

Study on Basic Requirements and Critical Success Factors (CSFs) of Implementing Availability Payment in Public-Private Partnership in Regency/Municipal Government: A Case Study of Public Street Lighting in Bandung Municipal and Madiun Regency

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ABSTRACT Referring to PPP Books 2017-2023 issued by The Ministry of National Development Planning of Indonesia, there is only 1 out of 16 AP PPP projects at the municipal/regency level that have successfully reached the operational stage (6% success rate), i.e. Madiun Regency Public Street Lighting. Several municipal/regency AP PPP projects have failed, for example, Bandung Municipal Public Street Lighting. The widespread failures indicate that the application of AP in regional infrastructure has so far not been successful in Indonesia. This paper aims to identify the basic requirements, critical success factors, and lessons learned from AP PPP implementation in Municipal/Regency Governments. Thus, it is hoped that the future provision of regional infrastructure with the AP scheme can proceed seamlessly. This study used a mixed-method approach that combines qualitative and quantitative data from literature reviews, questionnaires, and interviews. The results showed that the basic requirements and institutions. The five main success factors of AP PPP in the Municipal/Regency Government are (1) a well-organized and committed public agency; (2) political support; (3) favorable and efficient legal framework; (4) stable political and economic situation; and (5) public and private sector commitments and responsibilities. The lesson learned from the case study is that fiscal capacity is not the main factor in the success of PPP in Madiun Regency, but rather the willingness of the local government to implement PPP by regularly holding capacity building and maintaining good relationships and communication with each stakeholder involved.

KEYWORDS Availability Payment; Critical Success Factors; Lessons Learned; Public-Private Partnership; Public Street Lighting

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1 INTRODUCTION

The Indonesian government has socialized Public-Private Partnership (PPP) in providing infrastructure to provide space for the local and central government to cooperate with the private sector in infrastructure provision. In PPP, there are three types of return on investment for the Business Entity in provisioning infrastructure based on Indonesian Presidential Regulation No. 38/2015: payment in the form of tariffs (user charge), payment for service availability (availability payment), and other form if it does not conflict with the regulations. Availability payment (AP) in PPP is defined as periodic payment by the Minister/Head of Institution/ Regional Head/ to the Business Entity for the availability of infrastructure services following the quality and/or criteria specified in the PPP agreement.

At the regional level, the implementation of AP PPP has failed a lot in many locations as can be seen in Figure 1, for example in the Bandung Municipal Public Street Lighting project. The implementation of AP PPP in Indonesia is still difficult to do due to several things reasons, such as the absence of technical guidelines, the absence of approval from the Regional House of Representatives (DPRD), weak coordination with local governments, lack of preparation for local governments, and unpreparedness of regional PPP institutions (Mahani et al., 2022). However, one region has successfully implemented AP PPP in Indonesia to the operational stage, i.e. Madiun Regency with its Public Street Lighting project. Since the success of AP PPP in Madiun Regency, there have been 6 new projects initiated with the AP scheme at the regional level with the same sector, public street lighting. This study aims to identify the basic requirements, critical success factors, and lessons learned from the successful AP PPP project (Madiun Regency Public Street Lighting) and failed project (Bandung Municipal Public Street Lighting). The goal is to facilitate seamless implementation of future regional AP PPP projects.

2 METHODS

This study combines a mixed-method approach (quantitative and qualitative studies), starting with an evalu-



Figure 1 Availability payment PPP projects at the regional level (municipal/regency), data source: PPP Books 2017-2023

Table 1. Interview questions

No	Question
1	What do you know about AP PPP in Bandung Municipal and Madiun Regency?
2	What are the obstacles that occur at Bandung Municipal Public Street Lighting?
3	What are the success factors of Madiun Regency Public Street Lighting?
4	What are the inputs for AP PPP in the future in terms of regulations, stages, etc.

ation of the literature review and case studies. To solve the first research question (basic requirements of AP PPP), an evaluation is carried out from the theoretical foundation to obtain the basic requirements of AP PPP. Then, to solve the second research question (CSFs of AP PPP), better understanding of CSF is needed. Critical success factors (CSFs) are those key areas that ensure the success of an organization or project (Kwak et al., 2009; Dulaimi et al., 2010; Alias et al., 2014). CSFs of PPP projects are distinctive to the context of location and time and this approach attempts to isolate key areas that are crucial for management to achieve success (Alias et al., 2014; ?). To obtain critical success factors (CSFs), an evaluation of open-access literature was conducted using databases such as Scopus, Google Scholar, ResearchGate, ProQuest, and ScienceDirect. The search utilized specific keywords such as "success factors," "key success factors," and "critical success factors," ranging from the years of 2000 to 2023. Through this process, 30 publications were collected. The abstracts, discussions, and conclusions of each publication were then analyzed to extract CSFs.

Only 20 CSFs were selected as the basic questions for

the questionnaire, considering that they properly represent other similar CSFs as listed in Table 3. The top 20 CSFs were then tested through questionnaires, where respondents were expected to assess the significance of each factor contributing to AP PPP project success at the regional (municipal/regency) level in Indonesia. The questionnaire in this study used Likert scale with the range of 1-5 (very unsignificant-very significant). The respondents are individuals working at Regional Planning Agency of Bandung & Madiun, Ministry of Finance, Dept. of Transportation of Bandung & Madiun, Dept. of Public Works of Bandung, Regional Houses of Representatives (DPRD Bandung), Indonesia Infrastructure Guarantee Fund (PT PII), PT SMI, Individual Consultant, Street Lighting Company, Lender (Bank), and Professors from renowned universities in Indonesia. The results of the questionnaires were grouped and analyzed using the weighted average method to obtain an overview of the importance (significance) of the CSFs. The top 5 CSFs were then compared within the case study to get broader perspectives.

To solve the third research question (lessons learned from AP PPP), case studies were used to identify lessons



Figure 2 Flowchart of getting basic requirements, critical success factors, and lessons learned of AP PPP

learned and problems that hinder the implementation of AP PPP. Interviews (Table 1) were conducted from April 2023 to January 2024 to get perspectives from each respondent on the AP PPP project in the public street lighting sector. There were 12 respondents obtained through offline and online interviews. Respondents from this interview came from the same agency as the questionnaire respondents, but only individuals at the top-level management were interviewed, thus the results of the lessons learned discussion are expected to help improve the AP PPP system in the future. The interview was then translated into interview transcripts in the form of Microsoft Word files, which were then uploaded to the NVIVO 12 Pro application to help the author to store, code, map, and visualize lessons learned from AP PPP and see the frequencies of each keyword mentioned. The flow of the works to get all three objective in this study is shown in Figure 2.

3 RESULTS

3.1 Basic Requirements of AP PPP

According to the Indonesian Dictionary (KBBI), the meaning of the word "requirement" is things that are

conditioned. The word "basic" is interpreted as a base; foundation; the subject or base of an opinion (teachings and rules); or principle. Thus, basic requirements can be interpreted as basic requirements/basic rules. Requirements are related to a project aimed at achieving some of the objectives by setting up systems in an environment (Meyer, 2022). No journal/publication specifically discusses the definition of basic requirements, thus in the context of AP PPP, a theoretical foundation related to the government and PPP is needed, i.e. the theory of PPP enabling environment and public policy theory. Then, the intersections of the two theories are seen so that the basic requirements that must be possessed are obtained.

From Table 2, similar aspects of the basic requirements of the theoretical foundation are the existence of regulatory and institutional aspects. Thus, the basic requirements of AP PPP are concluded as the existence of regulations and institutions. Then a taxonomic analysis was carried out to determine the readiness of regulations and institutions that must be present in AP PPP in Indonesia. This analysis is gained throught a literature review of PPP regulations nationwide. According to basic requirements analysis of AP PPP as shown in

Theoretical Foundation	Description	Basic Requirements (Aspects)		
DDD anabling anyironment	Five PPP enabling environments:	Regulation, institution,		
The Economist Intelligence Unit (2018)	1. Enabling laws and regulations	operational, investment,		
The Leonomist Interngence offic (2010)	2. The institutional framework	financing.		
	3. Operational maturity			
	4. Investment and business climate			
	5. Financing facilities for infrastructure projects			
Public Policy Dunn, 2012 in Mahani (2018)	Public policy is the norms that support the actions of the government within a juridical territory.	Regulation, institution.		
Public Policy Anderson, 2003 in Ma- hani (2018)	Public policy is the action taken by actors to solve prob- lems.	Regulation, institution, compe- tencies.		
Public Policy Theory Dye, 2012 in Mahani (2018)	Public policy is the action that a government must choose to achieve a goal.	Regulation, institution, compe- tencies.		

Table 2. Theoretical foundation to obtain basic requirements of AP PPP

Figure 3, the presence of regulations and institutions is crucial to project success, as regulations consist of general PPP regulations, sectoral regulations, and regional regulations. Whereas institutions in AP PPP rely on PPP nodes, which function to carry out policy formulation, synchronization, coordination, supervision, and evaluation of AP PPP activities & assist the Government Contracting Agency (PJPK) in every stage of PPP.

3.2 Critical Success Factors of PPP

The top 20 CSFs to be the basis of the questionnaire questions are shown in Table **??**. There are only 30 respondents who filled out the questionnaires; Figure 4 shows the number of respondents and institutions involved.

Questionnaires were then analyzed using the weighted average method to show the significance of each factor (see Table 4). All CSFs tested have a value of "very significant". However, for AP PPP in Indonesia, the 5 main success factors are F9 Well-organized and committed public agency; F17 Political support; F1 Favorable and efficient legal frameworks; F18 Stable political and economic situation; and F12 Commitment and responsibility of public and private sectors.

3.3 Lessons learned from Bandung Municipal and Madiun Regency

Interviews were conducted from April 2023 to January 2024 to get perspectives from each respondent on the AP PPP project in the public street lighting sector. There were 12 respondents obtained through offline and online interviews. Table 5 shows respondents and their institutional origin. All respondents involved are individuals who are at the top-level management, so the results of the lessons learned discussion are expected to help improve the AP PPP system in the future.

There are three main lessons learned from the interview, (1) the AP PPP scheme, (2) lessons learned from Bandung Municipal, and (3) lessons learned from Madiun Regency. These lessons learned are represented in a hierarchy chat obtained from the NVIVO 12 Pro application as shown in Figure 5. This hierarchy chart is similar to a mind map. Each color represents one main lesson learned, and the frequency of each keyword is represented in the position and area of each block. For example, in Figure 5 below, the grey color represents lessons learned from Madiun Regency; orange represents lessons learned from Bandung Municipal; and blue represents AP PPP scheme. The more a block is positioned at the top and left of the block, the more frequently a keyword is discussed by interview respondents. However, this hierarchy chart only helps the author draw conclusions and keep track of each key findings thus the author knows which keyword is more important and frequently mentioned by the respondents. Each keyword in the hierarchy chart can be clicked to see the origin of each keyword; in which transcript document, who mentioned the keyword, and in which phrases/paragraph in the transcript. In other words, NVIVO 12 Pro is used only as a tool to store, code, map, and visualize lessons learned. These lessons learned are discussed in the discussion section descriptively.

4 DISCUSSION

4.1 Basic Requirements of AP PPP

Both regulations and institutional aspects of AP PPP were then observed in the case study in Bandung Municipal and Madiun Regency with their basic requirements readiness are shown in Table 6. It can be seen that Bandung Municipal lacks regional regulation and PPP Nodes resulted in the failure of AP PPP. Unlike Bandung Municipal, Madiun Regency ticked all the aspects of regulations and institutions that make the project successful until the operational stage.



Figure 3 Taxonomic analysis of basic requirements of AP PPP

4.2 Critical Success Factors of AP PPP

Top 5 CSFs from Bandung Municipal and Madiun Regency were obtained and being compared as shown in Table 7.

4.3 Lessons Learned of AP PPP Case Study of Bandung Municipal and Madiun Regency Public Street Lighting

4.3.1 The AP PPP Scheme

AP PPP is considered suitable for public street lighting projects due to its simple implementability (MLK, RMW, 2024), and suitable for social or low commercial projects (DF, 2024). Fundamentally, AP PPP is considered as providing service to the society, thus the region must be fiscally capable (SV, 2023; NC, 2024). Fiscal capacity is reflected in the origin local government revenue (PAD) (IB, 2024). Thus, if the fiscal capacity is high, the probability of the project's success is high (SV, 2023; NC, IB; 2024). However, based on Ministry of Finance Regulation No. 84/2023 regarding the Regional Fiscal Capacity Map when viewed from the case study of Madiun Regency, its fiscal capacity is classified as "medium" but the project has successfully reached the operational stage. In contrast, the Bandung Municipal case study has a "high" regional fiscal capacity category, the project failed/did not continue. Thus, fiscal capacity is not a barrier for regions to implement AP



Figure 4 Distribution of number of respondents and institutions

Table 3. Top 20 CSFs of PPP worldwide

Factor	Paj	per N	No.																													F	⁷ req.
	1	2	3	4	5	6		7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30		
F1	v	v	v	v	v	v	1	v	v	v	v	v	v	v	v	v	v	v	V	7		v	v	v	v	v	v		v	v	v	2	28
F2			v		v	v	,	v	v	v	v	v	v	v	v	v	v	v	v		v	v	v	v	v	v	v		v	v		2	24
F3		v	v	v	v	v	,	v	v	v	v	v	v		v	v	v		v		v	v	v	v		v	v	v	v	v		2	24
F4			v		v	v	,	v	v	v	v	v	v	v	v	v	v	v	v		v	v		v	v	v	v			v	v	2	23
F5			v		v	v	,	v	v	v	v		v	v	v	v	v	v	v		v	v	v	v	v		v			v	v	2	22
F6		v	v	v	v	v	,	v	v	v			v		v		v	v	v			v	v	v	v	v		v	v		v	2	21
F7			v	v	v	v	,	v	v	v	v		v		v		v	v	v			v	v	v		v			v			1	8
F8		v	v		v	v	,	v	v	v	v		v		v		v	v				v	v	v		v		v		v		1	8
F9		v	v		v	v	,	v	v	v	v	v	v	v	v		v		v			v			v	v						1	7
F10		v	v		v	v	,	v	v	v		v	v	v	v		v					v	v	v		v						1	6
F11			v		v	v	,	v	v	v	v		v		v		v	v	v					v		v			v			1	5
F12			v		v	v	,	v	v	v	v		v		v		v	v	v							v	v	v				1	5
F13			v		v	v	,	v	v	v	v		v		v		v	v						v		v				v	v	1	5
F14			v		v	v	,	v	v	v	v		v		v		v		v					v		v				v		1	4
F15		v	v		v	v	,	v	v	v			v		v		v							v		v		v		v		1	4
F16			v		v	v	,	v	v	v	v		v				v		v			v	v		v	v						1	4
F17		v	v		v		,	v	v	v	v		v	v			v		v					v								1	2
F18	v	v		v							v							v	v			v	v			v			v	v		1	1
F19			v		v	v	,	v	v	v			v				v		v											v		1	0
F20		v									v							v				v			v	v		v	v	v		9)

Annotation:

F1 Favorable legal and regulatory frameworks; F2 Appropriate risk allocation and risk sharing; F3 Outstanding private consortium; F4 Transparency procurement process (the process is made open and public); F5 Competitive procurement process (enough potential bidders in the process); F6 Social/community support; F7 Availability of suitable and adequate financial market and capital market; F8 Good governance; F9 Well-organized and committed public agency; F10 Shared authority between public and private sectors (trust and openness between parties); F11 Stable macroeconomic condition; F12 Commitment and responsibility of public and private sectors; F13 Thorough and realistic assessment of the cost and benefits; F14 Sound economic policy; F15 Project technical feasibility; F16 Government involvement by providing guarantee; F17 Political support; F18 Stable political and economic situation; F19 Multi-benefit objectives; and F20 Private sector's financial abilities.

1: Qiao et al. (2001)	2: Jefferies et al. (2002)	3: Li et al. (2005)	4: Zhang (2005)	5: Chan et al. (2010)
6: Helmy (2011)	7: Babatunde et al. (2012)	8: Cheung et al. (2012)	9: Chou et al. (2012)	10: Emmanuel (2013)
11: Hwang et al. (2013)	12: Ismail (2013)	13: Wibowo and Alfen (2015)	14: Chou and Pramudawardhani (2015)	15: Muhammad et al. (2016)
16: Almarri and Hijleh (2016)	17: Nguyen et al. (2017)	18: Kyei and Chan (2017)	19: Maramis (2018)	20: Muhammad and Johar (2018)
21: Muhammad and Johar (2018)	22: Muhammad and Johar (2019)	23: Helmy et al. (2020)	24: Suhendra and Satrio (2020)	25: Lee (2021)
26: Natalia et al. (2021)	27: Nguyen et al. (2021)	28: Dada and Oladokun (2022)	29: Hai et al. (2022)	30: Yusfida (2022)

PPP (IB, 2024). Other factors can be learned from successful regions such as Madiun Regency which will be discussed in Section 4.3.3 below.

4.3.2 Lessons learned from Bandung Municipal

In terms of regulatory readiness, Bandung does not yet have a Regional Regulation. In terms of institu-

	Table 4.	Results	of the	weighted	average	method	of e	ach CS	۶F
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No	VU	NS	N	QS	VS	Total	Total	Weighted Average
NO	Score: 1	Score: 2	Score: 3	Score: 4	Score: 5	Respondent	Score	Method Result
F1	0	0	0	4	26	30	146	Very Significant
F2	0	0	1	9	20	30	139	Very Significant
F3	0	0	1	9	20	30	139	Very Significant
F4	0	0	1	9	20	30	139	Very Significant
F5	0	0	4	8	18	30	134	Very Significant
F6	0	0	1	11	18	30	137	Very Significant
F7	0	1	5	14	10	30	123	Very Significant
F8	0	0	1	9	20	30	139	Very Significant
F9	0	0	0	3	27	30	147	Very Significant
F11	0	1	2	13	14	30	130	Very Significant
F12	0	0	0	7	23	30	143	Very Significant
F13	0	0	3	6	21	30	138	Very Significant
F14	0	0	3	12	15	30	132	Very Significant
F15	0	0	1	6	23	30	142	Very Significant
F16	0	0	1	14	15	30	134	Very Significant
F17	0	0	0	3	27	30	147	Very Significant
F18	0	0	1	4	25	30	144	Very Significant
F19	0	0	3	14	13	30	130	Very Significant
F20	1	0	1	8	20	30	136	Very Significant

Table 5. Respondents of interview

Initial	Institutional origin	Job Position
AG	PPP Nodes (Madiun)	Project Coordinator
SS	Regional Planning Agency of Bandung	Planner
SV	Ministry of Finance	Analyst
FM	Regional Planning Agency of Madiun	Planner
RMW	Dept. of Transportation of Madiun	Division Head
MLK	Dept. of Public Works of Bandung	Division Head
TR	Regional House of Representatives (DPRD Bandung)	Head of Institution
DF	Indonesia Infrastructure Guarantee Fund (PT PII)	Deputy Senior Manager
IB	Individual Consultant	Senior Technical Expert
NC	PT SMI	Analyst
FTR	Street Lighting Company	Owner
MMG	PWK ITB	Professor

Table 6. Basic requirements readiness of AP PPP in Bandung Municipal and Madiun Regency

Items Observed	Bandung Municipal	Madiun Regency
General regulation	Exist	Exist
Sectoral regulation	Exist	Exist
Regional regulation	Not exist	Exist, Regional Regulation No. 2/2022 regarding AP PPP infrastructure provision in the public street lighting sector
PPP Nodes	Not exist	Exist, held by the Regional Planning Agency (Bappeda Madiun)

tional readiness, Bandung does not have PPP Nodes. The PPP Unit (UPT KPBU) in the Regional Planning Agency (Bappeda Bandung) has also been disbanded by order of the new Mayor (SS, 2023; MLK, 2024). However, according to DPRD there was no special team formed and never coordinated with the National Planning Agency (Bappenas) or Indonesia Infrastructure Guarantee Fund (PT PII) simultaneously to obtain assistance (TR, 2024). However, the executive body sees that the Regional Head and his legislature are not unilateral because there is a factor of political party heterogeneity (SS, 2023; MLK, 2024). The legislature considers the value of the project too large and must review whether it is necessary to use the AP PPP scheme (TR, 2024). This is in line with the executive body's statements that the Municipal Government and DPRD prefer conventional schemes using the APBD (SS, 2023; MLK, 2024). Bandung Municipal focuses more on health, education, and flood management thus public street lighting is considered less important when compared



Figure 5 NVIVO 12 Pro output: hierarchy chart

to these issues (SS, 2023; MLK, TR 2024). Besides, the scope of the PPP project in Bandung was too broad with technical specifications that were too sophisticated thus this project failed (IB, MLK, 2024). In addition, there are different perceptions of the DPRD about PPP because it is considered past the tenure of the Regional Head (Mayor) (SS, 2023; MLK, 2024). After all, the concession period can be up to 25 years. In addition, there are different perceptions about the Ministry of Home Affairs Regulation No.96/2016 which states that "DPRD must approve the AP budget", but DPRD considers that they have the right to agree/disagree (SS, 2023; MLK, DF 2024). Another thing that was found was that PPP was considered a complex scheme, compared to conventional schemes, and the legislatures did not understand specifically about PPP (SS, 2023; IB, MLK, DF, 2024). The municipal government expects technical guidelines to ease stakeholders in the Municipal Government to implement AP PPP (NC, IB, 2024).

4.3.3 Lessons learned from Madiun Regency

Street Lighting project is influenced by many political nuances thus good coordination is needed between GCA and DPRD members (FTR, 2024). The internal relationship between the Regency Government in Madiun Regency makes AP PPP in Madiun Regency run smoothly (AG, 2023; IB, DF, FM, RMW; 2024). This can be seen from the Regency Government which always involves the DPRD at every stage so that the DPRD understands the benefits and technicalities of the project (AG, 2023; IB, MLK, DF, FTR, RMW; 2024). In addition, communication is always maintained by coordinating through regular coordination meetings as well as diligently participating in FGDs, capacity building, and comparative studies to other regions such as Bandung 2024). With these efforts, there was an understanding between executors and legislators. This understanding has implications for the support of the DPRD, where the DPRD agreed to account for AP payments for 10 years even though the AP PPP project can cross 3 tenures of regional heads (SV, 2023; IB, DF, FM, RMW, 2024). Understanding between executors and legislators can be obtained if PPP nodes have the same understanding and capacity to spur AP PPP to run (FTR, 2024). The PPP node is also considered a "champion", where the civil servants there only focus on working on AP PPP. Project champions are very important to drive AP PPP at a regional level (DF, FM; 2024). In the Madiun Regency, champions are their regional heads (the Regent) and PPP nodes that act as bridges for communication and coordination with external parties. On the other hand, high GCA commitment is needed to be involved in implementing AP PPP (SV, 2023). The commitment is related to decision-making, project scope, technical specifications, service specifications, and budget for AP PPP (SV, 2023; NC, IB, DF, 2024). The leadership role of GCA (Regent) in Madiun Regency is influential in moving its subordinates to feel the spirit of implementing AP PPP (SV, 2023; DF, RMW, 2024). The willingness and eagerness of the Madiun Regency Government can be emulated as a good example (SV, 2023; IB, 2024). They are willing to work overtime and are very serious about implementing AP PPP by recruiting experts in technical, finance, procurement, etc. (AG, 2023; IB, 2024).

and Surakarta (AG, 2023; IB, SS, MLK, DF, FM, RMW;

4.4 Correlations among basic requirements, critical success factors, and lessons learned of AP PPP

The author proposed a framework to help AP PPP projects succeed as depicted in Figure 6. Firstly, check

Table 7. Interview questions

Items Observed	Bandung Municipal	Madiun Regency
F9 Well-organized and committed public agency	Municipal government and Regional House of Representatives (DPRD) do not have the same vi- sion, understanding, and willingness to imple- ment AP PPP	Both regency gov. and DPRD have the same vision, understanding, and willingness to implement AP PPP
	Different backgrounds of legislatures, e.g. Agri- culture graduate works in Budgeting Commis- sion (background didn't match what they repre- sent in the commission). Furthermore, AP PPP is mistaken as a loan and liability to the APBD	GCA is committed, actively giving capacity building to all individuals at a regional level
	GCA isn't committed, since the change of Mayor of Bandung the PPP unit was disbanded	Regency gov.'s eagerness to implement AP PPP by recruiting professionals to oversee project throughout all PPP stages
	Lack of good internal relations between the Mu- nicipal Gov. and the DPRD	Regency gov.'s eagerness to gain AP PPP knowl- edge by regularly holding meetings, capac- ity building, sharing sessions, and comparative studies to other municipal/regency
	DPRD's lack of understanding of the AP scheme	
F17 Political support	AP PPP wasn't supported by DPRD due to the large amount of project cost	AP PPP was supported by DPRD, concession period is 10 years
	AP PPP is considered a liability to the next Mayor of Bandung due to the concession period is 25 years	Regional regulation exists
	Heterogeneity in political parties resulting dif- ferent perspective	Full support from the Regent of Madiun
	DPRD considered more prioritized issues such as health, education, and flood rather than public street lighting	DPRD considered public street lighting as an important issue
F1 Favorable legal and regulatory framework	No regional regulations (see Table 6)	Regional regulations exist (see Table 6)
F18 Stable political and economic situation	Project was initiated in 2017 and there was a re- gional head election in 2018 so the project is prone to political risk The change of Mayor of Bandung and DPRD members resulted in different perspectives, re- gional prioritized iscuss and personal visiones	The project was initiated after the 2018 regional head election and got full support from the Re- gional Gov. and DPRD
	No DDD nodos	DDD podos ovist
responsibility of public and private sectors	The PPP unit in the Regional Development Agency was disbanded	Regency government and Regional House of Representatives were actively getting capacity building
	Lack of communication among stakeholders	Good communication among stakeholders Committed executor (Dinas Perhubungan)/ Transportation Dept. of Madiun Regency by resolving complaints through WhatsApp

up on projects' basic requirements need to be done as the first step. When a region wants to implement AP PPP, the region must meet its basic requirements first, i.e. the existence of regulations and institutions. If there is one that is incomplete, it will create defects that cause the project to potentially fail (MMG, 2024). If the basic requirements haven not been met, such as Bandung Municipal, the government could form regulations (Perda) and/or form institutions needed (PPP Nodes, PPP Team, etc.). After all basic requirements are met, projects' feasibility in terms of project scope and cost need to be checked. Ideally, AP PPP is suitable for projects with low cost or small scope. If the project cost is too high and the scope is too sophisticated, the project tends to fail like Bandung Municipal Public Street Lighting. In this case, the project can be divided into smaller projects, in Bandung Municipal context, the project can be divided into West Bandung and East Bandung Municipal. After the project is feasible in terms of cost and scope, check whether the CSFs are implemented in the project. These CSFs are distinctive to the context of location, time, and project sector. If CSFs are implemented, the project can continue learning throughout the stages. Otherwise, it needs to gain lessons learned to enhance the learning process. If all efforts are made, the probability of success is going to be high. However, project success is not guaranteed due to other factors such as individual willingness and eagerness; leadership; communication, coordination, and commitment of each stakeholder; political support; etc. These lessons learned especially from other areas with similar projects are crucial to project implementation. This framework can be used to improve the AP PPP implementation in the future. Furthermore, the author suggested that holding capacity building is important for all stakeholders to get the same understanding and vision of AP PPP implementation. This recommendation is also suggested in the Railway Project in Makassar-Parepare so that local governments gain a fundamental understanding of AP PPP principles (Whardani, 2021). The capacity building can be held formally or informally (MMG, 2024). It is also beneficial to have a trainer of trainers (ToT) abroad to have a clear vision of what successful AP PPP is and how to achieve project success. Moreover, due to the complex nature of PPP, it is suggested that policymakers make technical guidelines for AP PPP or simplify the PPP stages. It can be challenging to comprehend all the regulations without technical guidelines. Lastly, it is important to have clarity of interpretation on Ministry of Home Affairs Regulation No. 96/2016 regarding DPRD approval on AP payments. In this regulation, article 4 paragraphs 2 and 3 state "Implementation of payment for Service Availability as intended in paragraph 1 must be allocated by the GCA (PJPK) based on the AP PPP (KPDBU) agreement in Regional Regulations (Perda) regarding APBD and Mayor/Regent Regulation regarding the elaboration of the APBD. The Implementation of payment for Service Availability allocated by the GCA (PJPK) as intended in paragraph 2 must be approved by the DPRD during the agreement period AP PPP (KPDBU)". The regulations clearly state that the DPRD must approve the AP budget during the contract period. However, in the Bandung Municipal case, the DPRD did not approve the AP budget. There was a misunderstanding that needs to be cleared up to improve the implementation of AP PPP at the municipal/regency level.

5 CONCLUSION

This study concludes that the basic requirements of AP PPP are the presence of regulations and institutions. The presence of regulations consists of the presence of PPP regulations in general, sectoral, and regional. The presence of the institution consists of AP PPP stakeholders but focuses on the formation of PPP nodes which have the functions of policy formulation, coordination, synchronization, supervision, and evaluation of AP PPP activities and assist GCA in every stage of PPP. Meanwhile, critical success factors from questionnaires show that all CSFs have a value of "very significant". However, for AP PPP at the municipal/regency level in Indonesia, the 5 main success factors are (1) a



Figure 6 Framework to help AP PPP projects succeed

well-organized and committed public agency; (2) political support; (3) favorable and efficient legal frameworks; (4) a stable political and economic situation; and (5) public and private sector's commitments and responsibilities. From the case study of Public Street Lighting in Bandung Municipal, the fiscal capacity ratio does not play a significant role in project success. High fiscal capacity does not guarantee project success. In contrast, the most significant factors of project success in Madiun Regency are individual willingness, mutual understanding and vision of the AP PPP scheme by regularly holding capacity building, and keeping communication open among all stakeholders. All in all, it is suggested that holding capacity building is important for all stakeholders to get the same understanding and vision of AP PPP implementation. Due to the complex nature of PPP, it is suggested that policymakers make technical guidelines for AP PPP or simplify the PPP stages. Lastly, it is important to have clarity of interpretation on Ministry of Home Affairs Regulation No. 96/2016 regarding DPRD approval on AP payments.

DISCLAIMER

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