, promoted by leading scholars such as Christopher Hood [17], Jonathan Boston [18], as well as David Osborne and Ted Gaebler [19]. NPM is grounded in Neo-Classical economic concept, managerialism, and public choice theory.

Neo-Classical economics and managerialism are considered essential foundations of NPM, focusing on market mechanisms and results-driven practices. In 2006, Stephen P. Osborne ([20], [21]) proposed the concept of NPG, an extension of NPM that incorporates diversity or pluralism. Public administration, under NPG, emphasizes “network management” within a good governance system. Effective governance requires structural designs that facilitate coordination among stakeholders in public services. Since the rise of NPM, providing public services has no longer been solely the government's responsibility. All sectors are expected to participate in managing and operating public services collectively. NPG emphasizes the core values of participation, partnership, and democratic principles.

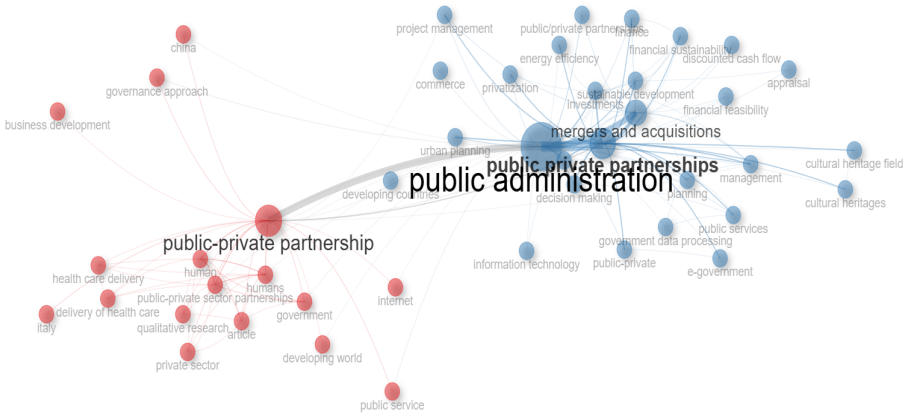

Figure 1. Frequency of co-occurrence
Source: Authors' own creation

The co-occurrence network visualizes the interrelationships among frequently appearing keywords in the literature on Public-Private Partnership (PPP) and Public Administration, revealing thematic clusters and conceptual linkages. This network is organized into two dominant clusters:

Cluster 1 (Red) includes terms such as PPP, government, public service, public-private sector partnership, human, article, health care delivery, delivery of healthcare, private sector, Italy, developing world, internet, China, governance approach, business development, and qualitative study. This cluster reflects the managerial and systemic dimensions of PPPs, particularly within the broader framework of public sector modernization, digital governance, and performance-based management and highlighting themes common in both New Public Management (NPM) and New Public Governance (NPG). These connections reflect a thematic focus on the implementation of PPPs in specific sectors (e.g., health care), regional or country-level contexts (e.g., China, Italy), and governance strategies. The emphasis on qualitative approaches also suggests a growing interest in context-specific analyses of PPP performance and governance dynamics.

Cluster 2 (Blue) includes terms such as public-private partnership (PPP), mergers and acquisitions, sustainable development, financial feasibility, investment, project management, public/private partnerships, finance, financial sustainability, appraisal, energy efficiency, management, culture heritage field, culture heritage, public services, Government data processing, e-government, public-private, information technology, developing country, urban planning, commerce, and decision-making. This cluster reflects the managerial and systemic dimensions of PPPs, particularly within the broader framework of public sector modernization, digital governance, and performance-based management and highlighting themes common in both New Public Management (NPM) and New Public Governance (NPG).

Table 1. Cluster map based on frequency keyword

Nr	Keyword	Occurrences	Btw Centrality
1	PPP	21	5,663
2	China	3	160
3	Governance approach	3	159
4	Project management	3	104
5	Public service	3	41
6	Business development	2	31
7	Organizational framework	2	9
8	Study work	2	164.760
9	Sustainability	2	164.760
10	United Kingdom	2	15.235

Source: Authors' own creation

The table displays a list of keywords, arranged in descending order based on their frequency of occurrence. It is important to recognize that each keyword's appearance within a document creates semantic links to other keywords. The strength of these connections varies and is determined by the number of documents in which the keywords co-occur. Additionally, Public-Private Partnerships (PPPs) can be broadly categorized into at least five distinct settings:

1. Institutional collaboration for joint service delivery,
2. Long-term contractual agreements for infrastructure development,
3. Engagement within public policy networks,
4. Initiatives involving civil society and community empowerment,
5. Projects related to urban regeneration and economic growth.

According to Savas (2000), PPP in the infrastructure sector exists in many forms, and can be categorized as follows:

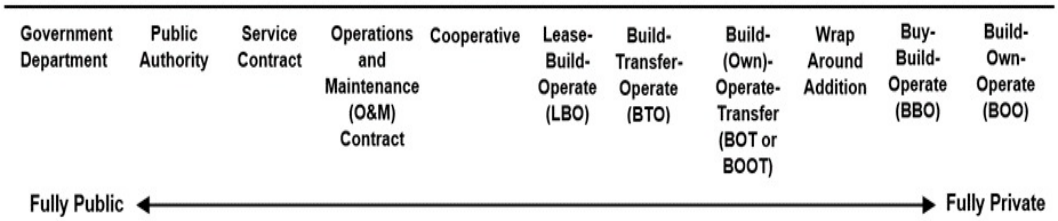

Figure 2. Spectrum of PPP
Source: Savas [12]

Based on Figure 2, it can be concluded that the more the PPP forms shift to the left, the more the financing is handled by public sector. Conversely, the further the shift to the right, the more the financing is handled by private sector. These forms feasible applied to develop new infrastructure, develop or improve the performance of existing infrastructure.

In the Indonesian context, Public-Private Partnership (PPP) arrangements are typically carried out through contract models such as Build-Operate-Transfer (BOT), Supported BOT (SBOT), and Design-Build-Finance-Operate-Maintain (DBFOM). These models represent a narrower conceptualization of PPP, primarily emphasizing project performance. However, assessing PPP effectiveness requires moving beyond individual project metrics to consider the broader network performance within which these partnerships operate. Evaluating outcomes

should therefore extend beyond purely technical aspects such as cost management, risk allocation, and operational efficiency to include governance dimensions, including stakeholder involvement, inter-sectoral coordination, and accountability mechanisms. Several key characteristics define the nature of PPPs:

1. PPPs constitute complex, long-term collaborations between public and private sector entities;
2. They inherently involve various forms of risk—whether at the project, regional, national, or market level—which must be appropriately distributed in accordance with institutional contexts, regulatory frameworks, and the specific characteristics of each project;
3. In developed countries, PPP implementation is often supported by strong attention to fiscal risk management, efficiency gains, and political considerations. In contrast, developing countries frequently experience top-down pressures, with central governments playing a more dominant role;
4. The performance of PPPs should be viewed through the lens of networked governance rather than isolated project efficiency. This study reveals that research on PPPs within public administration employs distinct objectives and methodologies when compared to studies emerging from other disciplines.

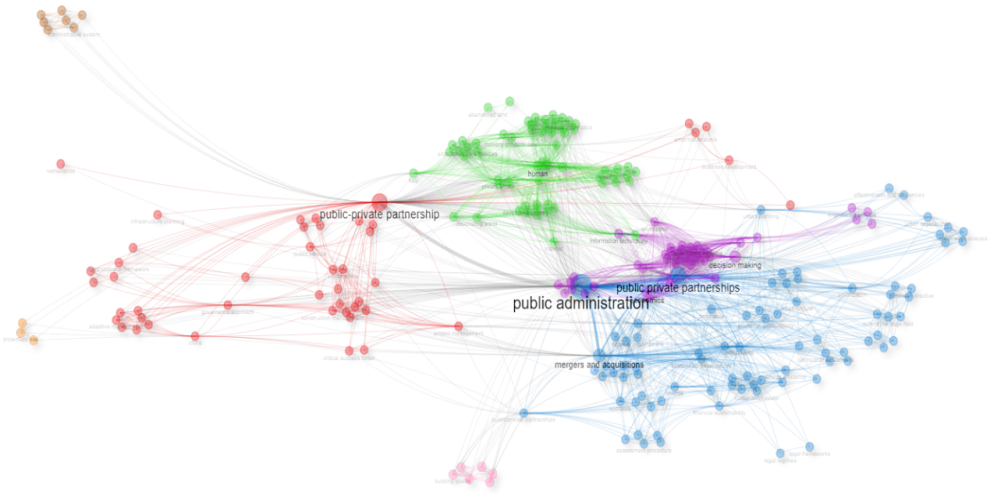

Figure 3. Network map of bibliography coupling based on keywords
Source: Authors' own creation

Based on Figure 3, there were four clusters. In the network image resulting from the visualization above, the size of the lines connecting keywords represents the citations received from each source. Apart from that, the thickness of the lines also determines the relationship between the keyword sources. The bibliometric analysis reveals five distinct thematic clusters that illustrate the evolving discourse on Public-Private Partnerships (PPPs) within the broader context of governance reform. Cluster 1 (Red) underscores a well-established theme centered on governance, public sector performance, policy reform, and service delivery. It reflects a paradigmatic shift from New Public Management (NPM) to New Public Governance (NPG),

characterized by increased attention to collaboration and decentralized approaches in public service delivery. Cluster 2 (Blue) emerges as the most mature and central, emphasizing infrastructure investment, smart cities, innovation, and technology. This cluster highlights PPPs' strategic role in modernizing infrastructure and promoting adaptive, cross-sectoral governance aligned with NPG principles. Cluster 3 (Purple) serves as a conceptual bridge, linking institutional arrangements and implementation challenges with broader debates in public administration. It encapsulates the tension and transition between hierarchical models of NPM and the network-oriented logic of NPG. Cluster 4 (Green) focuses on urban planning, sustainable development, and environmental governance, signaling the integration of PPPs with green and participatory public policies. Finally, Cluster 5 (Orange) captures emerging and peripheral themes, such as region-specific governance issues and the application of PPPs in developing countries. While still underexplored, these themes represent potential growth areas as PPP models adapt to diverse institutional and socio-political contexts globally.

This distribution confirms the growing scholarly interest in repositioning PPPs not merely as managerial instruments, but as mechanisms of networked governance responsive to complex public challenges.

Table 2. Cluster of bibliography based on keywords

Cluster	Rank centrality	Cluster frequency
PPP	1	45
Public administration	4	120
Human	2	42
Decision making	3	32

Source: Authors' own creation

The methods of delivering goods and services have changed over time, as what was once solely provided by the government can now also be provided by private sector. One viable alternative ([22], [23]) is the privatization process from NPG perspective. This method aims to improve transparency and accountability in the decision-making processes of public sector entities using PPP for delivering public infrastructure or services. This perspective includes various governance modes, offering an alternative to privatization by addressing challenges such as conflicts of interest, and corruption.

Some of the governance challenges—particularly in the context of complex public service delivery that can be addressed through enhanced citizen participation [24]. Among the most widely adopted forms of privatization is the Public-Private Partnership (PPP) model. According to the United Nations Economic Commission for Europe (UNECE) [25], several core principles of good governance within PPP frameworks include:

1. Effective stakeholder engagement throughout the negotiation and implementation of PPP projects.
2. Transparency and openness in all decision-making processes.
3. Regular and accountable reporting of project outcomes to the public, regardless of whether the results are positive or negative.
4. Efficient utilization of scarce financial and human resources, with a commitment to avoiding delays, waste, and corruption.

This governance framework includes all laws, regulations, policies, binding guidelines, judicial decisions, and administrative rulings governing PPP. The term "policies" refers to formal governmental documents that carry binding authority for all stakeholders, functioning similarly to statutory regulations. These documents offer comprehensive guidance on the

implementation of Public-Private Partnerships (PPP). This policy-based approach to PPP has been adopted across both developed and developing countries. In India, the financial risk relationships between PPP parties have not been thoroughly explored [26]. The effectiveness of PPP implementation is influenced by several factors, including the structure of financing, the degree of risk borne by private investors, and the criteria set by the government during the bidding process to attract investment [27]. In real-world applications particularly in India government subsidies often serve as a key instrument in facilitating private sector participation, as leverage ratios within the overall financing structure significantly affect the size of capital contributions. Nonetheless, a notable shortcoming lies in the lack of comprehensive models for cash flow forecasting and sensitivity analysis, which are essential for assessing financial viability. The presence of subsidies thus reflects the Indian government's level of commitment in such partnerships. Moreover, private sector investors evaluate additional financial risk variables, such as risk allocation mechanisms, bidding conditions, and leverage ratios before making investment decisions they perceive as optimal based on their assessment of the project's overall risk profile.

Several infrastructure development projects using PPP have also been implemented in Hong Kong (HK), particularly in smart infrastructure. However, HK still lags behind other developed countries in implementing PPP for innovative infrastructure projects. Based on lessons learned from PPP involving projects like the West Kowloon Cultural District, Zero Carbon Building, and Energizing East Kowloon, many factors influence the success of PPP in HK, including unfavorable financial structure, policies, regulations, and political instability or influence [28].

Historically, PPP model has been commonly used since the early 1960s as applied in Hong Kong's transport infrastructure programs, especially those involving tunnel engineering and development [29]. Build-Own-Operate-Transfer (BOOT) contracts were predominantly used the early 2000s in Australia [30] and the model is quite similar to Build-Operate-Transfer (BOT), but the BOOT model arrangement, public facilities are owned by private investors during the concession period. Therefore, private developer typically assumes the insurance risk for the facility, while in a BOT arrangement, public partner bears the insurance risk.

The Design-Build-Finance-Operate (DBFO) PPP's model, introduced in the United Kingdom in the early 1990s, requires private partners to finance, develop, and manage public facilities for a set period [31]. The DBFO contractual arrangement involves the public authority committing to periodic payments to the private sector, compensating for the provision and operation of facilities accessible to the public. It is often done by the public partner PPP agreements may incorporate clauses permitting concession extensions to the private partner, subject to predefined conditions and timing. Thus, operation and maintenance arrangements require investors to manage the operation and maintenance of state-owned facilities for the public.

The Build, Transfer and Operate (BTO) model, often used in China for many water and waste facilities [32], requires private consortia to transfer legal ownership of facilities for public to public sector after completion of testing. Many major facility projects in South Korea are also used in this model. BTO is ideal for governments pursuing immediate ownership of public facilities upon project completion. The Build-Own-Operate (BOO) model, once applied in Australia, underwent modification in 2000. Under this arrangement, private consortia were granted the right to design, construct, and retain ownership of public infrastructure on an indefinite basis.

Indonesia is currently developing its PPP across several regions although many countries have implemented this concept through various contract models. The success of PPP in

influence many factors, ther are currently being analyzed as regional governments strive to address the infrastructure deficit for basic services. In Indonesia, PPP is referred to as Government Cooperation with Business Entities (KPBU) and is a form of cooperation that can alleviate the government's financial burden while ensuring proper public service amidst fiscal constraints. According to the World Economic Forum [33] data for 2019-2023, Indonesia's achievements in the Institute for Management Development (IMD) World Competitiveness Ranking improved from 44th in 2022 to 34th in 2023 out of 64 countries, presented as follows.

Table 3. IMD world competitiveness ranking assessment results

Indicator	2019	2020	2021	2022	2023
Overall	32	40	37	44	34
Economic	25	26	35	42	29
Government	25	31	26	35	31
Business	20	31	25	31	20
Infrastructure	53	55	57	52	51

Source: WEE [33]

Indonesia's achievements in infrastructure over the past three years tend to fluctuate. Although the economic competitive indicator significantly increased from 42nd to 29th, the infrastructure indicator showed only a slight improvement, moving from 52nd to 51st. This shows Indonesia still faces challenges in achieving long-term infrastructure development. Compared to other Asian countries, Indonesia continues to lag behind Thailand (43rd), Malaysia (35th), and Singapore (9th) [33], in terms of infrastructure development, as reported in WEF.

5. Discussion

NPG has become interesting method in implementing of public policy and public service, with a focus on developing sustainable public services and managing inter-organizational relationships [21]. Although NPG appears like a new conceptual framework, the division of public authority with private sector networks through privatization is not a novel concept [34]. Privatization involves specific regulations that either reduce government's role or expand private sector's role in certain activities or asset ownership [35]. In this context, it refers to actions shifting responsibility from the government to private entities or community institutions to meet public needs, specifically placing more reliance on private sector [12].

Considering infrastructure development, discussing PPP as part of providing public goods is highly relevant. The primary challenge faced by the Indonesian government is the significant financial investment required for infrastructure projects. Such development had a crucial role in improving the economy at any level (national and regional levels). Infrastructure refers to the range of physical, institutional, human resources, and data available to economic actors. It contributes to equitable economic outcomes by ensuring resources are allocated appropriately, fostering full integration and maximizing economic activity [36].

Thacker et al. [37] emphasized that infrastructure development impacts the economy. In addition, the availability of quality infrastructure facilitates economic growth by improving inter-regional relationship and resource allocation [38]. Improved infrastructure promotes mobility and technological advancement, leading to more equitable development and better labor mobility across regions. This consequently fosters new investments, job creation, and

higher income levels. Equitable infrastructure distribution reduces poverty and positively influences income distribution, as increased productivity and an expanded investment by economic actors result in broader prosperity [8]. PPP offers a collaborative means of addressing infrastructure challenges. Private sector has proven instrumental in supporting the government, particularly in developing countries. A study conducted in Nigeria [10] on infrastructure service provision found that PPP fostered public participation, consequently mitigating community skepticism about project implementation.

Public-Private Partnerships (PPPs) have emerged as a strategic mechanism for financing infrastructure development aimed at enhancing public service delivery at both national and subnational levels. This approach offers a solution to fiscal limitations, prompting many developing countries in Asia to adopt PPP frameworks inspired by established models from countries such as the United Kingdom and Canada [39], including China [32], India [40], Saudi Arabia [41], Vietnam, and the Philippines [42]. However, PPP is inherently complex, involving various risks and uncertainties [43]. Its successful implementation requires the engagement of multiple stakeholders, including central and local governments, private sector actors (project sponsors, banks, guarantors), and collaborations between public and private organizations [44].

In the infrastructure sector, Public-Private Partnership (PPP) models are generally classified into three main categories: utilization of existing facilities, expansion or upgrading of current infrastructure, and construction of entirely new facilities. These models are particularly suitable for supporting the development of new infrastructure, as well as enhancing the capacity and operational efficiency of existing systems. Examples are methods like purchasing, leasing, and contracting, which are tailored to meet specific infrastructure development needs. In the first model, the sale or lease of existing facilities is appropriate when the government aims to recoup its initial investment or realizes that significant new investment is required. Contracting for maintenance and operations is recommended when current operating costs are excessive or service quality is inadequate.

In the second model, capital investment is required for the expansion or rehabilitation of existing facilities, allowing for capital injection to foster facility development. The third model involves fully financing the construction of new facilities through private sector. Therefore, PPP can be used in various infrastructure-related activities, from maintenance and development to construction, helping the government provide essential public goods.

In essence, PPP involves collaboration between private sector and the government to manage public interests. This cooperation is formalized through a mutually agreed contract, although it could be challenging. Managing public needs is costly and extensive, and government budgets are limited. Meanwhile, private sector is reluctant to invest when profitability is not guaranteed, requiring the creation of mutually beneficial arrangements. When public demands are not addressed, challenges such as increasing mobility of people and goods, economic disruption, traffic congestion, and environmental degradation (air pollution) can arise. To attract private sector involvement, a balanced scenario that relates the government and private sector interests is essential, specifically PPP. At its core, a Public-Private Partnership (PPP) refers to a contractual collaboration between a public institution and a private entity, involving shared ownership, mobilization of resources, risk-sharing, and distribution of benefits. This cooperative model is designed to improve efficiency in the provision of public or private goods and services.

From a New Public Management (NPM) perspective, PPP is aligned with principles of managerialism, emphasizing cost-efficiency, performance-based contracting, and the strategic involvement of the private sector to deliver public services more effectively. It reflects the belief that market-oriented mechanisms can generate better outcomes compared to traditional

bureaucratic models. In contrast, under the lens of New Public Governance (NPG), PPP is viewed not merely as a tool for efficiency but as a governance arrangement rooted in networks, collaboration, and co-production. NPG shifts the focus toward relational governance, where public and private actors interact within complex policy environments to co-create value, ensure accountability, and address shared public challenges.

6. Conclusion

This study explores the conceptual and empirical intersections between Public-Private Partnership (PPP) and the evolving paradigm of New Public Governance (NPG) through a bibliometric analysis. The findings reveal that PPP has transitioned from being merely a managerial tool under the New Public Management (NPM) framework in focused on efficiency, performance, and privatization into a more collaborative governance instrument consistent with NPG principles. The latter emphasizes pluralism, network-based interactions, and co-production in public service delivery.

The bibliometric data, particularly from co-occurrence networks, thematic maps, and relevant source clusters, demonstrate an increasing academic interest in the governance dimensions of PPP, including transparency, stakeholder engagement, and long-term institutional cooperation. Furthermore, the analysis underscores the shift from a purely technical evaluation of PPP as centered on financial risk, cost-efficiency, and legal contracts toward a broader understanding that includes relational dynamics, accountability, and contextual policy environments. For private sector to be fully prepared, several conditions need to be met, namely credibility, strong funding, effective risk management, stable income, and project management experience. Therefore, when collaborating on infrastructure development, both parties should build consensus and trust, agree on shared funding as outlined in the contract, and finalize payment methods. Based on analysis, effective implementation of key success factors by both parties could facilitate PPP to achieve its objectives. However, the occurrence of unavoidable challenges in PPP could lead to the discussion about networks and NPG as potential solutions. NPG emphasized the plural nature of the modern state, where networks and multiple actors contributed to public service delivery and policymaking, a concept that had gained prominence in recent years.

As developing countries, including Indonesia, continue to adopt PPP models to overcome fiscal limitations and enhance infrastructure services, there is a growing need to align PPP implementation with the core values of good governance. These include transparency in procurement decisions, inclusive stakeholder management, and adaptive regulatory mechanisms. Embracing an NPG perspective enables public institutions to move beyond transactional arrangements and foster more sustainable, participatory, and accountable public-private collaborations.

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