Ecobestha Vol 2 (2023) hal: 178 – 198
e - ISSN 3025-3950
e-jurnal
:https://conference.univpancasila.ac.id/index.

PUBLIC PRIVATE PARTNERSHIP DEVELOPMENT MODEL (PPP) IN THE PROVISION OF AIRPORT INFRASTRUCTURE IN INDONESIA

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Abstrak: Infrastruktur merupakan faktor penting dalam mendukung pertumbuhan ekonomi. Penyediaan infrastruktur yang memadai dapat mempengaruhi peningkatan kualitas dan kuantitas kegiatan ekonomi. Saat ini pemerintah Indonesia sedang fokus pada pembangunan infrastruktur dalam negeri, antara lain: jalan tol, pelabuhan laut, bandara, waduk atau bendungan, jalan nasional, rel kereta api, dan termasuk pengembangan wilayah pedalamannya; baik berupa pusat industri, kawasan industri, maupun Kawasan Ekonomi Khusus (KEK). Infrastruktur dan pengembangan kawasan industri dibangun dengan satu tujuan agar Indonesia memiliki daya saing yang tinggi di masa depan. Infrastruktur dalam arti luas dapat dibagi menjadi tiga jenis. Pertama, infrastruktur publik (infrastruktur yang tidak dipungut biaya dan dapat dinikmati oleh seluruh warga negara, misalnya: jalan umum, jembatan atau bendungan, dan fasilitas umum lainnya); kedua, infrastruktur semi swasta (infrastruktur berbayar tetapi tidak berorientasi pada keuntungan, biasanya infrastruktur ini dikelola oleh pemerintah, misalnya: Perusahaan Listrik Negara); dan ketiga, infrastruktur swasta (infrastruktur berorientasi profit, misalnya: jalan tol, pelabuhan laut, bandara, maupun Kawasan Ekonomi Khusus (KEK)). Infrastruktur jenis pertama biasanya dibangun oleh pemerintah, namun untuk infrastruktur kedua dan ketiga biasanya dilakukan oleh Badan Usaha Milik Negara (BUMN), atau Badan Usaha Milik Daerah (BUMD), atau swasta atau kerjasama. Masalah terbesar dalam penyediaan dan pembangunan berbagai jenis infrastruktur nasional adalah masalah pembiayaan. Keterbatasan ruang fiskal Pemerintah dalam penyediaan infrastruktur bandara masih terjadi karena belum adanya skema Kerjasama Pemerintah dan Badan Usaha (KPBU) dalam penyediaan infrastruktur bandara di Indonesia. Penelitian ini bertujuan untuk: (i) menganalisis faktor kunci keberhasilan implementasi KPBU bandara di Indonesia; (ii) menganalisis mekanisme dan model kelembagaan KPBU dalam hal struktur dan hubungan antar pemangku kepentingan dalam penyediaan infrastruktur bandar udara di Indonesia; dan (iii) merancang model pengembangan KPBU dalam penyediaan infrastruktur bandar udara di Indonesia. Penelitian ini menggunakan data primer dan sekunder. Data sekunder diperoleh melalui lembaga seperti Badan Pusat Statistik dan portal data Kementerian Perhubungan. Sementara itu, data primer diperoleh melalui pemaparan dari informan/instansi terkait. Penelitian ini menggunakan pendekatan kualitatif dengan Focus Group Discussion (FGD) dan dianalisis dengan pendekatan literature review secara sistematik. Hasil penelitian menunjukkan: (i) Terdapat beberapa faktor kunci keberhasilan dalam implementasi KPBU, khususnya dalam penyediaan infrastruktur bandara di Indonesia. Secara dominan, faktor kunci keberhasilan menyasar aspek regulasi/regulasi skema KPBU. Hal ini ditunjukkan dengan Stabilitas Regulasi, Regulasi Adaptif, dan Simplifikasi Simpul Birokrasi + GCG. Ketiga faktor tersebut disinggung secara dominan oleh seluruh informan dibandingkan dengan faktor lainnya. Fleksibilitas regulasi menjadi faktor kunci dalam implementasi skema KPBU,

khususnya dalam penyediaan infrastruktur bandara. Selain itu, penyediaan infrastruktur bandara terkait dengan peningkatan tingkat daya saing nasional seperti yang terlihat pada hasil kajian literatur secara sistematis; (ii). Mengenai mekanisme dan model kelembagaan KPBU, terdapat simpul yang paling dominan disebutkan oleh seluruh informan yaitu Risk Transfer. Namun berdasarkan hasil kajian sistematis yang dilakukan, tidak ditemukan simpul terkait penjaminan dalam pembangunan infrastruktur bandara. Selain itu, tidak hanya melalui skema KPBU, dalam kajian sistematik ditemukan bahwa skema Growth Option dan Compound Real Option merupakan skema alternatif dalam pembiayaan infrastruktur khususnya bandara; dan (iii). Berdasarkan hasil analisis yang telah dilakukan, baik kajian koding maupun sistematika, maka model pengembangan KPBU di Indonesia, khususnya pada proyek infrastruktur bandar udara, hendaknya menitikberatkan pada aspek regulasi/aturan/birokrasi. Hal ini karena berdampak pada iklim investasi yang tercipta, khususnya pada proyek-proyek pemerintah. Selain itu, penerapan tata kelola yang baik tetap harus dilakukan dalam proses implementasi yang sedang berlangsung. Kajian ini merekomendasikan agar pemerintah memiliki komitmen yang kuat untuk melaksanakan KPBU dan memiliki kebijakan dan peraturan yang jelas untuk mendukungnya dan memberikan dukungan finansial dan teknis yang memadai untuk proyek-proyek yang direncanakan.

***Kata kunci**: KPBU, Infrastruktur Lapangan Terbang, Dasar Pembangunan, SLR*

Abstract: *Infrastructure is an important factor in supporting economic growth. The provision of adequate infrastructure can affect the increase in the quality and quantity of economic activity. Currently, the Indonesian government is focusing on developing domestic infrastructure, including: toll roads, seaports, airports, reservoirs or dams, national roads, railroads, and including the development of its hinterland areas; either in the form of industrial centers, industrial estates, or Special Economic Zones (KEK). The infrastructure and development of industrial estates were built with one goal so that Indonesia will have high competitiveness in the future. Infrastructure in a broad sense can be divided into three types. First, public infrastructure (the infrastructure that is free of charge and can be enjoyed by all citizens, for example: public roads, bridges or dams, and other public facilities); second, semi-private infrastructure (paid infrastructure but not profit-oriented, usually this infrastructure is managed by the government, for example: the State Electricity Company); and third, private infrastructure (profit-oriented infrastructure, for example: toll roads, seaports, airports, Special Economic Zones (KEK)). The first type of infrastructure is usually built by the government, but for the second and third infrastructure, it is usually done by State-Owned Enterprises (BUMN), or Regional-Owned Enterprises (BUMD), or the private sector or cooperation. The biggest problem in terms of providing and building various types of national infrastructure is the issue of financing. The Government's fiscal space limitations in providing airport infrastructure still occur because there is no Public Private Partnership (PPP) scheme in providing airport infrastructure in Indonesia. The aims of this research are: (i) to analyze the key success factors of airport PPP implementation in Indonesia; (ii) to analyze the PPP institutional mechanism and model in terms of structure and relationships between stakeholders in the provision of airport infrastructure in Indonesia; and (iii) to design a PPP development model in the provision of airport infrastructure in Indonesia. This study uses primary and secondary data. Secondary datas were obtained through credible institutions, such as the Central Bureau of Statistics and the data portal of the Ministry of Transportation. Meanwhile, the primary data were obtained through exposure from relevant informants/agencies through in-depth interviews. This study used a qualitative approach with Focus Group Discussions (FGD) involving stakeholders and analyzed using a systematic*

literature review approach. The results show: (i) There are several key success factors in implementing PPP, especially in the provision of airport infrastructure in Indonesia. Dominantly, the key success factors are targeting the regulatory/regulatory aspects of the PPP scheme. This is shown by the Regulatory Stability, Adaptive Regulation, and Simplification of Bureaucracy + GCG nodes. These three factors were alluded to dominantly by all informants compared to other factors. Regulatory flexibility was founded as a key factor in the implementation of the Public Private Partnership (PPP) scheme, particularly in the provision of airport infrastructure. In addition, the provision of airport infrastructure is related to increasing the level of national competitiveness as shown in the results of a systematic review of the literature; (ii). Regarding the PPP institutional mechanism and model, there is the most dominant node mentioned by all informants, namely Risk Transfer. However, based on the results of a systematic study conducted, no nodes appear related to guarantees in airport infrastructure development. Besides that, not only through the PPP scheme, it was found in a systematic study that the Growth Option and Compound Real Option schemes are alternative schemes in infrastructure financing, especially for airports; and (iii). Based on the results of the analysis carried out, both coding and systematic studies, the PPP development model in Indonesia, particularly in airport infrastructure projects, should focus on regulatory/rule/bureaucratic aspects. This is because it has an impact on the investment climate that is created, especially in government projects. In addition, the implementation of good governance must still be carried out in the ongoing implementation process. This paper recommends that the government strongly commit to implementing the PPP and have clear policies and regulations to support PPP and provide adequate financial and technical support for planned projects.

Keywords*: PPP, Airport Infrastructure, Development Policy, SLR*

INTRODUCTION

Infrastructure is an important factor in supporting economic growth. The provision of adequate infrastructure can affect the increase in the quality and quantity of economic activity. For example, the provision of good transportation infrastructure will help smooth the flow of people and goods and create connectivity so that it can drive the economy in a more sustainable manner. Currently, the Indonesian government is focusing on developing domestic infrastructure, including: toll roads, seaports, airports, reservoirs or dams, national roads, railroads, and including the development of its hinterland areas; either in the form of industrial centers, industrial estates, or Special Economic Zones (KEK). The infrastructure and development of industrial estates were built with one goal so that Indonesia will have high competitiveness in the future.

Infrastructure in a broad sense can basically be divided into three types. *First*, public infrastructure (the infrastructure that is free of charge and can be enjoyed by all citizens, for example: public roads, bridges or dams, and other public facilities); *second*, semi-private infrastructure (paid infrastructure but not profit-oriented, usually this infrastructure is managed by the government, for example: the State Electricity Company); and *third*, private infrastructure (profit-oriented infrastructure, for example: toll roads, seaports, airports, Special Economic Zones (KEK)). The first type of infrastructure is usually built by the government, but for the second and third infrastructure, it is usually done by State-Owned Enterprises (BUMN), or Regional-Owned Enterprises (BUMD), or the private sector or cooperation. The biggest problem in terms of providing and building various types of national infrastructure is the issue of financing.

Based on the projections of the National Development Planning Agency (Bappenas) and the Ministry of Finance for the 2020-2024 Medium Term Development Plan (RPJMN) period, Indonesia requires a strategic investment to provide the infrastructure of around IDR 6,445 trillion. Meanwhile, of the total funding requirement, the State Revenue and Expenditure Budget (APBN) as a whole is only able to meet around 37%, while BUMN is around 21% and another 42% is expected to come from the participation of the private sector (Ministry of Finance, 2019). Taking into account these projections, it appears that Indonesia urgently needs new alternative sources of funding in order to overcome the gap in funding needs in the provision of infrastructure.

One of the breakthroughs that are expected to be a solution to this is the implementation of the Public-Private Partnership (PPP) scheme in providing infrastructure as a creative financing solution. PPP is an infrastructure provision and financing scheme based on an agreement (contract) between the government represented by the Minister/Head of Institution/Regional Government as the Person in Charge of the Cooperation Project (GCA) and the private sector, taking into account the principle of risk sharing between parties. The PPP scheme can potentially support improving the quality of the APBN in terms of reducing pressure on the APBN in allocating capital expenditures for the initial construction of projects so that it can be expected to reduce the negative primary balance. Return on investment to business entities can be made through: (i) payments by users in the form of tariffs, (ii) availability payments, and (iii) other forms as long as they do not conflict with laws and regulations.

PPP is an institution and an alliance or organizational agreement of government authorities and private businesses as well as those that aim to realize socially important projects with a range of activities: from the development of strategically important economic sectors to the provision of public services throughout the country or region and operated

through cooperation/alliance between the government and one or more public sector companies (see among others: Akhmetshina, et. al., 2017; Carbonara, et. al., 2013; Qizilbash, 2011; Sathana and Jesintha, 2011). The determinants of successful PPP implementation can be the government's comprehensive PPP capabilities, PPP institutions, attractive rewards for private parties, legal certainty, and opportunistic behavior (Maramis, 2018 and Jin, 2009).

Based on the results of previous research regarding the provision of infrastructure under the PPP or PPP scheme, there are stories of success and failure in these PPPs. PPP success and failure are caused by many factors and characteristics that vary between countries. In addition, infrastructure investment must indeed be carried out based on legal certainty, accountability, effectiveness and efficiency, certainty of investment value, return on investment value for a certain period of time, while all of that must be stated in the contract (Yuliardi, et.al., 2015). This factor is from a technical or application aspect as according to Carbonara, et.al., 2013) that PPP applications vary widely between countries, from sector to sector and from project to project. Up to the philosophical aspect as stated by Nsasira, et.al., (2013) that the criticism of PPP lies in the fear of privatization, that the government will effectively pawn the future. The government is also afraid that it will pay higher costs to the private sector in the long term than if the PPP facility is built by the government. Meanwhile, according to Syamshabrina and Ariastita (2017), the PPP pattern is also a priority factor for the government and business entities in implementing cooperation.

In increasing the chances of success in implementing the PPP scheme, Estache (2014) looks at factors or the side of the government or public authorities. Estache (2014) says that the government must improve its capabilities which include: (i) the ability to identify projects that will be financed by PPP (for example: projects that create high social value); (ii) the ability to define service characteristics; (iii) the ability to agree on fees; (iv) ability to work with detailed contracts; and (v) the ability to invest in contract reinforcement. The ability of the government is a very decisive factor in the success of PPP implementation. The higher, detailed and complex the government's ability to characterize and finance a PPP, the more successful the PPP projects it handles.

This research is focused on providing airport infrastructure with a PPP scheme in order to encourage transportation connectivity to increase the capacity of air transportation facilities and infrastructure in 2020-2024, namely: (i). Construction of 25 new airports; (ii). Rehabilitation and development of 165 airports; (iii). Development of a water-based airport (seaplane) to support archipelagic destinations; (iv) Developing the aircraft maintenance industry in the western and eastern regions of Indonesia; (v) Improving project preparation and expanding the Airport PPP scheme; and (vi) Encouraging PPP and Investment schemes for aircraft maintenance. Based on the practical results of implementing PPP policies in Indonesia, researchers obtained information on several success stories in the development of this type of infrastructure with the PPP scheme. The Policy Committee for the Acceleration of Infrastructure Provision (KKPPI) in 2019 identified that there are three key success factors for PPP schemes in Indonesia and other countries.

Based on several studies that have been carried out by other researchers (among others: Maramis, 2018; Syamshabrina and Ariastita, 2017; Palupie and Yuniarto, 2016; Suhendra, 2017; Irwanugroho, 2019; Rakhmatullina, 2017; Akhmetshina and Mustafin, 2015; Carbonara, et al, 2013; Theodoropoulos & Tassopoulos, 2014; and Tsimoshynska, et al, 2021), hence this study tries to answer the following research questions: (i) Analyzing the key success factors of airport PPP implementation in Indonesia; (ii) Analyzing PPP institutional mechanisms and models in terms of structure and relationships between stakeholders in the provision of airport infrastructure in Indonesia; and (iii) Designing a PPP development model in the provision of airport infrastructure in Indonesia.

LITERATURE REVIEW

2.1. Collaborative Governance

Ansell and Gash (2007) describe a new strategy of governance called collaborative governance. This form of collaboration governance involves various stakeholders or stakeholders simultaneously in a forum with government officials to make joint decisions. Ansell and Gash (2007) explain collaborative governance as a governmental arrangement in which a public institution directly involves non-governmental stakeholders in a formal, consensus-oriented, and deliberative collective decision-making process. The aim is to create and implement public policies and manage programs or public assets. Meanwhile, Donahue and Richard (2011) define "collaborative governance can be thought of a form of agency relationship between government as principal and private players as agents". This means that collaborative governance can be considered as a form of cooperative relationship between the government as the regulator and the private sector as the executor.

Collaborative governance can be explained as a process that involves shared norms and mutually beneficial interactions between governance actors. Through the perspective of collaborative governance, the positive goals of each party can be achieved. According to Ratner (2012) in collaborative governance, there are three focused phases or stages which are collaborative processes in governance include: (i). Identifying Obstacles and Opportunities (Listening Phase). At this stage the government and stakeholders or policymakers who collaborate, namely the private sector and the community, will identify various types of obstacles that will be faced during the governance process; (ii). Debating Strategies for Influence (Dialogue Phase). At this stage, stakeholders or policymakers carry out dialogues or discussions regarding the obstacles that have been explained in the first phase. Discussions conducted by each of the stakeholders involved included discussions regarding the steps chosen as the most effective steps to solve the problem; and (iii). Planning Collaborative Actions (Selection Phase). After going through the listening stage regarding the problems that will be encountered in the governance process and conducting discussions regarding determining effective strategies to anticipate problems, at this stage, the stakeholders or policymakers involved will start planning regarding the implementation of each strategy that was discussed in the previous stage, such as the initial steps that will be taken in the process of collaboration between stakeholders, namely the government, the private sector and the community. Then identify measurements for each process that is carried out and determine steps to maintain the collaboration process so that it continues in the long term.

The background of the Public Private Partnership (PPP) is the government's awareness of its limitations in providing public services and overcoming social problems. In addition, with the concept of good governance, it is hoped that the participation of the community and private actors will be maximized in assisting development efforts carried out by the government and with the existence of PPP it is hoped that "shifting government role to be facilitator or enabler" (Ministry of National Development Planning/BAPPENAS 2011). Ratner (2012) states that PPP must be seen in the context of the overall public sector reform movement known as the 'New Public Management (NPM), which encourages: (i). Government decentralization; (ii). Separating responsibility for purchasing public services from their provision; (iii). Output or measurement of performance-based public services; and (iv). Contracting out public services to the private sector.

2.2. Transaction Cost Economics Theory (TCET)

According to Qu and Loosemore (2013), this theory can explain opportunistic behavior, which can occur between partners in PPP contracts. This theory states that opportunistic behavior can occur because both parties have an interlocking relationship (bound by contract). There are three important elements in TCET that can explain opportunistic behavior, namely: (i). Asset specificity. This asset specificity element basically wants to state that transactions that are "durable transaction-specific investments" cannot be used for other purposes without financial loss between the parties in the PPP. The nature of these assets is an obstacle for the parties to leave a cooperative relationship. Based on the principle of asset specificity, collaboration or cooperation will be optimal and efficient in PPP if agreements are made together with rules, norms or boundaries as well as optimal and efficient work mechanisms between parties. If not, then once entered into a contract it is difficult to get out of the contract without both parties incurring significant costs; (ii). environmental uncertainties; and (iii). imperfect controls. Environmental uncertainty is based on the basic assumption of TCET, namely bounded rationality. This assumption is a semi-strong form of rationality but is limited to uncertainty. This uncertainty will generate risk. From the perspective of the nature of risk, it is impossible to eliminate risk. Risk can only be transferred or minimized. Risks can increase if the parties do not have the ability or understanding and full control. Especially if the risk determinants are beyond the control of the parties in the PPP. The higher the uncertainty, the higher the inability to control, and the greater the possibility of opportunistic behavior from the parties in PPP.

Furthermore, it is said that transaction costs will be relevant when the relationship is routine (repetitive), there is uncertainty and or there are specific assets. Nsasira et al., (2013) also stated that the TCET theory was criticized for: (i). ignoring power relations; (ii). ignoring trust and social embeddedness; and (iii) evolutionary ideas such as changes in market processes such as the role of outsourcing.

2.3. Stakeholders Theory (ST)

According to Nsasira et al., (2013), this theory was proposed by Freeman (1984). This theory is used as the basis for selecting decision-making criteria in PPP projects. This theory focuses more on the stages of selecting projects to be included in a PPP proposal. In Indonesia, this stage is included in public consultation activities on PPP projects. This theory plays a role in analyzing the demand for PPP projects for various stakeholders. This theory will assist in determining the proportional profit that can be taken by PPP implementers compared to the investment invested and the risks borne. Then this theory can also be used in terms of monitoring or supervising when the PPP project is running. This theory states that monitoring or supervision will be optimal or efficient if supervision involves all stakeholders.

2.4. Agency Theory (AT)

Information asymmetry will create opportunistic behavior. In AT this causes adverse selection or moral hazard. When one partner has a motive to deceive and that partner has an information advantage relative to the other parties in the relationship then that party has a good chance of doing what he or she wants. This theory can answer some of the PPP Project contracts that are not optimal. For example, for a PPP project, the community does not know in detail the qualifications of the executor or builder and does not receive detailed information on the bid documents. In this context, executors may engage in opportunistic behavior because the public does not have complete information (there is asymmetric information).

Qu and Loosemore (2013), state that AT is the opposite of TCET. If on TCET the contract is not complete then on AT the contract is assumed to be complete. AT assumes that both agents and principals are rational and have self-interested interests. The similarities between AT and TCET are limited rational aspects, but AT is limited rationale for information asymmetry between parties.

RESEARCH METHODOLOGY

This study used a qualitative approach with data collection conducted through Focus Group Discussions (FGD) involving stakeholders and analyzed using a systematic literature review approach.

3.1 Kinds and Data Sources

This study uses primary and secondary data. Secondary datas were obtained through credible institutions, such as the Central Bureau of Statistics and the data portal of the Ministry of Transportation. Meanwhile, the primary data were obtained through exposure from relevant informants/agencies through in-depth interviews. Bandur (2019) states that data in qualitative research is relatively rich due to the many forms and sources with different data collection techniques also vary.

Table 1. Informant Profile

No.	Informant	Occupation	Agencies
1	Maria Kristi Endah Murni, SH., MH.	Director General of Civil Aviation Ministry of Transportation	Ministry of Transportation
2	Otto Ardianto	Special Staff of the Minister of Transportation for Finance & Funding of the Ministry of Transportation	
3	Cecep Kurniawan	Representative Head of Center for Transportation Infrastructure Financing, Ministry of Transportation	
4	Arief Mustofa	Head of Sub-Directorate for Airport Administration and Management System, Ministry of Transportation	
5	Syamsu Rizal, ST., MT.	Head of Finance, Secretariat Directorate General of Air Transportation of the Ministry of Transportation	
6	Novie Andriani	Planner Associate Expert at Bappenas	Bappenas
7	Ricardo Hutagaol	Vice President UW Penjaminan 1	PT. Penjaminan Infrastruktr Indonesia (Persero)
8	Hotasi Nababan	Expert of PPP Project Kediri Airport	PT. Surya Dhoho Investama

Source: Author (2023)

3.2. Data Analysis

According to Creswell (2009) and Raco (2010) there are several main stages or procedures in conducting qualitative research, including the stages of data analysis and coding as well as validity and reliability processes. A systematic Literature Review (SLR) is a systematic review to identify, evaluate, and interpret all the results of certain research, certain topics, or phenomena of concern (Kitchenham, 2004 and Siswanto, 2010). SLR is used to systematically synthesize existing research evidence in terms of searching for research articles, reviewing criticism, and synthesizing research results to answer a question. The SLR technique is usually used in Meta-analysis. In this case, there are 4 keywords used in the data search

process using POP, namely: (i). Airport Infrastructure; (ii). Public Private Partnership Infrastructure; (iii). Public Private Partnership Airport; and (iv). Airport Investments. Furthermore, the results obtained will be screened through the PRISMA diagram according to the predetermined inclusion and exclusion criteria. The criteria include; (i). Sources of data obtained must be in the form of scientific articles, not other forms such as chapters in books, books, reviews, notes and so on. This is because keyword analysis will be carried out at a later stage; (ii). The article in question must be published in a Scopus-indexed journal. The reason is related to the credibility of the content and research results; and (iii). Existing articles must have a number of keywords to be able to be mapped.

Meanwhile, Bibliometric analysis was used to analyze data collected on selected subjects (Nobanee et al., 2021). This analysis uses a combination of similarity visualization. Such visualization is called bibliometric mapping and allows observing connections in the structure of scientific fields in terms of authors, countries, documents, keywords, and other elements of scientific production (Briones-Bitar et al. 2020; Nobanee et al. 2021).

RESULTS ANALYSIS AND DISCUSSION

4.1. Development of PPP and Types of Infrastructure with PPP Schemes in Indonesia

There are many studies that reveal PPP in various definitions. PPP scheme is a model of agreement between the government and business entities in carrying out the government's socio-economic functions by taking into account the rights and obligations attached to each party (see among others: Riyanda, 2020; Villani et. al, 2017 in Sutantiningrum and Utami, 2019; Suhendra, 2017; and Trainelli, et al., 2021). Mathur (2014) quoting the Asian Development Bank (2000) states that the forms of partnership that are widely used throughout the world can be classified as follows: (i) Service contracts and Management contracts; (ii) Turnkey contracts; (iii) Lease contracts; (iv) Concession; dan (v) Private Finance Initiative and Private Ownership. Service contracts and Management contracts are contractual plans to manage or manage part or all of a public project by a private company. This contract allows private sector expertise to enter into service design and delivery, control of operations, workforce management, and procurement of equipment, without incurring commercial risks. The government remains the owner of the facilities and equipment. The private sector gets a fee for managing and operating on a performance basis.

Turnkey contracts are private contractors selected through a bidding process. The contractor will design and build a facility with a fixed fee or total cost, where there are key criteria in selecting the winner, the risk is assumed to be included in the design and construction stages. These contracts are usually short term and the private investment is small (mostly used, money from the government, contractors just build it). For example a power plant. Affermage/Lease, namely the operator is responsible for operating and maintaining infrastructure facilities (previously built) and services. The operator does not make any investment. But often, this contract model is combined with other models, such as: the build-rehabilitate-operate-transfer model. In this case, the contract period is longer and the private sector requires a significant investment.

In this condition, it is very common to use the form of affermage and a lease. The two forms differ only technically. If it is a lease, the operator retains the income earned from the consumer or user of the facility and pays a certain amount of the leasing fee to the contracting authority (the government). But for affermage, operators and contract givers share revenue from consumers or users. For land used in this form, it is usually transferred after 15-30 years. For example a city park project.

Concessions in this form, the government has the right to make and provide assistance (money) to private companies to build and operate facilities with a certain/fixed period of time. The project owner remains the government and the right to supply services remains with the government. In this concession, payment can be made in two ways: (i) the concessionaire pays the government for the concession right; and (ii) the government pays the concessionaire. The currently solicited and unsolicited PPP projects in Air Transportation are: (i). Singkawang Airport; with PJPK:Minister of Transportation and project estimated value IDR 4.5 T; (ii). Hang Nadim Airport, with PJPK: BP Batam with estimated project value IDR 6.8 T; and (iii). Kediri Airport (Unsolicited) or Business Entity initiative with PJPK: Minister of Transportation with estimated project value IDR 8.8 T.

4.2. The Role of PT. Penjaminan Infrastruktur (PT PII)

PT. PII is a BUMN institution under the auspices of the Ministry of Finance which was created to support the acceleration of infrastructure provision in Indonesia through a PPP scheme or specifically provide guarantees (as a single window policy) to BUPs, investors, banks/lenders, and PJPK. One of PII's supports for infrastructure development in Indonesia is as a provider of contingent fiscal support for PPP infrastructure projects. The scheme is through the provision of guarantees for contractual risks related to government actions because it is undeniable that in an infrastructure development project, of course there are contingent liabilities that must be borne by the government.

The government's contingent obligations that arise in infrastructure projects are explained as follows "Governments that use public-private partnerships (PPPs) to build infrastructure usually assume contingent liabilities relating, for example, to early contract termination or to debt and revenue guarantees" (Irwin and Mokdad, 2010). The provision of government guarantees for PPP projects creates contingent obligations on the state budget. Therefore, in order to maintain fiscal sustainability, the Government emphasizes optimizing the role of PT PII as a BUMN. Efforts to optimize the role of PT PII are carried out through the Government's commitment to sufficient capital for PT PII through State Equity Participation (PMN). Thus, the guarantee capacity of PT PII will increase.

As the only company that guarantees infrastructure in Indonesia, PT. PII must carry out risk allocation in each project that will be implemented. Risk allocation in PPP projects needs special attention because the right risk allocation will ensure the continuity of the provision of decent and reliable infrastructure services for the public. On the other hand, a good risk allocation will also give the private sector confidence in the return of their funds with a reasonable return. From the state financial side, good risk sharing will make the state budget safer because the exposure of PPP projects to the state budget is more measurable and controllable.

4.3 Result Analysis and Discussion

4.3.1 The Result of Focus Group Discussion

Before discussing the results of the FGD conducted, first the characteristics of the informants will be explained which are divided into several categories to facilitate the coding process. In this study, informants were divided into 3 categories namely: Regulators, Operators, and Guarantor.

A. Regulators

For the Regulator category, there are 6 informants namely: (i). Maria Kristi Endah Murni, SH.,MH. (Director General of Civil Aviation Ministry of Transportation/Informant 1); (ii). Otto Ardianto (Special Staff of the Minister of Transportation for Finance & Funding of the Ministry of Transportation/Informant 2); (iii). Cecep Kurniawan (Plt. Head of Center for Transportation Infrastructure Financing, Ministry of Transportation/Informant 3); (iv). Arief Mustofa (Head of Sub-Directorate for Airport Administration and Management System, Ministry of Transportation/Informant 4); (v). Syamsu Rizal, ST., MT (Head of Finance, Secretariat Directorate General of Air Transportation of the Ministry of Transportation/Informant 5); and (vi). Novie Andriani (Planner Associate Expert at Bappenas/Informant 6).

Informant 1 explained the importance of using external financing, especially in facing limited fiscal space in infrastructure projects. Informants also argued about the importance of financing schemes in handling the many infrastructure projects in Indonesia, one of which is through PPP scheme, especially for the development of airports. This is due to the potential in the airport sector in Indonesia. The following is the statement in question: *"We identified a number of considerations for the airport sector to become more attractive so as to increase the participation of the private sector to invest in the scheme, including revenue diversification through aeronautical revenues, for example Air Craft Landing Fees, Passenger Services Charges, and Non-Aeronautics or Commercial Space and parking rental income. Return on investment is relatively greater than investment in other infrastructure sectors. Visible cash flow due to business integration opportunities with other lines such as FNB, retail parking, maintenance and others."*

Informant 2 explained the importance of using the PPP financing scheme in supporting the transportation sector in Indonesia, especially for air transportation. Therefore, external financing with a PPP scheme is recommended in relation to the development of transportation infrastructure. Furthermore, informants also revealed several things that became obstacles in implementation, especially regulatory issues. The following is the statement in question: *"But of course there are many challenges that we experience while preparing and carrying out PPP transactions or creative financing. While walking, we know there are many things that we need to interrogate, whether it is from regulations or from practice by negotiating with business entities"*

Furthermore, Informant 3 alluded to a similar matter, namely related to the government's budgetary constraints and the PPP scheme is one of the best ways that can be used to cover budget constraints and shift the burden from the government to the private sector.

For informant 4, he referred to the example of an airport built under a PPP scheme. The informant explained the external financing scheme, in which PPP is one of the schemes, the following is the intended statement: *"This is an illustration of how it really is when the private sector enters airport development, the private sector can be involved in two activities, namely airport services and related services. airport. So the airport is related to the operation of the airport itself, now there is a cooperation scheme, it can be with PPP, it can be with KSP. Now, for related services, they just need to apply in OSS like that"*

Informant 5 also mentioned a similar matter where the informant argued that the PPP scheme was also needed to cover the government's fiscal burden in handling projects, especially infrastructure. Informant 5 also mentioned regulatory constraints in the implementation process. *"So because it's usually because it's the government and the private sector, eh, because there's a government, sometimes there are lots of rules, yes, other rules, yes, other rules that are complied with when we work with the private sector, so the rules need to be identified. Again, to speed up the process."*

For Informant 6, the person concerned alluded to PPP scheme regulations that needed to be perfected. In addition, the informant also mentioned some of the challenges faced, especially in this PPP financing scheme, the following is a statement that shows what is meant: *"There are several lessons learned that we got from implementing the PPP scheme in the airport sector. certainty of the project structure and scope of cooperation... then the second is related to traffic calculations. In fact, reflecting on the experience of colleagues at the Ministry of Transportation with Labuan Bajo Airport, it turns out that yesterday the Covid pandemic situation had a very big impact on this project... it is necessary to synchronize not only from the documentation side but also from the process timeline side so that the two can run parallel".*

B. Guarantor

For the guarantor category, there is only 1 informant, namely Ricardo Hutagaol. Informant 7 refers more to the role of PT. Indonesia Infrastructure Guarantee (Persero) as Guarantor in the PPP scheme. In addition, the informant also mentioned some of the risks that arise in running a project, both from legal issues, land provision, and also payment.

C. Operator

For the operator category, there is only 1 informant, namely Hotasi Nababan. Informant 8 refers to the perspective of investors as business entities (private) involved in the PPP scheme. The informant emphasized the bureaucratic process in implementing the PPP, especially the Labuan Bajo Airport project. The following is the statement in question: *"From an investor's point of view, there are many lessons learned from what I gathered when I was in Labuan Bajo with the Changi Airport consortium. International investors who are very experienced in doing business in various worlds really see that Labuan Bajo is indeed unique too, so even though they have experience in Russia, Brazil, Japan and in many countries and the first is that there are so many units in the government in Indonesia that must be met. While in their experience, they usually deal with the government in a one-stop unit, so they have greater authority."*

The quote above can be related to regulatory/regulation aspects that can hinder/accelerate the implementation of PPPs, so as to attract investors to be able to contribute to government projects. Apart from that, the role of policies/regulations/regulations also relates to smooth funding (banking parties) and risks.

4.3.2 Coding Analysis

In aggregate, there are at least 13 nodes with the highest hierarchy. The following table describes the number of references in the aggregate, as follows:

Table 2. Nodes References and Hierarchy Aggregate

No.	Nodes	Ref.	Files Coded	Max. Value	Share
1	Limited Fiscal Space > PPP Scheme	5	5	8	63%
2	Regulatory Stability	5	5	8	63%
3	Adaptive Regulation	4	4	8	50%
4	Demand Risk	3	3	8	38%
5	PPP > Infrastructure	3	3	8	38%
6	Source of Infrastructure Funding	2	2	8	25%
7	PPP > Improvement of Transportation Services	2	2	8	25%
8	Documentation Synchronization & Process Timeline	2	2	8	25%
9	Stakeholders Sinergy	2	2	8	25%
10	Institutional Simplification	2	2	8	25%
11	Negotiation Practice	2	2	8	25%
12	Smooth of Land Procurement	2	2	8	25%
13	Commercial Service Orientation	2	2	8	25%

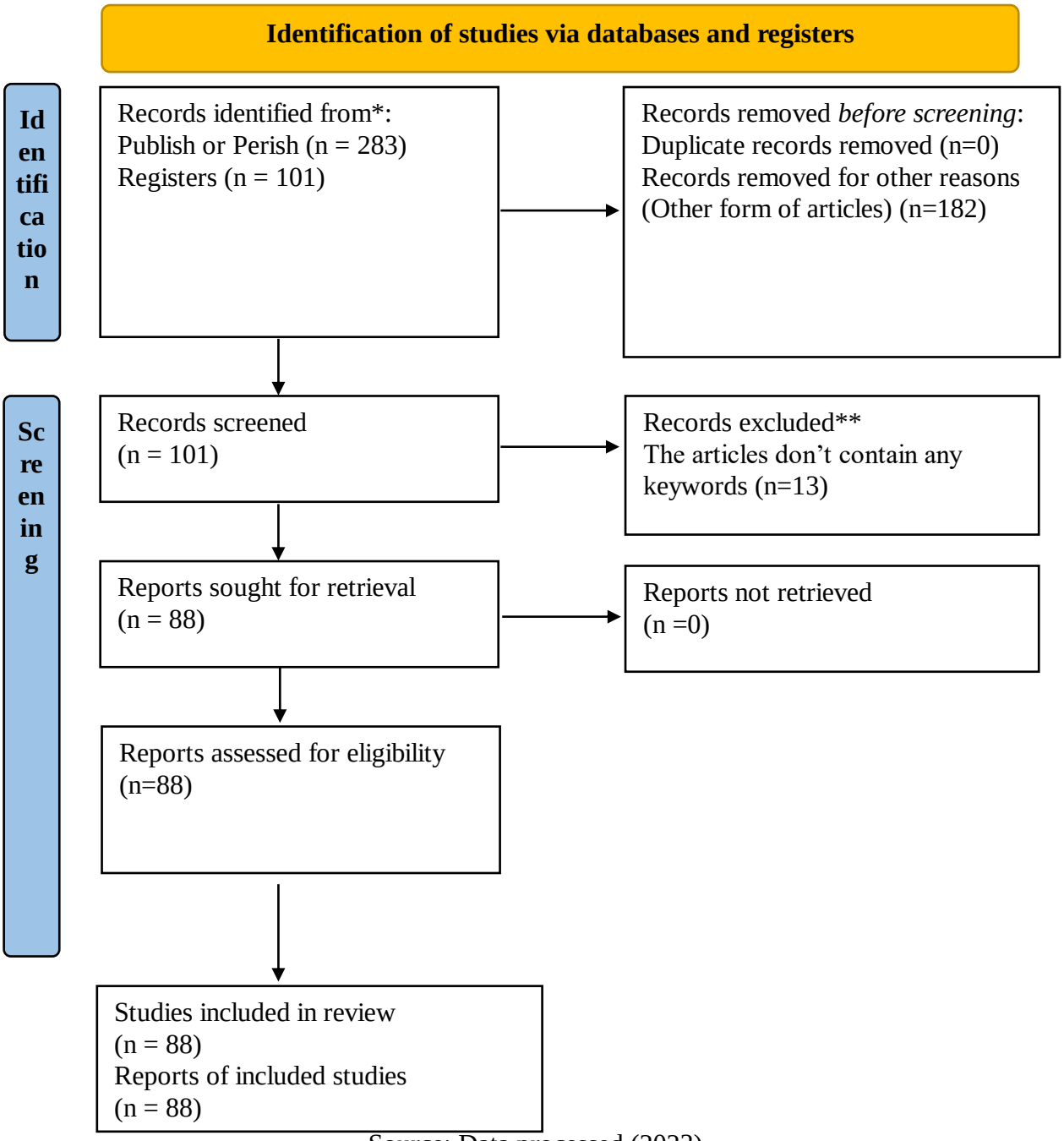
Source: Data processed (2023)

These results indicate that the 13 nodes above have the largest contribution in the entire hierarchy, both in terms of the number of references and data sources (transcripts). This indicates that, as a whole (3 categories of informants), both implicitly and explicitly, the use of PPP schemes associated with limited budgetary constraints was the most mentioned. In addition, the nodes “Fiscal Space Limitation > PPP Scheme” and “Regulatory Stability”, respectively, have the highest source value (5) with a total contribution of 63%. This indicates that all informants and all existing data sources are confused about the link between the PPP financing scheme and budget constraints and also the need for regulatory stability to be able to support the PPP implementation process. The other nodes namely "Adaptive Regulation" and "Risk Demand" have references of 4 and 3 respectively and have a contribution of 50% and 38%. This indicates that only about 50% of the informants mentioned the need for a more dynamic and flexible and 38% of informants related to the need to identify demand risks in the process of implementing airport development with a PPP scheme.

4.3.3 Systematic Literature Review (Bibliometric Analysis)

In the Systematic Literature Review (SLR) approach, in the first stage, each data source (article) is filtered so that it can be analyzed further. Screening is done with the help of Preferred Reporting Items for Systematic Reviews and Meta-Analysis (PRISMA) diagrams. The following shows the results of using PRISMA, related to screening the inclusion and exclusion criteria for the data sources to be used:

Figure 1. Article Screening of PRISMA Diagram

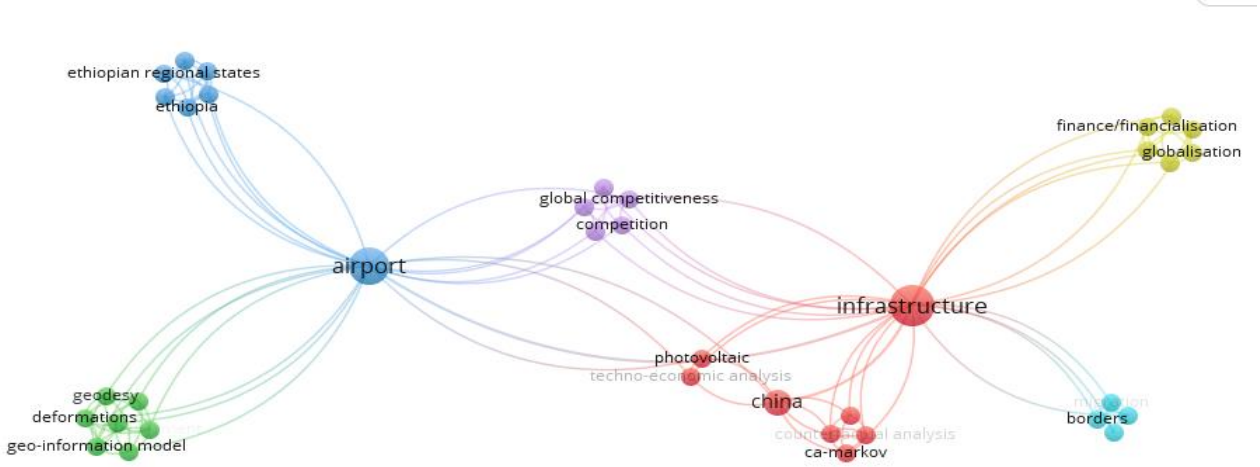


Source: Data processed (2023)

Keywords used in Publish or Perish (PoP) software assistance with publication time criteria between 2018-2022 (5 years). are: (i). Airport Infrastructure; (ii). Public Private Partnership Infrastructure; (iii). Public Private Partnership Airport; and (iv). Airport Investments. The reason underlying the use of these keywords refers to the main theme of this study. Based on the search for the keywords used, there were 283 data (n = 283), which resulted in the following data: (i). Airport Infrastructure = 66; (ii). Public Private Partnership Infrastructure = 186; (iii). Public Private Partnership Airports = 11; and (iv). Airport Investment = 20. Furthermore, from the 283 available data, the first exclusion criterion was used, namely the data to be used as input must be published in the form of articles and not in

other forms (Chapter in Book, Review, Book, Note, and so on). From this criterion, 182 data were found that were in the form of articles other than articles, so in this case, the remaining data was (n = 101). The next criterion used was articles that had keywords. This was done to be able to carry out Keyword network analysis at the stage next. In this case, 13 articles were filtered that did not have keywords in the data in the form of articles, so that there were as many as (n = 88) articles that would be processed for further data processing. Based on these stages (use of 2 criteria) it can be concluded that there were 88 eligible articles for further analysis. The following is a figure showing the article in question:

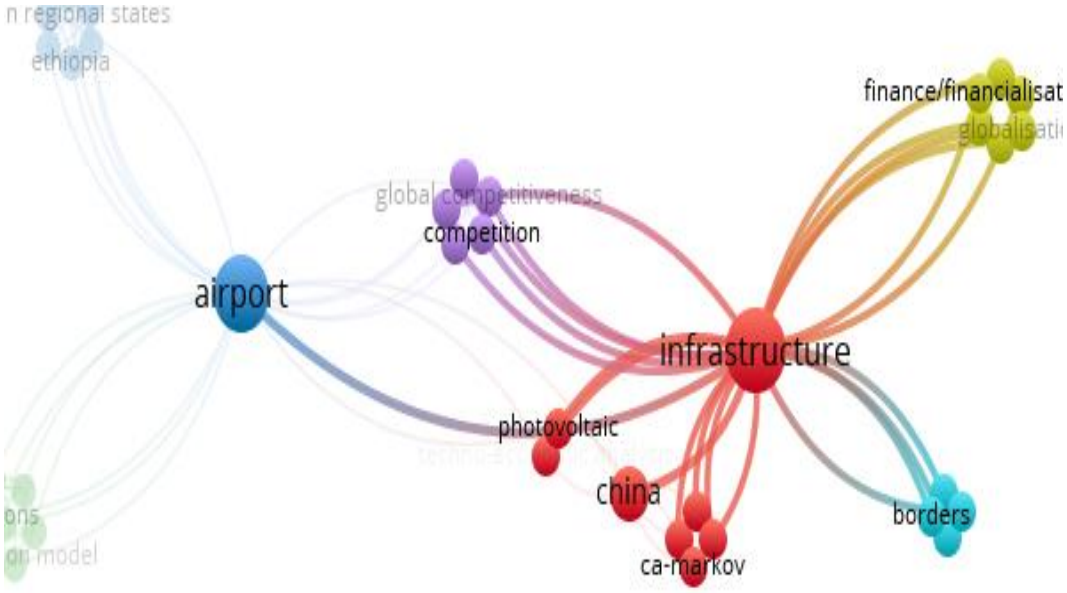
Figure 2. Airport Infrastructure Keyword Network



Source: Data processed (2023)

Based on the figure above, it can be seen that, there are 6 clusters mapped in the Airport Infrastructure keyword network. Cluster 1 (red) consists of 8 items/nodes namely: Ca-Markov, China, Counterfactual Analysis, Infrastructure, IUCC, Photovoltaic, and Techno-Economic Analysis. Cluster 2 (Green) also consists of 7 items/nodes namely: Deformations, Displacement, Geo-Information Models, Geo-Information Systems, Geodesy, Measurement, and Monitoring. Furthermore, Cluster 3 (Blue) consists of 7 items/nodes: Aiport, Ethiopia, Ethiopian Regional States, Formula, Normalization, Principal Component Analysis, and University. Cluster 4 (Yellow) consists of: Finance/Financialization, Globalization, Governance, Politics, State Restructuring, and Variegated Capitalism. Cluster 5 (Purple): Competitiveness, Global Competitiveness, Production Infrastructure, and World Market of Air Transportation. Cluster 6 (Light Blue): Borders, Deportation, Logistics, and Migration. Furthermore, it will be shown the relationship between infrastructure and the keyword Airport. Here is a figure that shows what this means:

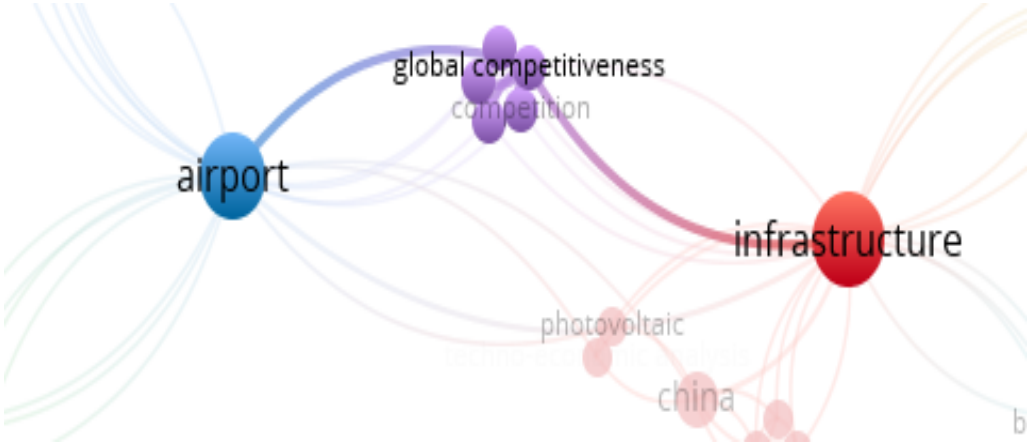
Figure 3. Infrastructure vs Airport



Source: Data processed (2023)

Based on the figure above, it can be seen that there is a link between Infrastructure nodes and Airport nodes. Furthermore, these two things are also related to aspects of competitiveness. As for this, it is shown regarding the relationship between Infrastructure, Airport, and Global Competitiveness nodes:

Figure 4. Airport vs Infrastructure vs Global Competitiveness

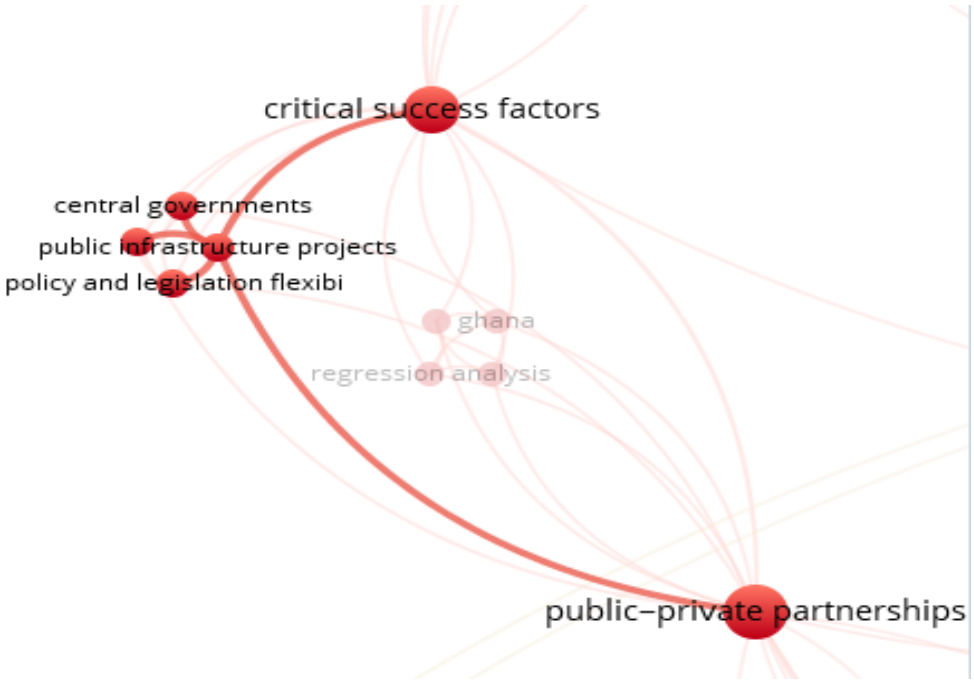


Source: Data processed (2023)

Sydorenko et al. (2021) in his study argues that the infrastructure aspect, especially at airports, is one of the key elements in increasing the level of national competitiveness through the transportation sector and has a significant effect on output growth, both in the short and long term. Furthermore, the mapping results will also be shown on keywords that refer to the Public Private Partnership Infrastructure keywords (n = 53). The mapping results on the

keywords in question show the relationship between Public Infrastructure Projects and several nodes, as shown in the figure below:

Figure 5. Infrastructure vs Airport



Source: Data processed (2023)

Based on the figure above, it can be seen that there is a relationship between Public Infrastructure Projects nodes and several nodes, namely: Public Private Partnerships, Policy and Regulation Flexibility, Central Governments, and Critical Success Factors. These results are in line with the results of the coding analysis in which matters regarding regulations (nodes "Regulatory Stability"; and "Adaptive Regulation") were the aspects most frequently touched upon by all the informants involved. Furthermore, Public Private Partnerships are also related to Critical Success Factors nodes, which state that the scheme in infrastructure projects is one of the key factors in terms of financing.

Furthermore, in the second stage, partial network mapping will be carried out on each keyword used. First, the mapping results will be shown on keywords that refer to the main research theme, namely Public Private Partnership Airport (n = 3), as follows:

Figure 6. Airport Development vs Critical Success Factors of PPP

Source: Data processed (2023)

The study conducted by Chourasia et al. (2021) using an institutional theory approach argues that, one that can support the successful implementation of PPP in airport infrastructure development is a cooperative environment and the need for supervision from the government. This is also in accordance with the results of the previous coding analysis which relates to the "Stakeholders Synergy" and also "GCG" nodes. Furthermore, the mapping results will also be shown on keywords that refer to the Airport Investment keyword (n = 8). The results of mapping on the keywords in question show the relationship between airport infrastructure investment and several investment/financing schemes that involve investors, as shown in the image below:

Figure 7.
Airport Infrastructure Investment vs Growth Option vs Compound Option

Source: Data processed (2023)

Based on the figure above, it can be seen that, apart from PPP, talking about financing schemes for airport infrastructure development can also be associated with Growth Option and Compound Real Option investment schemes.

CONCLUSIONS OF POLICY RECOMMENDATIONS

5.1 Conclusion

Based on the results and analysis previously described, several conclusions can be drawn related to this research, as follows:

1. Based on the results of the coding analysis, there are several key success factors in implementing PPPs, especially in the provision of airport infrastructure in Indonesia. Dominantly, the key success factors are targeting the regulatory/regulatory aspects of the PPP scheme. This is shown by the Regulatory Stability, Adaptive Regulation, and Simplification of Bureaucracy + GCG nodes. These three factors were alluded to dominantly by all informants compared to other factors. Furthermore, there is also a concordance between the results of the coding analysis and the systematic literature review conducted, in which regulatory flexibility is a key factor in the implementation of the Public Private Partnership (PPP) scheme, particularly in the provision of airport infrastructure. In addition, the provision of airport infrastructure is related to increasing the level of national competitiveness as shown in the results of a systematic review of the literature.
2. Regarding the PPP institutional mechanism and model, there is the most dominant node mentioned by all informants, namely Risk Transfer. However, there are also several other nodes mentioned such as Suretyship, Profit Sharing, Single Accountable, PKS > Asset Control Scheme, Co-Guarantee, and Airport & Airport-Related Services. However, based on the results of a systematic study conducted, no nodes appear related to guarantees in airport infrastructure development. Besides that, not only through the PPP scheme, it was found in a systematic study that the Growth Option and Compound Real Option schemes are alternative schemes in infrastructure financing, especially for airports.
3. Based on the results of the analysis carried out, both coding and systematic studies, the PPP development model in Indonesia, particularly in airport infrastructure projects, should focus on regulatory/rule/bureaucratic aspects. This is because it has an impact on the investment climate that is created, especially in government projects. In addition, the implementation of good governance must still be carried out in the ongoing implementation process. As for several other aspects that are key factors, it can also be considered, because it will also have an impact on competitiveness.

5.2. Policy Recommendations

Based on the results of this study, there are several recommendations, including: (i). It is important for the government to have a strong commitment in implementing Public Private Partnership (PPP) because this has a direct impact on the sub-elements of project preparation and feasibility study. In this context, the government must ensure that they have clear policies and regulations to support PPPs, as well as provide adequate financial and technical support for the planned projects; (ii). Studying policies and regulations related to airport infrastructure PPP in Indonesia, as well as case studies from airport infrastructure PPP projects that have been implemented in Indonesia; and (iii). To overcome obstacles in infrastructure development, the government needs to consider a strategy that takes into account high IRR

(return) expectations from the private sector as a driver power and its effect on private/foreign share ownership and flexibility of private funding. In this case, the government needs to implement policies and regulations that are transparent and can guarantee sustainable benefits for the private sector, while taking into account national interests and social justice.

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