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Risk Response Preferences On Public Private Partnership (PPP) In Indonesia Airport Infrastructure Development

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ABSTRACT

The minimum infrastructure availability is one of the reasons of lack of competitiveness and obstructed the accelerating process of economic growth in Indonesia. The limitation funding by government at infrastructure development in general and specifically had been introducing implementation project with Public Private Partnership (PPP) scheme for airport development, whereas in there was PPP project risk share between public and private. The aim of this study is conduct a risk assessment at airport infrastructure development in Indonesia with Public Private Partnership (PPP) concept. This research conducts by collected primary and secondary data at some of airport in Indonesia, through fields' surveys and interview with involves public and private institutions. Analysis instrumentation used is Probability Impact Matrix. This study will have resulted risk response preferences from both of side (public and private), also the preferences founded by survey questionnaire from risk variable that had identified before. As for risk responses is part of risk management process (identification, analysis, risk response). Risk response can be: Retention, Avoidance, Reduction, Transfer, whereas risk allocation consist of: public, private, and share.
Keywords: risk management, risk response preference, Public Private Partnership

1. INTRODUCTION

Public private partnership is an institutional form from cooperation between public and private are based their initial target, work based on the same target, which both of party accept the investment risk based on the initial agreement from distribution of income and expense (Nijkamp 2002). Moreover, PPP also defined as the old cooperation style between the public actor and private which both of side develop product with or service that the risk, costs and benefit which can be divided. It based on value added together (Kijn & Teisman 2003). Government choose PPP in act of infrastructure preparing for better public service and value for money through risk share, management synergy, encourage innovation, utilization and management assets. In PPP running, prioritize design optimizing that focus on output specification, and the design process more oriented on operational performance. Right optimization and risk transfer, the project cost can be reduced (interest on loans, lower insurance premiums) private financing in infrastructure provided will reduce the burden of government in short term, so that government budget can be used to finance other interest, like poverty reduction.

2. PPP RISK MANAGEMENT IN AIRPORT INFRASTRUCTURE

Risk management is formal process which risk factor will identified, analysis, and address systematically so that losses can be minimized (Djojosoedarsono, 2003).

Risk Management measures are as follows:

a. Risk management planning
b. Risk identification
c. Qualitative Analysis
d. Quantitative analysis
e. Risk response
f. Risk control

One of the key successes of PPP project is how to analyze a risk response and the right mitigation. Risk response is action that addressing specific risks. After all relevant risk interpreted, management determine how they will response that risks, the goal is to reduce likelihood and or from risk impact towards the achievement of organizational goals. Government side or Private enterprises should prepare risk mitigation with well because both of parties have the same responsibility. PPP projects in Indonesia could use all kind of government and private cooperation. Choice of agreement form for

specific project performed based on result Build Own Operate (BOO), Build Own Transfer (BOT), Operate and Maintain, Lease Develop Operate (LOD). There is not limitation in PPP running for a project in Indonesia, although with requirement means used could facilitate specific risks diversion to the best assessed in management process. Clearly risk management is needed to achieve the success from PPP project. In considering risk response from PPP project, management needs to estimate influence at likelihood and cost risk impact analysis versus benefits, choose risk response that could reduce residual risk to the desired risk toleration.

3. RISK RESPONSE CONCEPT

Risk response is remedial action possibility risks. Important risks have been knowing need to be followed up by contractor response in order to handle the risk.

Method used in dealing with risk (Flanagan, 2003):

a. Risk Retention

Risk retention is a form of risk management that will retain or take alone by one side. This way use when the risk not in big loss condition or the loss possibility is small or cost issued to handle that risk not bigger than the benefit obtained.

b. Risk Avoidance

Risk avoidance is synonymous with discontinued (terminated) on the previous classification.

c. Risk Reduction

The action to reduce risk that have possibility to happen with method:

- education and training for employee in face risk
- protection for possible loss
- protection for person and property

d. Risk Transfer.

The transfer is made to remove the risk to another party.

4. PRELIMINARY STUDY

Risk identification can be seen in Table 1. Identification of risk conducted by previous research literature study PPP airport. After risk identification, conduct risk allocation element that exist in government, private and the risk shared and then and then performed the collection of data by sending questionnaires. Processing questionnaire data and objective data in order to obtain the right scheme in Indonesia airport PPP decision making.

Table 1: The Airport PPP Risk Identification

No	Risk Variable	Victor Craig (2012)	Biju Varkkey & G Raghuram (2011)	Panduan Investor KPS (2010)
1	Land Acquisition			✓
2	Airside and Terminal Design	✓		
3	Capacity and Site Expandability	✓		
4	Changes in Aircraft Mix	✓		
5	Competing Airports	✓		
6	Airline Alliances	✓		
7	Capital Cost Estimates	✓		
8	Concessionaire Composition & Culture	✓		
9	Institutional Influences	✓		
10	Effect of Terms of Reference for Privatization		✓	
11	Corporate Governance		✓	
12	Center State Relations		✓	
13	Continuity of Political Leadership		✓	
14	Local Political Activism		✓	
15	Demand		✓	✓
16	Price		✓	✓
17	Cost Escalation		✓	✓
18	Staffing		✓	
19	Labor Unions		✓	
20	Coordination between Governmental Agencies		✓	
21	Classification and Licensing		✓	

22	Revenue Sharing		✓	
23	Risk Country & Risk Politic			✓

5. RESPONDENT'S PROFILE

A questionnaire survey in 2014 between public and private organizations. 48 questionnaire are divided, there are 24 questionnaire had been responses including 13 from public sector and 11 from private sector. The respondent's profile can be seen in table 2 below.

Table 2: Respondent's Profile (N=24)

Respondent's Profile	(%)	Respondent's Profile	(%)
Affiliation type		*Education*	
Public sector	54	Bachelor	42
Private sector	46	Master	54
		Diploma	4
Employment of respondents		*Hierarchical level*	
Less than 5 years	25	Managing director	12.5
Between 5 to 10 years	25	Section chief	17
Between 11 to 20 years	29	Senior manager	50
More than 20 years	21	Airport project advisor	8
		Senior admin	12.5

6. RESULTS

This paper was the second step of dissertation "Risk Model of Public Private Partnership (PPP) Indonesian Airport Infrastructure". Based on the analysis of questionnaires data, the retention risk had considered as the most popular (52%) followed by reduction (22%),then risk avoidance (19%), and the last has risk transfer (7%). Survey results can be seen in the diagram below.

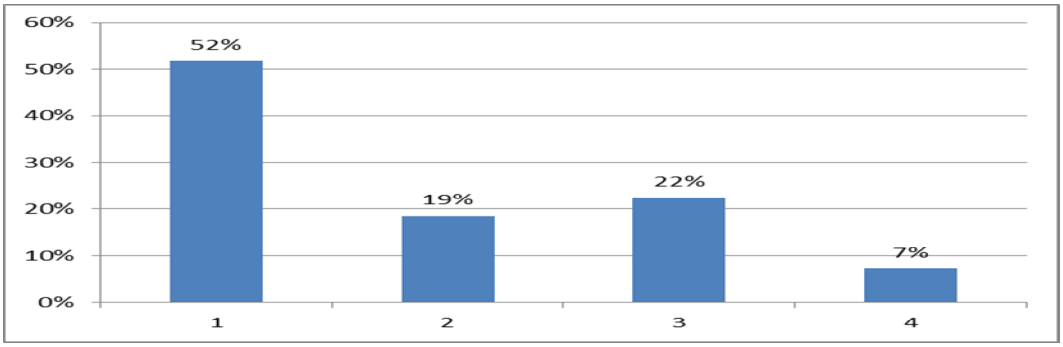

Figure 1 Respondent Survey Distribution in Holistically for PPP Airport Infrastructure Project in Indonesia

Table 3 shows rank of risk variable from private sector preference, public, and the combined. Land acquisition occupies the firs position for private sector and combined sector. While design and the air side and terminal in the first position for government sector. This rank then used in the table 4.

Table 3: Rank Variable of Risk Preference Private Sector, Public Sector, and the Combined

Ranking	Private Sector	Public Sector	Combined (Public + Private)
1st	Land Acquisition (1)	Airside and Terminal Design (2)	Land Acquisition (1)
2nd	Capital Cost Estimates (7)	Land Acquisition (1)	Capacity and Site Expandability (3)
3rd	Capacity and Site Expandability (3)	Capacity *a*nd Site Expandability (3)	Airside and Terminal Design (2)
4th	Demand (15)	Risk Enclave (Civil & Military) (24)	Capital Cost Estimates (7)

Table 4 shows response preference risk which divided into three parts: preference of public sector, private, and combined. The preferences choose based on risk level which the most highest that exist in each sector. While, for risk response

divided into for part namely retention, avoidance, reduction, and transfer. The fulfillment of risk response based on the quantity of respondent choose the for risk response based on the higher risk level.

Table 4: Risk Response Preference at Construction PPP project in Indonesia

Risk Response	Public Sector Preference				Private Sector Prefernce				Combined Preference (Public + Private)			
	1st	2nd	3rd	4th	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Retention	10	10	9	8	7	5	8	6	17	17	17	14
Avoidance	1	2	1	4	1	0	0	1	3	1	1	2
Reduction	2	1	1	1	1	6	0	4	2	1	4	8
Transfer	0	0	2	0	2	0	3	0	2	5	2	0

Risk value in table 5 derived from step 1 paper that had made before it. Table 5 reveals rank from combined risk. Land acquisition is the first position with total risk value 18.58 whereas for risk treatment preference retention in the first position by 71%, avoidance in the second position by 13%, transfer and reduction in third position by 8%. Capacity and site expandability in the second position with value total mean 15.63 whereas for risk response preference retention in position 1 by 71%, transfer in position 2 by 21%, avoidance and reduction each one in position 3 by 4%. Airside and terminal design in third position with total risk value 14.54 while for risk response preference retention in position 1 by 71%, reduction in position 2 by 17%, transfer in position 3 by 8%, and avoidance in position 4 by 4%. Then, capital cost estimates in the fourth position with value total mean 14.42 whereas for risk response preference retention in position 1 by 58%, reduction in position 2 by 33%, avoidance in position 3 by 8%, and transfer position 4 by 0%.

Table 5: Survey of Risk Response Respondent at PPP Airport Infrastructure Project in Indonesia

No	Risk Factor	Value Risk	Rank	Risk Response Preference (%, rank)							
				Retention		Avoidance		Reduction		Transfer	
1	Land Acquisition	18.58	1	**71%**	1	13%	2	8%	3	8%	3
2	Airside and Terminal Design	14.54	3	**71%**	1	4%	4	17%	2	8%	3
3	Capacity and Site Expandability	15.63	2	**71%**	1	4%	3	4%	3	21%	2
4	Changes in Aircraft Mix	13.75	5	38%	2	17%	3	**42%**	1	4%	4
5	Competing Airport	9.92	18	**54%**	1	33%	2	13%	3	0%	4
6	Airline Alliances	10.96	15	**58%**	1	17%	3	21%	2	4%	4
7	Capital Cost Estimates	14.42	4	**58%**	1	8%	3	33%	2	0%	4
8	Concessionaire Composition & Culture	10.04	17	**42%**	1	13%	4	21%	3	25%	2
9	Institutional Influences	11.17	13	25%	2	21%	3	**50%**	1	4%	4
10	Effect of Terms of Reference	10.75	16	29%	2	13%	3	**58%**	1	0%	4
11	Corporate Governance	11.79	10	**38%**	1	33%	2	21%	3	8%	4
12	Center State Relations	12.33	8	**54%**	1	33%	2	13%	3	0%	4
13	Continuity of Political Leadership	11.92	9	38%	2	**42%**	1	21%	3	0%	4
14	Local Political Activism	9.79	19	25%	2	**54%**	1	13%	3	8%	4
15	Demand	11.71	11	**54%**	1	25%	2	21%	3	0%	4
16	Price	11.13	14	**58%**	1	8%	3	33%	2	0%	4
17	Cost Escalation	11.50	12	**54%**	1	4%	4	29%	2	13%	3
18	Staffing	8.33	24	**58%**	1	4%	4	21%	2	17%	3
19	Labor Unions	9.13	23	**46%**	1	8%	4	29%	2	17%	3
20	Coordination Between Governmental Agencies	9.25	22	**75%**	1	17%	2	4%	3	4%	3
21	Classification & Licensing	9.79	20	**58%**	1	8%	3	25%	2	8%	3
22	Revenue Sharing	9.71	21	**79%**	1	4%	3	13%	2	4%	3

23	Country Risk and Political Risk	12.63	7	**42%**	1	29%	2	13%	4	17%	3
24	Risk Enclave (Civil and Military)	13.00	6	**46%**	1	33%	2	17%	3	4%	4

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