

School of Built Environment
Department of Construction Management

**Developing Standardised Frameworks for the Successful Delivery of
Public Private Partnership (PPP) Infrastructure Projects in
Indonesia**

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Doctor of Philosophy
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Declaration

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Human Ethics (For projects involving human participants/tissue, etc) The research presented and reported in this thesis was conducted in accordance with the National Health and Medical Research Council National Statement on Ethical Conduct in Human Research (2007) – updated March 2014. The proposed research study received human research ethics approval from the Curtin University Human Research Ethics Committee (EC00262), Approval Number #BE-149-2013 and #BE-186-2013.



Signature : Leny Maryouri

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{إِنَّا نَحْنُ نُحْيِي الْمَوْتَىٰ وَنَكْتُبُ مَا قَدَّمُوا وَآثَارَهُمْ}

Indeed, it is, We who bring the dead to life and record what they have put forth and what they left behind, and all things (QS Yaasiin: 12).

Perth, March 2017
Leny Maryouri

Abstract

In the 21st century, adequate and reliable infrastructure for a country is essential for sustainable development and improving competitiveness in a world influenced by globalization. Indonesia is a country that still requires a significant increase in infrastructure development. To build infrastructures, however, it will also require substantial investment in a sustainable financing system.

Financing decisions are not necessarily equivalent to investment decisions and they can be independently decided. Research focusing on the available options for infrastructure financing is an essential component of the infrastructure development process. The main sources of infrastructure financing include public budgets, budget appropriations, financing on a pay-as-you-go basis or from public debt. These options persist as the major form of financing for government investment in infrastructure. However, recent Public Private Partnership (PPP) procurement through financing from equity capital and lending from banks, and infrastructure bonds, has become an attractive alternative source for infrastructure financing. Infrastructure financing has multiple consequences; therefore, governments and related stakeholders have to consider a range of macro and micro economic factors when undertaking project appraisal and comparisons. Project risk can be reduced by appropriate project management. However, operation and maintenance costs need to be included to manage the effectiveness of revenue and costing in a holistic manner.

To avoid unnecessary complexity in the negotiation between the public and private sectors, standardised project agreements and contracts can be introduced. PPP infrastructure projects should be well prepared and run to increase the confidence of public and private parties throughout the PPP process. Therefore, the use of a more consistent and transparent risk allocation framework aligned with published guidance material would accelerate the process of negotiation around risk allocation and distribution. The major financing task is to meet upfront investment costs in a timely manner whilst the central efficiency issue is in deciding which financing vehicle best manages project risk. In light of the ongoing discussion, a research was set to develop robust frameworks to assess the investment decision for infrastructure projects within the PPP financing mechanism in Indonesia. In order to achieve the aim of this research, a mixed methodology combining deductive and inductive methods was adopted.

The 15 most critical parameters that influenced PPP financial decision-making by stakeholders were identified in this research, namely: (1) construction costs and investment, (2) government policy support, (3) tariff or fee approved by government, (4) demand volume, (5) amount of bank loan, (6) land acquisition process, (7) financing risk and costs, (8) demand growth, (9) quality of FS, (10) tariff or fee growth, (11) length of delay due to political involvement, (12) bank loan period, (13) cost overrun during construction, (14) operation costs overrun and (15) insurance/risk transfer expenses.

Furthermore, this research also elicited and incorporated the feedback from relevant experts in order to develop the PPP investment frameworks for Indonesia through

interviews and participant observations as integral parts of the methodology. Following this, three frameworks for PPP infrastructure projects were developed, namely: (1) PPP Infrastructure life cycle framework; (2) PPP stakeholder framework; and (3) PPP modality framework.

The frameworks were developed with the expectation that the PPP frameworks could assist the government to: (a) accelerate the business process by risk identification of the significant parameters in the PPP delivery process from planning and preparation until financial closing, and to accelerate construction including O&M and preparation/anticipation of the assets transfer; (b) make clear the differing authority between the stakeholders and the government institutions in delivering PPP process development; and (c) identify leverage methods in PPP infrastructure financing through the use of alternative methods of financing to achieve bankability standards and become financially sustainable projects.

Another benefit of the frameworks was their potential use to assist in reducing the current complexities. This includes the areas of land acquisition, inter-coordination and development of sustainable PPP projects. They can help to provide certainty of investment return and clarify the function of SOEs to support PPP infrastructure project development as GCA and as a member of a consortium. In addition, they can assist operators in accommodating the fiscal contributions from regional and central government budgets that will contribute as their share in the SPV.

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List of Abbreviations

No.	Abbreviation	Text
1	ANOVA	Analysis of Variance
2	APEC	Asia-Pacific Economic Cooperation
3	ASEAN	The Association of Southeast Asian Nations
4	AUD	The Australian Dollar
5	AusAid	Australian Agency for International Development
6	BAFO	Best and Final Offer
7	BAPPEDA	<i>Badan Perencanaan Pembangunan Daerah</i> (Regional Development Planning Agency)
8	Bappenas	<i>Badan Perencanaan Pembangunan Nasional</i> (The Ministry of National Development Planning)
9	BEP	Break Even Point
10	BI	Bank of Indonesia
11	BKPM	<i>Badan Koordinasi Penanaman Modal</i> (National Investment Board)
12	BLU	<i>Badan Layanan Umum</i> (Public Service Agency)
13	BoD	Board of Directors
14	Bodetabek	Bogor-Depok-Tangerang-Bekasi
15	BOOT	Build Own Operate Transfer
16	BOT	Build Operate Transfer
17	BPJT	The Toll Road Regulatory Agency
18	BTO	Build Transfer Operate
19	BUMN/D SOE	= <i>Badan Usaha Milik Negara / Daerah</i> (State Owned Enterprises)
20	CA	Contracting Agency
21	CAPEX	Capital Expenditure
22	CAPM	Capital Asset Pricing Model
23	CCEI = KCEI	Custodian Central Effect of Indonesia
24	CGE	Computable General Equilibrium
25	CGF	Credit Guarantee Financing
26	CMLV	Cambodia, Myanmar, Laos, and Vietnam
27	D&B	Design & Build
28	DAU	<i>Dana Alokasi Umum</i> (Special Allocation Budget)
29	DBFM	Design Build Finance Management
30	DBFO	Design, Build, Finance and Operate
31	DBM	Design Build Maintenance
32	DBOOT	Design Build Own Operate Transfer
33	DBOT	Design Build Operate Transfer
34	DED	Detail Engineering Design
35	DIPA	<i>Daftar Isian Pelaksanaan Anggaran</i> (List of Budgeted Government Programs)
36	DISHUB	<i>Dinas Perhubungan</i> (Transportation Agency)
37	DKI Jakarta	<i>Daerah Khusus Ibukota Jakarta</i> (Capital City of

		Jakarta)
38	DSCR	Debt Service Coverage Ratios
39	E&Y	Earst & Young
40	EFA	Exploratory Factor Analysis
41	EPAC	Economic Planning Advisory Council
42	EPC	Engineering Procurement Construction
43	FBC	Final Business Case
44	FDI	Foreign Direct Investment
45	FGD	Focus Group Discussion
46	FM	Facilities Maintenance
47	FS	Feasibility Study
48	FS	Feasibility Study
49	FSA = OJK	Financial Services Authority
50	G20	The Group of Twenty
51	GCA	Government Contracting Agency
52	GDP	Gross Domestic Products
53	GOI	Government of Indonesia
54	GTE	Government Trading Enterprise
55	IDB	Islamic Development Bank
56	IFC	International Finance Corporation
57	IFWG	Infrastructure Finance Working Group
58	IIF =PIP	Indonesia Infrastructure Finance, Government Investment Centre
59	IIGF = PII	Indonesia Infrastructure Guarantee Fund
60	IPKC	Infrastructure Partnership Knowledge Centre
61	IPO	Initial Public Offering
62	IRR	Internal Rate of Return
63	IRSDP	Infrastructure Reform Sector Development Project
64	ITB	Institute Teknologi Bandung (Bandung Technology Institute)
65	Jabodetabek	Jakarta-Bogor-Depok-Tangerang-Bekasi
66	JBIC	Japan Bank for International Cooperation
67	JO	Joint Operation
68	JV	Joint Ventures
69	KAI	<i>Kereta Api Indonesia</i> (National Railway State Own Company)
70	KCEI = CCEI	<i>Kastodi Center Efek</i> Indonesia
71	KMO	Kaiser-Mayer-Olkin
72	KP3EI	<i>Komite Percepatan dan Perluasan Pembangunan Ekonomi</i> Indonesia
73	KPI	Key Performance Indicators
74	KPPIP	<i>Komite Percepatan Pembangunan Infrastruktur Prioritas</i> (The Committee for Acceleration of Priority Infrastructure Delivery)
75	LARAP	Land Acquisition and Resettlement Action Plan

76	LIBOR	London Interbank Offered Rate
77	LMAN	<i>Lembaga Manajemen Aset Negara</i> (State Assets Management Institute)
78	LRT	Light Rail Transit
79	MDG	Millennium Development Goal
80	MoF	The Ministry of Finance
81	MoT	The Ministry of Transportation
82	MP3EI	Masterplan <i>Percepatan dan Perluasan Pembangunan Ekonomi</i> Indonesia (Masterplan for Acceleration and Expansion of Indonesia's Economic Development)
83	MRT	Mass Rail Transit
84	NAO	National Audit Office
85	NJOP	value base on land taxes
86	NPV	Net Present Value
87	NSW	New South Wales
88	O&M	Operational & Maintenance
89	OJK = FSA	<i>Otoritas Jasa Keuangan</i>
90	OPEX	Operating Expenditure
91	ORI	<i>Obligasi Ritel Indonesia</i> (Retail Indonesian Bonds)
92	OtC	Offer the Counter
93	P3CU	Public Private Partnership Central Unit
94	PAM	Property Asset Management
95	PCA	Principal Component Analysis
96	PDP	Project Delivery Partnership
97	PDS	Project Development Services
98	Pelindo	<i>Pelabuhan Indonesia</i> (National Sea Port State Own Company)
99	PERPRES	<i>Peraturan Presiden</i> (President Regulation/ Decree)
100	PFI	Private Finance Initiative
101	PhD	Philosophy of Doctoral
102	PII = IIGF	<i>Pejaminan Infrastruktur Indonesia</i>
103	PIP = IIF	<i>Pusat Investasi Pemerintah</i> (Government Investment Centre)
104	PLN	<i>Perusahaan Listrik Negara</i> (Electric State Owned Company)
105	PMK	<i>Peraturan Menteri Keuangan</i> (Regulation of Minister of Finance)
106	PMP	<i>Penanaman Modal Pemerintah</i> (Government Equity Investment)
107	PSN	<i>Proyek Strategi Nasional</i> (National Strategic Projects)
108	PP	<i>Peraturan Pemerintah</i> (Government Regulation)
109	PPP	Public Private Partnership
110	PQ	Pra-Qualification
111	PR	Presidential Regulation
112	PSC	Public Sector Comparison
113	PSO	Public Service Obligation

114	PSPDF	Private Sector Participation Development Facility
115	PT	<i>Perusahaan Terbatas</i> (Limited Company)
116	PTA	Perth Transport Authority
117	QIC	Queensland Investment Corporation
118	QTC	Queensland Treasury Corporation
119	RAF	Rank Agreement Factor
120	REIT	Real Estate Investment Trust
121	RFID	Radio Frequency Identification
122	RfP	Request for Proposal
123	RII	Relative Importance Index
124	RII	Relative Importance Index
125	RMU	Risk Management Unit
126	RoE	Return on Equity
127	RoI	Return on Investment
128	RPJMN	<i>Rencana Pembangunan Jangka Menengah Nasional</i> (National Medium Term Development Plan)
129	RPJPN	<i>Rencana Pembangunan Jangka Panjang Nasional</i> (National Long Term Development Plan)
130	RTRW	<i>Rencana Tata Ruang Wilayah</i> (Spatial Planning)
131	SDM	Supported Debt Model
132	SDP	service Delivery Partnership
133	SEZ	Special Economic Zones
134	SI	Stakeholder Involvement
135	Sislognas	The National Logistics System
136	Sistranas	the National Transportation Systems
137	SMI	<i>Sarana Multi Infrastruktur</i>
138	SOE = BUMN/ BUMD	State Owned Enterprises
139	SPSS	Statistical Package for the Social Sciences
140	SPV	Special Purpose Vehicle
141	SUN	<i>Surat Utang Negara</i> (Treasury Bonds)
142	TDC	Total Development Cost
143	TJD	Transit Joint Development
144	TOD	Transit Oriented Development
145	UGM	<i>Universitas Gadjah Mada</i> (Gadjah Mada University)
146	UK	United Kingdom
147	UN	United Nations
148	USA	United State of America
149	USAid	United State Agency for International Development
150	USD	United State Dollar
151	VfM	Value for Money
152	VGf	Viability Gap Fund
153	WB	World Bank
154	WESP	World Economic Situation and Prospects

CHAPTER 1

INTRODUCTION

1.1. Background

Developing economies in the Asia-Pacific region have been experiencing rapid growth. Based on the Asia-Pacific Economic Cooperation (APEC) report, APEC's GDP in Purchasing Power Parity terms has increased more than three-fold, from \$16.3 trillion in 1992 to \$55.3 trillion in 2013; this is an average growth of 6.1% per annum since 1992 (Australian Government, 2014). Furthermore, foreign direct investment (FDI) into APEC members was valued at US\$12.5 trillion and accounted for 47.4% of total world outward FDI stock (Australian Government, 2014).

In an environment increasingly influenced by globalization (G20, 2013), the provision of adequate and reliable infrastructure is essential for sustainable development and for increasing a country's competitiveness. Investment in infrastructure involves a significant amount of financing, which places tremendous pressure on a government's financial statement (Cheung, Chan, & Kajewski, 2009). Rapidly increasing number of urban populations are requiring more infrastructure and facilities, whereas tax bases are growing slowly, and central governments are decentralizing functions without additional intergovernmental transfers (Fölscher, 2010). Many cities not only face demand for higher levels of service delivery, but also the pressure to allocate additional resources to the maintenance and replacement of deteriorating or obsolete infrastructure. The situation of tight government budgets or short-term fiscal constraints for infrastructure development has fueled a high demand for infrastructure investment from the private sector (Fölscher, 2010).

There is a strong drive towards increasing the participation of private sector stakeholders in infrastructure projects, but thus far there has been limited empirical research conducted. Public Private Partnerships (PPPs) are one of the proposed solutions to increase the private sector's contribution to infrastructure development (G20, 2013). Countries in the G20 have agreed that PPPs can be an effective and cost-

efficient way of facilitating public and private sector collaboration for infrastructure provision. PPPs are long-term contractual arrangements between the public and private sectors for the delivery of public services (Yescombe, 2007). PPPs can be implemented for both commercial and infrastructure projects. This research focuses on the provision of PPPs for infrastructure projects, which in turn drive regional economic growth. Under the PPP approach, both the public and private sector need to share project risks, as they are delivering public services drawing on infrastructure developments. The process and justification for using PPP arrangements for economic infrastructure development is relatively straightforward as with this approach there is a bankable revenue stream. This therefore reduces the risk and makes it more appealing for the private sector to invest in commercial economic infrastructure. On the other hand, this is not necessarily the case for social infrastructure or economic infrastructure, which has a relatively low level of viability because of minimal financial return. Describing the types of infrastructure, Grimsey and Lewis (2004) suggested that economic infrastructure provides key intermediate services to business and industry, and its principal function is to enhance productivity and economic innovation within a country/region. Social infrastructure, however, is seen as a provider of basic services to households, with its main role being to improve the quality of life and welfare in the community (Darrin Grimsey & Lewis, 2004). However, this research has generally studied infrastructure financing as a whole, and it has not differentiated between specific types of infrastructure.

The main sources of infrastructure financing have traditionally come from public budgets, from budget appropriations, been financed on a pay-as-you-go basis, or from public debt; these remain the major form of financing for infrastructure projects (C. Chan, Forwood, Roper, & Sayers, 2009). PPP procurement through financing from equity capital, lending from banks, and from bonds, have become another alternative source for infrastructure financing. Various public infrastructure financing options have been explored such as off-budget financing by GTE's (Government Trading Enterprises), PPP and government franchising (C. Chan et al., 2009).

There are different options available for a country if the fiscal budget is limited and the condition of the economic or social infrastructure is economically viable but less

financially viable. The government can face difficulties in attracting private sector involvement in constructing infrastructure in a conventional PPP scheme. Indonesia is one of the countries that faces a public budget constraint and is unable to meet its infrastructure needs. Based on the Development Plan 2010 - 2014, the infrastructure investment needs were Rp.1.429 trillion (US\$140 billion), and the available government budget was only able to meet approximately 31% of this amount (Indra, 2009). It was also stated in the Millennium Development Goal (MDG) that infrastructure financing figures for 2009 to 2014 reached around Rp.1,400 trillion (US\$107.7 billion). Furthermore, whilst the ability of the government to fund was forecast in the state budget for five years, only about Rp.400 trillion (US\$30.77 billion) was actually allocated. That meant the financial gap between projected figures and actual figures was quite large, at about Rp.1000 trillion (US\$76.92 billion) (National Development Planning Agency of Indonesia, 2011). The latest report in 2015 showed that the government is only able to fulfil 30% of the total infrastructure funding need, which is about Rp.1,433 trillion (US\$110.23 billion) out of the Rp.4,796 trillion (US\$368.92 billion) (Chaniago, 2015; Harun al-Rasyid Lubis, 2015). It is anticipated that approximately 36% of the funding gap will have to be fulfilled through other means. In order to address this shortfall, one initiative by the government was to invite more roles and private initiatives in the form of Public and Private Partnership (PPP).

Within the last 10 years, the implementation of the PPP scheme to develop infrastructure in Indonesia has not achieved optimal results. Based on the report of The Committee of Acceleration Infrastructure Priority Development, under the Coordinating Ministry of Economic Affairs, only about 2% of the infrastructure projects that had been planned were executed successfully (Komite Percepatan Penyediaan Infrastruktur Prioritas, 2015). As indicated in the report, the reason for the very low rate of success in implementing PPP infrastructure scheme development is the duration of project preparation. This can take more than two years, and in many instances projects may even take more than five, and up to 10, years before being offered for open tender. The reasons for this long preparation time include the complexity of the land acquisition, modality structure, and coordination among the contracting agencies in government institutions. The modality structure is particularly problematic. The viability in modality structure and the selection of a

financing scheme in most of the infrastructure projects in Indonesia have not been well prepared in the project development stage. Furthermore, difficulty in structuring the projects to meet the banks' financial viability assessments in transaction process of financial close has meant that achieving funding takes a considerable length of time.

To overcome these challenges, more in-depth study is needed to identify the key issues and considerations that have led to successful PPP infrastructure delivery and implementation. Also, stakeholders have found difficulty in identifying the important parameters in the prevention of failure that need to be considered and addressed when developing PPP infrastructure projects. An initial background study was conducted as part of this research, suggesting that the development of a standardized set of frameworks could assist stakeholders in identifying the relevant critical parameters and thus better mitigate risks and lead to more effective project management. This thesis provides quantitative and qualitative evidence applicable to develop the frameworks relevant to modality and financial arrangements, to support PPP infrastructure projects. Additionally, this study also developed a conceptual framework for the implementation and leveraging of the best PPP infrastructure performance. It will also assist in identifying the most efficient methods to maximize the viability of PPP infrastructure projects and in turn will also assist government in preventing some risks and hastening the process of preparation.

1.2. Aim and Objectives

Considering the discussion above, the aim of this research is to develop a robust framework to assist the investment decision for infrastructure projects with PPP financing mechanism in Indonesia.

Specific objectives of the research include:

- 1) to identify and analyze the optimal infrastructure financing scheme based on analysis of best-practice PPP infrastructure financing;

- 2) to determine from different stakeholders' perspectives the critical parameters in infrastructure financing effecting PPP finance performance; and
- 3) to develop PPP frameworks for Indonesia to support the allocation and distribution of risks in decision making in order to select the most appropriate form of leverage method for PPP infrastructure projects.

1.3. Significance and Research Rationale

Given the discussion above, it can be seen that to support economic development in the Indonesian context, the implementation of PPP schemes for supporting infrastructure development is of the utmost importance. Fiscal budget constraints faced by the government combined with the high demand of public services, will necessitate the seeking of new insights from the PPP financing mechanism, especially in order to finance infrastructure projects that are economically viable but less financially viable. Project risk will also require good management and the provision of certainty of policy. The financing vehicle developed may be capable to improve align incentives for managing a range of project risks. PPPs may support in relocating construction and operational risks to private sectors. Where properly structured, the government only plays the role of a regulatory body that mitigates demand risks with an assurance to underwrite minimum revenue such as from user charges and tariff and fee.

Various problems, risks and obstacles have been prevented in PPP initiatives around the world that have eventually led to project failure. Different degrees of interest between the stakeholders has been studied as the main reason for failure in several instances (El-Gohary, Osman, & El-Diraby, 2006). This study focuses on developing a robust framework to allocate and distribute risks in order to reduce failure, and to ensure the sustainability of gaining a return of investment for infrastructure projects within a PPP financing mechanism. The study's results also make a contribution to Indonesian infrastructure project development, and moreover assist in clarifying:

- stakeholder roles and their preferences in relation to critical parameters;
- modality and leverage project methods (by identifying the parameters involved in risk sharing and transaction costs);

- potential optimal government contributions to leverage the infrastructure projects and select the PPP financing mechanism;
- revenue streams, information, and disciplines that contribute to more efficient investment decisions; and
- project lifecycles to reduce the life-time transaction costs of financing and/or understanding the costs of delay more effectively.

1.4. Research Methodology

This research into infrastructure financing in PPP schemes is intended to add to the continual development of the knowledge of PPP. In order to achieve the aim of this research, this research adopted a mixed methodology, combining quantitative and qualitative methods.

Quantitative methods included the use of a questionnaire distributed using Survey Monkey. Qualitative methods included the use of semi-structured interviews and case study participant observations, policy documents followed by a focus group for validation purposes.

1.4.1. Data Collection

The first stage involves the quantitative data collection. This was facilitated by the development of a questionnaire survey. The aim of this survey was to obtain information from key stakeholders involved with the delivery of PPPs about the parameters that influence their decisions about infrastructure investment. The results of the survey put on display the pattern of correlation and relevancy rank of the identified parameters. Stakeholders involved in the survey included government officials, bankers, entrepreneurs, donor agencies and consultants. The data collection involved selected respondents who had experience in being involved in PPP infrastructure projects. During this stage, the survey received 45 responses, which exceeded the minimum target of 30 responses.

The second stage was the qualitative data collection. This was achieved through interviewing selected respondents. The respondents were the professional experts

who execute PPP infrastructure projects in the different stages of its project life cycle. And for the purpose of this research, theoretical saturation was reached after interviewing 12 respondents, then 12 responses were analyzed. The purpose of collecting qualitative data was to get more insight into the decision-making process in PPP infrastructure financing. The interviews have also contributed to the development of further understanding on leveraging infrastructure projects. To contextualize the findings, the participant observation was also conducted in the selected on-going case study by involving the researcher in an internship program organized by the one of the Local Governments as well as intership in Bappenas Cetral Government in Indonesia. An infrastructure project in Indonesia has been selected as the case study. It has allowed the researcher to gain access and work closely with the government, through participant observation to be deeply involved in a real infrastructure project. This participant observation allowed the researcher to be actively involved in the day-to-day process of the project and fully immersed in the mechanics of an infrastructure delivery in Indonesia.

1.4.2. Data Analysis

The quantitative data have been examined using the Statistical Package for the Social Sciences (SPSS) software 22nd version. The descriptive statistics have been used to analyze the demographic of the respondents. The relative importance index (RII) method (Gray, 2012; Gündüz, Nielsen, & Özdemir, 2013; Torrance, 2008) has been utilized to determine the relative importance of all factors affecting the success of PPP projects. The importance of various factors supported the development of the PPP frameworks in this research.

The one-way analysis of variance (ANOVA) has been utilized to assist determining whether there are any significant differences between the means of two or more independent (unrelated) groups. The null hypothesis proves that there are no significant differences between different stakeholders' ratings on the importance of the parameters. If p is less than 0.05, the null hypothesis will be rejected, demonstrating there is a significant difference. In addition, the Mann-Whitney U test has been utilized to test the significance between two stakeholders' ratings on the

importance of the parameters. The qualitative data from the semi-structured interview as content explanation has strengthened the quantitative data analysis.

To check and strengthen the reliability and validity of the findings, triangulation methods study has also been conducted. The triangulation methods involved content analysis, integrating both quantitative and/or qualitative data in a single study. Triangulation methods were used to analyse the concurrently collected data or sequential data; it involved the integration of the data at one or more phases in the research process that were optimised in the study (John W. Creswell, 2008; J.W. Creswell & Clark, 2007; John W. Creswell, Shope, Clark, & Green, 2006). The framework was then developed through triangulation of the outcomes from the quantitative analysis, qualitative analysis and literature review.

1.4.3. Developing PPP Framework

In this research, the PPP policy in Indonesia has been analysed thoroughly; the process of infrastructure project development has been studied. The life cycle PPP infrastructure framework based on the literature study functions as the basic framework to be developed. The quantitative and qualitative data obtained and analysed in this thesis are used to give input to improve the PPP frameworks. This is achieved by considering the critical parameters and justifications from the PPP experts and practitioners. The elements in the PPP framework include the key parameters, processes in life cycle, modality structure, government contribution to leverage viability, stakeholders, and roles. Together these enable how PPP infrastructure project can be delivered.

1.4.4. Research Evaluation and Validation

The evaluation and validation signify the last stage of this research. The Focus Group Discussion (FGD) was used to incorporate inputs from stakeholders in the evaluation and validation stage. The FGD has been conducted and formally hosted by the Coordinating Ministry of Economic Affairs in Jakarta. The FGD were led by the Assistant Deputy of Infrastructure from National Development Planning Agency of Republic of Indonesia. In addition, follow up sixteen surveys were conducted

involving these stakeholders subsequent to the FGD to further fine-tune and finalise the framework.

1.5. Ethical Considerations

Particularly related to the issue of data collection and reporting, the respondents were from the industries/sectors related to PPP financing investment that have the capability to answer the questionnaire that has been developed in this research. The researcher also was involved in an internship with the Provincial Government of South Sumatra, which was facilitated by the National Development Planning Agency, Government of Indonesia.

The quantitative data collection through SurveyMonkey has been conducted under the authorization from Ethics Approval No. BE-149-2013 under the Curtin University ethical conducts. The second of ethical approval was authorized by Ethics No. BE-186-2013 for data collection by interviews and followed by the case study also the FGD.

The participants of this research have been: (1) obviously informed on the objectives of this research at the time of invitation to participate; (2) made aware that they may withdraw from this research at any time; (3) giving them assurance confidentiality if necessity, or will be published with their acknowledgment; and (4) acknowledged for their cooperation and contribution in a way that retains confidentiality unless otherwise requested. If they wished, participants were to be informed of the results of this study.

1.6. Thesis structure

Chapter 1 is the introduction of this thesis, which explains the aim and objectives and also the significance of this research. An overview of the research methodology adopted, ethical issues and an outline of this thesis are also presented in this chapter.

Chapter 2 is the literature review. It provides an in-depth discussion on Public Private Partnership (PPP), groups of factors and parameters that influence in PPP financial

performance, decision making in financing the infrastructure projects, and current PPP development studies. The output of the literature review was the comparison of the financing mechanism in PPP financing schemes.

The progress of implementation and policy of PPP in Indonesia is explained in Chapter 3. This chapter explains about stages in the project cycles of PPP project developments as well as the complexity that Indonesia now faces. Also, the chapter highlights that PPP policy and regulation in Indonesia have undergone many changes during the period in which the research was conducted (2012 – 2016). This chapter also reviews the most current policies that have been released by the Indonesian Government in 2015, to accelerate infrastructure development.

The research methodology is explained in Chapter 4. The epistemology adopted in this research can be considered inline with post-positivism stance in studying infrastructure financing in PPP schemes. The data collection was conducted by triangulating quantitative and qualitative data. Quantitative data was collected by questionnaire survey and then statistically analyzed. Qualitative data was collected from interviews followed by content analysis. In addition, the study was enriched by conducting a participant observation, which has been conducted in the form of a case study. The evaluation and validation as an integral part of the research methodology has been conducted through Focus Group Discussion (FGD) and validation questionnaire involving experts in infrastructure industry.

Chapter 5 is the findings and discussion section. The quantitative and qualitative data are analyzed and presented in Chapter 5. The relative importance index (RII) with weighted system and the one-way analysis of variance (ANOVA) and the Mann-Whitney U test have been utilized in quantitative data analysis. The content analysis of the qualitative data has been conducted with the support of NVivo software to allow the grouping of words into main topics from the interviews.

Chapter 6 discusses the case study. The participant observation has been conducted within the case study by working together with government officers in The Province Government of South Sumatra to prepare the project and also in the Central Government in order to understand the stages involved in developing a PPP

infrastructure project in the monorail project at Palembang City. In the last year of the research period, the monorail PPP project was then changed into a Light Rail Transit (LRT) project that was financed by the fiscal budget. This shows that political risks and changing regulations in developing infrastructure in Indonesia is a significant factor.

Chapter 7 explains the findings and discussion yielded from the data collection and analysis. The significant parameters, the functions of stakeholders, the leverage viability methods and comparison of financing in several countries are also discussed in detail in this chapter.

Chapter 8 details the development of the PPP frameworks as the embodiment of the findings in this research. The discussion of the result of analyzing the quantitative and qualitative data and observations from the case study is part of the result from Chapter 5 and Chapter 6 with triangulation analysis and their input towards the PPP infrastructure development framework.

Chapter 9 looks at the evaluation and validation of the framework. The chapter discusses how the PPP frameworks developed in Chapter 8 was refined through FGD involving relevant government institutions and validated through questionnaires to PPP practitioners to refine the output so that it meets the infrastructure industry's needs.

Chapter 10 details the conclusion and recommendations for further research. It discusses that the objectives related to analyzing the best practice PPP infrastructure financing schemes, determining the deferent stakeholders' perspective on the critical parameters and developing PPP frameworks for case in Indonesia have been achieved. It also discusses that further research on the Project Delivery Partnership to accelerate PPP procurement process and developing methods of monetizing natural resources to increase the capacity of sovereign guarantee will need to be studied further.

CHAPTER 2

LITERATURE REVIEW

2.1. Introduction

The literature review of this study has been discussed in this chapter. It commences by discussing financial decision-making by government institutions. This is then followed by identifying the most common method of financial decision-making for public entities such as the Public Sector Comparison (PSC) (Yescombe, 2007), which the government draws upon to decide whether an infrastructure project will be financed by the fiscal budget or offered to the private sector with a Public Private Partnership (PPP) mechanism.

The financial decision-making in the PSC method is based on the initial financial or base-line cash-flow performance that can be indicated with the results of NPV, IRR and concession period (DELTA, 2008). The decision making based on the base-line cash-flow will lead to complexity of defining of criteria in bidding process. Limited information on the project provided in open biddings has created variations in financing of projects in the Feasibility Studies (FSs) of the private sector's offers (Foss & Ellefsen, 2002), which will likely lead to higher bidding cost for the private sector (Bing Li, Akintoye, Edwards, & Hardcastle, 2005). In the bidding process, the short-listed companies will typically provide strong arguments as to why their FS is the best one (Liu & Wilkinson, 2011). This situation will usually lead to a longer bidding evaluation period and sometimes will lead to the government finding it hard to make a decision. As mentioned by Chan et al. (2010), lengthy delays in negotiation can be the most significant obstacle in implementing PPP in China (Albert P.C. Chan, Lam, Chan, Cheung, & Ke, 2010; Darrin Grimsey & Lewis, 2004), while in Hong Kong, the obstacles were project accountability and project costs (Albert P.C. Chan et al., 2010; Darrin Grimsey & Lewis, 2004). The situation in both countries was also similar in the United Kingdom (Albert P.C. Chan et al., 2010; Darrin Grimsey & Lewis, 2004; Matsukawa & Habeck). The same situation

has also been described by Li (2005), and that other obstacles in the bidding process were the high transaction bidding costs (Bing Li et al., 2005).

Following on from this, the need to shorten the process of bidding evaluation is one of the main triggers for this research, i.e. to conduct a study of Infrastructure Financing mechanisms in order to support financial decision-making for public entities. The result of this study provides a more holistic procurement framework, including the financing mechanism, to achieve an acceptable degree of viability to secure a return of investment from the infrastructure projects. This study explores the scope for the application of an efficient financing mechanism in order to reduce the life-time cost of an infrastructure project, to recommend potential financing vehicles and to improve the financing and investment decision. This includes comparative assessment of financing mechanisms and the parameters involved, including the legal policy, financial and project specific aspects that must be factored-in when creating an evaluation.

Infrastructure financing requires in-depth investigation of the key factors (parameters) that drive the financial performance (Albert P.C. Chan, Yeung, Yu, Wang, & Ke, 2011). The strongest parameters that affect the financial performance are related to government policy (Albert P.C. Chan et al., 2010). These include: the management of the equity capital, government guarantees (with the micro and macro-economic assumptions as the basis of the fiscal policy and banking system applied), the costing, and potential revenue streams. The typical sources of funds for infrastructure financing are from equity capital from the private sector, from banks with a commercial lending mechanism, from donor agencies, and from bonds or public capital markets and other financial institutions. The different sources of funds also lead to a different treatment of the interest and return mechanism.

2.2. Public Sector Procurement and Public Sector Comparison (PSC)

‘Public procurement’ has been defined as a process in which a Government engages into an agreement with a private-sector supplier. It is also commonly recognized

from public-sector procurement, that describes as open tender by government (Yescombe, 2007).

The most common method is the Public Sector Comparison (PSC) which helps the government decide whether the infrastructure project will be financed by the fiscal budget, through public procurement, or be offered to the private sector through the PPP mechanism (Yescombe, 2007). PSC estimates the theoretical risk-adapted cost if a project were to be funded, owned and applied by the public authority (Albert P.C Chan, Lam, Chan, Cheung, & Ke, 2009). The PSC also calculates the net present value of a projected net cash flow constructed on an itemized government discount rate over the estimated concession of the infrastructure project. The discount rate selected is typically contentious since it depends on a scrutiny of the risks without any inevitability of their likelihood (C. Chan et al., 2009). According to Grimsey and Lewis (2004), the decision to use PPPs in the PSC process to deliver a similar project is founded on the principle that they deliver better 'value for money', or enhanced services for the similar amount of money (Darrin Grimsey & Lewis, 2004).

For example, in Australia, the Netherlands and the United Kingdom, a valuation is completed by correlating outputs and costs of the Public Sector Comparator (PSC) against PPP proposals in defining whether a PPP project proposes value for money (C. Chan et al., 2009). In Australia and the United Kingdom, four principal cost elements are typically measured in correlating the PSC and the PPP project in defining value for money. These are the project costs (capital and operating), value of risk to be relocated to the private sector, value of risk taken by the public sector, and inexpensive neutrality adjustments (elimination of any net benefits or disadvantages that accumulate to a public sector business by feature of public sector ownership) (C. Chan et al., 2009).

There are many procedures that can be optimized by the government to regulate the economic feasibility of the project. The procedures comprise (Yescombe, 2007):

- Value for money (VfM), which detects the profits and costs of the infrastructure projects, contain its indirect effects, prepares a cost-benefit analysis, a key element of which is the discount rate to be applied to future benefits and costs, and /or calculates the economic return of the project.

- Affordability, which is the capability of the infrastructure project to secure the return of investment, whether it can actually afford to pay the Service Fees (in the PFI Model), or the government will probably have a set budget for the project (in the Concession Model). The Facility must be affordable for community as the users to pay the service from infrastructure have delivered.
- Balance-sheet treatment

The decision-making procedures using the balance-sheet treatment has been adapted for decision-making of projects to determine if they are likely to be financed by public budget or PPP. The off-balance sheet treatment is a modification in financial engineering and a contexture for decently government balance-sheet reasons to raise a certain VfM for the government, subsequently it might contain non-natural risk transfer, where the private sector is compensated for a risk in actual assumption. There also imply which adds further pressure to the procedure of calculating risk that if a capacity persists on balance-sheet for the government, the extent of risk allocation has not been passable, and hence sometimes the result of PSC for the PPP does not offer a satisfying VfM (Yescombe, 2007).

Yescombe (2007) has explained that it is hard to compare a PSC's costs with those for a PPP, if only constructed on preliminary approximations or definite tenders since risks are being relocated to the private sector under the PPP, at that point PPP's costs will upsurge to recompense. For instance, if a subcontractor in a construction for a PPP infrastructure project has additional costs, the construction costs will be enlarged to compensate this risk. So, the initial construction cost cannot be adapted in the PSC, where is spare risk will not spread on. Likewise, if there is possibility for the private sector innovation, which should provide advantages of a PPP, this cannot be estimated earlier and included in the government initial assessment comparing the PPP to the PSC (Yescombe, 2007).

In summary, there appear to be inherent weaknesses in PSC as the main tool for financial decisions for a public authority. The weaknesses in PSC include: it is only based on the base-line financial model using a single value for money and not a dynamic approach that could be more sensitive to key factors; and it involves

artificial risk assumptions and estimated costs. To improve the PSC, this study will promote and utilize financial engineering to optimize and study the PPP infrastructure financing mechanism as the extension of PSC method.

2.3. Public Private Partnerships (PPP)

PPP generally fills a gap between conventionally tendered government projects and complete privatisation (Darrin Grimsey, 2005). Fiscal budget constraints have invigorated governments to look of bigger private sector contribution in the delivery of infrastructure under a variety of structure. These tendencies principally allocate investment from government to the private sector through the PPP mechanism. Many articles have defined PPP. Several selected definitions of PPP are presented in this chapter.

PPPs can support increased infrastructure investment without increasing the government borrowing and can deliver of infrastructure projects in advance when public authority has financial limitations that avert the use of conventional public sector tender approach (C. Chan et al., 2009; Darrin Grimsey & Lewis, 2005; Yescombe, 2007). However, create upcoming liabilities of expenditure commitments and conditional liabilities that should be in reminded in public sector balance sheet.

PPP is typically embodied in a long-term determined contract flanked by the government and private sectors for the provision of public services. The principal characteristics - for investment of PPP infrastructure projects include (Darrin Grimsey & Lewis, 2004):

- The private sector is designed, structured, built and financed a newly infrastructure constructions (or renovation a current infrastructure) to the procuring agency's services specification, within a specific schedule and price.
- It is a long term (around 25 to 35 year tenures) agreement to accelerate the infrastructure services delivery.
- The operator collects the revenue or the government pays a fee or unitary charge, permitting to the contractor to gain investment return on investment proportionate with the range of risk presumed.

Structuring PPPs is typically complicated because it needs to resolve the objectives of many stakeholders included on the private and public entity sides. There are investors, financiers, and institutions offering construction and operation services in private-sectors. And there are government institutions generating and implementing PPP policies as well as those essentially tendering the PPP projects, not forgetting the community as end users of the infrastructure service as the results of PPP cooperation with government (Yescombe, 2007). It is very necessary for these stakeholders to take a principal understanding of bases of regulation and financing issues and how to contribute proportionally.

According to Yescombe (2007) the public sector side in PPP contracts can be defined as the public-sector party (the 'Public Authority', 'Public Entity', 'Public Party', 'Government Procuring Entity', 'Institution', 'Contracting Authority' or the 'Authority'), a presidential or ministerial institutions, a provincial authority, local or municipal government, agency government body or any other public authority that government regulated. The private entities are generally a special-purpose vehicle (the 'Project Company' or the 'Private Party'), established by private entities investors precisely to undertake the PPP Agreement. The association between these two parties in the legal sense is contractual not a partnership (Yescombe, 2007). In line with Yescombe (2007), Delmon (2010) has defined that PPP is an agreement for cooperation between a public sector (central, provincial or local government) and a private sector (commonly, as infrastructure service providers). The private sectors will pursue a continued income stream to certify settlement of borrowing/ investment (and henceforth lesser interest rates) and productivity over time. In general there are two models sources of revenue for PPP schemes (Delmon, 2010). The first is the Concession model, where users/people pay compensation for infrastructure facilities providing with 'use tariffs' relate to a revenue stream sourced from consumers. The second is the Private Finance Initiative (PFI) model (and related model that will be explained in Chapter 2.7.2), where the government is paying recompense for infrastructure services provided; 'use fee' relates to an income stream inventing from one off-taker/public sectors. This structure offers the SPV with abridged billing, collection, and calculation of credit risk. There is also a performance-based payment which public sectors can offer financial provision to PPP projects in shadow tolls or guarantees for a minimum level of revenue (H. K. Yong, 2010). It is typically

connected to the performance of the project, but can be provided straight in the PPP agreement.

In relation to usage of public infrastructure, three main stakeholders have been indicated by Infrastructure Finance Working Group (IFWG, 2012). These are the community, the government and industry. For industry, the target is to raise a profitable rate of return to finance the essential returns to the private sector and take funding pressure off government budget. Furthermore, governments would raise funds through the sale and/or better use of their properties and adjust their existing method of funding to more flexible method to allocate risk in ramp-up period or early stage construction. Additionally, it is the community who utilises the infrastructure and pay for the public services through user-charger of taxes (IFWG, 2012).

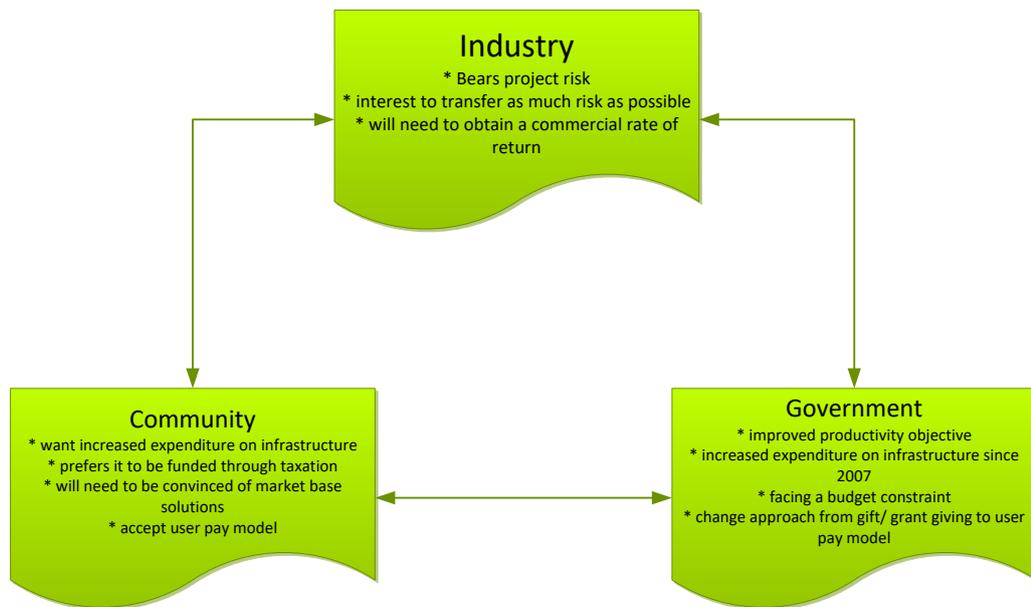


Figure 2-1: The interconnected interests of three key infrastructure stakeholders

Source: (IFWG, 2012)

2.4. Type of Infrastructure

There is a general consensus that tangible capital assets characterize infrastructure, and a distinction is frequently made between ‘economic’ and ‘social’ infrastructure and within each of these between ‘hard’ (physical) and ‘soft’ infrastructure (Argy et al., 1999). Following these distinctions, there are four types of infrastructure (Darrin Grimsey & Lewis, 2004):

- Hard economic infrastructure
- Soft economic infrastructure
- Hard social infrastructure
- Soft social infrastructure

Economic infrastructure is considered to deliver key intermediate services to business and industry, and its primary purpose is to improve productivity and innovation initiatives. Social infrastructure is considered as deliver primary services to community; its significant role is to improve the quality of life and welfare in the people.

The differences between types of infrastructure in PPPs refer to (Jefferies & McGeorge, 2009):

- Economic infrastructure (e.g. roads, tunnels, bridges)
- Social infrastructure (e.g. hospitals, schools, prisons)

Social infrastructure projects are normally smaller in scale than economic infrastructure projects also tend to be complex, specifically in arranging the ongoing community involvement. Consequently, private-sector bidders for social infrastructure in PPP projects are usually faced with a condition where the financial rewards are deficient and the operational demands are more complex than economic PPP projects (Jefferies & McGeorge, 2009).

From a financing perspective, any definition of type of infrastructure requires to consider both the money flows into and the risk and benefit according to the business nature of infrastructure. It means that any definition on infrastructures require to seize the fact that infrastructure opportunities are usually intensive capital investment and include a tangible resource that must be operated and maintained, and that produce continue long-term cash flows (World Economic Forum USA, 2010).

2.5. Understanding Key Factors, Parameters and Risks in Infrastructure Financing

2.5.1. Key Factors of PPP Financing

Bidding costs and bidding duration

In the tender process, the short-listed private companies will tend to have strong arguments that their feasibility study is the ‘best’ one (Liu & Wilkinson, 2011). And this situation will typically lead to longer bidding evaluation and sometime will lead to a situation that the government is reluctant to make decision. As mentioned by Chan et. al. (2010), lengthy delays in negotiation would become the most significant complications in implementing PPP in China (Albert P.C. Chan et al., 2010; Darrin Grimsey & Lewis, 2004). While in Hong Kong, the obstacles were the project accountability and project costs (Albert P.C. Chan et al., 2010; Darrin Grimsey & Lewis, 2004). The situation in both these countries was almost similar to that experienced in the United Kingdom (Albert P.C. Chan et al., 2010; Darrin Grimsey & Lewis, 2004; Matsukawa & Habeck). The same situation also described in Li (2005) that other obstacles in bidding process were the high transaction bidding costs (Bing Li et al., 2005).

An evaluation of the international empirical evidence recommends that there is wide disparity in estimates of bid costs for PPP/PFI projects worldwide. In the period 2000-2009, bid costs for PPP projects were generally in the range 0.5% to 2.0% of Total Development Cost (TDC) (see Table 2-1 (Michael Regan, Smith, & Love, 2013)).

Table 2-1 : Indicative Bid Costs

Procurement Method	Bid cost TDC%			
	to \$100m	to \$250m	to \$2.5bn	\$2.5bn+
Construct only	0.3-0.5		0.2	
Design and construct	0.5-0.8	0.4-0.5	0.2-0.3	
PPP	1.5-2.0		1.0	0.9

Source: Survey of contractors, advisers and financiers, March and April 2010, (Michael Regan et al., 2013)

There are significant differences in bidding costs between different locations. For example, it is widely acknowledged that bid costs in Australia are 15-20% higher than those in Spain largely as a result of different approaches to the bid process (Regan, 2009). However, bid costs in Australia are up to 20% less than the costs in Britain as a result of a shorter bid period (the time taken between initial market briefing and financial close).

National Audit Office (NAO, 2004) and Regan et al. (2013a) explained that bid costs for the London Underground PPP, 1999-2002, were 1.07% of TDC. This amount included a refund of costs to unsuccessful bidders and the estimation of the net present value of unitary payments to successful bidders in lieu of a refund. The London Underground project also imposed a number of untypical constraints including the need to work around a fully operational system and the brownfield upgrading of existing stations, signals, equipment and rolling stock. Best estimates in Australia place rail PPP bid costs in the range 1.05-1.7% TDC, depending on project size, complexity, the duration of the bid process, and risk allocation. The Gold Coast Rapid Transit project (Queensland, Australia) was cited as a project at the higher end of this range as a result of changes in scope and increasing focus on the operational aspects of the project. The projects involving extensive tunneling or high levels of technology raise bid costs and the higher costs are mitigated by economies of scale and the opportunity to amortize these costs over higher contract values (Michael Regan et al., 2013).

As discussed in IFWG (2012), a significant method to enable increased private sector involvement in the financing of infrastructure projects is by reducing the expenses involved in the tender process. Unwarranted and redundant tender costs directly distress the value for money attained by public sectors, with tender costs loading into pricing of future successful tenders and/or require return within a project. Tender costs in Australia are naturally between 0.5 to 1.2 percent of project investment value (IFWG, 2012).

As well as the bidding costs, the length of bidding process also has been an obstacle. For example, in Britain, the average tendering period for a PFI hospital is 38 months, whilst a period of 16 months is not uncommon in Australia (National Audit Office

2007; Partnerships Victoria, 2008). The London Underground PPP bid was negotiated over 45 months, including a best and final offer (BAFO) and several rebids that resulted from changes in scope and other matters (NAO, 2004). The output specification and complexity of PPP transactions contribute to delays in the bidding process, particularly when changes are made to project scope or if the specification is incomplete at commencement of the bid process (Michael Regan et al., 2013).

Liu and Wilkinson (2011) focused on the transaction costs and duration required for a PPP. It would help to evade pointless discussions between the public and private sector through adopting regulated project agreements and contracts. Likewise, the standard documents on PPP procurement should be prepared appropriately, to rise the assurance of both parties throughout the PPP process. Moreover, the use of a more reliable and transparent risk distribution framework, associated with the published guidance substantial, would accelerate the process of negotiation around risk apportionment. The guideline specifications permit contractors to design a project with invention and fit for purpose criteria. The process can be rationalized by short-listing main consortia early in the process and keeping dialogue open with bidders. To reduce the transaction duration, early involvement of financiers is better with using a transparent one-stop financial model (Liu & Wilkinson, 2011).

Drivers

Key factors of drivers for adopting PPP have been researched by Chan et. al in 2009 for China and Hong Kong. Sixteen pieces of appropriate published literatures were reviewed thoroughly by Chan et al. (2009). The outcomes found that the recognized drivers could be clustered into five principal factors (A. P. C. Chan et al., 2009):

- Reasonable risk sharing: attaining considerable risk transfer;
- Cost savings, value for money and cost certainty;
- Improved asset quality and service levels: time savings, time certainty; innovations in public services; and better maintenance of assets.
- Decreased public financing.
- Catalyst for the economy.

Chan et al. (2009) has looked at the perceptual divergence in China and Hong Kong as regards the drivers for implementing PPP as an alternative of the conventional tender. There is a major difference that has been observed from their respondents' opinions about the drivers. Because of China is presently experiencing fast urban development and construction, tremendous economic pressure has been allocated on the government's budget. Alternatively, the Hong Kong Special Administrative Region Government has strong economic capitals to deliver for the essential public infrastructure and services. The outcomes exposed that the drivers rated higher by Chinese respondents were economy-related, while the Hong Kong respondents rated efficiency-related.

The top three drivers designated by the Chinese respondents were: (1) provide an integrated solution for public infrastructure/services; (2) solve the problem of public sector budget restraint; and (3) reduce public money tied up in capital investment. For Hong Kong respondents, the top six drivers were mostly efficiency-related drivers, covering: (1) facilitate creative and innovative approaches; (2) transfer risk to the private partner; (3) improve build ability; (4) improve maintainability; (5) technology transfer to local enterprise; and (6) accelerate project development.

Risk

The typical sources of investment risk associated with infrastructure have been identified as (C. Chan et al., 2009) EPAC (1995); Jennings (1992); Quiggin (2002); TIAC (2004)

- *Construction risk* rises from unpredicted design problems, cost overruns and delays in construction works. Construction risk can be significant for capital-intensive infrastructure projects, happens during the construction and contract stages of a project.
- *Operational risk* rises because the planned level of service availability from an asset might not eventuate. Operational risk is commonly associated with unpredicted problems in staff management, maintenance and other elements of operating the infrastructure. It is present right from the commencement of operations.

- *Demand risk* rises because the demand for infrastructure services and, henceforth, the project revenue might fluctuate from projections. Demand risk is considered exist throughout the life of a project. An unsuspected reduce in demand could lead to a lessening in the value of the infrastructure asset.
- *Network risk* rises where the use of a specific network infrastructure be subject to on choices made in relative to other elements of the network. Network risk exist throughout the life of a project. A comparative change in demand for different transport facilities that compete within the same network area can lead to shifts in their revenue potentials and, hereafter, asset values.
- *Technological risk* rises because purpose-built infrastructure assets might become outdated or stranded when users change to a new form of service delivery.
- *Financing risk* rises because the projected availability and cost of finance might not realize. It can be occurred because of such as interest rates and exchange rates change over time. The financing risk need to be considered exist throughout the life of a project.
- *Regulatory (sovereign) risk* rises in infrastructure projects related to policy changing for infrastructure either owned or managed by private sectors, because government regulations changing might affect project profitability.

There are six principal risks related to PFI have been identified, as follows (Akintola Akintoye, Taylor, & Fitzgerald, 1998):

- Design and construction risk
- Commission and operating risk
- Demand for volume/usage risk
- Residual value risk
- Technology/obsolescence risk
- Regulation and legislation risk

The effect of risks in implementing a PPP project is usually measured substantial. These risks rise from various sources, including capital investment, construction time, construction cost, operation cost, politics and policies, market conditions, cooperation credibility, and the economic environment (Delmon, 2010). The key

factors effecting cost projection practice are complexity of the project, scale and scope of construction, market condition, production performance data for labour, plant, and subcontractors (Akintola Akintoye, 2000). Several of rank agreement factors (RAF) were found to be important in ensuring PPP success (A. P. C. Chan et al., 2011), namely: (1) concession agreement, (2) loan agreement, (3) guarantees/support/comfort letters, (4) supply agreement, (5) operation agreement, (6) off-take agreement, (7) design and construct contract, (8) shareholder agreement, and (9) insurance agreement.

Chan et al. study (2011) recommended that 18 risk factors are selected to be assigned to the public sector responsibility. These are: (1) government corruption, (2) government intervention, (3) nationalization/expropriation, (4) public credit, (5) political/public opposition, (6) imperfect law and supervision system, (7) legislation change, (8) poor public decision-making process, (9) land acquisition, (10) delay in project approvals and permits, (11) market competition (uniqueness), (12) lack of supporting infrastructure, (13) inadequate competition for tender, (14) force majeure, and (15) change in tax regulation. And the 18 risk factors are selected to be distributed to the private sector. These are: (1) third-party delay/violation, (2) interest rate fluctuation, (3) foreign exchange fluctuation, (4) inflation, (5) conflicting or imperfect contract, (6) financing risk, (7) project/operation changes, (8) completion risk, (9) material/labour non-availability, (10) unproven engineering techniques, (11) unforeseen weather/geotechnical conditions, (12) operation cost overrun, (13) change in market demand, (14) price change, (15) expense payment risk, (16) residual risk, (17) inability of concessionaire, and (18) organization and coordination risk (A. P. C. Chan et al., 2011).

The views held by members of the public and private sectors are slightly different for several risk factors. The government observed that nine of the 18 risk factors should be correspondingly shared, whereas the private sector believed that they should take main responsibility in managing these risk factors. These risk factors were: (1) third-party delay/ violation, (2) interest rate fluctuation, (3) inflation, (4) conflicting or imperfect contract, (5) project/operation changes, (6) unforeseen weather/geotechnical conditions, (7) change in market demand, (8) expense payment risk, and (9) inability of concessionaire. The results demonstrate that the government

was keen to accept a share of these risks, but the private sector was arranged to take over these risks entirely.

Discussing other risk factors from the perspective of the NSW Government (2007) in Chan et al. (2009), there is no obvious agreement among economists, policymakers and practitioners about the discount rate should be in each PPP project. The discount rate is commonly understood as the estimated value that has taken into consideration the expected corporate rate, risks and inflation. Different methods have been used for treasuring risk sharing and for discounting cash flows in Australia and the United Kingdom. , The government in the United Kingdom has occupied the method that one discount rate should be used for all projects across the government. In contrast, remarkably New South Wales and Victoria in Australia, have promoted that a precise discount rate should be defined for each project (C. Chan et al., 2009).

Arthur Andersen and Enterprise LSE (2000) identified six key drivers that influence value for money in PPP projects. These are risk transfer (the allocation of risk), the long-term nature of projects (including whole-of-life costing), the project specification, competition in bidding, performance measurement and incentives, and private sector management skills (Darrin Grimsey & Lewis, 2005).

Chan and Forwood (2009), identified four broad dimensions of project risks, which are risk with construction, operational, demand and policy. Construction risks are related to taking the project construction stage on schedule and on budget. Operational risks are related to changeable in the ongoing costs of service provision contain unpredicted maintenance needs. Demand risk rises from the realization level of demand relate to projections and is the result of market forces and the quality of service provided. Policy risks are related with amendment of transformation in the policy environment, including payment of CSOs, price and service regulation, third-party access requirements, and other regulation that influence on the costs of supply or demand facing the service provider (C. Chan et al., 2009).

The price of contingent liabilities could be assessed if the probability of numerous risks arising and the financial costs ascending from such events were identified. Regrettably, the material required to estimate the projected cost of risk is hardly

recognized. The best available estimations are the market charges to take financial risks. Construction insurance might be accessible in specific situations, but insurance markets do not exist for most of the risks connected with main infrastructure projects. This leaves the cost of private equity above the market average rate, where the shareholder accept the full contingent liability, as the best evaluation of the cost of the project's un-diversifiable risk (C. Chan et al., 2009).

Obstacles

There is no specific explanation of obstacles in Chan et al (2010), resounding the risk allocation principle, the key rule is that obstacles related to the delivery of services should be allocated with by the party best able to execute successfully in a cost-effective manner. The six key obstacles have been grouped as follows (Albert P.C. Chan et al., 2010):

- Misallocation of risks
- Private sector failure
- High transaction costs and lengthy lead time
- Political/social obstacles
- Lack of well-established legal framework
- Non-conducive financial market; difficulties in seeking financial partners.

The result of Chan (2010) study into significant reason for PPP failures studied in Beijing and Hong Kong has found 11 obstacles. These obstacles are: (1) reduce the project accountability, (2) high risk relying on private sector, (3) very few schemes have actually reached the contract stage aborted before contract, (4) higher charge to the direct users, (5) high participation costs, (6) high project costs, (7) a great deal of management time spent in contract transaction, (8) lack of experience and appropriate skills, (9) confusion over government objectives and evaluation criteria, (10) excessive restrictions on participation, and (11) lengthy delays in negotiation.

Two obstacles rated highly by Hong Kong respondents were: (1) lengthy delays because of political debate, and (2) less employment positions. The top three obstacles selected by Beijing respondents were: (1) lengthy delays in negotiation, (2)

lack of experience and appropriate skills, and (3) lengthy delays because of political debate (Albert P.C. Chan et al., 2010).

2.5.2. Selected Key Parameters in this Study

Yescombe (2007) has listed the characteristics of a successful PPP programme as follows:

- Political will and an acceptable legal framework;
- Facilities with significant initial capex and long-term maintenance requirements;
- Facilities with clearly-definable service requirements;
- A reliable and predictable flow of projects.
- Adequate public-sector institutional capacity.

Chan et al. (2009) point out that infrastructure investment has numerous consequences, therefore, public sectors naturally have to study a series of macro and micro factors when undertaking project assessment and comparisons (C. Chan et al., 2009). A key principle of investment theory is that an effectual investment in infrastructure project is projected to gain benefits that exceed risk-adjusted costs. Where there are limitations on the accessibility of finance, efficiency requires optimising across projects to confirm the maximum overall returns.

There are variation in financing practices adopted by governments acknowledged by EPAC (1995) and Merna and Njiru (2002) in Chan et al. (2009) as commonly relevant parameters including (C. Chan et al., 2009):

- Infrastructure characteristics which impress the user profiles and revenue-raising capacities;
- Fiscal and macroeconomic circumstances which could limit the use of targeting financing vehicles due to budgetary significances;
- Institutional arrangements that define the legal and regulatory framework;
- Perceptions of the role and ability of government.

Profit maximizing as a parameter has been reviewed in Delta (2008). Profit maximization is generally understood to target the maximization of incomes within a given period of time. A corporation may maximize its short-term profits at the

expense of its long-term profitability. However, stockholder wealth maximization has a long-term target, because stockholders are concerned in upcoming on top of recent profits. Wealth maximization is normally preferred since it considers: (1) wealth for the long term, (2) risk or uncertainty, (3) the timing of returns, and (4) the stockholders' return (DELTA, 2008).

Private sector partners need to be more realistic in estimating the construction time and costs in PPP infrastructure projects. Therefore, improving the PSC system and procurement documentation becomes essential in order to assist achieving effectiveness and efficiency of PPP implementation. The quality of this materials is likely to be very useful for government agencies, where the supporting officers have deficient experience in developing infrastructure financing and decision making frameworks and it would be expected to be taken into consideration by all the stakeholders.

There are five groups of factors, consisting of parameters, that have been identified during the literature review in this study. The first group factor is government policy and micro and macro economy. Reviewed by Chan et al. (2009). Considering risks as discussed by Chan and Forwood (2009), project risks were identified including four broad dimensions of risks, which are risks of construction, operational, demand and policy. Then at the project level, project management has become the second group factor, and the Project Financing Mechanism is the third group factor, which affects the user profiles and revenue-raising capacities of specific infrastructure projects. This study covers project financing in proportion of equity from the government. The fourth group factor is the revenues, and fifth group factor is costs. In summary, key group factors in PPP implementation that could be recommend as parameters to develop financial models as proposed in this study are presented in Figure 2-2.

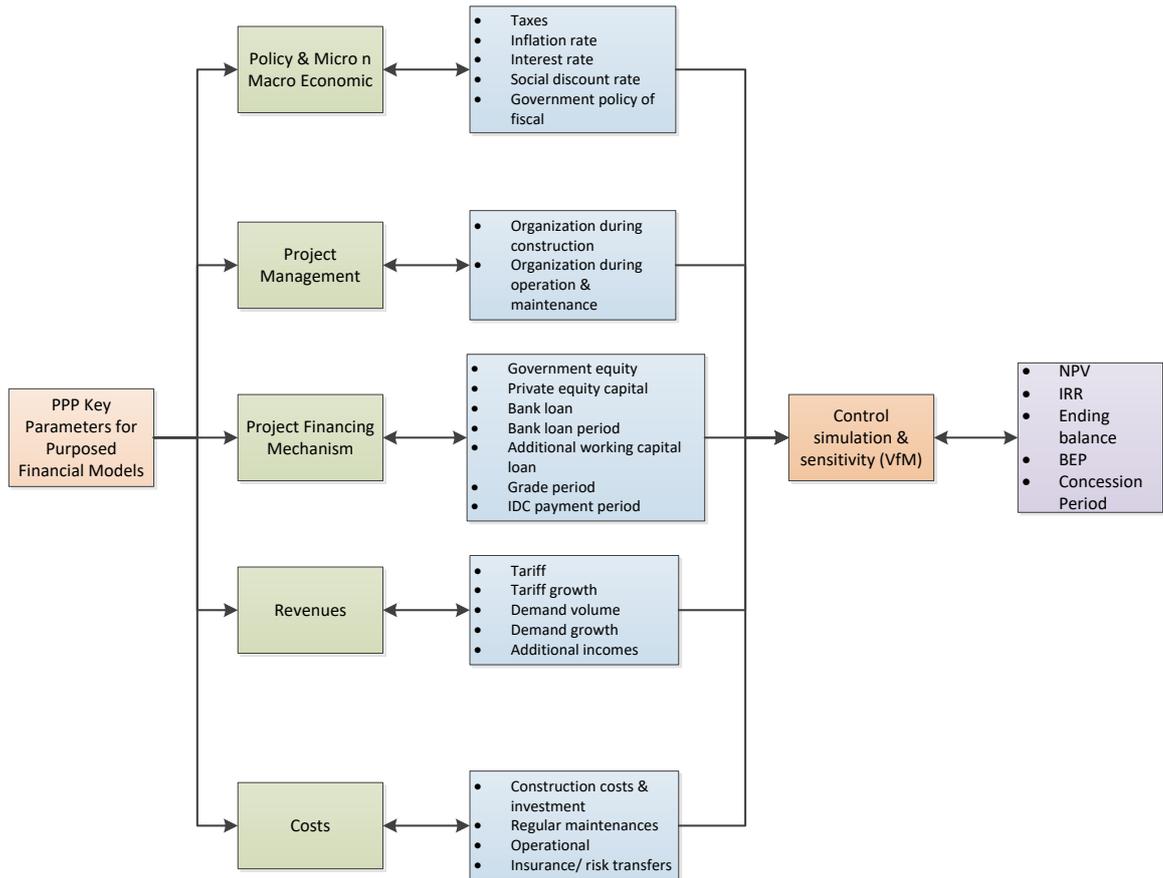


Figure 2-2: The selected key factors of PPP evaluation as parameters in this study

2.6. Infrastructure Financing

The private infrastructure market has grown-up, the financing vehicles have developed more complicated, with the modification in the cost of financing between the public and private sector narrowing (Deloitte Research, 2007). For instance the growing up of the private finance market in the United Kingdom, the financing cost variance has become only range of two to three percentage points between the private sector and governments (Yescombe 2007).

The main sources of infrastructure financing are typically from public budgets, budget appropriations, financed on a pay-as-you-go basis or from government debt (C. Chan et al., 2009). Also PPP procurement through financing from equity capital and lending from banks, and currency bonds, have become other alternative source for infrastructure financing. Other public infrastructure vehicles have been discussed by Chan (2009) too, such as off-budget financing by GTE's (Government Trading

Enterprises), development contributions, PPP, and government franchising (C. Chan et al., 2009). PPP financing scheme is growing in use, where the public sector has agreement with a private sector to finance, design, build and operate infrastructure assets for a fixed period (C. Chan et al., 2009; Yescombe, 2007). Specific-purpose bonds, where settlement is related to the performance of the assets, are a main source of finance in the United States and Canada, nonetheless were phased out in Australia in the 1980s (C. Chan et al., 2009; Michael Regan, 2008c).

Financing selections are detached from investment choice and can be completed independently. Financing diverged from government budget: the final assurance of public revenue to meet any gap between the investment of infrastructure delivery and the income from user charges. Funding sources should show benefits to community as users, with government budget can cover the shortfall between user charges and the overall investment of the infrastructure. These investment comprise interest payments and principal repayments. Subsidy should be straight funded through budgetary processes to fund the gap to help ensure transparency and accountability of project financing decisions (C. Chan et al., 2009). Furthermore, funding decisions transmit an opportunity cost and a burden loss of raising taxes (C. Chan et al., 2009). User charging is a crucial stage in cumulative the funding pool for infrastructure investment. User charging is a devised way of confirming users who originate the benefits from infrastructure investment, make a involvement to the provision, maintenance and operation of that asset (IFWG, 2012).

The direct cost of finance in PPP project is the collective cost of borrowing and equity, it is the debt-to-equity ratio, the weighted cost of equity and borrowing finance, that can be decreased by rising debt leverage, given the relatively lesser cost (and risk) of borrowing to equity to the financier (C. Chan et al., 2009).

The effective financing vehicle be subject to on the nature of the investment, the degree of irregularity of information, the competition, and the skills of the government negotiating and arranging agreement (C. Chan et al., 2009). PPPs principally offer to reduce project risk, but in some points, it is costly to the financiers. In certain case the PPP investment is off-budget, then scrutiny needed to confirm efficiently in investment.

A 'good' project management can typically reduce project risk. PPPs may support in shifting risks on construction and operational to private sectors, the governments hold the policy and demand risk with an assurance to underwrite minimum income from user charges. A certain financing vehicle can potentially decrease the total cost of financing (C. Chan et al., 2009) by:

- Better aligning the incentives for managing non-diversifiable project
- Improving the portfolio balance for the investors
- Reducing the life-time transaction costs of financing.

The potential for a financing vehicle to decrease the cost of contingent liabilities is through bring into line the incentives to better accomplish to settle project risks (C. Chan et al., 2009).

The main financing target is arranging investment costs on schedule. Financing vehicles that allocate risk to the partner best located to manage each type of risk are more well-organized, decreasing the overall cost of the project. The scope for the financing vehicle effect effectiveness by impressive greater discipline on investment decisions. The government in PPP project has aim to minimise the cost of project risks, by transfer construction, operation and demand risk to the private sector (Yescombe, 2007; H. K. Yong, 2010). PPP aims also to take in private sector expertise for a specialised skills and incentive arrangement substances for outcomes. It is expected that the public sector is successful in shifting risk to the private sector where the private sector is better able to manage, and hence reduce the cost of risks (C. Chan et al., 2009).

It has been indicated that the source of infrastructure financing for infrastructure projects which have continued revenue streams would be improved to use the project finance mechanism (Daube, Vollrath, & Alfen, 2007; Nevitt & Fabozzi, 2000) and specific purpose bond financing (Public Infrastructure Financing, na). For projects that require additional budget from public sector, it would be improved to use the forfeiting model (Daube et al., 2007) and the PFI model (Akintola Akintoye & Chinyio, 2006; Allen, 2001; C. Chan et al., 2009; Dixon, Pottinger, & Jordan, 2005; Bing Li et al., 2005; Pitt, Collins, & Walls, 2006; H. K. Yong, 2010).

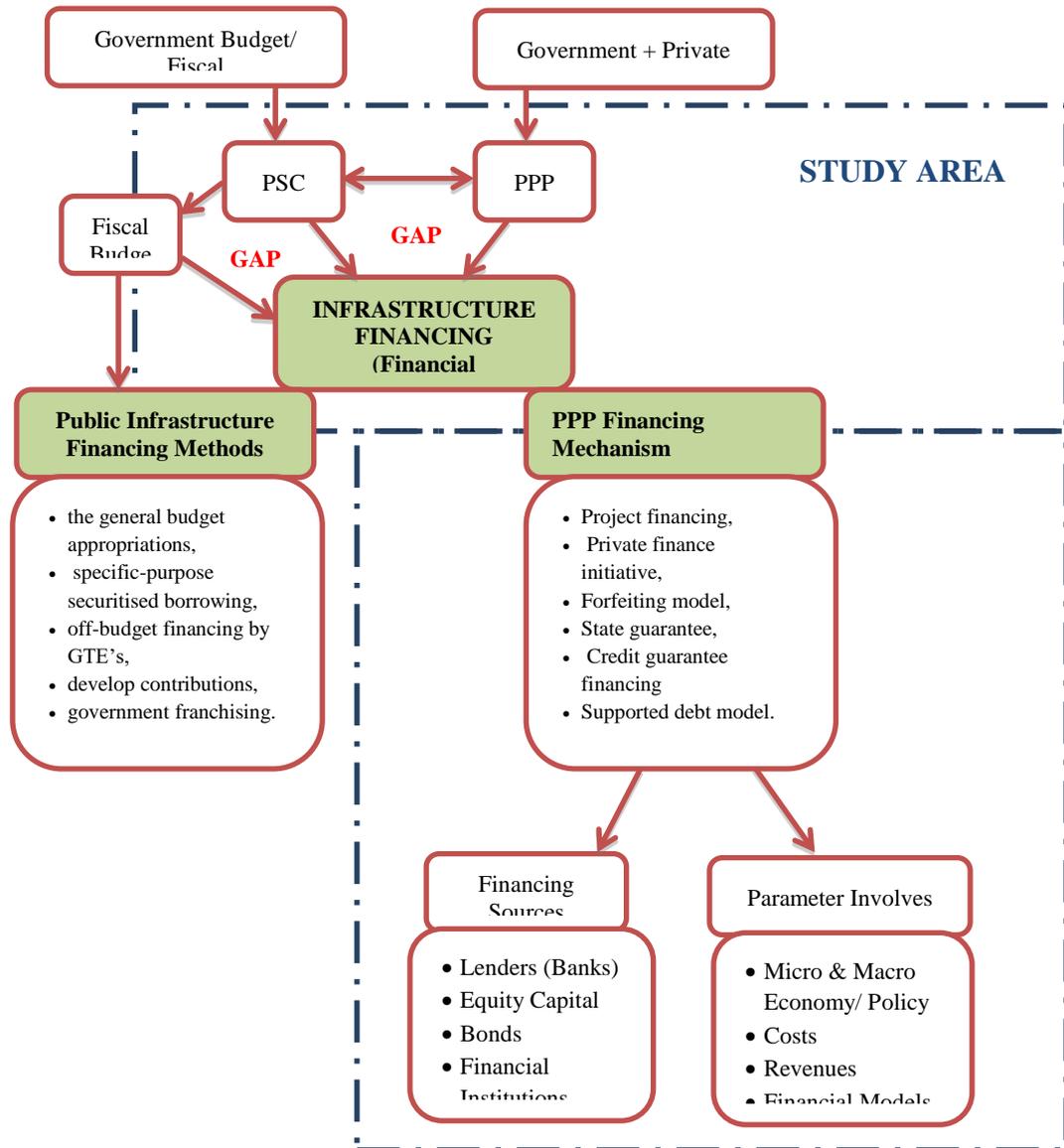


Figure 2-3: The Research area of PPP financing mechanism for infrastructure projects

Credit Guarantee Fund (CGF) and Supported Debt Model (SDM) model (McKenzie, 2008; Queensland Department of Infrastructure and Planning, 2008; Michael Regan, 2008a, 2008b, 2008c; M. Regan, J. Smith, & P. Love, 2011a; M. Regan, J. Smith, & P. E. D. Love, 2011b) are financing approaches that are more complex since they will require a rating agency for the Special Purpose Vehicle (SPV) to have a guarantee of senior borrowing preparation from the public sector. Senior debt principally has superior seniority in the issuer's capital structure than subordinated debt. State guarantee (Michael Regan et al., 2011b) is a financing

method for infrastructure projects where risk is more foreseeable and accounted into a fiscal contingent budget (Posner, Ryu, & Tkaxhenko, 2009).

Figure 2-3 is the research area of PPP financing mechanism for infrastructure projects as the result of mapping of the synthesis from literature review.

2.7. Type of PPP Financing Mechanism

There are several types of infrastructure financing available for PPP projects. This study will review the funding mechanism of every categorize of infrastructure financing, as well as the financial constraints that influence the developed model. The infrastructure financing with PPP mechanism that will be studied in this research are: project finance, forfeiting model, state and municipal bonds, credit guarantee finance, a supported debt model, debt guarantees, and other types of financing that will increase the level of financial viability. Another financing method is specific-purpose securitised borrowing, where capital is gained by delivering a security for a particular infrastructure investment.

2.7.1. Project Finance

Project finance is generally optimized to rise long-term liability capital for PPP projects. Long-term financing of PPP projects is essential if the assets need huge in-front investment to spend that cannot be restored over the short term without increasing the cost of project and service (Yescombe, 2007). Essentially, the lender looks at the cash flows and earnings of the project as the source of funds from which they will be repaid, and the assets of the project as collateral for the loan.

According to Nevitt and Fabozzi (2000), project finance is well-defined as a specific economic component in which principally, the financiers consider at the continues cash flows and incomes of the project as the source of capital to repaid and the assets of the project as collateral for the loan (Nevitt & Fabozzi, 2000). The financiers are aware on the project's ability to pay all cost including interest and debt repayment, operating costs, and return on equity (i.e. yield). An extensive due diligence need to be conducted in the beginning of financing the project. Moreover, the assessment of

the project is constructed upon the projected upcoming cash flows that effect the financing decision and the notice terms established by the financiers. Basically, the bank is an entangled partner in the project and hence receipts considerable risks. This contains the bankruptcy risk of the private Special Purpose Vehicle (SPV), including the contractor. To calculate the risk-related financing costs, the financiers conduct due diligence checks of the project's technical and economic feasibility. Moreover, governing measures are fitted during the conciliation process and established in the agreement period. Due to the considerable risk transfer, the interest margin of the bank is typically higher in project finance. Hereafter, the bank's risk-related financing charges are naturally higher (Daube et al., 2007).

Here the key elements of project finance structured are (Yescombe, 2007):

- A Project Company, owned by private-sector investors.
- Financing for the project's capital costs ('capex') through shareholder equity and project-finance debt.
- A Design & Build (D&B) Contract, under which the contractor agrees to design and construct the completed infrastructure and related works to the required specification, at a fixed price and schedule.
- An operating contract, under which an infrastructure operation company provides services
- A maintenance contract, under which a maintenance company provides infrastructure maintenance services.
- A Concession Agreement (a PPP Contract) with government, which allows the collection of tariff from users; it does not usually involve any payment by or to government.
- Cash flow after operating costs ('opex'), *i.e.* mainly payments on the operating and maintenance contracts, being used, firstly, for debt service, and then to pay Distributions to the investors.

2.7.2. Private Finance Initiative (PFI)

The Private Finance Initiative (PFI) is a type of PPP that marries a public tender purpose, where the government buying capital items from the private sector, to an

prolongation of contracting-out, where public services are lined from the private sector (Allen, 2001).

PFI involves relocating the risks related with public service projects to the private sector partially or entirely. In the situation with a private sector contractor is referred best capacity to settle numerous risk, for example construction risk, then these responsibilities should be shifting to the private sector contractor. Where the private sector is considered fewer able to settle specific project's risks, for instance demand risk, then at least some of the responsibility must stay within the government. The most usual type of PFI the private sector adopts is the design, build, finance and operate (DBFO) model based on 'output' details preserved by the government. In the UK, the PFI projects based on availability of payment mechanism is most familiar such as projects for hospitals or schools (H. K. Yong, 2010).

Balance-sheet treatment of the PFI Model to organize the annual uniform payments to ensure the investment is more multifaceted. A PFI-Model PPP agreement has noticeable similarities with a lease. A lease contains payment for the use of an asset (Yescombe, 2007). There are two vital necessities which PFI scheme require (Akintola Akintoye et al., 1998):

- 1) The government obligate to secure value for money (VfM).
- 2) A suitable shifting of risk to the private sector.

The positive and negative features that effect the attractiveness of PPP/PFI in the provision of public facilities and services are resumed here (Bing Li et al., 2005).

Table 2-2: The positive and negative factors that affect the attractiveness of PPP/PFI

Positive factors include:	Negative factors include (Bing Li et al., 2005):
<ul style="list-style-type: none"> • Assign risk to the private sector • Caps the final service costs • Decreases government administration costs • Decreases public money tied up in capital investment • Solves the problem of government 	<ul style="list-style-type: none"> • Less schemes reach the contract stage • Threatened by lack of experience and appropriate expertise (Ekene I. Ezulike, Perry, & Hawwash, 1997; Morledge & Owen, 1998) • Tends to advanced direct charges to

Positive factors include:	Negative factors include (Bing Li et al., 2005):
<p>budget constraint (Akintoye et al., 2001)</p> <ul style="list-style-type: none"> • Non-recourse or limited recourse government budget • Decreases the total project cost • Advances build ability • Accelerates project development • Saves time in delivering the project • Advances maintainability • Benefits local economic development (H. M. Treasury, 2000) • Transfers technology to local companies • Enables creative and innovative approaches (Birnie, 1999) • Improves government integrated resolution capacity (Sohail, 2000) 	<p>users</p> <ul style="list-style-type: none"> • Enforced excessive restriction on participation • High participation costs are incurred (Birnie, 1999; E.I. Ezulike, Perry, & Hawash, 1997; Saunders, 1998) • High risk depend on private sector. • Misperception can arise over government objectives and evaluation criteria • May tend to high project costs (Ezulike et al., 1997; Birnie, 1999) • Extensive delays caused by political debate • Much management time is spent in agreement deal (Ezulike et al., 1997) • Extensive delays can arise in negotiation • Decreases project accountability • Suggest less employment opportunities

The development of the ‘full’ PFI Model came about in optimizing of PFI agreement for the delivery of public facilities. Risk intrinsically cannot be relocated to the private sector, PFI scheme risk can be reduced by providing annual payment such as for schools and hospitals projects were that fee can be set by the government. This structure of the agreement is still constructed on the PPA, in that the private sector investor is compensated by the government for ‘Availability’, *i.e.* constructing the infrastructure to the required details and making it accessible for the period of the PFI agreement, as well as for delivery of services such as maintenance, cleaning and cuisine (Yescombe, 2007).

The key elements that considered in the PFI scheme are (Yescombe, 2007):

- A Project Company, owned by private-sector investors; financing of the project’s capex through shareholder equity and project-finance debt.
- A Design & Build Contract
- A ‘Soft’ Facilities Maintenance (‘FM’) Contract, under which a Service Company provides services

- A 'Hard' FM Contract, under which a maintenance company (or the original D&B contractor) provides building-maintenance services.
- A Project Agreement (a PFI-Model contract) with government
- Cash flow after operation expenditure (opex), mostly to pay the FM Agreement

The Private Finance Initiative (PFI) has produced many PPP projects in the United Kingdom under the PFI agreement (C. Chan et al., 2009; H. Treasury, 2008):

- The private sector develops the capital asset and is in charge for sustainability of operation and maintenance. The government pays the private sector a committed revenue payments for use of the infrastructure over the concession, which is normally between 15 and 30 years.
- The agreement naturally specifies wide-ranging service output requirements.
- An appropriate quantity of risk is transferred to the private sector, the risk expansively defined by HM Treasury, then the project has to be classified as a government project and remain on the public sector balance sheet and contribute to measures of public sector debt (HM Treasury 2003a).

2.7.3. Forfeiting Model

The Forfeiting Model is a precise arrangement that the private contractor offers entitlements for payments that result from the construction agreement with the government to the bank (Daube et al., 2007). Forfeiting suggests the sale of claims for payment. It is established in export financing, but is presently optimized for a special scheme of financing a PPP project referred to as the Forfeiting Model.

In Forfeiting Model, the financing costs are stereotypically lesser than under Project Finance due to the lower extent of risk transfer to the private contractor and the statement of a waiver of opposition by the public principal, due diligence or monitoring measures are not made by the bank (Daube et al., 2007). As a result, the negotiation costs remain on a comparatively lesser level. Besides, the Forfeiting Model is constructed on the creditworthiness of the highly rated public principal.

2.7.4. Credit Guarantee Financing (CGF)

Credit Guarantee Financing (CGF) was familiarized into the United Kingdom in 2003 to deliver a scheme optimizing government capital borrowing to fund the PPP projects. The centre of the negotiation is the guarantee well-appointed by the consortium's financiers or a credit enrichment agency (i.e. monoline insurer) to the state as security for a senior borrowing capacity provided by Treasury. The objective of CGF is to decrease the consortium's investment and thus advance the long-term and overall VfM outcomes for the government (Michael Regan et al., 2011b).

In the United Kingdom, HM Treasury required to improve the value for money performance of PPPs by generating a CGF scheme. The fund was gained from treasury capital market borrowings and on-lent to successful PPP consortia with the target of reducing the investment cost of the project (Standard and Poor's 2004). The credit takes the system of senior borrowing guaranteed by consortium financiers, suggestively, it is structured in such a way that the incentives attributing to the consortium's financiers, contractors and facility managers remain integrate. A variation of the CGF can be employed such as with the South-East Queensland Schools project for the Queensland Government, Australia. Other jurisdictions are currently considering this option. Nevertheless, these mechanism potentially present several theoretical difficulties and the CGF method was suspended in the United Kingdom after two pilot projects (McKenzie, 2008; Michael Regan, 2008a, 2008c)

The CGF mechanism being piloted by the UK Government is intended at (C. Chan et al., 2009):

- Decreasing the premium paid in the cost of borrowing by the private sector, and generating cost savings for the public sector through lower service fees.
- Decreasing to a minimum any transaction costs related with the CGF, averting any postponing to the tender to apply CGF, and evading the need for any additional due diligence over and above that required by private sector risk takers.
- Requiring private financiers to guarantee the credit.

To lesser the cost of borrowing capital, the SPV will have the project evaluated by a credit rating agency (the underlying rating) with a view to gaining credit enrichment (credit risk insurance) from a monoline agency or credit enhancement agency. The SPV will secure a guarantee of its financial obligations from a AAA credit rated monoline insurer, it is expected to have fee which less credit costs. This arrangement is a departure from conventional project finance principles whereby senior borrowing is a limited recourse and secured overrun delaying project assets. CGF is full recourse borrowing and this does effect the incentive mechanisms of traditional project and PPP finance (Michael Regan, 2009).

It was studied by Yescombe (2007) that the benefit of CGF could be inadequate because commercial financier will charge the same guarantee fee as the credit margin charge, and the monoline guarantors also charge the same guarantee fee as charged for a bond issue. In the case of a bank borrowing the interest-rate swap market and credit premiums, around 0.7 per cent in total, plus the unpredictable benefit of a competitive rate for the underlying financing. Nevertheless, there is also a political benefit as indicated that government funding is cheaper (Yescombe, 2007).

2.7.5. Supported debt model (SDM)

The Queensland Government in 2008 piloted a program for a PPP in the education sector optimized a hybrid variation of CGF, which is described as the Supported Debt Model (SDM). The SDM is designed against a notional risk-free minimum value for the project against which the government can make borrowing capital available to the project at cost (Michael Regan et al., 2011b). The SDM has some unique features (Michael Regan, 2009):

- The SPV organizes private construction finance.
- When the infrastructure is completed being built, the government offers a long-term finance facility to reimburse construction finance.
- The level of government borrowing employed is projected using a formula that associates to a minimum asset value (or recoverable amount) in the event of consortium default.

- The government holds the senior borrowing position. The SPV will increase additional subordinated borrowing and equity capital from private sources.
- The lesser cost of government borrowing decreases the cost of capital for the SPV which should be represented in an upgraded value for money outcome for the government.

Advantages and disadvantages from initial valuation on the project have been founded on experience from the SDM in the SEQ Schools project (McKenzie, 2008) informed in the Australian Financial Review, the market sounding phase of the SEQ schools project involved the interest of a huge field of potential financiers. The projected quantity of the projects total financing requirement anticipated to be risk free in the operational phase of SEQ schools project has been appraised at 70%. This signifies the portion to be refinanced as senior debt by Queensland Treasury Corporation. The remaining investment capital is anticipated from 22.5% mezzanine finance and 7.5% equity (Queensland DIP, 2008). Reserves are anticipated to accumulate from application of this capital structure equated to the typical 100% privately financed model, providing the cost of mezzanine finance is below a 'break-even' benchmark.

2.7.6. State Guarantee

An option form of government support for PPP projects that has not been commonly used in Australia is the use of state guarantees to support privately sourced project finance in opposing capital market environments. Debt guarantees, unlike the CGF and SDM methods, are a contingent liability of the public sector for debt targeted purposes (Michael Regan et al., 2011b). A state guarantee can be observed as a trade-off in project and service delivery risks. The state may hold entirely or partially of responsibility for location conditions and exceeded demand or political risk, which primarily apprehensions service delivery failure. Under a state guarantee arrangement, a contingent liability for the SPV's default is presumed. Under a traditional tender, focus on particular risk relocated to contractors, the state carries ultimate responsibility for infrastructure service delivery and the multiplicity of risk that this involves.

The benefit of government shifting risk to the SPV is enhanced value for money. The guaranteed risk will need to be restrained, priced and valued and combined into the PSC. If the VfM result is positive, the decision to continue with a PPP can be vindicated (Michael Regan, 2009). Debt guarantees in the form of a current commitment that may require a payment in upcoming are calculated for as a contingent liability and noted in the financial reports of public sector agencies. Where the current obligation “probably requires” a upcoming payment by the government, the guarantee is well-known as a provision and unveiled as such in the government financial reports (Michael Regan, 2009).

2.7.7. State and Municipal Bonds

Issuing bonds is common method to raise private capital for infrastructure development that conducted by central, provincial and local governments. The interest payable on the bonds typically purposes from tax exclusion, and the commitments of the issuing authority are in full or in part supported by central or provincial government guarantee. The more developed economies with more matured established capital markets trade infrastructure bonds composite with conventional public and private bond issues. In developing economies on the other hand, relatively small or ineffective capital markets, unstable exchange rates, high rates of interest and sub-investment grade sovereign credit ratings restrict the opportunities for this source of capital (Michael Regan, 2009).

2.7.8. Raising Equity Capital through IPOs, Specific-Purpose Bonds

Another source of funds for budget appropriations is public debt. The total cost of debt finance contains the rate of return on public sector bonds, administration costs related to borrowing issue and the contingent liabilities of the project with financing by appropriation remain entirely public sector budget (C. Chan et al., 2009).

Specific-purpose securitised debt discusses to the issuance of borrowing instruments for example bonds, debentures and inscribed stocks for financing purposed infrastructure by government. These debt are normally protected on the asset, or against the income stream arising from the asset. The incapability of public sector to

avoid contingent liability and cost savings from centralised debt, it is lengthwise with the privatisation of a substantial number of infrastructure service providers (C. Chan et al., 2009).

In the United States and Canada, the ‘revenue bonds’ remain a main source of finance for infrastructure investment. Revenue bonds in the United States are tax relieved. Although this less of the interest cost does not fully counterpoise the unavoidable tax revenue (C. Chan et al., 2009).

Furthermore, it needs to be considered that transaction costs can be fairly large, especially for small investments. The costs of appealing market players in the valuation of the risks and underwriting a bond issue are around one to two percent (C. Chan et al., 2009).

2.7.9. Comparison and Discussion of the Financing Vehicle and PPP Financing Mechanism

A PPP agreement combines financing with construction and operation of the facility also including financing a post-construction take-up. The highest-risk in PPP phase is classically throughout construction, therefore the financing in construction phase has to be arranged in a very well plan. The SPV can shift the project risks and allocate to subcontractors becoming the most general method to decrease construction risk. Allocate of risk to the subcontractor with turn-key based payment can be applied to all methods of PPP financing mechanisms.

Financial risk can be considered as the main pre-Financial Close costs. There is frequently a period gap between when the total CAPEX (Capital Expenditure) budget is approved by the financier and the date of Financial Close occurred. During the transaction time, the legal and similar costs risks which are not secured may come up more than what have been accounted for. Generally, it will be preserved as part of the initial equity investment. Negotiations will organize these development costs as reimbursement to the sponsors at Financial Close, but if they are more than budget because of the time gap, financier may need reimbursement procedure to

cover the excess to be postponed until the construction commissioning, at which time reimbursement may be permissible if adequate funds are then accessible.

Optimizing government funding for the SPV may enforce borrowing to the public sector as a way of decreasing the SPV's capital-cost disadvantages, while leaving the rest of the standard PPP structure in place. The benefit from this is limited if any financing risks are retained in the private sector. The CGF and SDM applicate government borrowing of the construction cost in an unique way. The SPV organizes private construction finance. When the infrastructure is completed, the government delivers a long-term finance facility to recompense construction finance. Another method is a Joint-Venture PPP where the government becomes an equity shareholder that the government shares in equity returns and any funding windfalls. However, this is accountable to tend to a conflict of interest which may not be in the government best interests.

The results of literature reviews related to PPP financing mechanism that are recommended to be further studied are presented in summary in Table 2-3. Table 2-3 is the comparative analysis for significant factors of PPP financing. The significant factors to support the financing that have been specified are: source of financing, return or payment methods, and the character of the PPP projects. The result of this comparative analysis the characters of the infrastructure projects essential to be affiliated that will lead to suitable selection of PPP financing mechanism.

Table 2-3: Comparison of PPP financing mechanisms

Type of Financing	Source of financing/ investment	Return/ payment	Character of projects
Conventional Procurement	Public budget	Progress work or turn key	Any PSO infrastructure
Project Finance	Capital from equity SPV Construction costs and other from lender loan under project collateral	User charges in concession period	High profit projects High Return, high IRR, high NPV Profit Oriented Bankable (Project as Collateral) The lender is involved as a risk partner and therefore takes substantial risks High Effort in Due Diligence

Type of Financing	Source of financing/ investment	Return/ payment	Character of projects
PFI	Capital from equity SPV Construction costs and other from bank loan under SPV loan	Annual payment from government or availability-based payment in concession period	Less profit project Moderate Return, moderate IRR, moderate NPV Private Sector take Risk (ex. Construction risk) Private sector is deemed less able to manage the project's risks
Forfeiting Financing	Capital from equity SPV Construction costs and other from bank loan under SPV loan	Private contractor sells claims for payments, bank paid by Government	Less investment projects High Moderate Return, moderate IRR, moderate NPV The transaction costs remain on a relatively lower level Bankable Due Diligence or controlling measures are not made by the bank
CGF	Capital from SPV with public capital loan Construction costs and other from bank loan and government provide senior debt with lower rate and it will be paid only after 70% commissioning to increase VfM	Senior debt agreement from the government	Less investment projects High Moderate Return, moderate IRR, moderate NPV The transaction costs remain on a relatively lower level Bankable Due Diligence or controlling measures by rating agency
SDM	Capital from equity SPV or mezzanine loan Construction costs and other from bank loan and government provide senior debt with lower rate and it will be paid only after 70% commissioning to increase VfM	Senior debt agreement from the government	Less investment projects High Moderate Return, moderate IRR, moderate NPV The transaction costs remain on a relatively lower level Bankable Due Diligence or controlling measures are by rating agency
State Guarantee	Capital from SPV Construction costs and other from bank loan under SPV loan, government provide state guarantee (contingent liability) for residual demand or political risk	Under a state guarantee arrangement, the state assumes a contingent liability for the SPV's default under either agreement.	Moderate Return, moderate IRR, moderate NPV Private and Public share Risk Calculated Risks
Municipal /	Government issued	Projects income and	High Return, high

Type of Financing	Source of financing/ investment	Return/ payment	Character of projects
Specific Purposed Bonds	municipal bonds or specific purpose bonds to finance specific/ certain infrastructure	the interest payable on the bonds offers some form of tax	IRR, high NPV Profit Oriented Calculated Value of Shares to offer to public/ capital markets
Other Fiscal Policy	Subsidy for equity and capital Senior debt funding, direct public-sector lending with private-sector bank or insurance-company guarantees	Availability based payment and/or performance based payment Annual payments for the life of PPP projects Capital contributions to establish PPPs Revenue losses from forgoing user fees Contingent liabilities such as guarantees Tax expenditures such as accelerated depreciation taken for private investment	Project for-profit
Donor Funding, International Financing Institutions (IFIS)	Using international financing institutions	Availability based payment and/or performance based payment	Project for-profit Project not-for-profit

There are two income streams that are generally produced by PPP projects, namely the user-charges based payment and the availability based payment. There are common caps on the level of income stream which can be inputted into the financial structure at the time of tender, recently as the SPV's incomes are resulting:

- from concession agreement, projected demand and 'willingness to pay' will define the levels of usage and the rates to be charged for tolls etc.
- from PFI-Model agreement, the Government which authorized to evaluate the VfM and Affordability requirements should be considered into justification.

PPP financing mechanisms are required by public sector to endure their path towards financial sustainability. Public sector must form best use of accessible funding. This does not only mean enhancing revenue from rates and fees; it involves innovative tender models, coordination at a regional level, option modality structures for network assets and responsible debt within the financing mechanism.

Public sector hence should examine a purposed project for which a financial product can be advanced and promoted to private investors. Additionally, public sector

should also generate maintainable income streams that deliver a direct link between those who advantage from new investments and those who pay for them.

Insufficient investment in infrastructure can lead to: inhibited economic activity; lesser productivity and competitiveness; declined amenity for users; and decreased social equity. To continuously sustenance economic development, the execution of PPP to bring infrastructure projects into reality will likely continue. The problem of applying PPP in infrastructure projects is to find the most efficient methods or types of financing to upsurge the V_fM in order to appeal private entities to contribute.

Identification of the finance approaches available for use in PPP projects with suitable PPP financing mechanisms has been resumed above. The aim of this chapter was to compare the differences of the numerous schemes of finance available including Project Finance, Private Finance Initiative, Forfeiting Finance, Credit Guarantee Finance, Obligations and Bonds. Each of the financing mechanisms has specified fittingness for certain types of PPP projects.

It can be summarized up to this point that infrastructure projects which have continued revenue streams would be better off utilized the project finance mechanism and specific purpose bond financing. For projects, which need support budget from public sector, they would be better off applying the forfeiting model and the PFI model. CGF and SDM model are financing methods that are more complex because they will require a rating agency for the SPV to get a guarantee of senior borrowing arrangement from the public sector. Government guarantee is a financing method for infrastructure projects where risk is more foreseeable and could be accounted in a fiscal contingency fund.

Additionally, there are financing vehicles related to the public infrastructure financing sources that have been studied by Chan et al. (2009). The source of infrastructure financing includes: the general budget appropriations, specific-purpose securitised borrowing, off-budget financing by GTE's (Government Trading Enterprises), develop contributions, PPP, and government franchising. Table 2-4 below presents the comparison of the strengths and weaknesses that have been studied in Chan et al. (2009).

Table 2-4: Strengths and weakness of various financing instruments

Strengths	Weaknesses
<p>General government budget</p> <ul style="list-style-type: none"> • Legislative monitor of capital spending and financing • Comparative transparency of financial arrangements for public security • Easier to impose accountability of governments for their investment and financing decisions 	<ul style="list-style-type: none"> • Absence of market signals on the financial viability of projects and the risks involved • Fiscal policies pressure ‘lumpy’ capital expenditure • Misrepresentation in investment decisions by governments if intergovernmental transfers are open to cost shifting • Reduced opportunities for annual scrutiny in the case of special standing appropriations • Can result in intergenerational inequity
<p>Specific-purpose securitised debt</p> <ul style="list-style-type: none"> • Access to low-cost financing in mature municipal bond markets • Exposure to capital-market disciplines • Relatively low transactions costs for bond issues, especially those of a large size • Prospects to apply the ‘beneficiary pays’ principle if user charges are raised for debt repayment 	<ul style="list-style-type: none"> • Low flexibility for debt restructuring through bond defeasance • Distortion in investment decision by governments if federal or state assistance in offered in the form of tax exemption for bond interest payments • Rent-seeking activities encouraged when revenue bonds are used for financing private assets • Losses of tax revenue for governments if bond interest payments are tax exempt
<p>Off-budget financing by GTEs</p> <ul style="list-style-type: none"> • Capacity to produce revenues from user charging for financing specialised infrastructure asset • Financial independence and operational autonomy from owner governments • Succeeded by people with the financial and technical expertise necessary for sound investment and financing decisions 	<ul style="list-style-type: none"> • Poor investment performance if insulated from capital market pressures • ‘Soft’ budget constraints resulting from government subsidies for specific policy obligations • Open to equity withdrawals by owner governments • Reduced accountability from a whole-of-government perspective if not carefully managed through external governance arrangements
<p>Development contributions</p> <ul style="list-style-type: none"> • Capacity to offer tolerable finances for infrastructure facilities that are well-suited to the application of the ‘beneficiary pays’ principle • Availability of finances synchronised with the construction of development-specific infrastructure • Providing partial price signals on the costs of land development 	<ul style="list-style-type: none"> • High transaction costs reflecting the uncertainty, complexity and disputation of individual contributions systems • Land development ‘sterilised’ if too much of the financing cost is shifted to developers • Cannot be used to finance the maintenance, upgrading and replacement of existing infrastructure • Application limited by competing policy objectives • Less effective in apportioning and spreading financing costs and project risks across all potential users of specific facilities especially

Strengths	Weaknesses
	shared infrastructure <ul style="list-style-type: none"> • Vulnerable to distortion in investment decisions by planning authorities
Public-private partnerships <ul style="list-style-type: none"> • Capacity to finance public infrastructure without adding to government borrowing and debt • Potential for whole-of-life cost saving through bundling the financing, design, construction, operation and maintenance of infrastructure • Strong incentives of private-sector sponsors to avert optimism biases in project planning and attain operational efficiency in service delivery • Exposure to capital-market disciplines through project financing 	<ul style="list-style-type: none"> • High transaction costs reflecting a range of contractual and administrative complexities of the procurement process • High financing costs reflecting the shift of projects risks to private-sector equity sponsors • Transparency and accountability diminished by limited disclosure of contract details for public scrutiny
Government franchising <ul style="list-style-type: none"> • Capacity to reduce budgetary costs and promote efficiency and innovation through private-sector involvement in asset management • Consistency of services outcomes and policy objectives through ‘regulation by contract’ • Compatibility with integrated network or system planning • Retention of public ownership of valuable and strategic infrastructure assets 	<ul style="list-style-type: none"> • High requirement for experienced and capable government staff to design and administer periodic tendering and negotiation processes • Critical dependence on effective contract management as well as on prudent and secure procedures to transfer and recover government-owned assets • Government remains responsible for financing investment

Source: (C. Chan et al., 2009)

2.8. Current Status of PPP Scheme Development

The slow progress of implementing PPP to build infrastructure can be considered a global trend. Notwithstanding this, countries such as the UK for instance have been successful in implementing the PFI 1 and PFI 2 for most of their social infrastructure. Since 2008, however, the UK has innovatively modified PPPs to accelerate the infrastructure delivery, especially for infrastructure projects which require huge investment. This has been done through Project Delivery Partnerships (PDP) and Service Delivery Partnerships (SDP). These mechanisms were successfully implemented in 2010 to build the Cross Link Rail (Cross London Rail, 2008, 2010).

Currently, there is still no academic study and publications about PDP, and only very few reading materials are available about the PDP. The main reading PDP document is the Contract of the Cross Rail Link in London (Cross London Rail, 2008, 2010). The key idea of PDP is adopting complete risks ownership and accountability for project delivery, from conceptualisation until the completion. That is containing the details to costs, time and quality by assimilating all contractors (civil, infrastructure, technology and system) into a large consortium. The PDP offers a single point of accountability in terms of project budget, delivery programme and quality of work.

PDP has been successfully applied to build infrastructure that requires relatively large investments and a private sector that has the willingness to invest. Example infrastructure projects that currently apply the PDP include the Cross Rail Link in London, UK (Cross London Rail, 2008, 2010) and also the development of an integrated urban transport system in Kuala Lumpur, Malaysia (Jamaludin, 2012). The time required in PDP from the integration of public and private joint planning until financial closing and breaking ground is on average two years.

PDP, which has been successfully applied in Malaysia for instance, is a part of the planning for infrastructure MRT1. The aim is to succeed in a project involving the private sector from the beginning. Malaysia project MRT1 (Jamaludin, 2012) was placed under the PDP (Project Delivery Partner) as the new format of the PPP. In this scenario, the government provides the funds required for the preparation of private placement, but PDP process management work is carried out by the private sector as the 'main partners'. Another similar monorail project is the Sao Paulo L18 3 (Brazil) monorail project that will be tendered by the local government, and the first under the PPP scheme with a modified PDP. This project is part of the efforts to improve the city traffic jams in the city of Sao Paulo. The PDP procurement process involves a novel approach, which is different to the rest of the general PPP scheme. Other examples of infrastructure projects delivered under the PDP scheme include the Korea High Speed Rail (USD16 billion) Bechtel/Hyundai JV, the Crossrail Project (USD12 billion) Bechtel/Systra, the Channel Tunnel Rail Link (USD11 billion) Bechtel (USA), the Moscow Airport (USD11 billion), the London Olympics (USD10 billion) Laing O'Rourke (UK), the Qatar Bahrain Causeway (USD6 billion)

Vinci (France), the Bovis Lend Lease (UK) and the Klang Valley MRT Project (Kamal, 2011).

PPP is a process of cooperation that is expected to streamline the process of planning, procurement, and preparation until financial closing in developing infrastructure projects. Compiled from the PDP contract documents for cross rail project (Cross London Rail, 2008, 2010), the PDP includes:

- Set up Integration Planning
- Project Engineering & Technology
- Project Controls
- Projects Implementation & Operation
- Land Acquisition and Resettlement Action Plan (LARAP) & Logistic
- Financing Plans
- Health, Safety, Quality and Environment
- Corporate Affairs
- General Obligation
- Service Delivery Plan

According to Cross London Rail project in 2008, the PDP should be limited to two years for it to be evaluated (Cross London Rail, 2008, 2010). PDP will be followed by a Service Delivery Partnership (SDP) according to the recommendation of the evaluation process.

2.9. Summary

There are typically fiscal budget constraints for a government; at the same time, there is high demand for public services. This situation has led innovation in the PPP financing mechanism, especially to finance the infrastructure projects which are economically viable but less financially viable. In summary, the literature review has led to several findings. These include that the PSC method (Yescombe, 2007) used to define the financing mechanism for infrastructure projects in open bidding, is not a sufficient tool alone to be used as the final method to make a final decision.

The most common method of making a financial decision uses PSC. However, there are several weaknesses in using PSC as the final financial decision tool for a public entity to develop PPP infrastructure projects, such as: delay in procurement process, delay in project negotiation, and proposals in FS developed by the potential investors, and it leads to delay of procurement evaluation. The result of the literature review of this research found that PSC is not the final process to decide the financing mechanism for infrastructure project. It suggests extending the process by considering studying infrastructure financing, which does compare the effectiveness and efficiency of several PPP infrastructure financing mechanisms. Infrastructure financing could involve the extension of PSC to create the PPP infrastructure projects; it can also strengthen the financial mechanism decision for a public entity.

Risk sharing, principally in PPP, is risk sharing between government and private sectors. A effective PPP infrastructure project is also persevered by the capability of the key stakeholders in handling the involved risks in PPP infrastructure projects. The long-term partnership between the government and private sector involves a sophisticated set of relationships that involve effective harmonization among entire participants in a PPP infrastructure project. This can be defined early in sets of PPP infrastructure frameworks.

However, to conduct the comparison of Infrastructure Financing, it will require significant work. Firstly, the government policy in relation to investment and infrastructure development has to be understood, and also the situation of micro and macro-economic circumstances of the country (A. P. C. Chan et al., 2009; Albert P.C. Chan et al., 2010; A. P. C. Chan et al., 2011) that consider particular financing vehicles due to the budget constraint and the inter-governmental cooperation within public infrastructure operated and financed.

The character of the infrastructure also will define the revenue-raising capacities and operate-maintenance potential costs (A. P. C. Chan et al., 2009). The selected parameters have been defined in the study area is shown in Figure 2-2. The key parameters that have been selected have been grouped into five groups related to; (1) policy, (2) micro and macro economics, (3) project management, (4) project financing mechanism, and (5) potential revenues and costs. There are critical factors

that influence the financial performance of infrastructure projects under the PPP financing mechanism. Controlling the critical factors in developing financial models will create more confidence in financing and investment decision-making. This research attempts to determine (from different stakeholders' perspectives) the critical parameters in infrastructure financing effecting PPP financial performance.

The insufficiency of the PSC as a tool for supporting decision making on the infrastructure financing has motivated this research. Chapter 2 has identified and synthesized the optimal infrastructure financing scheme based on analysis of best-practice PPP infrastructure financing to address the first objective in this research. The comparison of PPP financing mechanisms that commonly have been adapted in recent PPP practices are presented in Table 2-3.

Policy instruments have been proven essential. The government needs to be up-to-date to accommodate the development of financing mechanisms developed in the financial industry. The key idea of PDP is adopting complete risk ownership and accountability for project delivery, from conceptualisation until completion. This includes the details to costs, time and quality by synchronizing entire contractors (civil, infrastructure, technology and system) in a big consortium. The PDP offers a single point of accountability in terms of project investment, delivery programme and quality of work. Current methods of PPP scheme that have been implemented includes the PDP that would streamline the preparation of the project developments and indicate risks both for public and private sectors in the earlier stages and along the way, until project completion.

CHAPTER 3

LITERATURE REVIEW: PPP PROGRESS IN INDONESIA

3.1. Introduction

This chapter explains the progress of PPP in Indonesia in developing infrastructure as the result of participant observation working in expert team in Bappenas, Central Government of Republic of Indonesia. During the period of this research study, from 2012 to 2015, there were many significant changes in policy and procedures. This was due to the change of the President and the new ministry cabinets formed in 2014.

One of the main challenges for developing countries such as Indonesia is the extent to which the institutions are committed to overcome the finance gap to build infrastructure. The lack of infrastructure provision will have an impact on the level of distribution competitiveness of the production in the country, which also has an impact on economic growth and social wealth distribution (G20, 2013). Inadequate infrastructure services have been associated with lower quality of life (Armida S. Alisjahbana, 2013). The lack of infrastructure provision may also lead to various conditions, including: acceleration of economic growth, which cannot be achieved without support from national infrastructure; revitalization of agriculture requiring the support of infrastructure for access to agricultural commodity markets; remote areas being isolated from economic activity; environmental issues related to water management and flooding; and air and soil pollution. Conventionally, most public infrastructure is delivered by government alone, funded by public money or taxes (fiscal budget) (Government of Indonesia, 2004a), and then service providers such as contractors are generally nominated through open tender.

Infrastructure is an Indonesian national priority. Infrastructure is mentioned in the National Long Term Development Plan (*Rencana Pembangunan Jangka Panjang Nasional*, RPJPN) from 2005 to 2025 as one of the focuses of the Indonesian national

priorities (Government of Indonesia, 2007a). Additionally, a part of the national long-term plan, the medium-term target that was established in the 2010-2014 National Medium Term Development Plan (RPJM 2010-2014) has three infrastructure development goals: (i) refining the infrastructure delivery based on the Minimum Standard of Services; (ii) new infrastructure development to support real sector competitiveness; and (iii) alternative infrastructure investment in PPP mechanism (Armida S. Alisjahbana, 2013; Government of Indonesia, 2007a; Yudhoyono, 2011).

However, since the plan was formulated, infrastructure investment in Indonesia has lagged far behind other countries such as China and India. Since 2009, investment in infrastructure in India has been above 7% of GDP and in China since 2005 has reached 9-11% of GDP. Meanwhile, in Indonesia, currently investment in infrastructure is only around 3-5% of GDP. Before the 1997 Asian financial crisis, Indonesian investment in infrastructure peaked at around 7% GDP, then fell dramatically, and now it has slowly increased to the level of 3.2% (Harun al-Rasyid Lubis, 2015).

Indonesia's economy is typically among the high performers in Asia. Indonesia's economy sustained to grow at a steady pace in 2012, with a GDP growth of 6.2%. This was a healthy performance considering the poor international situation and disturbed financial market situations which prevailed during these years (Armida S. Alisjahbana, 2013). Therefore, Indonesia has a significant role to play in regional and global development. As Indonesia develops further, it will bring more positive initiatives to elevate the regional and global economy as well. At the regional level, Indonesia has committed to support infrastructure development in ASEAN member countries including Cambodia, Myanmar, Laos, and Vietnam (CMLV). Indonesia contributed support capital for infrastructure in the ASEAN Infrastructure Fund (AIF) in 2012 and 2013 and committed to support the realization of connectivity infrastructure projects in the initiative for ASEAN Integration I and II (Initiative for ASEAN Integration, 2015). Indonesia also encouraged APEC to be more effective in developing concrete cooperation projects in transport and communications infrastructure (Australian Government, 2014). It is expected with the realization of

cooperation and development of integrating projects, the ASEAN and the Asia Pacific region can positively support the global economic growth.

At the global level, Indonesia consistently takes an infrastructure financing agenda to the G20 forum, and fights for the inclusion of these infrastructure investment financing commitments into mainstream G20 discussion forward agendas. Indonesia was also elected as Chairman of the Joint Study Group on Financing for Investment (G20, 2013), which shows the involvement and active participation of Indonesia in encouraging the growth of the global economy by improving the economic capacity of developing countries through increased financing of infrastructure.

Infrastructure investment is a priority for the Indonesian Government in order to have positive growth and significantly play in regional and global role. Therefore, the government keeps looking for solution to finance the infrastructure by attracting investment from various sources of finance: by issuing bonds, soft loans from multilateral agencies, and improving cooperation between government funding and private sectors. PPP is one of the key agenda to be prioritized as an alternative financing approach to building infrastructure.

To develop an in-depth understanding about the progress of PPP in Indonesia, this research includes an internship period with BAPPENAS (the National Development Planning Agency) to study infrastructure project development from the planning stage of PPP projects preparation, the procurement process, and up until the project transaction. Also a participant observation (see Chapter 4, Methodology) was undertaken to observe the development of a real monorail project for Palembang city, South Sumatra Province.

This chapter briefly explains the related institutions and their functions in supporting the PPP infrastructure projects in Indonesia. The type of government support and procedure required and the supporting policy, including the amendments, are also explained in this chapter. The common complexities in developing and executing PPP infrastructure projects are also briefly explained, such as complexity in land acquisition, complexity in inter-coordinating institutions and complexity in developing the framework of the PPP project itself.

3.2. Financial Gap for Infrastructure Development and Declining of Private Participation in PPP

The PPP financing mechanism has been widely used in many countries as an alternative way of financing infrastructure projects to overcome the fiscal constraint of the government. There appears to be a correlation between the volume of economic activity and the availability of infrastructure. Availability of adequate infrastructure will typically help the development of communities in a region, spur business activity, and open the broadest access to the region. Hence, the Indonesian Government has committed to continue to provide infrastructure in various regions in Indonesia. However, limited fiscal funding constrained the government and undermined the ability to finance infrastructure development, which should be developed comprehensively and sustainably.

Another alternative to cover the gap of investment in infrastructure development is to encourage the involvement of the State-Owned Enterprises (SOEs) to become involved in developing infrastructure. The government budget can only cover around 30%, therefore another 30% is intended to be executed by the state-owned enterprises (SOEs) funds. Furthermore, the remaining 40% funding differences is intended to be financed by private finance, PPP or any other innovative financing mechanism (Yudhoyono, 2011).

As stated in the Millennium Development Goal (MDG), infrastructure financing figures for 2009 to 2014 reached around Rp.1,400 trillion (US\$ 140 billion). While the availability of government funding in the state budget for these five years was only about Rp.400 trillion (US\$ 40 billion). In order to cover this gap the government invited more private initiatives in the form of public and private partnerships (PPP). From the report of the National Development Planning Agency (Chaniago, 2015), there is a need of infrastructure investment for 2010-2014 of about Rp.1,923.7 Trillion (US\$ 200 billion). The central government budget can settle 29.1% of total investment requirement, SOE can cover about 17.7%, and therefore there is a big opportunity for private investment through the PPP mechanism of nearly 34.7% to be involved in infrastructure investment. The last report in 2015,

estimated infrastructure funding needs in 2015-2019, and found that the government is only able to fulfil 30% of total infrastructure funding desires, which is about Rp.1.433 trillion (US\$110 billion) out of Rp.4.796 trillion (US\$370 billion) in total (Chaniago, 2015). Roughly, 36% of the funding gap is anticipated to be contented through collaboration with a PPP scheme.

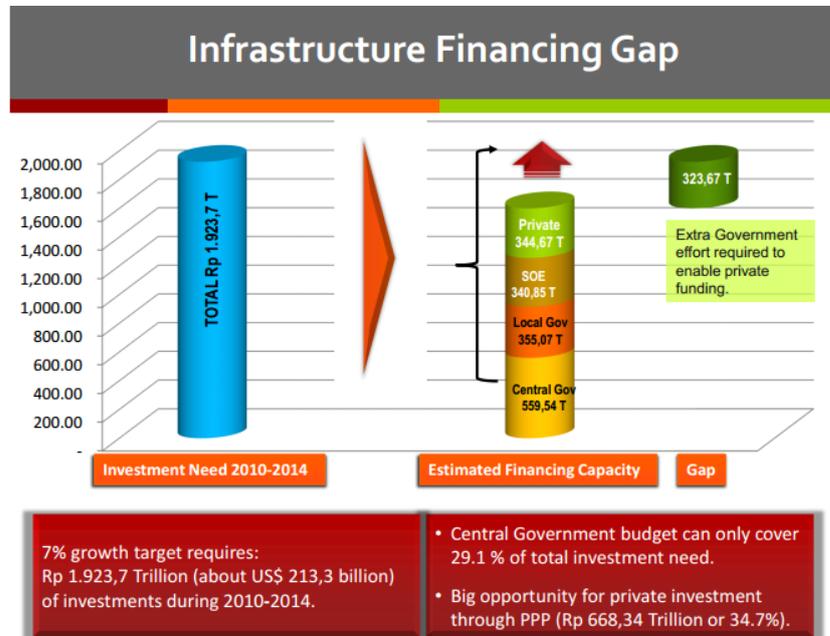


Figure 3-1: Infrastructure financing gap 2010-2014

Source: (National Development Planning Agency of Indonesia, 2011)

The Indonesia government has struggled yearly to persuade the private sector to become involved in the development of PPP infrastructure projects. The strategies of enhancing PPP include shifting the government role to being a facilitator or enabler and to focus on service sustainability policy through efficient and effective investment. However, the private sector's participation in infrastructure development has expressively deteriorated over the past decade.

This reflects the uncertainties surrounding land acquisition and inter-government and inter-agency coordination, and high political risk. It also reflects poor project selection and the incapability of the bureaucracy to produce on-going of bankable PPP projects. For example, in Figure 3-2, the government in PPP Source Book 2012 has acknowledged 58 projects straddling 11 different areas, including toll roads, maritime transportation and water resources, suitable for funding through PPP schemes, for a total value of US\$51.2 billion in the period 2010-15 (Armida S.

Alisjahbana, 2012). By 2012, nevertheless, only three projects were considered ready for offer, 26 projects were considered as priority and 29 as potential PPP projects. Toll roads specifically have been devised for PPP financing: the three ready for offer projects totaling US\$764 million contain a toll road project estimated for 83 % of the total (US\$628 million), while the 26 priority PPP projects comprise 13 toll roads estimating US\$32.5 billion or 85% of the total value of the 26 projects. In 2013, there was a revision too, the government has offered PPP projects in PPP book years of 2012-2014 from 79 projects offered in 2011-2014 with a total value of US \$ 53 billion, revised to 58 projects with a total value of investment needed to reach US \$ 51 billion (Armida S. Alisjahbana, 2013). In PPP Book, the total PPP infrastructure projects are 38 projects with six projects are ready for offer; eight projects are the priority and 24 projects are the potential projects (Chaniago, 2015).

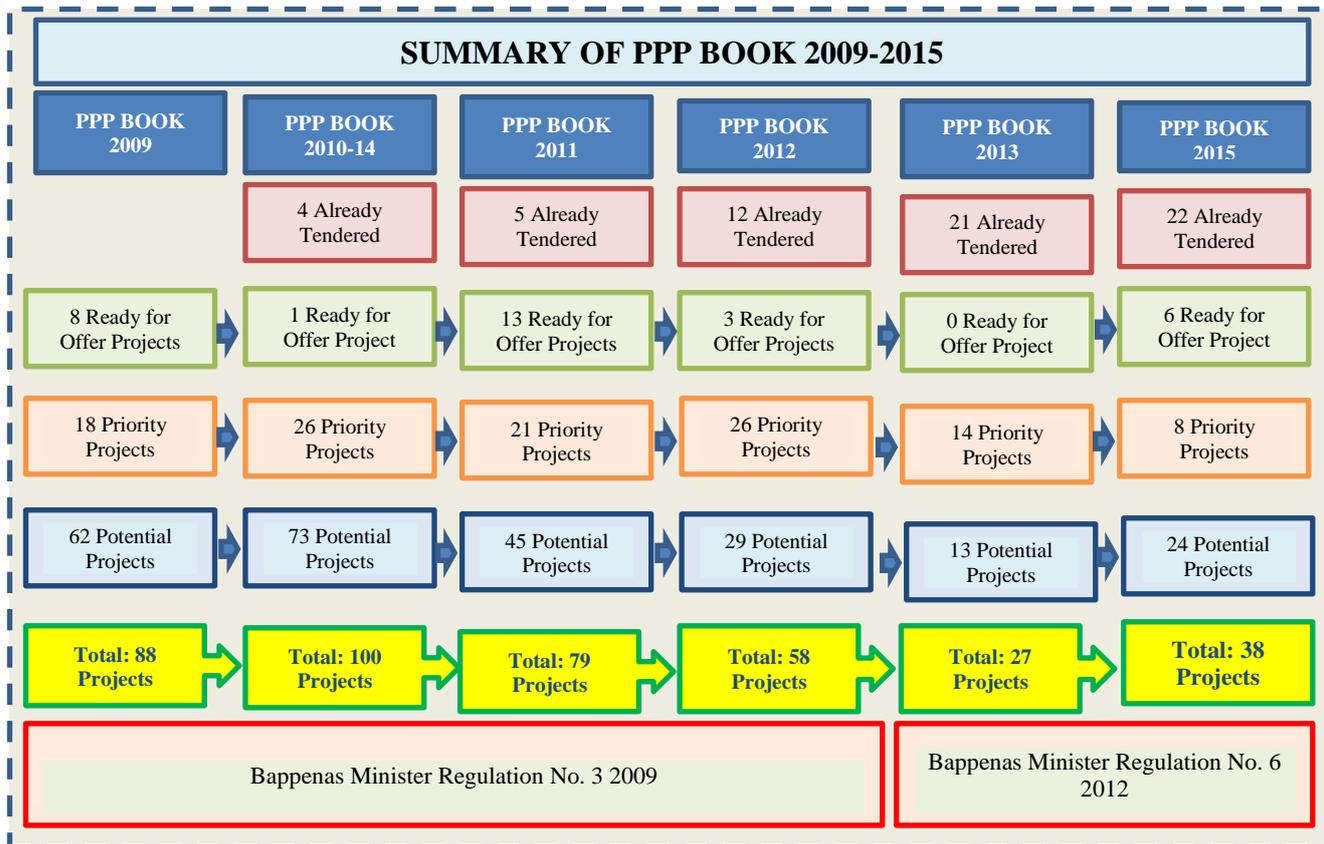


Figure 3-2: The evolution of the evaluation number of PPP infrastructure projects from 2009 to 2015

Source: (Armida S. Alisjahbana, 2013; Chaniago, 2015)

However, with the amount of the projects that have been tendered, up to 2015 there has been no evaluation yet into the projects to check the level of success of the project financing, financial closing and executing or up to construction level.

3.3. Related Institutions and Government Supports in PPP Indonesia

The main institution in developing PPP projects in Indonesia is BAPPENAS. BAPPENAS (*Badan Perencanaan Pembangunan Nasional*), the National Development Planning Agency (the Ministry of National Development Planning), is an Indonesian central government institution which is responsible for formalized national (annual, five-years, and long-term) development planning. Moreover, BAPPENAS has also obligated to coordinate foreign (bilateral and multilateral) development collaboration. BAPPENAS also plays a significant role in preparing projects under the PPP framework in Indonesia.

Appendix 1 and **Appendix 2** show the diagrams of the phases of PPP infrastructure project developments for PPP's solicited and unsolicited infrastructure projects. Those figures are based on the previous regulation and practice up to year 2014 and before 2015. The institutions, their functions, and the government supports, are shown in the figure.

The government holds an active approach and endures to assess and reinforce policy to support the delivery of infrastructure using PPP methods. In order to establish cross-sector governing frameworks for executing PPP in infrastructure development, the Government of Indonesia has amended Presidential Decree No. 67/2005 on PPPs four times (i.e. Presidential Regulation (Perpres) No. 13/2010 and No. 56/2011 and No. 66/2013 and No. 38/2015). The points of the successive amendments in Perpres No. 66/2013 have stated clearer and more thorough terms about unsolicited proposals, cooperation contracts and government's contribution and guarantees of projects. The latest amendment of Perpres No. 38/2015 have been included to accommodate regional development and urban development in the bundling of PPP projects, it is also directing the payment to the Availability Payment (AP) or

Performance-Based Annuity Schemes (PBAS) to assure the payment of certain infrastructure development.

Under these regulations, the government through the Contracting Agency (CA; lined minister/regional governments/stated owned companies), developed cooperation with the private sector to establish PPP infrastructure projects (Government of Indonesia, 2005d, 2010c, 2011d, 2013). These, and other related institutions' function in phases of developing PPP infrastructure based on these regulations in Indonesia are as follow:

1. **Phase 1: Planning.** The related institutions are the Contracting Agencies as the initiator of the infrastructure projects, and the BAPPENAS to coordinate the projects with national programs and lined/sectorial ministry.

There are two types of PPP infrastructure project preparations for the solicited projects:

- a) PPP infrastructure project initiated by the Contracting Agency (CA); the CA can be the regional government, department or state-owned enterprises. The initiators of these projects have to use their budget to develop the preparation of PPP infrastructure projects, and they have the privilege of conducting procurement by themselves. BAPPENAS will assist them with technical staff and expertise.
- b) PPP infrastructure project initiated by BAPPENAS and therefore all cost of project preparation will be budgeted by BAPPENAS, the central government, and the procurement process will be conducted by the BAPPENAS.

Each proposed PPP infrastructure project should be provided/prepared by the following documents:

- Pre-feasibility study.
- Proposed cooperation structure/modality of the infrastructure project.
- Proposed project financing and sources of funds.
- Proposed tender of cooperation project including schedule, process

and tender evaluation criteria.

For an unsolicited project initiated by the private sector /business entity, the private sector can propose the PPP infrastructure project to the Minister/Head of Institution/Regional Government with the following criteria:

- a) The project is not involved in the master plan of the related sector, based on Perpres 2010 (Government of Indonesia, 2010c), while the current 2015 (Government of Indonesia, 2015c) projects can be taken from national or regional plan that have not yet been executed.
- b) Technically integrated with the master plan of the relating sector.
- c) Financially and economically feasible.
- d) The project does not need any government support in the form of financial contribution.

The project proposed by a business entity should include a:

- Feasibility Study.
 - Proposed cooperation structure.
 - Proposed project financing and sources of funds.
 - Proposed tender of cooperation project including schedule, process and tender evaluation criteria.
2. **Phase 2: Preparation.** The contracting agency prepares the supporting studies, BAPPENAS conducts the initial financial assessment, and the Ministry of Finance carries out financial assessment if the project needs fiscal support. The Risk Management Unit (RMU), under the Ministry of Finance, will conduct a financial assessment as to whether the project needs viability gap funding. The Indonesia Infrastructure Guarantee Fund (IIFG) will then conduct financial assessment if the project need government guarantee, the *Sarana Multi Infrastruktur* (SMI) and Indonesia Infrastructure Fund (IIF) will conduct a modality assessment, the *Pusat Investasi Pemerintah* (PIP: Centre of Government Investment) will carry out land bailout, and the sectorial ministry will issue the licenses.
 3. **Phase 3: Procurement Preparation.** The contracting agency will conduct the procurement process if the project development is financed by the contracting agency; however, if the project is to be financed by BAPPENAS, BAPPENAS

will conduct the procurement process. Either the contracting agency or BAPPENAS needs to establish a tender committee to prepare the tender documents, including terms of references, projected investments, request for proposals, and so on.

4. **Phase 4:** Procurement Process. The contracting agency will conduct the procurement process if the project development is financed by the contracting agency, however if the project development is financed by BAPPENAS, BAPPENAS will conduct the procurement process until finding the right private partner as the winner of the tender. The procurement process is basically still based on the regulation of open tender conducted by government in Perpres 54 2010 (Government of Indonesia, 2010e).
5. **Phase 5:** Establishing SPV and Transaction Advisory and Financial Close. The contracting agency signs the cooperation agreement with the private sector (the winner of the bidding process) and establishes the Special Purpose Vehicle (SPV), and progresses the transaction to achieve the financial closing by the required date. SPV also can apply for a taxes waiver to the Secretariat General for Taxes under the Ministry of Finance (Government of Indonesia, 2010b, 2011a, 2012a).
6. **Phase 6:** Operation and Maintenance. The SPV is supervised by the contracting agency or other government institution with authorization from both parties.
7. **Phase 7:** Transfer of Assets and Contract Termination or Renewal of Contract or Extension of Cooperation Contract, with new conditions based on a new assessment result.

To accelerate the implementation of feasible PPP projects, the institutional framework supporting PPP is being reinforced. The legal framework for PPPs has been revised to permit the private sector to invest in the development and operation of financially feasible infrastructure projects without being obligated to enter a joint venture with an SOE. In Phase 2, the project preparation stage, under the PPP regulations, the Minister of Finance (Government of Indonesia, 2006b) may approve the provision of support from the government for a PPP project in the form of financial contributions based on a proposal from the Contracting Agencies (lined minister/regional governments/state owned companies). This can be done through the provision of the following: (1) bailouts as land fund through the government

Investment Center (PIP) (Government of Indonesia, 2005c, 2012g); (2) funds for setting up infrastructure financing PPP projects undertaken by PT Sarana Multi Infrastruktur (SMI) (Government of Indonesia, 2009c); (3) the risk guarantee fund PPP projects, namely the guarantee of return on investment risk, political risk and the risk of termination of the project, through the Indonesia Infrastructure Guarantee Fund (IIGF=PII)(Government of Indonesia, 2006a, 2009a; IIGF, 2012; Roesly, 2012); and (4) utilize public assets that can be provided by the Contracting Agency (CA) (Government of Indonesia, 2006c, 2008a). PT SMI and PT PII are State-Owned Enterprises (SOEs), which are directly under the guidance and supervision of the Minister of Finance.

Besides the above three facilities, the government through the Ministry of Finance has also prepared several other facilities in order to accelerate the realization of PPP projects, including Project Development Services (PDS) schemes, Viability Gap Fund (VGF), and the Land Revolving Fund. Tax holidays and tax allowances are under study to be an alternative incentive that will be available for PPP infrastructure projects.

The defiance now is to enforce these institutional mechanisms operational and well-coordinated (including evolving detailed operational procedures to implement the provisions of VGF). Such an accomplishment would send an important indicator to investors and, combined with efforts to handle land acquisition and coordination issues, would improve the public and private sector's assurance in the system.

In addition, the financing of infrastructure for regional estate, industrial estates/special/Special Economic Zones (SEZs) has been accommodated in the new regulation of the PPP in Perpres 2015 (Government of Indonesia, 2015c), so the private consortium could contribute to build a region development. In the case of SEZ, the government will provide fiscal incentives. There are several SEZs¹ that have been planned by the central government and regulated in several government regulations, such as the Tanjung Api-api SEZ, Bitung SEZ, Sie Mangke SZE, Tanjung Lesung SEZ, etc.

¹ <http://kek.ekon.go.id/>

Another government institution to support infrastructure development is the National Investment Board, i.e. *Badan Koordinasi Penanaman Modal* (BKPM), which provide licensing for foreign companies to invest in Indonesia and promotes the PPP infrastructure projects by conducting seminars, market sounding and conferences in Indonesia and other related countries (Government of Indonesia, 2012f).

3.4. Review of Related PPP Policies in Indonesia and Discussion

Based on the previous policy of the government of Indonesia related to infrastructure development, master plan MP3EI is one of the economics plans for Indonesia, which sole purpose is to bring prosperity to the nation and its people in accordance with Indonesia's constitution. Article 6, legislation laws no 17 year 2007, regarding national long term development 2005-2025, states that the national agenda of development shall be the reference point for local development (Government of Indonesia, 2007a). So therefore control and supervision will need to arise from these long-term development targets. In accordance to article 2 of president decree no 32 year 2011 on MP3EI, executing plans of this MP3EI must follow a roadmap that is clear, strategic, focus and measurable (Government of Indonesia, 2011c). This plan also acts as a reference for ministry and non-ministry officials for implementing and producing public policy. The implementation of this plan is coordinated by KP3EI (*Komite Percepatan dan Perluasan Pembangunan Ekonomi Indonesia 2011-2025*), which is obligated to coordinate implementation, evaluate progress and mitigate risks and challenges of the implementation (Yudhoyono, 2011).

3.4.1. Indonesian Policy Review

Indonesian policy to enhance PPP development continues to improve. Through the formation of the regulatory framework for PPP, encompassing Presidential Regulation (PR) 67/2005 on Cooperation between Government and Business Entities in Infrastructure Delivery, and its successive adjustments, PR 13/2010, PR 56/2011 and PR 66/2013. The government has been providing supportive regulations to address significant issues effecting the application of PPP projects, for example the

law 2/2012 on land acquisition for public infrastructure projects and Regulation 223/PMK.011/2012 of the Ministry of Finance on the Viability Gap Fund.

There are many regulations that need to be explored in relation to infrastructure investment. The existing regulations and government policies to support the cooperation of government and private sector in general include:

Policy related to procurement of public goods and services:

- Presidential Decree No. 54 of 2010 (Government of Indonesia, 2010e) on Procurement of Public Goods and Services

Policy related to public asset optimization:

- Indonesian Government Regulation number 38 Year 2008 (Government of Indonesia, 2008a) regarding amendments to the government regulation No. 6 of 2006 (Government of Indonesia, 2006c) regarding the management of state property/area/assets.

Policies related to Public-Private Partnership to invest in infrastructure have several amendments:

- Presidential Decree No. 7 Year 1998 (Government of Indonesia, 1998) regarding the initiation of Public Private Partnership to develop infrastructure projects in the Suharto era.
- Presidential Decree No. 67 Year 2005 (Government of Indonesia, 2005d) regarding a Public Private Partnership to develop infrastructure projects for public services during the Megawati Era.
- Presidential Decree No. 13 Year 2010 (Government of Indonesia, 2010c) regarding the amendment of Presidential Decree No. 67 Year 2005 (Government of Indonesia, 2005d), regarding Public Private Partnership to develop infrastructure projects for public services during the Yudhoyono Era.

This regulation provides the procedure of PPP for certain infrastructure projects. The infrastructures include: airports, ports, railways, roads, water supply/irrigation systems, drinking water, waste water, solid waste, information and communication technology, electricity, and oil and gas. These projects can be implemented either by “solicited” or “unsolicited”. In general, it is executed

through an open procurement process. The solicited projects are arranged and prepared by the government, while for the unsolicited projects are identified and submitted to the government by a private entity. The Contracting Agency from the government can be held either at the regional or national level. PPP projects can be implemented by the government or through licensing or by an agreement. Governments can support taxation and/or non-taxation to leverage the viability of an infrastructure project. This project should be organized to be able to allocate risks optimally managed by the contracting agency.

- Perpres 2015 (Government of Indonesia, 2015c) revised this regulation. The PPP could be applied to the development of a new city or an integrated development area, and the unsolicited projects were extended to be taken from the regional and central infrastructure planning.

Policy related to government support:

- Ministry of Finance Degree No. 38 Year 2006 (Government of Indonesia, 2006a) on Implementation Guidelines for Control and Risk Management on the Provision of Infrastructure.
- Regulation of the Coordinating Minister for the Economy No. 4 Evaluation Methodology 2006 (Government of Indonesia, 2006b) on PPP infrastructure projects Requiring Government Support.
- Government Regulation No. 35 of 2009 (Government of Indonesia, 2009a) on the Investment of the Republic of Indonesia for the Establishment of the Company (Persero) in the field of Guarantee Infrastructure.

Regulation of the Minister of Finance No. 38 of 2006 (Government of Indonesia, 2006a) explains the conditions and processes for seeking the support of the government, such as guarantees. Under this regulation, the government can provide a guarantee of three types of risk, namely: Political Risk, Project Performance Risk, and Demand Risk. Political Risk is related to having the certainty on the contract agreement that it will not be defaulted on by other political interests in the process changing of national/regional or local leaders. Project performance risks including risks arising from delays in the land acquisition process, the increasing cost of land acquisition, changes in contract specifications, delays or decrease to the contract adjustment of rates, delays in

obtaining permission to start the activity. Demand risk refers to real income under the guaranteed minimum income due to lower demand from the contract.

- Coordinating Minister of Economic Regulation No. 4 of 2006 (Government of Indonesia, 2006b) involves that a request for contingent support has to be stated in the feasibility study. The support or guarantee that will be requested initially has been set up in the feasibility study as also stated in the Minister of Finance No.38 of 2006. These regulations specify that the feasibility study to clearly define the request of government support or guarantee, including how the format of cooperation, budget plans, the results of the public consultation and others.
- The government has set up PT. Indonesia Infrastructure Guarantee Fund (PT IIGF) (Roesly, 2012) to manage these guarantees. With this effort, it is anticipated to decrease the cost of PPP infrastructure projects by refining the quality and credibility of the PPP projects, and help the government to manage tax risks with this guarantee. PT. IIGF will create a framework for a comprehensive and consistent approach to be able to assess a project and make decisions with respect to the provision of government guarantees for PPP projects.

Policy related to the function of infrastructure for sectorial ministries:

Infrastructure related to water supply (operation/management, transmission and distribution):

- Indonesia Law No. 7 Year 2004 (Government of Indonesia, 2004b) on Water Resources.
- Government Regulation No. 16 Year 2005 (Government of Indonesia, 2005b) on Drinking Water Supply Systems.
- A private company can acquire a concession for the delivery of drinking water to areas that are not served by the Regional Water Company. The private company appointment to perform this service should be implemented through a tender process. The government will set rates and regulate the requirements for the private company in the cooperation contract. The government has established a Subsidiary Body of Water Supply System Development (BPP SPAM) to, assist

local governments in the development of water supply systems through the PPP scheme.

Infrastructure related to toll road:

- Indonesia Law No. 38 Year 2004 (Government of Indonesia, 2004d) regarding to Highways.
- Government Regulation No. 15 Year 2005 (Government of Indonesia, 2005a) on Toll Roads, Government Regulation No. 44 in 2009 (Government of Indonesia, 2009b) regarding the amendment of Government Regulation no. 15 of 2005.
- Indonesia Law No. 22 Year 2009 (Government of Indonesia, 2009e) on Traffic and Transportation.
- Toll roads business activity is no longer dominated by PT. Jasa Marga (State-owned toll road companies). The government has set up a regulatory agency, the Toll Road Regulatory Agency (BPJT), to carry out the tender and setting the rates of toll roads.

Policy related to Infrastructure Financing in Indonesia:

- Presidential Regulation. No. 9 Year 2009 (Government of Indonesia, 2009c) on Financing Institutions.

Business activities of state-owned infrastructure financing institutions should include, among others: lending, refinancing, and capital injection. The government has set up PT. Sarana Multi Infrastruktur (PT SMI) as a state enterprise to finance infrastructure projects by optimizing loan, equity, and mezzanine financing. PT SMI is fully financed by the fiscal budget of the Indonesian Government. PT SMI subsequently also founded the PT. Indonesia Infrastructure Finance (IIF) with other shareholders including the World Bank, ADB and the International Finance Corporation (IFC), and the government of Germany.

Policy related to establishing Jakarta as the capital city of Indonesia:

- Law of Indonesia No. 29 Year 2007 (Government of Indonesia, 2007c) regarding the Provincial Government of Jakarta as the Capital of the Republic of Indonesia. Jakarta serves as the capital of the Republic of Indonesia, which has the specific duties, rights, obligations, and responsibilities in governance and as the place of

representatives of foreign countries, as well as the centre/representatives of international organizations.

Policy related to Capital Contribution:

- Indonesia Law No. 17 Year 2003 (Government of Indonesia, 2003) regarding State/Central Finance.

In providing capital (equity) to PPP infrastructure projects, the government continues to follow the budgeting procedures under Law 17 of 2003 - capital expenditure is budgeted in the *Daftar Isian Pelaksanaan Anggaran* (DIPA (List of Budgeted Government Programs)) set up by the Ministry of Finance (Government of Indonesia) through SMI or the Government Investment Center (PIP). If PPP investment is set up by the central government authority, the investment management could be implemented by the PIP. Capital Contributions can also transfer funds from the central government to local governments in the Special Allocation Fund (DAU), which is managed by the local government and can be embedded directly (direct investment) in a PPP contract or joint operation between the government and a private body.

In order to increase investment in Indonesia, the government issued new regulations relating to capital investment, widely known as the Foreign Investment Negative List amendment to the Presidential Regulation No. 36/2010 (Government of Indonesia, 2010d). It regulates the share of ownership by foreign investors in any business in Indonesia. The proportion of foreign ownership or share in equity shareholders for infrastructures projects is larger than in the previous regulation, including the management and operation of ports, airports, land terminals and dry-docks.

3.4.2. The Hierarchy of the PPP Regulations within the Existing Framework

The government of Indonesia has occupied a sequences of main stages to improve the PPP policy and improve regulations to attract open competitiveness of PPP projects. The basic PPP regulation framework is shown below:

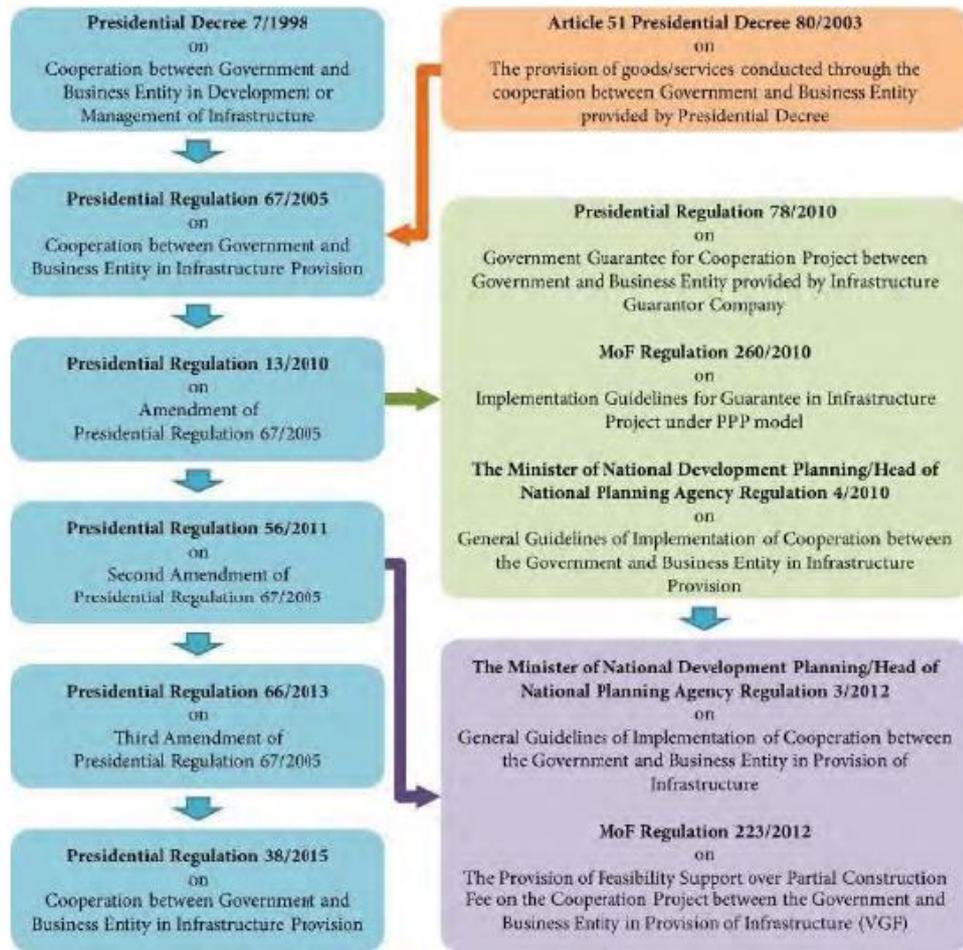


Figure 3-3: The evolving cross-sector PPP regulation framework in Indonesia

Source: (Chaniago, 2015).

The existing regulation framework has been established based on the:

- Collaboration between the public sector and the business entity in the management of state-owned or region-owned assets (brown field assets).
- Land acquisition.
- Environmental assessment and protection.
- Laws sector and applying regulation, such as for sea, rail, air and land transportation, water supply and sanitation, energy and telecommunications.

One of the problems regarding regulation in Indonesia and inherent to its fundamental nature, is the disharmony between the formulations of policy (policy making) with the preparation of the necessary regulations (regulatory making) to implement the policy itself. On the same note, another problem is to ensure the

availability of development budgets for both the central and local levels as well to involve communities and businesses entities. Quantitatively, the establishment of regulations ranging from the center to the regions is already over-regulated. It is causing overlap, disharmony, conflict, and multiple interpretations - both vertically (hierarchical) as well as horizontally (Bappenas, 2013).

It is the same situation with PPP regulations; there exists an unclear hierarchy of framework policy in PPP Indonesia. The main PPP regulations are based on Presidential Decrees and Presidential Regulations, while many sub-sector/sectorial ministries have the power of Indonesian law, which is higher than the Presidential Decree in hierarchy of Indonesian policy, and this can cause complexity in inter-coordination, therefore there are difficulties for the PPP in managing sectorial infrastructure.

Based on Indonesian Law No. 12 Year 2011, article 7, paragraph 1, "type and hierarchy of regulation" consists of (Government of Indonesia, 2011f):

- i. Constitution of the Republic of Indonesia Year 1945
- ii. People's Consultative Assembly Decree
- iii. Law/Government Regulation in lieu of law
- iv. Government Regulations
- v. Presidential Regulation and Decree
- vi. Provincial Regulation
- vii. Regulation Regency/City

Figure 3-4 shows the general regulation of PPP in the Presidential Decrees, which is at Level 5 of the hierarchy of regulation in Indonesia. The infrastructure sectorial regulation has been protected in Indonesian law, it is at Level 3 of the hierarchy of regulation in Indonesia. The sectorial infrastructure includes water, airport, sea port, railway, telecommunication, electricity, waste, and oil and gas, in Table 3-1.

Since the infrastructure sectorial regulation is at a higher level than the regulation of the PPP, it is therefore very difficult to develop inter-coordination between BAPPENAS, or the CA, and the sectorial institutions to arrange a mutual PPP infrastructure framework. Most of the sectorial infrastructures prefer that their

infrastructure be financed by fiscal budget. They are often reluctant to offer the infrastructure under their sectorial to be developed into PPP infrastructure projects.

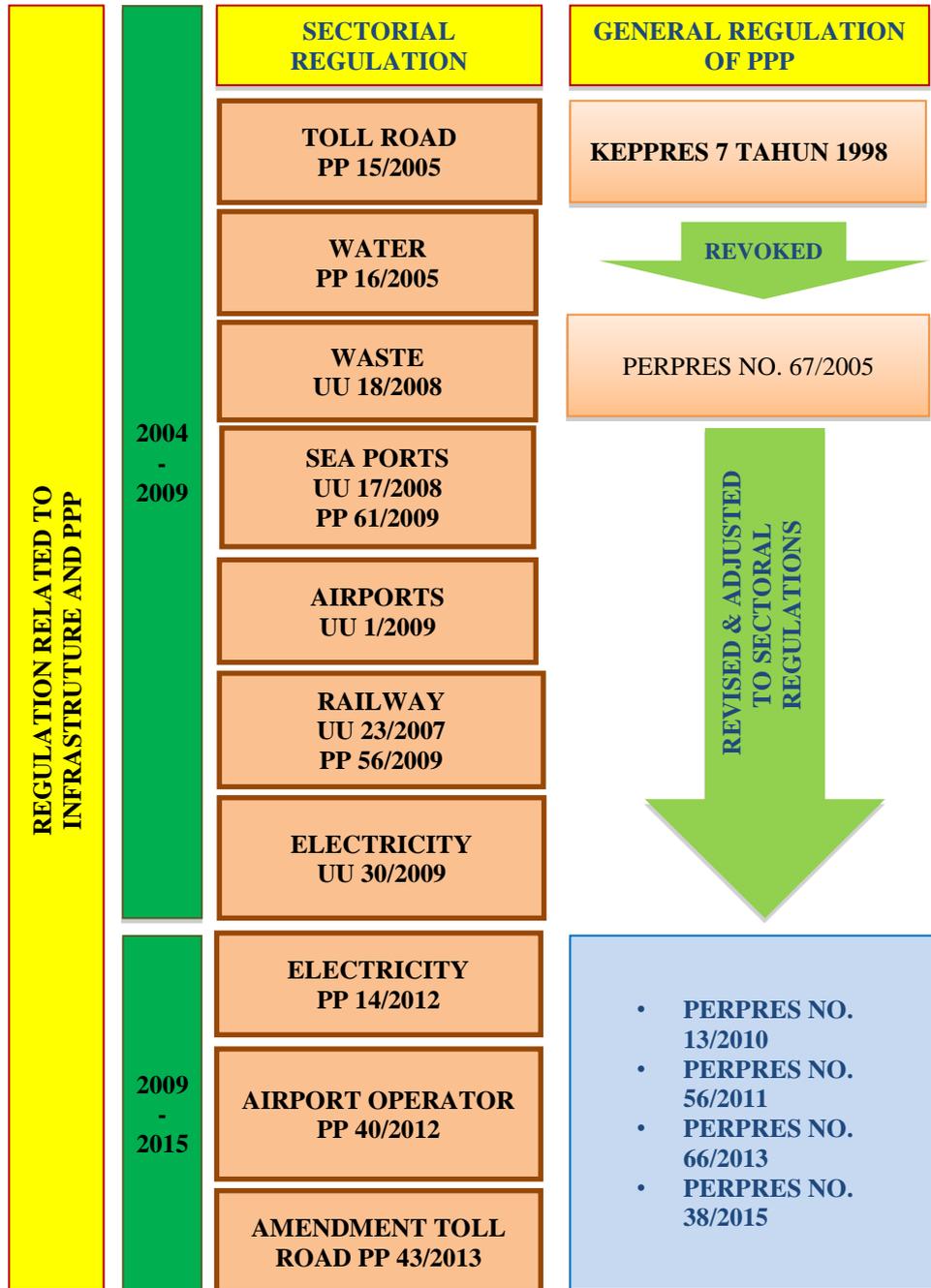


Figure 3-4: The existing hierarchy of regulations related to infrastructures and Public Private Partnership in Indonesia

Source: (Indra, 2011)

Table 3-1: Indonesia laws for the infrastructure sectorial departments

Infrastructure Sectorial Department	Indonesia New Laws
Telecommunication	Law Number 36/ 1999
Oil and Gas	Law Number 22/ 2001
Railway	Law Number 23/ 2007
Sea Transport & Port	Law Number 17/ 2008
Air Transport & Airport	Law Number 1/ 2009
Land Transport	Law Number 22/ 2009
Electricity	Law Number 30/ 2009
Water Resources	Law Number 16/ 2005, 7/ 2004
Waste Management	Law Number 18/ 2008

From Figure 3-4 and Table 3-1, it can be seen that there are some other specific sectorial policies too for several types of infrastructures in infrastructure provision that have been established. According to the latest infrastructure laws, for instance, the Toll Road Regulatory Body (BPJT) (Government of Indonesia, 2009b) and Port Authority (Government of Indonesia, 2008b) even though they are not acting as independent governing bodies, they do act as an economic regulator and contracting agency or landlord in their respective sectors.

Moreover, the same condition exists in the railway and airport sectors. In the rail sector neither economic regulator nor asset manager is stated in the railway law (Government of Indonesia, 2007b) and the airport sectorial is regulator and operator (Government of Indonesia, 2009d). In the electricity sector, the PT PLN is the only electric supplier (Government of Indonesia, 2009f). The law for waste disposal management is not yet optimized (Government of Indonesia, 2008c). In this situation, the independency of the institution is doubtful. As the regulator, the institution has vital regulatory tasks that include price control for (natural) monopoly and safeguarding the competitive climate. The competitive neutrality policy is not yet acknowledged in Indonesia. The role and involvement of SOEs in PPP procurement diverges across sectors. Therefore, it is problematic to be imposed fairly to service providers.

However, to take advantage in such specific situations, the exclusivity and domination of the SOEs that combine as regulator and operator, can be utilized to breakthrough and fasten the PPP infrastructure development for public provision. Occasionally, when a project is released from the list of PPPs procurement, rationalizations are often feeble and inherently politically. A straight selection to SOEs or private entities through Presidential Decree, such as Port Kalibaru (Government of Indonesia, 2012d) was viewed as against market-oriented policies as mandated in the infrastructure laws.

Electricity sector, PT PLN (Government of Indonesia, 2009f) has a role as the government contracting agency (GCA) in the recent Central Java power plant tender. Other SOEs, such as the Toll-Road Corporation (PT Jasa Marga) (Government of Indonesia, 2009b), the Telecommunication (PT Telkomsel) (Government of Indonesia, 1999), and Railway Corporation (PT Kereta Api) (Government of Indonesia, 2007b), are placed decently as service providers, i.e. with operational functions.

To support PPP infrastructure projects and increase effectiveness, they can be combined with public asset management and development. On utilizing state-owned asset under a brownfield PPP project, a new Government Regulation No. 27/2014 (Government of Indonesia, 2014a) was issued to replace Government Regulation No. 6/2006 (Government of Indonesia, 2006c). With this new amendment of the public asset regulation, there is a more flexible arrangement for utilizing state assets, for example, the term of the lease and the period of utilization are offered to attract more private involvement.

Another structural issue relevant to infrastructure development is the vertical and horizontal fragmentations with the government. After decentralization, also known as empowering autonomy, local governments play a bigger role in infrastructure development (Government of Indonesia, 2004c).

The position of public institutions as regulatory (Safety, Health, Environment) and reposition of landlord or CA as (independent) economic regulators are yet to be established. Similarly, SOEs function merely as service providers as authorized by

infrastructure laws, which need to be established too. In the case of a vertical restructuring of business, such as in the rail sector, asset ownership and management issues all essential to be explained prior to the formation of a new asset and partnership agreement.

However, for long-term planning to open and develop the competitiveness of PPP infrastructure provisions, there are institutional issues to be determined in the future.

Firstly, the recent PPP process, which is regulated by a Presidential Regulation that has been amended four times, is no longer convincing, and consequently needs to be replaced or upgraded. As the cycle of a PPP project is lengthy, starting from the planning and continuing until the assets are passed back/transferred to the government, the project may efficiently exceed the period of one or two governments or presidential office terms. To confirm consistency in PPP policy and to convince the potential private partners, it is necessary to upgrade the hierarchy up to a law or act level. It is better if the PPP are established based on the law and also in law as government budgeting (Government of Indonesia, 2004a). It is also important to evaluate the law for the infrastructure sectorial, which needs to be amended and placed below the PPP regulation.

The second point is in relation to the functions of the PPP agency in providing centralized information and a procedure to approve and to implement large-scale PPP programs. The PPP Centre attached to the Central Planning Agency (BAPPENAS) is now under development, while PPP nodes as the extension of PPP centre functions as CA are also being established in separate ministerial offices. The function of the PPP centres and PPP nodes are to provide a better focus on human resources capacity building, rather than become the owner of the PPP infrastructure project.

Thirdly, it is better for the function of the SOEs if it is set as the regulator, rather than the domination of the SOEs in infrastructure provisions. Therefore, the SOEs will not continue to dominate as regional players in infrastructure provision in Indonesia. This increases the opportunity for other private companies, which could absorb financing from more flexible and larger resources and can be accommodated

to develop the infrastructure as required. It is also better if the SOEs with the exclusivity of an easier to get guarantee from the government, are better to develop infrastructure with less financial feasibility.

3.4.3. PPP Infrastructure Project Selection Criteria

The criteria of prioritization for selecting PPP infrastructure projects in Indonesia since 2010 until 2015 was based on the progress of the projects that had been undertaken in preparation stage. The PPP infrastructure projects are listed in PPP Books. The PPP Book is prepared and published by BAPPENAS every year in accordance with the process of the government's Work Plan. The list consists of PPP infrastructure projects in three categories (Armida S. Alisjahbana, 2010, 2011, 2012; Armida S. Alisjahbana, 2013; Chaniago, 2015):

- i. Potential Projects
- ii. Prospective Projects (formerly known as priority projects)
- iii. Ready for Offer Projects

The infrastructure projects considered as Potential Projects have to meet several criteria in-line with the national and regional development plan and have a realistic estimation of land acquisition, environmental assessment and identification of the potential government support needed (Armida S. Alisjahbana, 2010, 2011, 2012; Armida S. Alisjahbana, 2013; Chaniago, 2015).

PPP infrastructure projects identified as Prospective Projects must have economic feasibility, and have conducted several studies, including financial study, cost benefit analysis, modality, legal study, technical study, risk assessment, government support identification, land acquisition and environmental studies (Armida S. Alisjahbana, 2010, 2011, 2012; Armida S. Alisjahbana, 2013; Chaniago, 2015).

The 'Ready for Offer' projects have to be ready and fully studied. The PPP infrastructure projects have to be financially and technically feasible. There are also other documents in support of the aforementioned documents that were prepared in the prospective stages and need to be completed. This includes completing the tariff structure which needs to be drafted, financial analysis, financial model, risk

allocation and mitigation strategy and the mechanisms for the provision of government support and/or guarantee must have been finalized (Armida S. Alisjahbana, 2010, 2011, 2012; Armida S. Alisjahbana, 2013; Chaniago, 2015).

In the criteria that have been set since 2009, most of the projects implemented are based on the demand from the CA and the CA’s ability to promote the PPP infrastructure projects in order to proceed in BAPPENAS. Most of the CAs are the provincial governments. The criteria are mostly based on the completed documentation; it appears that the earlier the CA start to promote the PPP infrastructure projects with BAPPENAS, the earlier it is listed for consideration in the listed projects. Therefore, a close relationship and negotiation between the government officers from the CA with BAPPENAS is very important.

The methodology for project selection needs to be improved. Previously the project selection criteria was based on the demand and proposals from CAs, that mostly are provincial governments. These projects are then integrated into national and regional planning. For future selection, it will be better if the PPP infrastructure projects are drawn from national planning, which considers the level of financial viability of the project and the ability of the respective community to afford the project.

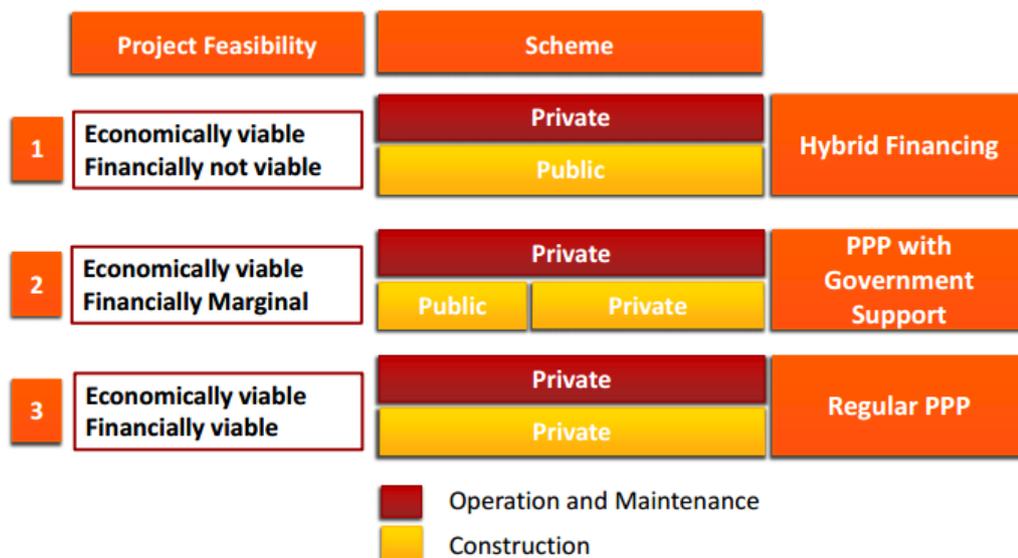


Figure 3-5: Financing alternatives of PPP infrastructure projects in Indonesia

Source: (Armida S. Alisjahbana, 2010, 2011, 2012; Armida S. Alisjahbana, 2013; Chaniago, 2015)

3.5. Existing Frameworks

The PPP books are published regularly by BAPPENAS containing detailed information pertaining to PPP infrastructure projects. PPP books also detail the information outlining the existing framework of regulation and project cycle. The existing frameworks that have been developed by the Indonesian Government are the frameworks for the policy, government institutions and project cycle.

3.5.1. PPP Institutional Framework in Indonesia

The main institutions that have been regulated are (Chaniago, 2015):

1. The Ministry of National Development Planning (BAPPENAS), which will decide which projects should be produced as PPP infrastructure projects.
2. The Ministry of Finance (MoF), which will make recommendation about the fiscal support to infrastructure projects.
3. Coordinating Ministry of Economic Affairs through Committee for Acceleration of Priority Infrastructure Delivery (KPPIP) (Government of Indonesia, 2014b), which has been planned to be the premier coordination institution at the top of the hierarchy. The KPPIP has a vital role in priority projects, starting from project selection and up to groundbreaking; KPPIP also has a role to coordinate related stakeholders.
4. Sectoral Ministries. Each sectoral ministry has a function to coordinate internal structural organizations to support the infrastructure development and related institutions within the sectoral ministries.
5. Public sector has established two financial instruments under MoF: (i) the Indonesia Infrastructure Guarantee Fund (IIGF); and (ii) the PT Sarana Multi Infrastruktur (SMI).
6. Government is expecting to create a Central PPP Unit (P3CU) to be accountable for confirming policy consistency, quality control, transparency, establishing standards and monitoring execution for compliance. This dedicated unit will be positioned under high-level political leadership and decision-making institution.

3.5.2. PPP Project Cycle Framework in Indonesia

The general project cycle in the PPP process in Indonesia involves several steps, which includes the planning stage, the project preparation stage and the transaction stage.

The PPP project cycle frameworks that have been developed in Indonesia have been differentiated into two types of proposals (Chaniago, 2015).

1. Solicited proposals, these have three phases:
 - i) Phase 1. Planning: identification and selection, prioritization.
 - ii) Phase 2. Project Preparation: development of the FS, including the outline business case and final business case.
 - iii) Phase 3. Transaction: procurement, contract signing and financial close.
2. Unsolicited proposals. The procedure for negotiating with unsolicited proposals generally follows two stages:
 - i) Stage 1. From the proposal presented to public sector until all internal valuations and endorsements are completed and the project is ready to be openly procured.
 - ii) Stage 2. A competitive procurement process. Approaches lean towards to offer different incentives or benefits to the original proponent of the projects.

There are several criteria for PPP projects selection. The list consists of three groupings:

- i) Potential projects require documents of the preliminary study and executive summary of preliminary study.
- ii) Prospective projects require documents of project preparation and executive summary project preparation.
- iii) Ready to offer projects require documents of pre-feasibility, executive summary of pre-feasibility study and in-principal approval for government support/guarantee (if required).

More detail of the phasing or project cycle framework has been explained in Chapter 3.3 above. However, the project cycle frameworks that are published in the PPP book has not yet considered the timeline of the construction process, the concession of operations and maintenance, and ending the concession by the transfer of assets, continuing the partnership, or terminating the agreement.

3.6. Complexities Involved in PPP Projects in Indonesia

The development of PPP infrastructure projects in Indonesia has faced several challenging situations in relation to the complex institutional and regulatory matters. The crucial defiance identified in this research are: (i) dealing with land acquisition; (ii) confirming coordination across various agencies, between central and sub-national governments and across different plans; and (iii) allocating in place infrastructure projects in a PPP framework.

3.6.1. Land Acquisition Complexity

Land acquisition is a legal act to obtain land of particular interests by providing compensation to the landowner (Government of Indonesia, 2012g). Land acquisition can be implemented in the form of a waiver of land, where land ownership changes, or of rights over land, which can be either a right to cultivate, land rights, or other rights of use. Various forms of land acquisition can be enacted in various ways, which in turn depends on the agreement of the parties. The price of land in Indonesia is based on the market price as offered by the landowners, it is not based on the land use that can be controlled by the government. Therefore, this land acquisition process is prone to conflict, resulting in land ownership disputes between communities, businesses, governments and even the middle-man or property agents.

There are significant problems in land acquisition for infrastructure provision, including:

1. Land Policies

Arrangements relating to land are generally regulated in Act No. 5 of 1960 on Agrarian Principles. The government has prepared Act No. 2 of 2012 on Land

Procurement for Development in the Public Interest (Law No. 2/2012) (Government of Indonesia, 2012g), and Presidential Decree No. 71 of 2012 on the Implementation of Land Procurement for Development in the Public Interest (Presidential Decree No. 71/2012) (Government of Indonesia, 2012e). A lack of clarification in regulation governing land acquisition and compensation to landowners has caused delays to infrastructure projects. Presidential Regulation No. 36/2005 on Land acquisition for Infrastructure Development was unproductive in supporting land acquisition for public purposes because the rules and procedures in the regulation were ambiguous in the face of a complex problem (Government of Indonesia, 2005c). In many other developing countries, it is not unfamiliar that many individuals entitlement the rights to land when that land is desired for a public project. Legitimate or illegitimate landowners also recurrently hold onto their land to benefit from an appreciation in value or increase their negotiating power. Thus investors in infrastructure, whether public or private, have to handle this obstacle before commencing the project, leading to higher costs and substantial delays. Land acquisition is one of the crucial issues behind the slow implementation of infrastructure projects in Indonesia, and perhaps also behind the disinclination of the private sector to capitalize on a large investment in this sector (Government of Indonesia, 2012g).

Land Acquisition Law No. 2/ 2012 (Government of Indonesia, 2012g) for Public Infrastructure and its related to Presidential Regulation bodes well define for addressing these challenges. Taking lessons from the 2005 regulation, it is more precise in most areas and can suggestively improve the procedures for obtaining land for public infrastructure. The changes contained in the Act No. 2 of 2012 allow that land acquisition is done in four stages, namely: (1) planning; (2) preparation; (3) implementation; (4) submission of results. The stages are outlined in this Act are not set out in the previous regulations. Areas of substantial enhancement contain the process for land valuation, the mechanisms for complaints, and the compensation for exaggerated or displaced individuals. For example, the new regulation explains particulars about the register of affected people and assets, the consultation process, the compensation and the dispute settlement. It also arranges a targeting time-frame for each of the acquisition stages and sub-stages, including the maximum time that a court may take to resolve disputes related to land acquisition. The new land law and presidential regulation are intended to advance the clarity and transparency of the

land acquisition process, and reinforce public assurance in the government's efforts to advance the infrastructure development.

2. Execution of Land Acquisition

In the process of execution of land acquisition there is information of sometimes overlapping land ownership. For example, the measurement and publication of a map plot by the Land Office is often late, this case have been discussed in open workshops, so the activities of others may also be delayed because the measurement results are the basis for the next activity, such as:

- Preparing documents of land ownership requires a long time.
- Splitting or transferring ownership certificate of land that has been bought taking long time.
- Coordinating between the relevant agencies involved in the process of land acquisition (regional governments, land office and others).

3. Funding Land Acquisition

Special funding allocated by the government for land acquisition for PPP projects are not adequate as regards the planning and the actual situation on the site. On the other hand according to the Minister of Public Works No. 02/PRT/M/2011 (Government of Indonesia, 2011b), government support has been available as land capping, that will be given if the land acquisition costs to be borne by enterprises is greater than the cost of land acquisition in the concession agreement of 110%. In accordance, the Ministry of Finance Decree allocated Rp.4.89 trillion (USD 370 million) in 2008-2013 to 28 toll roads. However, the use these funds so far has only been about Rp.1.6 trillion (USD 130 million) as a result of the slow progress of land acquisition. Current situation in 2016, to extend the implementation on the land acquisition, the Government of Indonesia also has issued the Perpres No. 102 Year 2016 (Government of Indonesia, 2016b) that the Government of Indonesia will prioritize the fiscal budget for land acquisition for infrastructure projects in list of Strategic National Projects (PSN) (Government of Indonesia, 2016a) that will be managed by BLU LMAN (Government of Indonesia, 2015a) effectively started in 2017. The Government of Indonesia has placed fiscal budget around Rp.30 trillion (USD 2.3 billion) up to 2017.

3.6.2. Complexity in Coordination Issues

Synchronization across different ministries and levels of public sectors have also been a crucial bottleneck to infrastructure development that has been discussed in many seminars, workshop and conferences. Indonesia has transitioned from a system in which infrastructure was prearranged and executed at the central level to a system in which infrastructure planning and implementation involve stronger coordination between central and local governments. Considering decentralization in 2001, sub-national public sectors have assimilated major responsibilities, and now play a role in managing provincial and district infrastructure networks, for example, provincial and district roads now account for over 80% of Indonesia's total road networks. Thus any project cutting across district lines requires lengthy consultations, discussions and coordination. Moreover, the numerous infrastructure development strategies at the central, provincial and district levels are not mutually consistent yet.

To overcome the complexity of coordination, in 2011 the central government has attempted to coordinate the entire national plan by establishing an Economic Corridor. The first phase of enactment of the MP3EI aims to integrate different national, regional and sectorial (one-dimensional) plans into a single integrated roadmap for action. To strengthen national connectivity, components from four different government plans will be integrated: (i) the National Logistics System (Sislognas); (ii) the National Transportation Systems (Sistranas); (iii) the National and Regional Development Plans (RPJMN and RTRWN); and (iv) the Information and Communication Technology plan. In order to warrant its realization, it is presided by the President so as to improve effectiveness in coordination, monitoring, evaluating, and strategic decision-making (Government of Indonesia, 2011c; Yudhoyono, 2011).

In the new Presidential Cabinet, 2015-2019, the MP3EI has been the foundation of the integration of the government institutions and is to be developed into the new government program known as the Nawa Cita. To accelerate the progress, the KPPIP (Government of Indonesia, 2014b) is the new institution under the Coordinating

Ministry of Economic Affairs that has mandate to coordinate debottlenecking any issues amount of the government institution.

3.6.3. Complexity in developing a PPP Framework

The coordination issues, land acquisition issues, and regulation issues have led to an increase in complexity. In the same time, Indonesia has insufficient PPP experts who could assist the governments in preparing the PPP infrastructure project developments. Thus, the complexities of processes in PPP infrastructure project preparation could result in suboptimal PPP framework scenarios. Developing PPP framework for infrastructure projects in Indonesia involves peculiar complexity:

- Complexity in the planning stage arises when attempting to integrate the infrastructure projects between regional and national planning.
- Complexity in preparation of the project arises when preparing the budget in project developments whether budgeted from regional or central fiscal.
- Inadequate PSC conducted. The financial model resulting from Pre-Feasibility Study or Feasibility Study is sometimes miss managed in budgeting and when creating the PPP framework.
- Most of the PPP projects tend to have low viability that will require government supports or fiscal budget support.
- There is less experience in handling low viability PPP projects successfully.
- Complexity in obtaining the government support from central government.
- Less experience to optimize the local government supports, such as public asset contributions and regional fiscal budget contributions.
- Complexity in obtaining tax incentives.

3.7. Current Policy supporting the Infrastructure Development in Indonesia

With consideration in order to accelerate the implementation of the infrastructure program, the government decided to make changes both to Government Regulation (*Peraturan Pemerintah = PP*) No. 29 Year 2000 (Government of Indonesia, 2000) on the Provision of Construction Services, as amended by Government Regulation

No. 59 Year 2010 (Government of Indonesia, 2010a) regarding Amendment to Government Regulation No. 29 Year 2000 on Provision of Construction Services. On that basis the government has signed Government Regulation No. 79 Year 2015 (Government of Indonesia, 2015b) concerning the Second Amendment to the Government Regulation No. 29 Year 2000 on Provision of Construction Services.

Changes in PP emphasizes that the selection of a construction planner and construction supervisor is by direct appointment and it would be valid for several reasons, for example the reason of emergencies, a complex job, a job that needs to be kept confidential as a matter of national security, and small-scale important government construction work, and the infrastructure construction work which is being commissioned by the government to state-owned enterprises (SOEs).

Direct appointment of contractor applies to a job that is assigned to the state-owned enterprises. State-owned companies which are recipients of the assignment can only make direct appointments to another state owned or subsidiary of a state-owned enterprise to carry out direct appointments, they could appoint other State Owned Company or its subsidiaries to work together to create integrated services.

To support the amendment of the Government Regulation No. 79 Year 2015 (Government of Indonesia, 2015b), the appointed regulation to SOEs has been established in president decree (PerPres), there are several PerPres that has been issued in 2014 and 2015.

Table 3-2: The lists of President Regulations to appoint SOEs to accelerate infrastructure development

No.	Perpres	Year	SOEs	Appointed Tasks
1	83	2011	PT. Kereta Api Indonesia (KAI)	To accelerate the development of railway system of the Soekarno-Hatta airport to Jabodetabek corridors (Government of Indonesia, 2011e)
2	36	2012	PT. Pelabuhan Indonesia II (Pelindo II)	To develop and operate the expansion of hub port, the terminal Kalibaru, Tanjung Priok hub port, Jakarta (Government of Indonesia, 2012c)
3	100	2014	PT. Hutama Karya (HUTAMA)	To accelerate development of four corridors of toll road in Sumatra (Government of Indonesia, 2014c)

No.	Perpres	Year	SOEs	Appointed Tasks
4	98	2015	PT. Adhi Karya (ADHI)	To acceleration the light rail transit delivery in Jabodetabek region (Government of Indonesia, 2015d)
5	99	2015	Province DKI Jakarta State Owned Company	To accelerate transportation delivery base on the railway services in Jakarta (Government of Indonesia, 2015e)
6	107	2015	PT. Wijaya Karya (WIKA) and the SOEs Consortium	To accelerate the high speed train delivery from Jakarta to Bandung (Government of Indonesia, 2015f)
7	116	2015	PT. Waskita Karya (WASKITA) and PT. Kereta Api Indonesia (KAI)	To accelerate the light rail transit delivery in South Sumatra Province (Government of Indonesia, 2015g)
8	117	2015	PT. Hutama Karya (HUTAMA)	The amendment of the Perpres No. 100 2014 to develop toll road in Sumatra island from 4 corridors into 8 corridors (Government of Indonesia, 2014c) (Government of Indonesia, 2015h)

Through president's decrees, it is expected to reduce the uncertainty in the political risks and to reduce the complexity of inter-coordination of the government institutions.

However, these presidential decrees still do not consider the financing capacity of the SOEs to execute the infrastructure projects.

Therefore on top of that, the Government of Indonesia has established another president decree (PerPres), which allocates the arrangement of financing from the fiscal budget to SOEs, which have an obligation to deliver an infrastructure project. The regulation is the Perpres No 82 Year 2015 (Government of Indonesia, 2015i).

Presidential Decree No. 82 of 2015 (Government of Indonesia, 2015i) allocated Government Guarantees on central government Infrastructure Financing through Direct Loans from the International Financial Institutions (IFIs) to SOEs. This regulation is set to support the acceleration of the provision of national infrastructure in terms of funding infrastructure projects provided by the state-owned enterprises (SOEs).

In the short-term, it will continue to empower the state owned companies to build the prioritized infrastructure. In the preparation stage for PPP infrastructure projects to be conducted by the state-owned enterprises/regional (state/local enterprises), there are some current attempts to mobilize funds through banks and the market portfolio as follows:

- 1) Perform a direct loan from the international multi-donor (World Bank, ADB, etc.).
- 2) Utilize financial support from the PT. IIF / PT. SMI.
- 3) Government Equity Investment (PMP).
- 4) Issuance of bonds/infrastructure bonds.
- 5) Through the Initial Public Offering (IPO) in the stock market.
- 6) Make a loan from private banks/state/local enterprises and Development Bank (necessary to study possibilities).
- 7) Mobilizing the use of insurance and pension funds.
- 8) Monetize natural resources and develop sovereign guarantee.
- 9) The combination of items 1-8.

And it is necessary to establish a Property Asset Management-PAM (property asset management around the area of infrastructure that will be developed) in a TOD or TJD concepts to be bundle and to leverage the performance of the infrastructure projects overall. The TOD and TJD are explained in Chapter 6, the case study. PAM is done to obtain the benefits of the increase in land price value that can be used for a partial refund of infrastructure investment.

In line with current PPP development methods worldwide, Indonesia could establish a presidential regulation to adopt Project Delivery Partnership (PDP) and Service Delivery Partnership (SDP) as the national regulation to accelerate infrastructure delivery. This would be achieved by appointing certain institutions to execute specified infrastructure projects with transparency and fairness. The PDP and SDP are explained in the quantitative analysis in Chapter 5.

3.8. Summary

The Government of Indonesia has a significant role in regional and global affairs. The economic growth of Indonesia is higher compared to other regional countries in the last five years, the economic growth of Indonesia around 5-6% per year, even though in 2015 the growth decreased to 4.7%. It is still believed that infrastructure provision is one of the priorities of national development plan to support Indonesia's economic growth.

The Government of Indonesia has allocated a fiscal budget to build the infrastructure. It is calculated that the fiscal budget will only settle about 30% of the total infrastructure investment needed, 30% is expected to be financed by SOEs and the other 40% will be financed through the PPP financing mechanism. In a review of past achievement with PPP's, these will pose encounters to all infrastructure industry in the country, not only on how to find alternative source of funds to fill the funding gap, but also a technical issue on how PPP projects are best structured and priced in order to attract more private capital.

One of the main challenges in Indonesia is to make these institutional mechanisms operate and well-coordinate (including developing detailed operational procedures to implement government support, including provisions of VGF). This accomplishment would lead a significant indicator to investors and, combined with efforts to handle land acquisition and coordination issues, would improve the public and private sector's assurance to contribute in infrastructure development.

The regulations in Indonesia relating to PPP developments are mostly in the format of presidential decree, while many other sectorial infrastructures have been protected in government laws. The PPP policy is lower than that the sectorial infrastructure policies in regulation hierarchy in Indonesia, which is likely the reason for the more complex inter-coordinating between government institutions.

Methods of project selection need to be improved. Previously the section project criteria were based on the demand need that depended on the proposals from CAs,

which are mostly Provincial Governments and Sectorial Ministries. The proposed projects are then integrated to national and regional planning. For future selection, it will be better if the PPP infrastructure projects are drawn from national planning which we have considered the level of financial viability and the affordability of the respective community.

The acceleration of infrastructure project delivery by appointment to SOEs has been considered a step in the right direction. Through presidential decrees, it could reduce the uncertainty in the political risks.

Three types of complexity in the implementation of PPP infrastructure schemes that have been experienced are the land acquisition, coordinating amount of government institutions and placing the project in the appropriate PPP framework. To increase the participation of the private sector in PPP infrastructure projects, updating and improving the PPP policies is still continuing. Therefore, there is a real need to conduct this research, to develop a framework to minimize the complexity, and to improve the PPP delivery in Indonesia.

Significant key findings regarding PPP in Indonesia are:

- 1) PSC, which is common practice in infrastructure preparation assessment conducted by public institution, is not regulated in Indonesia.
- 2) Pre-2015, PPP infrastructure planning was still driven by the demand of the Contracting Agency (CA). In the current situation, from 2015 onwards, the infrastructure projects have been derived from Nawa Cita National Program Plans.
- 3) Infrastructure investment needs up to 2019 have been estimated at nearly Rp.4.796 trillion, to support the infrastructure development. The Government of Indonesia (GOI) has arranged the national budget to cover nearly 30% of estimated investment needs, 34% would be from SOEs and another 36% from PPP scheme cooperation.
- 4) There are some complexities that the process of PPP infrastructure project delivery in Indonesia faces. Several of the key complexities are land acquisition, inter-coordination amount government institutions and placing PPP infrastructure projects in proper frameworks.

- 5) By regulation hierarchy in Indonesia, PPP policies are at the level of presidential regulation, which is lower than legislation than previously. This has made the coordination of government institutions, and quick decision-making, difficult to achieve.
- 6) Current policies have emphasized the SOEs to play key roles to accelerate the infrastructure developments.
- 7) Several supporting policies that are appointed to SOEs to execute the infrastructure project delivery have been established.
- 8) New policies to support infrastructure delivery need to be studied and place in the government agenda.

The literature synthesis has unveiled the significance need to develop PPP frameworks for Indonesia to support the allocation and distribution of risks in decision making in order to select the most appropriate form of leverage method for PPP infrastructure projects to assist the acceleration of financing scheme for infrastructure projects. Therefore, the subsequent phase of the research attempts to addressing this need.

CHAPTER 4

RESEARCH METHODOLOGY

4.1. Introduction

In Chapter 2, many types of PPP financing schemes that have been developed and utilized worldwide have been discussed. Specifically, in Indonesia, there has been a low level of success in executing PPP infrastructure projects. Therefore, the aim of this study was to develop robust frameworks to assist placing the PPP infrastructure delivery projects in the suitable PPP framework, and to support investment decisions for infrastructure projects with PPP financing mechanisms in Indonesia. The research methodology was developed to attain the aim and objectives of this study.

Prior to the development of the research methodology, it was found crucial to discuss the philosophical stance in dealing with the infrastructure financing in PPP schemes. This was followed by carefully designing the appropriate research methods for collecting and analyzing data. This research leans towards the epistemological stance of postpositivism, aiming to expand the knowledge of PPP and infrastructure financing. The reasoning applied was a mix of deductive and inductive. The quantitative data have been analyzed using explanatory factor, the one-way analysis of variance (ANOVA) and the Mann-Whitney U test. Following deductive reasoning, the qualitative data was analyzed using content analysis to bring together the wide range of conceptualizations and reasoning of the interviewed experts. Also supplement the analysis, a participant observation in a case study was conducted in an ongoing infrastructure PPP project case study in Indonesia. Creswell (2009) has identified that the strategy in selecting research methodology typically involves qualitative, quantitative and/or mixed methods designs that influence the selection of path for procedure in a research design. The data collection in this research has been facilitated by the use of questionnaire, semi-structure interviews and case study with participant observation.

4.2. Philosophical Stance of the Research

In the Curtin University system, this research on infrastructure financing was undertaken through the School of Built Environment and the Department of Construction Management. Love et al. (2002) have discussed the positioning of construction management in philosophical discourse. Research in construction management can be categorized as being at the intersection of natural science and social science (Love, Holt, & Li, 2002). Construction management is multi-disciplinary in nature, so its research draws heavily on theories that have been developed in relation to other disciplines (most notably for example, economics, sociology, psychology and law).

Research methodology refers to the principles and procedures of logical believed processes which are practical to scientific investigation (Fellows & Liu, 1997; Guba & Lincoln, 1994; Sutrisna, 2009), which typically involves ontology and epistemology. It is typically accepted that ontology expresses the thought of “what is?”, whilst epistemology goes to seek what it means to understand (Gray, 2012). In ontology, the two most common stances are objectivism and constructivism. Objectivism is an ontological stance that emphasises that phenomena and their meanings have an existence independently from the researchers. The constructivism is a different ontological stance that emphasises that phenomena and their meanings are continuously being finalized by the researchers (Guba & Lincoln, 1994; Sutrisna, 2009). The Public Private Partnership in infrastructure financing explained in Chapter 2 and Chapter 3 have been studied by previous researchers. This research leans towards constructivism since the body of knowledge such as PPP scheme that is heavily influenced by the government’s policies and the micro and macro economy of a given country was constantly interpreted by different actors with the view to finding the best fit in financing infrastructure development.

Epistemology is concerned with the claims of what is presumed to happen can be identified by the knower or to-be-knower (Guba & Lincoln, 1994; Sutrisna, 2009). Epistemology looks at the theory of knowledge, especially with regard to its methods, ‘validation’, and the thinkable ways of obtaining knowledge in an presumed reality. The most frequently practiced example of epistemological

positions is positivism vs. interpretivism. Positivism is an epistemological stance that promotes the application of approaches of natural science to the research and beyond, i.e. the objective truth is out there to be revealed (by the researcher). Interpretivism is an epistemological stance that “segregate” the objectivity of natural science from the actors, the researchers/observers somehow interpret the reality based on individual’s own truth in observing the world. Therefore, an interpretivist believes that the reality can only be interpreted whilst a positivist have faith in that reality can be observed, studied and even ‘modelled’ (Guba & Lincoln, 1994). There are positions other than the positivist and the interpretivist. Guba and Lincoln (1994) conceptualized four elementary paradigms as belief systems based on the philosophical expectations of ontology and epistemology to view the world and how it should be premeditated and understood. These fundamental paradigms are recognized as Positivism, Post-positivism, Critical Theory and Constructivism, as presented in Table 4-1.

Table 4-1: Basic beliefs (metaphysics) of alternative inquiry paradigms, this study tends to postpositivism

<i>Item</i>	<i>Positivism</i>	<i>Postpositivism</i>	<i>Critical Theory et al.</i>	<i>Constructivism</i>
Ontology	Immature realism – “real” realism but apprehendable	Critical realism – “real” realism then only incorrectly and probabilistically apprehendable	Historical realism – virtual reality shaped by social, political, cultural, economic, ethnic, and gender values; crystallized over time	Relativism – local and specific constructed realities
Epistemology	Dualist/ objectivist; finding true	Modified dualist/ objectivist; critical tradition/ community; findings probably true	Transactional/ subjectivist; value-mediated findings	Transactional/ subjectivist; created findings
Methodology	Experimental/ manipulative; verification of hypotheses; chiefly quantitative methods	Modified experimental/ manipulative; critical multiplism; falsification of hypotheses; may include qualitative methods	Dialogic/ dialectical	Hermeneutical/ dialectical

Source: (Guba & Lincoln, 1994)

Constructivism is grounded on relativism, that is where reality are considered apprehendables in the shape of multiple, intangible rational constructions. Socially

and experiential constructions are not more or less “true”, in any absolute sense, but basically more or less knowledgeable and/ or sophisticated. Constructed realities are adaptable, as are their related to realities (Guba & Lincoln, 1994). Therefore, Constructivism is distinguishable from the other paradigm as it is directed by relativism whereas the others are directed by numerous form of reality.

Referring to this explanation above, and Table 4-1, the research of infrastructure financing in this study was epistemologically perceived from the postpositivism paradigm. The PPP financing mechanism itself can be considered as a tangible and objective entity, but the knowledge behind the development and the subsequent implementation relies heavily on the interpretation of its actors. This research was informed by the basic knowledge of the PPP financing mechanism and infrastructure projects that has been explained in Chapter 2.

4.2.1. The Reasoning of Research

There are two common methods to reasoning which may effect in the achievement of new knowledge (Hyde, 2000):

- Inductive reasoning can be considered building progression, initiating with observations of particular examples, and looking for to increase understanding, and in some cases establish generalisations, about the phenomenon under study. Inductive researchers conduct data collection and analyse data to finding out the results whereas optimize the recent form of knowledge to advise their data analysis when they find it as appropriate.
- Deductive reasoning classically begins with generalisations, and pursues to see if these generalisations occur to particular cases. Deductive researchers comprise hypothesis grounded on the recent form of knowledge and then collect data collection and analyse data to assess the hypothesis.

The major distinction between deductive and inductive study are on how to enhance of the recent body of knowledge and the role of their data collection. Inductive and deductive processes, nevertheless, should not be considered mutually exclusive (Gray, 2012).

The conventional opinion is that qualitative researchers typically subscribe to a relativist paradigm, whereas quantitative researchers to positivist paradigm (Guba & Lincoln, 1994). The epistemological paradigm considered in this research is postpositivist (Guba & Lincoln, 1994; Hyde, 2000), which would develop generalisation from the in-depth study of individual perceptions, derived from the quantitative individual data collected from questionnaires and followed by individual expert interviews. Referring to Love, Holt and Li (2002), in regard to the reasoning of construction management, the two methods that seem to lead the study of construction management are the interpretivist (in some cases this may be considered as phenomenological) method and the positivist approach.

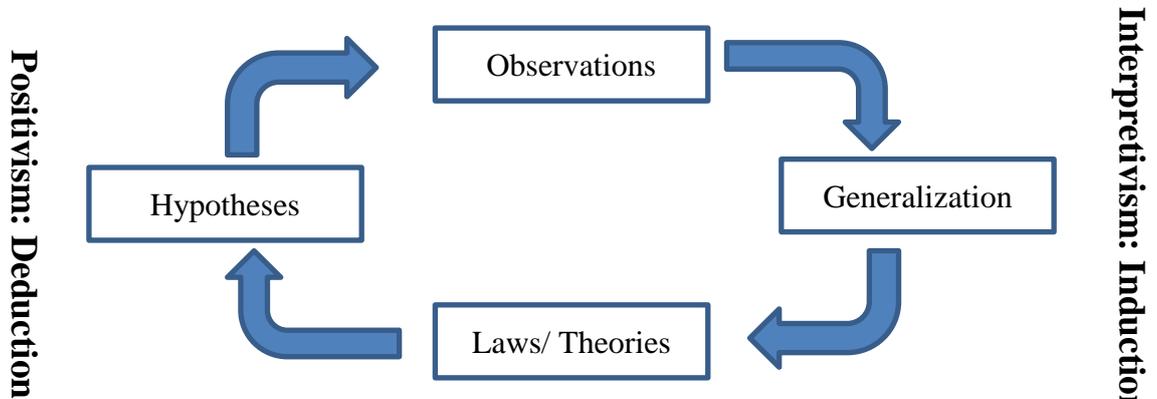


Figure 4-1: Elementary beliefs (metaphysics) of alternative inquiry paradigms

Source: (Gray, 2012; Love et al., 2002)

Additionally, positivism places an stress on facts as segregated from values or meanings, and the use of logical technique in which theory is deduced as a result of formalizing and examining hypotheses (Hughes, 1980). This method is seen as capable of identifying cause-and-effect through the constant conjunction of events, effecting in what has been named the covering law orthodoxy (Popper, 1959). This orthodoxy is fundamentally dedicated to the chase of clarifications in form of common principles. Whereas, the reasoning behind interpretivism by induction is conducted from precise observations data, but not necessarily in quantitative to universal laws (see Figure 4-1 above) (Gray, 2012; Love et al., 2002).

Referring to Glaser (1978), the inductive research proposes to study about the phenomena enquiry by placing a less-structured method to obtain a better-off and profounder understanding. As a substitute of formalizing a hypothesis, inductive

researcher effort to retain their attentions exposed for any thinkable finding at the same time as suggesting a set of further steps for data collection in an attempt to answer the phenomena in question. In specific methods, for example the grounded theory methodology, the literature study is not even suggested in the initial phases so as to reduce any presuppositions (Glaser, 1965). Observation based on the data collected needs to be conducted to develop explanations and theories

On the other hand, Loose (1993) puts more attention on deductive research as a way of thinking that governs the development of a conceptual and theoretical structure before to its experimenting with empirical observation. It general understanding in the collection and subsequent analysis, quantitative data needs quantitative analytical methods and qualitative data needs qualitative analytical methods. Quantitative methods require collecting numerical data to establish connections based on the evidences. Examining quantitative data can potentially produce quantified results and conclusions resulting from evaluation of the results be the new idea of theory and literature (Fellows & Liu, 1997). Referring to Easterby-Smith et al., (1991) in Hyde (2000), the conventional view is that quantitative examination scrutinizes data which contain numbers, whereas qualitative investigation observes data which are mostly narrative (Hyde, 2000).

On the other hand, in many instances of inductive studies, research commences with an inductive phase of investigation prior proceeding to theory. Operating beyond theory trial and scrutiny, the researcher is able to pursue inductive insights and interpretation in the study. On contrary, the deductive reasoning directs to the formulation of hypothesis and its testing, i.e. the hypothesis is confirmed, refuted or modified. These hypotheses deliver a statement about concepts that attempts to clarify the relationship between them. Concept itself is an intangible thought that shape the structure blocks of hypotheses and theories (Gray, 2012).

Drawing understanding from the explanation above, this research started off by applying deductive approaches, which developed the hypothesis of the significant parameters that would influence the decision making on infrastructure investment projects. This was followed by accepting an inductive approach to develop and

finalise the framework. The data collected in this research includes quantitative and qualitative data.

4.2.2. The Positioning of this Research

Following on from the ongoing discussion, there are practical implications of the paradigm stances previously discussed (Guba & Lincoln, 1994), as presented in Table 4-2 below.

Table 4-2: Paradigm positions on designated research issues

Issue	Positivism	Postpositivism	Critical Theory et al.	Constructivism
Inquiry aim	Explanation: prediction and control		Critique and transformation; restitution and emancipation	Understanding; reconstruction
Nature of knowledge	Verified hypotheses established as facts or laws	Nonfalsified hypotheses that are probable facts or laws	Structural/historical insights	Individual reconstructions coalescing around consensus
Knowledge accumulation	Accretion – “building blocks” adding to “edifice of knowledge”; generalizations and cause effect linkages		Historical revisionism; generalization by similarity	More informed and sophisticated reconstructions; vicarious experience
Goodness or quality criteria	Conventional benchmarks of “rigor”: internal and external validity, reliability, and objectivity		Historical situatedness; erosion of ignorance action stimulus	Trustworthiness and authenticity and misapprehensions
Values	Excluded – influence denied		Included – formative	
Ethics	Extrinsic; tilt toward deception		Intrinsic; moral tilt toward revelation	Intrinsic; process tilt toward revelation; special problems
Voice	“Disinterested scientist” as informer of decision makers, policy makers, and change agents		“Transformative intellectual” as advocate and activist	“Passionate participant” as facilitator of multi-voice reconstruction
Training	Technical and quantitative; substantive theories	Technical; quantitative and qualitative; substantive theories	Resocialization; qualitative and quantitative; history; values of altruism and empowerment	
Accommodation	Commensurable		Incommensurable	
Hegemony	In control of publication, funding, promotion, and tenure		Seeking recognition and input	

Source: (Guba & Lincoln, 1994)

To help the positioning of this study, the general relationship between epistemology, research theory, and methodology is presented in the following figure:

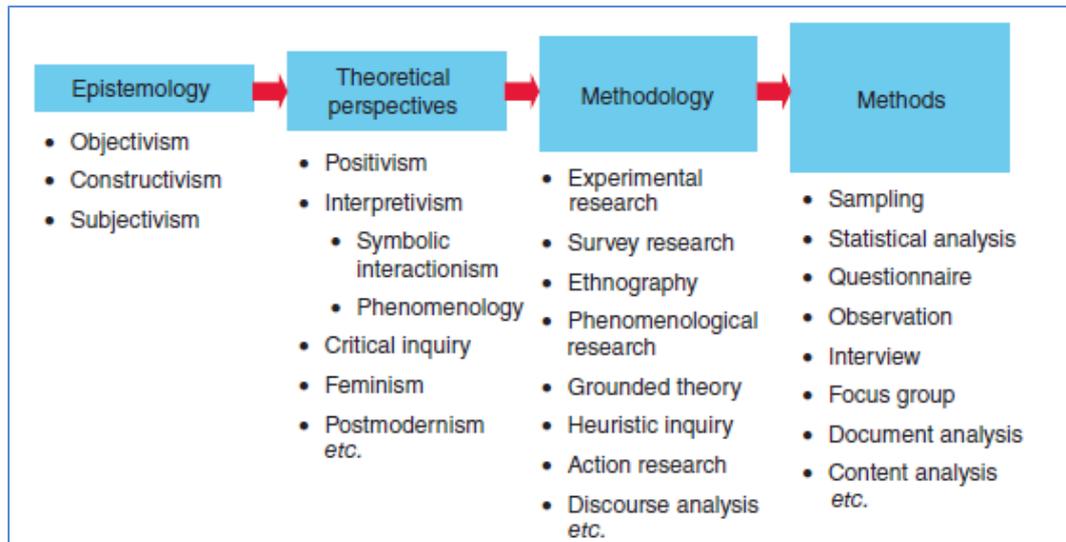


Figure 4-2: Relationship among epistemology, theoretical perspectives, methodology and research methods, adapted from Crotty, 1998

Source: (Gray, 2012)

As explained by Kinner and Taylor (1996), in Yin (1994), it has been established that the basis for analytical generalization in quantitative study is numerical generalization; a probability selection method to take a sample of elements, a sample which permits estimation of the properties of the population of interest with a known degree of accuracy (Yin, 1994). In qualitative research, the researcher’s goal is typically to advance and expand theories, not to create the regularity with which a phenomenon is likely to happen in a population (Wilson & Vlosky, 1997). To complement the quantitative data, therefore, mixed research also includes the qualitative data. The data for a qualitative research can contain transcripts of in-depth interviews, observations or documents (Patton, 2002). Qualitative examination in many cases is contextualised using case study(s). A case study is an in-depth research of a specific event of a phenomenon. The case study selected in this research was based on an internship in a government institution, and focused on an ongoing PPP infrastructure project in Indonesia.

4.2.3. The Positioning of Research Methodology

The research reasoning and positioning of this research is presented in Figure 4-3. Each of the components in the research designs involves an in-depth consideration of philosophy, strategies of inquiry, and hence the use of specific methods.

Ontologically speaking, this research leaned towards constructivism in that the knowledge is continually developed from the actors' perspectives in order to understand important rules of financing mechanism to secure the return of investment for infrastructure projects. Furthermore, at the epistemology level, this research was leaning closer to postpositivism. The reasoning approach was then influenced by postpositivism and combined the deductive and inductive to implement a mixed methods in the form of triangulation approach.

The research commenced with quantitative data collection. The quantitative procedure of examination supports a way of searching at study that respects the inductive style, an attention on specific sense, and the significance of interpreting the complication of the questionnaire that was developed. The quantitative researchers take presumptions about examining theories deductively, structuring in protection counter to bias, monitoring for another clarifications, and generalizing and replicating the outcomes. Quantitative data offers a more general understanding of a problem, and that understanding arises from evaluating many people and measuring feedback to a few variables. This was followed by qualitative data collection in the form of semi-structured interviews and participant observation in a case study, acknowledging that understanding rises out of learning from the key players and reconnoitering their perspectives in depth.

Creswell (2009) identified that the strategy of inquiry can be qualitative, quantitative or mixed methods designs that offer particular path for procedure in a research design. They were in some cases also known as approach to examination or research methodologies (J.W. Creswell & Clark, 2007). Mixed methods research is an approach to review that joining or connecting both qualitative and quantitative data collection. The use of qualitative and quantitative methods and the mixing of both approaches simultaneously or successively permit the complete strength of a research to be bigger than either only qualitative or quantitative study (J.W. Creswell & Clark, 2007).

Epistemology	Objectivism	Ontology-Constructivism	Subjectivism
Theoretical Perspectives (Reasoning)	Positivism	Postpositivism 	Interpretivism
Research Approach (Positioning)	Deductive	Mix Methods 	Inductive
Research Methodology	Experimental Survey	Case study, Action survey 	Grounded theory, Ethnography, Heuristic inquiry
Data Collection Methods		Sampling Questionnaire Secondary data, Observation, Interviews	

Figure 4-3: Summary of philosophy, reasoning, and positioning for the research

Table 4-3: Outline of quantitative, mixed and qualitative approaches

QUANTITATIVE	 MIXED 	QUALITATIVE
Pre-determined Instrument based question	Both pre-determined and emerging methods	Emerging methods Open-ended questions
Performance data, attitude data, observational data	Both open- and closed- ended questions	Interview data, observation data, document data and audio-visual data
Statistical analysis Statistical interpretation	Multi forms of data drawing on all possibilities Statistical and text analysis Across databases interpretation	Text and image analysis Themes, patterns, interpretations

As mixed or multi methods were selected, both quantitative and qualitative approaches and methods are considered. Tashakkori (2007) saw the appearance of mixed methods as a third approach, being different from the positivist perspective of quantitative study, and the constructivist perspective of qualitative study on the other (Tashakkori & Creswell, 2007). A benefit of applying a mixed methods approach is its ability to permit triangulation. Triangulation pursues convergence, corroboration and correspondence of outcomes from the diverse approaches. The data collection, as the extension of mixed methods, used sampling questionnaires, interviews and a case study with participant observation, and at the same time collected secondary data.

4.3. Data Collection

This section outlines how the methodology employed in the research study was developed. It begins with presenting the development of the research framework. The methodology is developed to reach the aim and objectives of this study. To achieve the objectives, the research framework is presented in Figure 4-4. The first stage in data collection was understanding the fundamental theory and previous research through the literature reviews to select related parameters that were identified from literature reviews, and this was followed by developing the questionnaire surveys for quantitative data collection. The second step is the use of semi-structured interviews as the qualitative data collection technique to strengthen the quantitative data results an observation within a case study has been conducted in parallel during the research data collection period.

Before developing a questionnaire and administering the survey, as part of the ethics procedure, a clear consent form was developed for contributors to sign earlier before they engaged in the study. The consent considers several points as follows:

- the method of how participants were selected
- the objective of the study
- the advantages for contributing
- the level and type of participant contributed
- inform of risks to the participant
- provide guarantee of confidentiality
- inform that the participant can withdraw at any time.
- able to provide name of persons (the researcher and main supervisor) to contact if questions arise

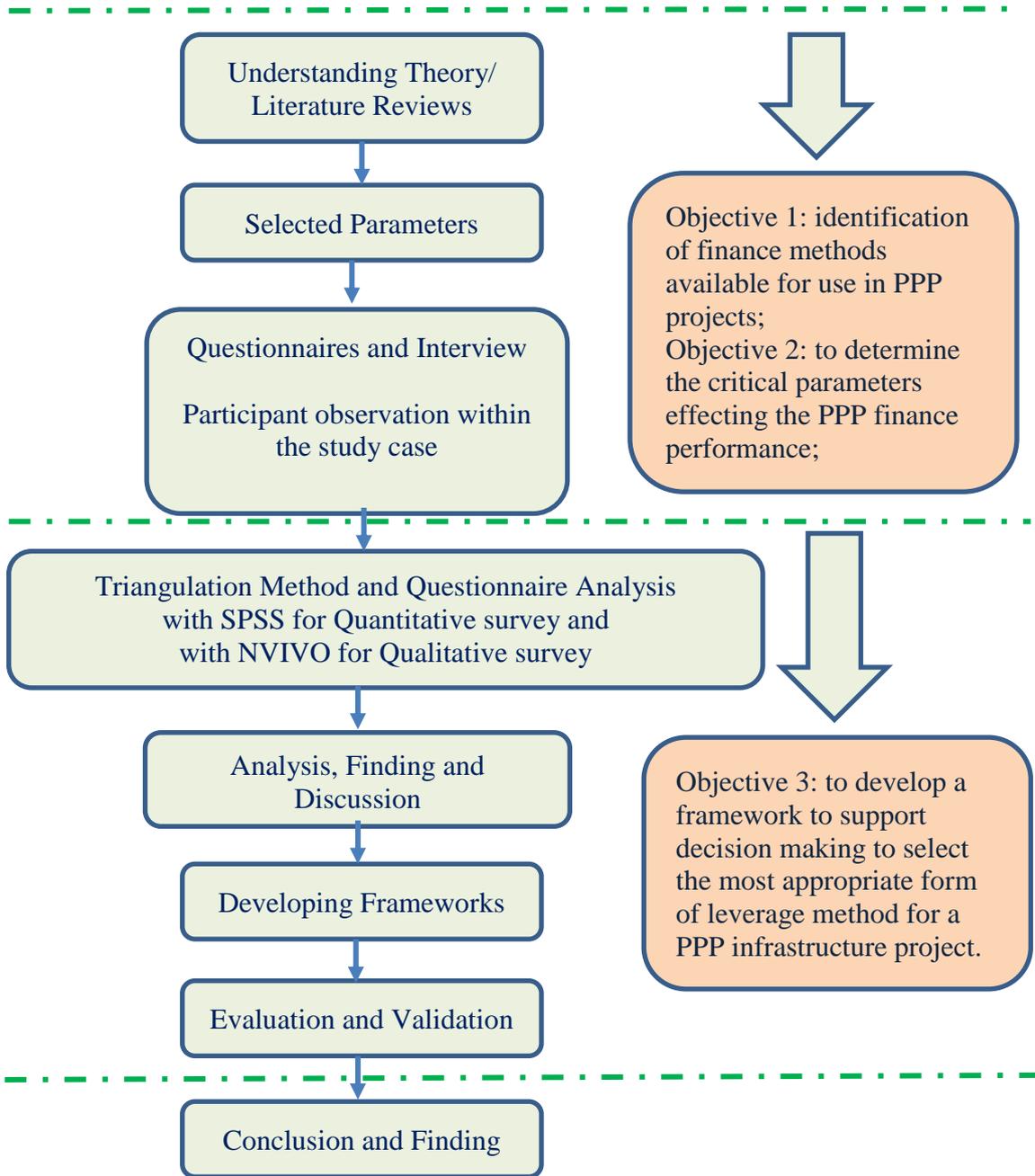


Figure 4-4: Research framework

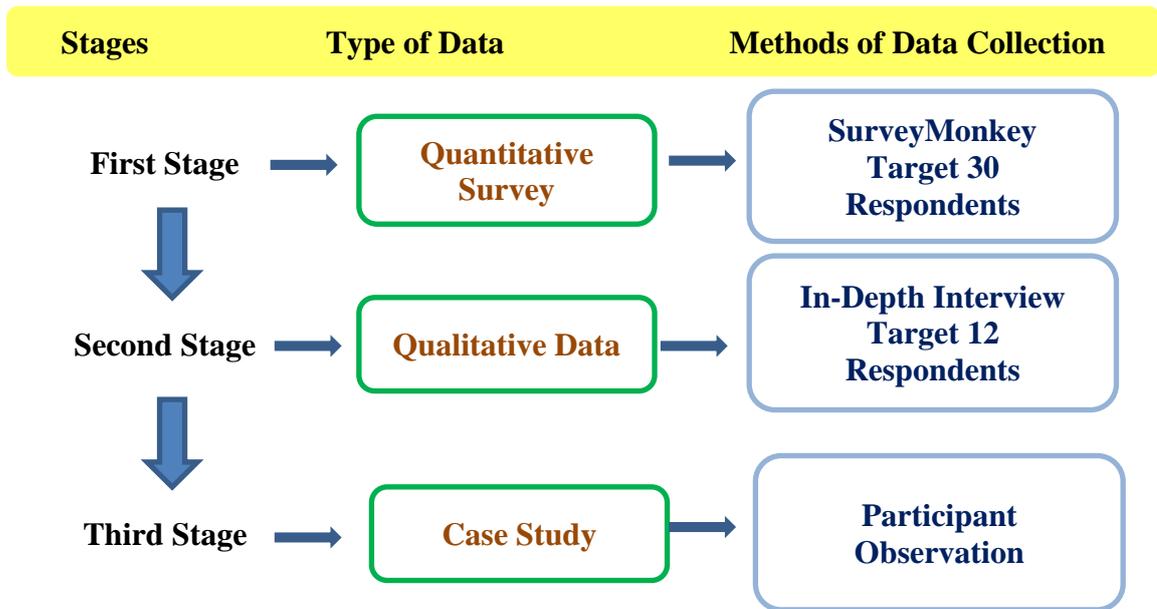


Figure 4-5: Stage, type of data and methods of data collections

Figure 4-5 shows the staging to do data collection for several types of data using each method. Data collection methods in summary were as follow :

- Online Questionnaire Survey
- Interviews
- Participant observation in a case study by internship in the government to gain access and work closely with the government in order to benefit from in-depth involvement in an infrastructure project.

4.3.1. Survey: Questionnaires

Questions are typically written in two primary forms that are the open or closed questions (Fellows & Liu, 1997). Open questionnaire are intended to allow the participants to respond enterily with whatever content and to whatever range the participants answer (in interviews, the researcher may investigate). It is important that responses to open questions are recorded thoroughly. The closed questionnaires, on the other hand, have series of questions to respond as designed by the researcher.

The data collection in this research was facilitated by mixed methods with triangulation. It encompasses quantitative, qualitative data and a case study. There were three stages of data collection (shown in Figure 4-5). The first stage was the

quantitative data collection by an online questionnaire to reach more respondents. The aim of this survey was to obtain information from key stakeholders involved with the delivery of PPPs about the parameters that influence the decision in investment for an infrastructure project. This survey has been designed to gain information from PPP experts in order to gain their opinions on selected parameters in PPP financing. This sampling involved senior government officials and industry experts who understand with PPP implementation due to their knowledge or familiarity with the committed and direction for PPP implementation set by the government. Senior members of the government or construction organisations/private sectors and also bankers were considered appropriate as respondents, and hence interviewed. The results included the pattern of correlation and the relevancy rank of the selected parameters. Stakeholders included government officials, bankers, entrepreneurs, donor agencies and the consultants.

The questions in the online questionnaire contained 3 sections:

Section 1: These questions were designed to elicit the background of the respondents and their organizations. The respondents were asked their organization, length of professional experiences, experiences of delivering PPP infrastructure projects, including information on the size of the project, the procurement, the type of financing, the leverage ratio, the type of government supports, the IRR, the BEP and the concessions to the project.

Section 1 was intended to measure the credibility of the participating respondents and to identify the key parameters, which are expected to have a strong correlation affecting financial performance.

Section 2: These questions were intended to elicit the professional opinions of the respondents as regards the parameters that they selected which influence the investment decision in infrastructure financing. The respondents were asked to highlight their justification of the parameters in five areas: government policy and micro and macro economy, project management, the project financing mechanism, the revenues, and the costs. A five-point Likert scale ranging (Bertram, 2006; Government of Indonesia, 2012g) from 1 (not at all) to 5 (to a very large extent) was

adopted to capture the key parameters effecting to influence the investment decision making in PPP infrastructure projects.

The detailed online questionnaire is provided in **Appendix 3**.

4.3.2. Semi-Structured Interview

The second stage as presented in Figure 4-5 was the qualitative data collection, involving interviews with the selected respondents who are experts in PPP. The aim of this survey was to solicit in-depth explanation of decision-making processes in PPP infrastructure financing. This study also expected to gain understanding from the respondents by involving their expert opinions to strengthen the research analysis and to develop the intended framework. Face-to-face, semi-structured interviews were selected as they allowed an in-depth thoughtful of the research topic and penetrating for details to obtain a range of insights into the research questions. Experts in this field and stakeholders who have been involved in PPP infrastructure projects were considered to be the unit of analysis.

Interviews can be conducted as structured, semi-structured or unstructured interviews (Fellows & Liu, 1997). In a structured interview, the interviewer manages a questionnaire by asking the questions and recording the responses, with little room for probing those responses by inquiring additional questions to gain more particulars and to chase new and interesting aspects. In an unstructured interview, the interviewer presents the theme briefly and then records the answers of the respondents. The third type, semi-structured interview is positioned between the two extremes. They differ in form pretty extensively, from a questionnaire-type with some ability to probe, from a list of topic areas to be discussed with the respondents.

A list of semi-structured interview questions was therefore organized. The main enquiries explored were:

- Given the information of their business/profession, what were their experiences in adopting the PPP and how did they make financial decisions to invest or to finance the PPP infrastructure projects?

- What were key parameters and how did they affect financial performance and influence investment decision-making in PPP infrastructure projects?
- How can any parameters be discussed to achieve value for money outcomes from using the PPP financing mechanism?

The questions for the semi structured interview is attached in **Appendix 3**.

4.3.3. Participant Observation in a Case Study

In order to fully understand the PPP process in Indonesia, a case study of an infrastructure project was selected to be part of this research. Case studies utilize a diversity of data collection techniques. In a case study the case is the specific occurrence of the research theme. In the present study, several case study projects were selected and access negotiated with the Indonesia Government; however, in all but one of the projects the planned PPP infrastructure were cancelled and the process discontinued. Only one infrastructure project was continued during the research period. To obtain an thorough knowledge of this case study, the method of participant observation was employed.

Participant observation is also one of many methods that fits into the common category of qualitative research (DeWalt & DeWalt, 2011). The method of participant observation contains the optimization of information expanded from participating and witnessing through recording and analysis (DeWalt & DeWalt, 2011). To gain significant knowledge and understanding of PPP in Indonesia through one infrastructure project, data collection through participant observation has been selected. The participant observation is more than ordinary observation (Spradley, 1980) it is required relatively detail record in objective observation engaging instropection to fully understand based the researcher's experiences. Moreover, participant observation is exceptional to study process with many stakeholder involvement in its role and function in continuities over time and parttern (Jorgensen, 1989).

In this research, the participant observation has conducted through internship. The researcher had worked together in detail in a team of experts in the Infrastructure

Reform Sector Development Project (IRSDP) at the Bappenas, Central Government to understand the government policy regarding the PPP project delivery, how the PPP projects have been planned, procured and delivered into real projects. The result of the participant observation has been written in Chapter 3.

At the beginning of this research, five PPP projects were investigated as potential case studies; however, only one project was found to be eligible for use as a case study and the project was the Palembang monorail in South Sumatra. Therefore in the same time, researcher also advise the South Sumatra Province Government as part of the participant observation in province level. The participant observation conducted in province level by working together with Transportation Agency at Province Government of South Sumatra to gain understand in depth of an urban mass transport project that has been prepared and registered by the central government. Chapter 6 is the result of the participant observation to deliver the Palembang monorail as the mass urban transport project in South Sumatra.

Working in participant observation method have revealed the complexity of the coordinations, the functions of the related institutions, and the development of a framework for the PPP projects to support PPP infrastructure projects in Indonesia, have been highlighted. The type of government supports and procedures, the supporting policy, and the amendments to support this project, are also shown.

4.3.4. Sampling

A sample implies a subset of the entire population in interest (Taylor, et al. 2008). Hubbard (2010) suggests that sampling is observing particular parameters in a population to learn about the entire population. Thus, a sampling frame was devised from the essential elements of a population. Purposive sampling (where the selection is based on a specific purpose) is a strategy like homogeneous sampling which chooses ‘setting, groups and/or individuals based on similar or specific characteristics’ (Johnson, Onwuegbuzie, & Turner, 2007), and this seemed to be the appropriate approach for the current study, enabling the collection of data to describe and explain the key themes that can be observed. Accordingly, the final sample size may not be determined, although a minimum size may be identified. More critical

was sampling across a wide homogeneous area of the population of claims practitioners engaged in contracting, developing, consulting and financing entities, in order to maximize the chance of identifying the diversity of viewpoints.

The primary data on the questionnaire online survey were distributed to respondents who worked in relevant institutions that have delivered PPP infrastructure projects. The questionnaire was developed through online survey and was distributed to the participants from June 2013 to November 2014. The questionnaire was also distributed to PPP group discussions in LinkedIn such as PPP Promoters groups, Private Equity Investment group and PPP and PFI groups, and was emailed to 285 contacts of PPP practitioners. The contacts had been compiled from seminars, conferences and workshops in United Kingdom, Singapore, Malaysia, Australia, Africa and Indonesia. Since the survey targeted only respondents who have experience in executing the PPP infrastructure projects, therefore it is reasonable to expect a 10% response rate (Johnson et al., 2007). A purposive sampling (where the selection is based on a specific purpose) strategy like homogeneous sampling which chooses ‘setting, groups, and/or individuals based on similar or specific characteristics’ (Johnson et al., 2007) was considered the most appropriate approach for the current study and enabled the collection of data to describe and explain the key themes that can be observed.

Forty-five respondents participated in the survey, representing a response rate of 15.8%. According to Sokal and Rohlf (1987, p. 107 in Ruxton 2006), the central limit theorem proposed that a t-test would require a combined sample size of at least 30 (Ruxton, 2006), therefore the 45 respondents are considered sufficient to analyse. The demographic characteristics of the respondents were considered in conducting the analysis.

4.4. Data Analysis

Data analysis attempts to examine collected data against a theory in the area and identifying the relationship amount parameters. To supply information about variables and the relationships between them becomes the objective of analyzing the data. The data analysis was organized and placing prominence on the attentive data,

so that the outcomes can be generalized to other circumstances or contexts. The data analytic typically concern with (Gray, 2012):

- A deductive approach
- The identification of the research population
- The drawing of a representative sample from the population
- The control of variables
- The generation of both qualitative and quantitative data
- The generalisability of findings

4.4.1. Quantitative Analysis

A quantitative approach is conducted to research the relationships between facts and collected data in accordance with the theories and findings of research carried out before (the existing literature). Quantitative analysis results measured as data findings and conclusions that obtained from the examination of the finding in light of the theory and literature (Fellows & Liu, 1997).

The very first stage in data analysis involves data screening before other processes commence by utilizing several tools in SPSS. The data screening is to check the linearity and the outer layer or missing data, also the appropriateness and adequacy of the data.

The quantitative analysis in this research involve the relative importance of these financial parameters by the relative importance index (RII), Mann-Whiney U-Test, one-way ANOVA and explanatory factor analysis. The ranking of the factors and groups was determined based on their importance level in standings of financial performance based on the responses of the participants.

4.4.1.1. Ranking Analysis

In the first quantitative data collection, an online questionnaire was developed to assess the overview from PPP practitioners. This was intended to gather a broad view from experts from many countries involved in decision-making regarding infrastructure financing in PPP infrastructure projects. The questionnaire

investigated key parameters that affect their decisions in financing these projects. The main stakeholders, and hence the source of the respondents, are the government, the bankers/finance institution, entrepreneurs/private sectors, consultants and donor agencies.

The RII (relative importance index) was utilized to rank the dissimilar parameters in the group factors. This rankings also likely to cross-compare the comparative importance of factors such as professed by the five groups of respondents. The weighted average for each group factor was determined to rank each group factor representing the justifications of the five stakeholders.

Where RII = relative importance index; W = weighting specified to each factor by respondents, the five-point level ranged from 1 to 5 (not at all = 0 to 5 = very large extent) was assumed and transformed to relative importance indices (RII). The RII method has been used by Gunduz (2013) to unveil the reasons of delay in Turkey’s construction projects (Gündüz et al., 2013). Kometa et al. (1994) and Sambasivan and Soon (2007) utilized the RII technique to regulate the relative importance of the numerous reasons of delays. RIIs are equated for each factor as in next Equation (Gündüz et al., 2013):

$$RII = \frac{\sum W}{(A * N)} \dots\dots\dots \text{Equation 4-1}$$

A = highest weight; and N = total number of respondents.

The RII value had a range of 0 to 1; the higher the RII, the more important it was considered to be and to more strongly affect financial performance.

The quantitative data from survey was been ranked, then it continue to be analyzed with statistical analysis as below.

4.4.1.2. Statistical Analysis

Statistical interpretation deals with two types of concerns: (i) estimation of population parameters; and (ii) examination of hypotheses (Siegel, 1988). It is the tests of hypotheses that will be primary concern in this quantitative analysis.

The target of analyzing the data is to offer information about parameters and the relations between them. Statistical analysis is valuable in defining directions of relationships (causalities) when combined with relevant theory and literature. The selection of the appropriate statistical measures takes into account certain assumptions. It is noted that the assumptions of symmetrical data, measurement of data on interval/ ratio scale, large sample size and random selection of sample from population concerned would require the use of 'parametric' testing. On the other hand, if the data do not meet the assumptions about the population or when the data measured are at a qualitative level, then using 'non-parametric' measures is more appropriate, as non-parametric tests (i.e. distribution free tests) do not have any assumptions about the population from which the samples are drawn.

Some non-parametric techniques are ranking tests or order tests (Siegel, 1988). In the current study, both descriptive and inferential statistics are used to analyze results and draw conclusions. The descriptive statistics involve frequencies and percentages for mainly analyzing the data related to the characteristics of organizations (for example, the size or nature of business) and the respondents (for example, their experience, type of the job, and so on). They are used to describe and present data where the concern is simply with reporting what is found without attempting to infer or predict population parameters.

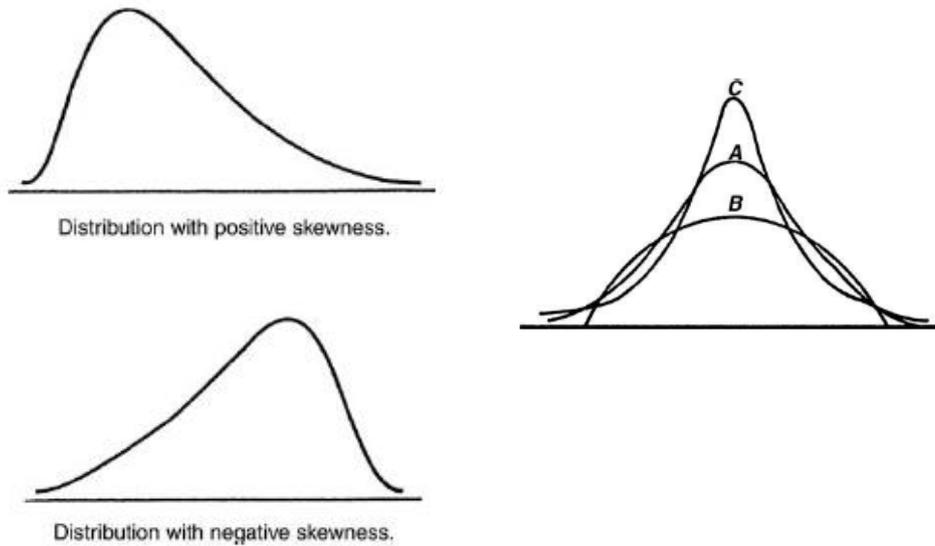
The results of the first survey were analyzed using statistical analysis, with the assistance of SPSS software version 22. To manipulate, analyse, and present data is using Statistical Package for the Social Sciences (SPSS) programs package that is widely used in the social and behavioural sciences (Landau & Everitt, 2004). As it mainly intends to see if there is a relationship between the number of the practitioners belonging to the government group, the private group, the bankers group, the donor agency group and the consulting group, the selection of statistical measures has to consider 'bivariate data'.

A *chi-square* test, which is a test of independence (also known as *chi-square test of association*), was selected to test whether there was a relationship or association between the two categorical variables (i.e. the two groups). A null hypothesis, stating that there was no statistically significant difference between the practitioners of the

two groups with reference to certain phenomena, was generally tested. The level of significance (α), which is needed for supporting or not supporting the null hypothesis, was usually set to 0.05 in 95 % confidence interval (Landau & Everitt, 2004).

A Likert scale was employed in the quantitative survey. The initial Likert scale used a series of questions with five response alternatives: (1) strongly approve, (2) approve, (3) undecided, (4) disapprove, and (5) strongly disapprove. It conjoined responses from a series of questions to create an attitudinal measurement scale. The composite value of a series of questions that represent the scale of attitudes as a basis for data analysis. While the five-point Likert scale use, another variation of the alternative answer is appropriate, including the elimination of a neutral response. (Bertram, 2006).

From the value of skewness and kurtosis, these factors usually would have a normal distribution. The index of skewness carries out the value zero for a symmetrical distribution. A negative value indicates a negatively skewed distribution, a positive value, a positively skewed distribution. The kurtosis index measures the extent to which the peak of a unimodal frequency distribution proceeds from the figure of normal distribution. A value of zero corresponds to a normal distribution (A), positive values indicate a distribution that is more pointed (C) than a normal distribution, and a negative value a flatter distribution (B) (Landau & Everitt, 2004). The normal distribution shows the linear observed values (Gorsuch, 1983).



Examples of Skewed Distribution Curves with Different Degrees of Kurtosis

Figure 4-6: Degree of skewness and kurtosis

Source: (Landau & Everitt, 2004)

Likert scale data are examined at the interval measurement rank. Likert scale objects are shaped by manipulative a composite score (sum or mean) from four or more Likert-type objects; consequently, the composite score for Likert scales should be examined on the interval measurement rank. Descriptive statistics suggested for interval scale items comprise the mean for central tendency and standard deviations for changeability. Extra data analysis measures suitable for interval scale objects would contain the, *t*-test, the Mann-Whitney U-Test, Explanatory Factor Analysis (EFA), One-Way ANova and RII (relative importance index).

Independent sample t-test

The independent samples *t*-test (Landau & Everitt, 2004) is normally carried to test the null hypothesis that the means of two populations are similar. The explanations completed of the sample members have all to be independent of each other. For instance, individuals from one population has to be independently corresponding with those from another population, nor should the individuals within each group be associated to each other. The parameter to be likened is presumed to have a normal distribution with the same standard deviation in both populations.

The test-statistic is;

$$t = \frac{y_1 - y_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}} \dots\dots\dots \text{Equation 4-2}$$

Where y_1 and y_2 are the means in groups 1 and 2, n_1 and n_2 are the sample sizes, and s is the pooled standard deviation calculated as:

$$s = \sqrt{\frac{(n_1 - 1)s_1^2 + (n_2 - 1)s_2^2}{n_1 + n_2 - 2}} \dots\dots\dots \text{Equation 4-3}$$

Where s_1 and s_2 are the standard deviations in the two groups.

Under the null hypothesis, the t-statistic has t-distribution with $n_1 + n_2 - 2$ degrees of freedom. The confidence interval conforming to testing at the α significance level, for example, if $\alpha = 0.05$, a 95% confidence interval is created as:

$$(y_1 - y_2) \pm t_{\alpha} s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}} \dots\dots\dots \text{Equation 4-4}$$

where t_{α} is the critical value for a two-sided test, with $n_1 + n_2 - 2$ degrees of freedom.

Mann–Whitney U test

The Mann-Whitney U-Test (Landau & Everitt, 2004) is a statistical assessment of the mean. The U-Test is for bigger group independent tests. Dependence tests adopt that the variables in the analysis can be fragmented into independent and dependent variables. A dependence tests that relates the mean score of an independent and a dependent variable presumes that differences in the mean score of the dependent variable parameters are triggered by the independent variable parameter. The independent variable is also named a factor, because the factor ruptures the sample in two or more groups, also named factor steps.

The null hypothesis to be verified is that the two populations being associated have equal distributions. It would be correspondent to the hypothesis that the means of the two populations are the similar, for the two populations that are normally distributed with a common variance. the population distributions diverge in location (the median) is as the alternative hypothesis. Samples of study from each of the two

populations being associated have to be available. The test is created on the joint ranking of the observations from the two samples. If there are ties, the tied observations are specified the average of the ranks for which the observations are contending. The test statistic is the sum of the ranks of one sample (the lower of the two rank sums is normally used). A big sample estimate is obtainable that is suitable when the two sample sizes n_1 and n_2 are both greater than 15, and there are no ties. The test-statistic z is specified by:

$$z = \frac{s - n_1(n_1 + n_2 + 1)/2}{\sqrt{n_1 n_2 (n_1 + n_2 + 1)/12}} \dots\dots\dots \text{Equation 4-5}$$

where s is the test-statistic founded on the sample with n_1 observations. Under the null hypothesis, z has approximately a standard normal distribution.

The Mann–Whitney U test is a non-parametric test that is implemented in hypothesis testing relating two independent variables parameters. If the outcomes of this test is significant (p-value 0.05), it means that there is a statistically significant difference between two-sample medians (Sheskin, 2007). It is implemented to a test if there is any statistically significant difference in median values between two groups. Five paired comparisons between various respondent groups (i.e. government vs. private sector, government vs. financier, government vs. consultant, government vs donor agency) were conducted in this research. The same technique was practised by Zhang (2005) to the selection of private sector partners under public–private partnership (PPP) arrangement and by Yu et al. (2008) for the comparison of the perceptions on variables of construction project briefing of project managers and architects between Hong Kong and western countries. The Mann–Whitney U test was explored to test the null hypothesis that “there is no statistically significant difference between the two populations so they have the same median for the same risk factor” and the medians can be signified by mean ranks (D. W. M. Chan, Chan, Lam , Yeung, & Chan, 2011; Sheskin, 2007).

Another type of hypothesis, called the null hypothesis, is denoted by H_0 (Cheah & Liu, 2006; Landau & Everitt, 2004). Stated differently, the procedure is to reject H_0 in favour of H_1 if a statistical test yields a value whose related probability of occurrence under H_0 is equal to or less than small probability, usually denoted α , this probability is called the level of significance (Siegel, 1988).

In this study the stakeholders' justification was found by identifying that:

- **The Null Hypothesis:** There was no statistically significant difference between the stakeholder groups regarding parameters in decision-making in infrastructure financing.
- **The Alternative Hypothesis:** There was a statistically significant difference between the stakeholder groups regarding parameters in decision-making in infrastructure financing.

If Sig. > 0.05 the Null Hypothesis would be accepted, and if Sig. < 0.05 the Null Hypothesis would be rejected (Cheah & Liu, 2006; Landau & Everitt, 2004; Siegel, 1988).

Explanatory Factor Analysis (EFA)

There are several methods of factor analysis tools in SPSS that can be used for the researcher. Factor analysis is used to assist the categorization of the parameters; refining of the parameter groupings in dimension reduction tool. When a researcher needs to determine the number of factors influencing variables and to analyse which variables 'go together' can use EFA (DeCoster, 1998). Conservative knowledge statuses that even though there are many selections for executing the steps of EFA, the actual differences between them are minor, so it does not really substance which approaches the practitioner selects (Costello & Osborne, 2005) to put on the EFA in the research.

The standard components apply to generalized theory, the principal component will be more applicable for empirical study. Principal Component Analysis (PCA) is frequently utilized as a tool in exploratory data analysis and for developing projecting models. PCA can be examined by eigenvalue decomposition of a data covariance (or correlation) matrix (Shaw, 2003).

Study conducted by Bartholomew et al. (2011), factor analysis functions on the notion that measurable and observable variables can be condensed to less latent variables that share a common variance and are unobservable, which is known as reducing dimensionality (Bartholomew, Knotts, & Moustaki, 2011). PCA-based dimensionality reduction have a tendency to minimize that information loss, under certain signal and noise models. These unobservable factors are not straight calculated but are basically hypothetical constructs that are utilized to characterize variables (Cattell, 1973). Research conducted by McDonald (1985) said that a basic hypothesis of EFA is that there are m common ‘latent’ factors to be revealed in the dataset, and the goal is to discover the minimum number of common factors that will consider for the correlations (McDonald, 1985).

When computing the correlations, a shaping factor is founded on the presumption that there is a linear relationship between the factors and the variables (Gorsuch, 1983), therefore checking linearity of the variables has conducting in the data screening process.

The r value is to indicate the level of strength amount of the parameters. The correlation r must be 0.30 or larger since anything lesser would suggest a certainly poor relationship between the parameters (Tabachnick & Fidell, 2007). Variables that have many low correlation coefficient ($r < +/- .30$) should be removed as they indicate a lack of patterned relationships.

In the ‘classical factor analysis’ mathematical model, p represents the number of variables (X_1, X_2, \dots, X_p) and m represents the number of underlying factors (F_1, F_2, \dots, F_m). X_j is the variable signified in parameters. Hereafter, this model adopts that there are m primary factors whereby each experimental variables is a linear function of these factors together with a residual variate. This model intends to reproduce the maximum correlations.

$$X_j = a_{j1}F_1 + a_{j2}F_2 + \dots + a_{jm}F_m + e_j \dots \dots \dots \text{Equation 4-6}$$

Where the factor loadings are $a_{j1}, a_{j2}, \dots, a_{jm}$ which represents that a_{j1} is the factor loading of j th variable on the 1st factor. The specific or unique factor is represented

by e_j . The factor loadings give us an idea about how much the variable has contributed to the factor; the larger the factor loading the more the variable has contributed to that factor (Harman, 1976). Factor loadings are very alike to weights in multiple regression analysis, and they signify the strength of the correlation between the variable and the factor (Kline, 1994).

One-Way ANOVA

One-way analysis of variance (one-way ANOVA) is a technique optimized to equate means of three or more samples (using the F distribution and value of Sig.) for numerical data set (Howell, 2002). The one-way analysis of variance (ANOVA) is utilized to define whether there are any significant differences between the means of two or more independent (unrelated) groups. In this study, was used to show the stakeholder justification to the observed parameters and to rank the parameters based on the mean value.

An F-statistic is produced by the ANOVA, the ratio of the variance measured among the means to the variance within the samples., The variance between the group means should be lesser than the variance of the samples, if the group means are drawn from populations with the same mean values. A higher ratio then infers that the samples were strained from populations with different mean values (Howell, 2002).

The one-way ANOVA test for differences among at least three groups, since the two-group case can be done by a t-test (Gosset, 1970). When there are only two means to relate, the t-test and the F-test are equivalent; the relation between ANOVA and t is given by $F = t^2$. Similar to the man-whitney U-test if Sig. > 0.05 the Null Hypothesis would be accepted, and if Sig. < 0.05 the Null Hypothesis would be rejected (Cheah & Liu, 2006; Landau & Everitt, 2004; Siegel, 1988).

4.4.2. Qualitative Analysis

To obtain insights and understand people's perceptions of the world, whether as individuals or groups a qualitative approach is typically utilized. Subsequently, the objectivity of qualitative data is repeatedly interrogated, especially by researchers

who specifically has traditions quantitative background. Analyses of such data have a tendency to be noticeably harder than the quantitative data, often demanding a lot of filtering, sorting and other manipulations to make them, acceptable as analytical techniques (Fellows & Liu, 1997). In qualitative study, the beliefs, understanding, opinions and views of human are inspected, the data collected may be shapeless, at least in their raw form, but will tend to be detailed and hence rich in content and scope through qualitative approach to enrich the quantitative approach.

Analytic techniques for qualitative data may need more people to assist, including transcribing interviews and analyzing the content of discourse in the interviews. Obviously, a various of external, environmental variables are prospectively to influence on the data and findings and the researchers are closely involved in all stages of the work in a more active method than regularly is tolerable in quantitative studies (Fellows & Liu, 1997). The interview data is considered qualitative and the validation requires adherence to principles different from those applicable to quantitative data (Guba & Lincoln, 1994).

The interview and participant observation in a case study are part of the qualitative data collection. To be able to carry out qualitative analysis of the data, it is necessary to record audio and transcribe the interview. The interviews were conducted with notes taking to complement the transcribing. The transcription is conducted by writing down the words as well as the way in which they are spoken (Curtis & Curtis, 2011). The transcribing process emphasizes on the contented of the interview, it does not transliterate non-linguistic features of speech (Brinkmann & Kvale, 2008). In this research, it is sufficient to transcribe the record from the interview what being said in words.

The transcribed interviews were coded using NVivo. The coding system was developed during the qualitative analysis. The coding assists in mapping of the theme of the discussion and analysis. NVivo is one of the more common computer assisted qualitative data analysis software tools that have been used by researchers (Stanford University, 2012). These programs support with the aim of increasing the analyst's efficiency including data storage/retrieval and put on the codes to the data.

It also provides competences in editing and revising coding, which permit for work distribution, peer review, and recursive examination of data (QSR, 2013).

Coding is a revelatory method that both arranges the data and offers means to present the interpretations of it. The interpretation in coding will be still rely strongly on the judgment of the researcher (Stanford University, 2012). Coding requires analyzing and reading very carefully the transcript data and defining the segments within it, which was done at different times throughout the process. The coding typically involves developing codes in a nesting structure to understand the content. The codes form the analytical step for this qualitative data. Each theme is categorized with a "code" that is a word or short phrase that related data segments inform of the PPP infrastructure delivery parameters and related other words that relevant to the research.

4.4.3. Triangulation Methodology

Utilizing two or more methodology to examine similar object commonly is triangulation method, such as mix of experiments and interviews in a case study project (Fellows & Liu, 1997). Triangulation as a powerful technique performs data validation through cross-verification from more than two resources by applying and combining of several research methodologies in the research similar phenomenon (John W. Creswell, 2008; J.W. Creswell & Clark, 2007; John W. Creswell et al., 2006). Triangulation:

- can be applied in research that conducting both quantitative (validation) and qualitative (inquiry) studies.
- creates the credibility of qualitative analyses.
- converts to conventional as alternative criteria similar to reliability and validity.
- is the favored method in the social sciences.
- converts to convergent methodology, multimethod/multitrait convergent validation.
- develops the understanding that qualitative and quantitative methods is complementary rather than as rival camps.

Furthermore, a triangulation in this research encompasses the data collection or analysis in both quantitative and/or qualitative studies structured in a single study. The data was collected concurrently, parallelly or sequentially and integrate at one or more steps in the process of study (John W. Creswell, 2008; J.W. Creswell & Clark, 2007; John W. Creswell et al., 2006).

Initially, organizational research is optimized by applied the triangulation method on field observations to strengthen statistical outcomes (Smith, 1975). One of the main function of triangulation in the assessment process becomes the method or tool to increase the credibility of the study, eliminate bias, and to exemplify the variances between outcomes to establish a valid well-reasoned proposition (Mathison, 1988). Furthermore, it is crucial to enquiry the research process and to define how much data collecting that principally needs in the research in order to analyze additional how much data is relegated from field and study case.

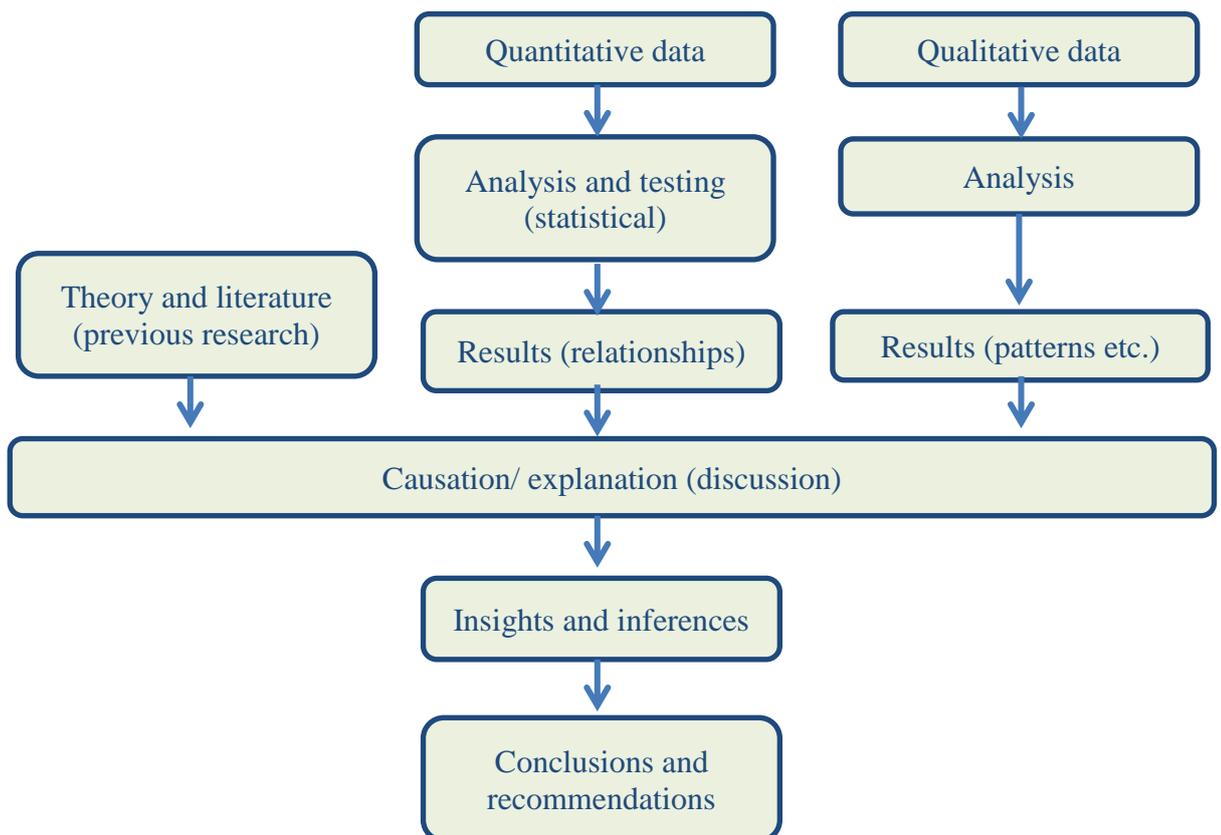


Figure 4-7: Triangulation of quantitative and qualitative data
 Source: (Fellows & Liu, 1997)

A thread connecting is a crucial part played by qualitative methods in triangulation. The researcher was able to maintain the favorable proximity to the situation see a greater level of sensitivity to a variety sources of data. In the other hand, the critical qualitative data are used as the counter-point to quantitative methods. On another respect, the benefits analysis of the perceptions drawn from personal experiences and firsthand observations. Thus as the art in the research, the researcher can use the qualitative data to enhance and brighten the portrait (Fellows & Liu, 1997; Jick, 2012).

4.4.4. Analytical Inductive and Generalization to Support Developing PPP Frameworks

Part of the analysis in this research was conducted using the analytic inductive method. This method can draw generalization of the theory from a specific phenomenon (Jorgensen, 1989; Robinson, 1951), which in this study would take a specific study case of an infrastructure project in a city in Indonesia. Analytic induction is observed by Znaniecki in Robinson (1951) as a special and certain way to prove that the generalizations can apply to all occurrences of the phenomenon under research, whether they have yet been scrutinized or not. The general formulations can be done after data analysis completed; and if done well, there is nothing more of importance to be learned about the class which these data signify by any successive examination of further data of the similar class (Robinson, 1951). The same understanding from Glaser (1965) that analytic inductive is attentional producing and verifying an integrated, limited, precise, universally applicable substantive theory of causes accounting for a specific phenomenon (Glaser, 1965).

There are four steps in the inductive reasoning (Jorgensen, 1989; Robinson, 1951),:

- Determine the essential characteristic of given class of facts.
- Abstract these features, assuming hypothetically that the more basic are more general than the less essential, and are found in a large variety of forms.
- Test this contention by researching classes containing the former and the latter class characteristics
- Organize these classes into a system based on the functions of the characteristic in determining the particular form.

The analytic inductive method can be combined with the explanation method which is formed through generalizations about components of a theoretical system. These explanations may be causal, functional, or generic. Generic explanations deal with the origins of systems or the emergence of new forms. Within a limited system, the internal order of components may be explained by the functional dependence or interdependence of elements. Causal generalizations apply to cases in which a system undergoes change that otherwise cannot be explained by its internal dynamic order. Analytic inductive has been used by several generations of social scientists for constructing theories (see Znaniecki 1934, Angell, 1936; Lindesmith 1947; Cressey 1953; Bruyn 1966, cited in Glaser 1965).

The table below shows the constant comparative methods, used in order to draw generalization in qualitative analysis. The persistent qualified method can be designated in four phases: (1) equating events relevant to each category, (2) integrating categories and their properties, (3) delimiting the theory, and (4) writing the theory (Glaser, 1965).

Table 4-4: Approaches to qualitative analysis

		Provisional Testing of Theory	
		Yes	No
Generative Theory	Yes	Inspection for Hypotheses along with coding for test, then analyzing data Analytic Inductive	Inspection for hypothesis Constant comparative Method
	No	Coding for test, then analysis data	Ethnographic Description

Source: (Glaser, 1965)

The fact that categories become theoretically saturated can be explored as a approach in handling with another event: after hundreds of pages of coding will be developed new categories (Glaser, 1965).

The triangulation analysis guided the development of the PPP frameworks, and it followed the stages of the inductive generalization process. Based on the data analysis, three types of PPP frameworks that were developed in this research. These were: (1) the framework of the life cycle of the PPP infrastructure projects, including

the activities that need to be conducted in every stage in the life cycle; the framework of relationship amount of the stakeholders that had been observed; (2) the framework of relationship amount of the stakeholders that been observed; and (3) the framework of modality; leverage of viability of the infrastructure projects. These will be discussed in detail in Chapter 8.

4.5. Evaluation and Validation of the Research Findings

Cohen et al. (2011) claimed that pressures to validity and reliability can never be entirely removed; however, they can be decreased by attention to validity and reliability through to study. ‘Validity’ comprises of internal validity and external validity. Internal validity deals with the issue whether the recognized inputs within their attributes actually produced the expected findings. Onwuegbuzie and Leech (2006) clarified internal validity as the truth value, applicability, consistency, neutrality, dependability, and or credibility of interpretations and conclusions inside the fundamental set up or group. Conversely, the external validity addresses the ability to generalize the research outcomes beyond the study sample or setting under which the research processing.

The interview data is considered qualitative and the validation requires adherence to principles different from those applicable to quantitative data (Guba & Lincoln, 1994). However, as suggested by Hammersley and Atkinson (1983) ‘validity’ of qualitative data attaches to accounts, not to data or methods. Cohen et al. (2011) suggest that the irresistible feature of qualitative research is its concern with the phenomenon or condition in question and not generalizability, and therefore issues like random sampling, replicability, alpha coefficient reliability, isolation and control of variables and predictability do not matter much in qualitative research. Maxwell (1992) suggested that understanding is a more appropriate term than ‘validity’ in qualitative research.

Face validity and content validity are used in this study as qualitative measures of validity for the semi-structured questions posed to the interviewees. Face and content

validity were secured particularly through extensive discussions so as to establish the following:

- Ease of use and clarity of the questions
- Relevance and breadth with regard to the domain being studied
- Adequacy and representativeness of the themes/sub-themes

There were 2 external validations that have been conducted in this research. The first validation was the Focus Group Discussion (FGD) and the second validation was the questionnaire to PPP practitioners. The first final result of the findings of this research was presented to the related stakeholders in a Focus Group Discussion (FGD) to obtain feedback from the key stakeholders as part of the validation process and to improve the findings. The evaluation from the FGD was summarized then validated by a questionnaire to the PPP experts in the infrastructure industry to gain more input into how the frameworks that have been developed through this research would assist them in making decisions in infrastructure investment.

4.6. Summary

The research methodology implemented in this research has been discussed in this chapter. It has discussed the philosophical stance of the research and the methodological elements (influenced by the philosophical position) adopted in this study, followed by in-depth discussion on each methodological element.

This chapter discussed how the research methods have been designed specifically to tackle each objective. The finalisation of the research methods was founded on the outcomes from the earlier stage of the literature reviews, as presented in the research framework. To satisfy the objectives, a mixed methods approach was selected with survey-questionnaire and semi-structured interviews considered as the most appropriate combination of inquiry techniques. The data collection procedures for both Survey Monkey (quantitative strand) and interviews (qualitative strand) and in-depth participant observation within the case study were also discussed. The sampling procedures for both surveys and interviews were explained along with the

selection of an appropriate sampling method, the adequacy of the sampling and validation.

The subsequent chapter discusses the application of the research methodology to generalize the research finding. The generalization of the research findings is achieved by developing PPP infrastructure frameworks. The last result of the findings of the research was validated to PPP experts through a Focus Group Discussion (FGD) and validation survey.

CHAPTER 5

FINDINGS AND DISCUSSION: QUANTITATIVE AND QUALITATIVE ANALYSIS

5.1. Introduction

A Public Private Partnership (PPP) in infrastructure is the cooperation between public and private entities to develop infrastructure to deliver public services. Previous studies have been conducted discussing the driving factors, risks and obstacles for the successful implementation of PPP projects. The common factors that have been investigated are the length of the procurement process, the length of the financial close, the political risks, the risks of cost overrun in the construction process and the expected demand. To reduce risk, mature financial markets could support the PPP projects.

The quantitative analysis in this chapter observes key parameters that correlate PPP financial decision-making based on the stakeholders'/experts' perspectives gathered from a survey. Responses in a quantitative survey have been collected from PPP experts from stakeholder categories including governments, bankers/financial institutions, entrepreneurs, consultants and donor agencies. The relative importance of these financial parameters has been quantified by the relative importance index (RII), Mann-Whiney U-Test, one-way ANOVA and explanatory factor analysis. The ranking of the factors and groups were determined based on their importance level in terms of financial performance, based on the responses of the participants.

In addition to the above, in the qualitative analysis, semi-structured interviews with several professional PPP practitioners have also been conducted. The qualitative data arising from the interviews provided a detailed understanding of the issue. The 12 interviews were conducted. A theoretical saturation, where further interviews did not

contribute further to the understanding, was reached with 12 interviews. Then the 12 interview results with rich contents were analysed. The semi-structured nature of the interviews meant that questions could be expanded to explore further information related to the respondents' expertise. The interviews were recorded and transcribed and then analysed with content analysis technique. NVivo was utilized and has assisted for storage of the qualitative data, coding and modelling.

5.2. Quantitative Analysis: Key Parameters, Stakeholders and Performance Indicators

5.2.1. Data Screening and Characters

There are three basic assessments that need to be checked before processing further analysis. The assessments are the assessment of suitable data, sample size and strength of the reliability in relation to the parameters.

Data screening is the first stage in data processing to take before other processes. Several tools in SPSS can be optimized for the data screening. The analysis in SPSS, there is descriptive statistics and exploration. The data would be needed to be checked for linearity and also for the outer layer or missing data, also the appropriateness and adequacy of the data to be analyzed.

The data in the questionnaire are generated from section 1 and section 2 of the questionnaire. Section 1 in the questionnaire asks the respondent's demographic information, including the information of their organization, and their experience of handling infrastructure projects. It includes their expertise in providing information on the viability of projects such as the IRR, the BEP, infrastructure projects' concessions and the Leverage Debt Equity ratio. The data from Section 2 contains 45 parameters that influence decision-making in investment in the infrastructure projects.

The results of the data screening are shown in Table 5-1 to Table 5-3. Table 5-1 shows that the quantity of missing data from the 45 responses about those factors is

17 responses (37.8%). Table 5-2 shows the missing data has reduced becoming around 15.6%-24.4% after being treated using pairwise deletion.

Table 5-1: Summary of descriptive statistics from Section 1 of the questionnaire

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Organization	28	62.2%	17	37.8%	45	100.0%
The Internal Rate Return	28	62.2%	17	37.8%	45	100.0%
The Break Even Point	28	62.2%	17	37.8%	45	100.0%
The Concession Period	28	62.2%	17	37.8%	45	100.0%
Project Leverage Debt by Equity	28	62.2%	17	37.8%	45	100.0%

Table 5-2: Summary of descriptive statistic from Section 1 of the questionnaire after a treatment

Case Processing Summary						
	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Organization	38	84.4%	7	15.6%	45	100.0%
The Internal Rate Return	34	75.6%	11	24.4%	45	100.0%
The Break Even Point	34	75.6%	11	24.4%	45	100.0%
The Concession Period	35	77.8%	10	22.2%	45	100.0%
Project Leverage Debt by Equity	28	62.2%	17	37.8%	45	100.0%

The summary of the description of statistics from Section 2 of the Questionnaire of the 45 parameters is shown in Table 5-3. The missing data is 11.1%, this level of missing data is considered acceptable in primary data.

Table 5-3: Summary of descriptive statistic of the 45 parameters

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Supported Government Policy	40	88.9%	5	11.1%	45	100.0%
Lengthy Bidding Preparation	40	88.9%	5	11.1%	45	100.0%
Defining Inflation Assumption	40	88.9%	5	11.1%	45	100.0%
Defining Interest Rate in Monetary Policy	40	88.9%	5	11.1%	45	100.0%

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Defining Taxes Policy	40	88.9%	5	11.1%	45	100.0%
Defining Social Discount Rate	40	88.9%	5	11.1%	45	100.0%
Lengthy Bidding Evaluation	40	88.9%	5	11.1%	45	100.0%
Lengthy Contract Negotiation	40	88.9%	5	11.1%	45	100.0%
Lengthy Delay Due of Political Involvement	40	88.9%	5	11.1%	45	100.0%
Foreign Exchange Fluctuation	40	88.9%	5	11.1%	45	100.0%
Land Acquisition Process	40	88.9%	5	11.1%	45	100.0%
Organization Human Resources During Construction	40	88.9%	5	11.1%	45	100.0%
Material Availability During Construction	40	88.9%	5	11.1%	45	100.0%
Labor Availability During Construction	40	88.9%	5	11.1%	45	100.0%
Organization Human Resources During Operation and Maintenance	40	88.9%	5	11.1%	45	100.0%
Private Equity Capital	40	88.9%	5	11.1%	45	100.0%
Government Equity	40	88.9%	5	11.1%	45	100.0%
Amount of Bank Loan	40	88.9%	5	11.1%	45	100.0%
Bank Loan Period	40	88.9%	5	11.1%	45	100.0%
Additional Working Capital Loan	40	88.9%	5	11.1%	45	100.0%
Mezzanine Loan for Additional Capital	40	88.9%	5	11.1%	45	100.0%
Debt Refinancing	40	88.9%	5	11.1%	45	100.0%
Lengthy of Grade Period	40	88.9%	5	11.1%	45	100.0%
Value of Interest During Construction	40	88.9%	5	11.1%	45	100.0%
IDC Payment Method	40	88.9%	5	11.1%	45	100.0%
IDC Payment Period	40	88.9%	5	11.1%	45	100.0%
Financing Risk and Costs	40	88.9%	5	11.1%	45	100.0%
Quality of Feasibility Study	40	88.9%	5	11.1%	45	100.0%
Cost of Construction The FS	40	88.9%	5	11.1%	45	100.0%
FS Due Diligence	40	88.9%	5	11.1%	45	100.0%
Donor Funding	40	88.9%	5	11.1%	45	100.0%
Marketing and Competition Study	40	88.9%	5	11.1%	45	100.0%
Tariff or Fee Approved by Government	40	88.9%	5	11.1%	45	100.0%
Tariff or Fee Growth	40	88.9%	5	11.1%	45	100.0%
Demand Volume	40	88.9%	5	11.1%	45	100.0%
Demand Growth	40	88.9%	5	11.1%	45	100.0%
Additional Incomes	40	88.9%	5	11.1%	45	100.0%
Construction Costs and Investment	40	88.9%	5	11.1%	45	100.0%
Technology Investment	40	88.9%	5	11.1%	45	100.0%
Overrun During Construction	40	88.9%	5	11.1%	45	100.0%

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Bank Guarantee for Construction	40	88.9%	5	11.1%	45	100.0%
Regular Operation Costs	40	88.9%	5	11.1%	45	100.0%
Regular Maintenance Costs	40	88.9%	5	11.1%	45	100.0%
Insurance or Risk Transfer Expenses	40	88.9%	5	11.1%	45	100.0%
Operational Cost Overrun	40	88.9%	5	11.1%	45	100.0%

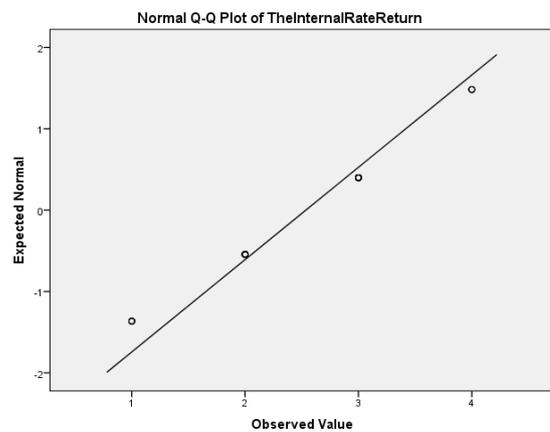
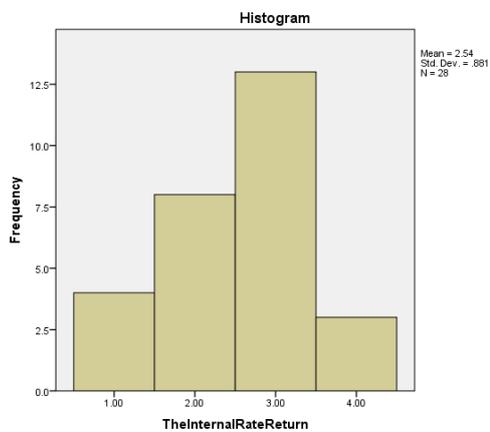
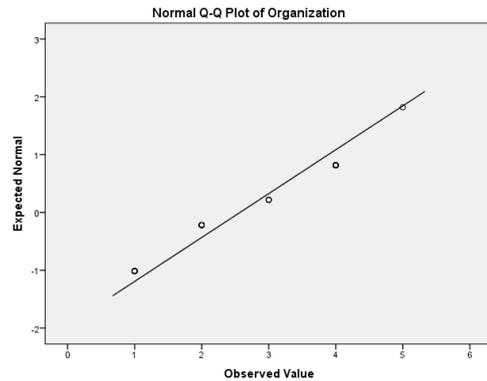
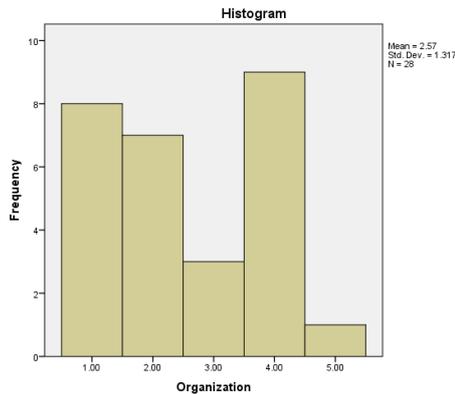
The minimum and maximum in the standard of accuracy and the skewness and kurtosis in the standard of normality is presented in Table 5-4. From the value of skewness and kurtosis, these factors normally would have normal distribution. The index of skewness takes the value zero as the symmetrical distribution. A negative value indicates a negatively skewed distribution, while a positive value indicates a positively skewed distribution. The kurtosis index measures the extent to which the peak of a unimodal frequency distribution departs from the shape of normal distribution (Landau & Everitt, 2004).

Table 5-4: The standard of accuracy and normality

Descriptives				
			Statistic	Std. Error
Organization	Mean		2.5714	0.24896
	95% Confidence Interval for Mean	Lower Bound	2.0606	
		Upper Bound	3.0822	
	Skewness		0.147	0.441
	Kurtosis		-1.492	0.858
The Internal Rate Return	Mean		2.5357	0.16652
	95% Confidence Interval for Mean	Lower Bound	2.194	
		Upper Bound	2.8774	
	Skewness		-0.291	0.441
	Kurtosis		-0.502	0.858
The Break Even Point	Mean		2.3214	0.19282
	95% Confidence Interval for Mean	Lower Bound	1.9258	
		Upper Bound	2.7171	
	Skewness		0.637	0.441
	Kurtosis		0.37	0.858

Descriptives				
			Statistic	Std. Error
The Concession Period	Mean		2.7857	0.12968
	95% Confidence Interval for Mean	Lower Bound	2.5196	
		Upper Bound	3.0518	
	Skewness		-1.179	0.441
	Kurtosis		2.113	0.858
Project Leverage Debt by Equity	Mean		2.7857	0.20156
	95% Confidence Interval for Mean	Lower Bound	2.3721	
		Upper Bound	3.1993	
	Skewness		0.264	0.441
	Kurtosis		-0.134	0.858

Furthermore, the histogram in Figure 5-1 mostly shows the normal distribution and has linier observed values. The linearity of the data is mostly accepted.



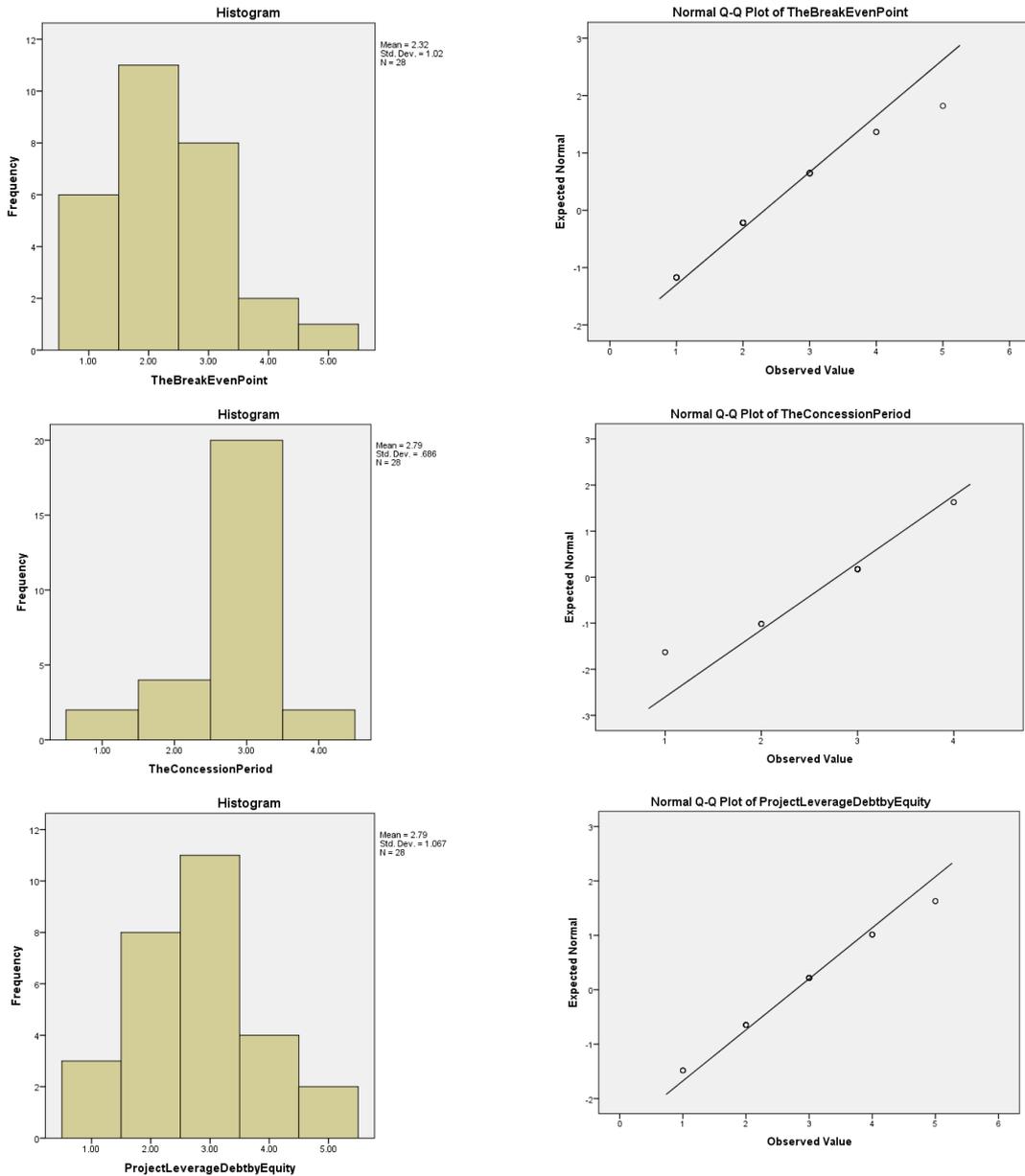


Figure 5-1: Histograms of normal distribution and linear observed values

Factor analysis has been conducted in this research to demonstrate the adequacy of the data. Factor analysis is more suitable for large data: however, small numbers of data could also be analyzed, but it is necessary to be aware that correlation parameters would be less reliable, i.e. some variable can remain unexplained or be less reliable than assumed. To check the adequacy of a smaller amount of data, the ratio of participants to number of items or measurement tools to be analyzed can be considered (TheRMUoHP, 2013). The accepted ratio is in the range of 1 to 10, which means minimally there are 10 subjects for each item (respondent). In this research, there are 45 respondents for each subject answering 45 items from

parameters in the questionnaire, so it can be considered to have met the minimum requirements of the factor analysis. If necessary to add more data, a random Monte Carlo PCA for parallel analysis can be generated to develop the number of replications of the subjects (TheRMUoHP, 2013). In this research, the data is adequate to analyze without applying random Monte Carlo PCA. Further, the minimum sample for the Mann-Whitney U-Test is 20 samples (StatisticsLectures, 2010), therefore the data that have been analyzed here is considered sufficient.

5.2.2. Respondents' Demographics

The questionnaire has obtained perspectives from different institutions: government, bank/financial institution, entrepreneurs/private sectors, consultants and donor agencies. From the survey shown in Figure 5-2, there are 31.6% (12) responses from governments, 18.4% (7) from banks/financial institutions, from entrepreneurs/private sectors 21.1% (8), the majority, 39.5% (15) responses, from consultants and donor agencies 7.9% (3), and 18.4% (7) participants did not answer the question. The PPP experts from consultancies is the majority since there are many type of consultants who work as advisory, FS consultants, legal consultants, project consultants and academics from universities.

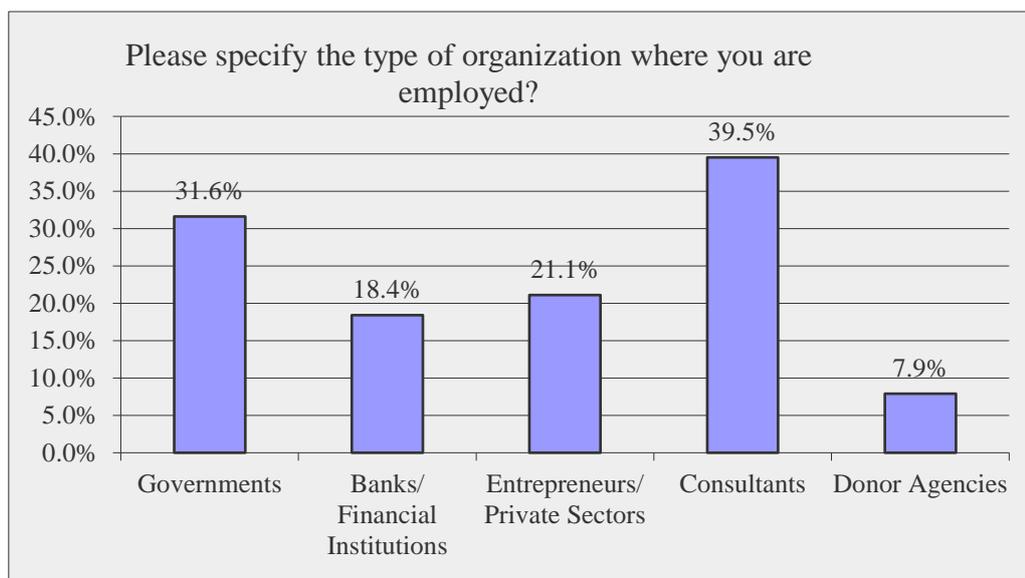


Figure 5-2: Respondents organizations

Figure 5-3 shows that the majority of the respondents, 71.9% (27), have less than 10 years of experience in delivering PPP projects. It could be understood that PPP is considered as a new type of financing mechanism in several countries. About 10.5% (4) has experience of 11-15 years. About 5.3% (2) respondents have experience of 16-20 years and 21-25 years. The good thing is that about 7.9% (3) of respondents have experience above 26 years. Furthermore, with 13.2% (7), of the respondents having experience of more than 20 years, it can be expected that the responses to the questionnaires have been collected from experienced experts in PPP infrastructure projects delivery.

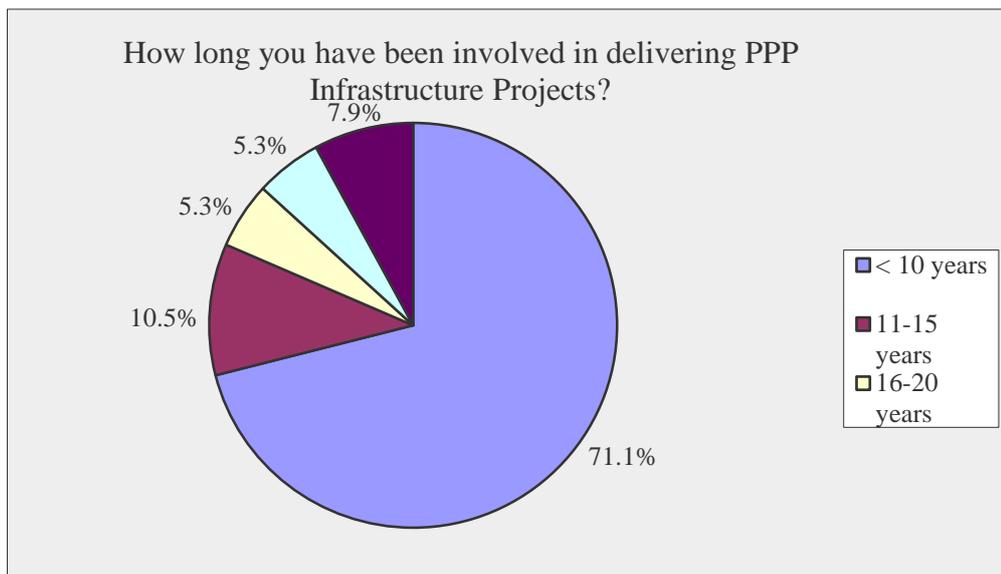


Figure 5-3: Years of experience of the respondents

The project’s locations, based on the respondent’s information, are that the majority, 36%, are in Indonesia, followed by Malaysia, Australia and Singapore. Other projects are from various other countries including Afghanistan, Brazil, Greece, India, Laos, Nigeria, Thailand and Zambia as shown in Figure 5-4.

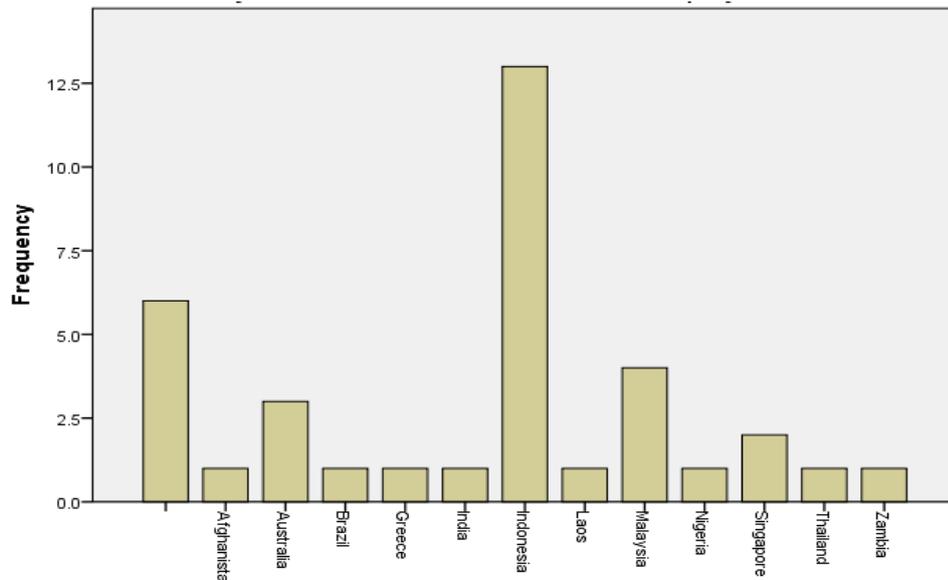


Figure 5-4: Project location by country

The respondents have brought their experiences from being involved in the different stages of the PPP infrastructure process. In Table 5-5, there are five respondents involved in project selection and evaluation, five respondents in project preparation for PSC or tender, two respondents in bidding evaluation, one respondent in contract management, eight respondents in financing, three respondents in project management, five respondents in project implementation/ execution, still no respondent has experience in transferring the asset, nine respondents have other experiences and seven respondents have not answered this question.

Table 5-5: The role of respondents in PPP development projects

Infrastructure Financing Survey										
What is your role in the project selected? Please specify?										
Role										
Answer Options	Project selection and/or evaluation	Preparation of PSC or bid	Bid evaluation	Contract management	Financing	Project management	Project implementation	Transferring PPP Project	Other	Response Count
Role of responsibility?	5	5	2	1	8	3	5	0	9	38
Please specify?										Question Totals 25
										answered question 38
										skipped question 7

The respondents have brought their experiences from their involvement in developing social and economic infrastructure. It shows in Table 5-6 that from

economic infrastructure, there are five respondents involved in land transportation projects, five respondents in toll road projects, and one respondent from a tunnel project. There are no respondents available from sea port project, air transportation and airport development. It is understood that since the airport and sea port projects are usually developed by the government, they become government or state enterprises projects. From the social infrastructure, there is no respondent in handling a prison project yet, there are five respondents who have experience in health/ hospitals projects, three respondents in education schools projects, one respondent in education university project and four respondents in other type of social infrastructures projects.

Table 5-6: Type of Infrastructure that respondents are involved in

Infrastructure Financing Survey								
For the project you have been selected, what type of infrastructure?								
ECONOMIC INFRASTRUCTURE								
Answer Options	Land Transportation	Toll Road	Bridge	Tunnel	Sea Transportation	Sea port	Air Transportation	Airport
Type of Infrastructure?	5	5	0	1	1	0	0	0
	Energy & Electricity	Water Supply	Waste Treatment	Water Irrigation	Housing	ICT	Other	Response Count
	7	8	2	1	1	1	3	35
SOCIAL INFRASTRUCTURE								
Answer Options	Prison	Health/Hospitals	Education Schools	Education Universities	Other	Response Count		
Type of Infrastructure?	0	5	3	1	4	13		

Table 5-7: The contract value of the PPP infrastructure projects

Infrastructure Financing Survey		
How big is the PPP infrastructure project (contract value) in scale in USD that you currently have finished?		
Answer Options	Response Percent	Response Count
< 100 million	40.0%	14
101-500 million	17.1%	6
501-1000 million	20.0%	7
1001-2000 million	11.4%	4
> 2001 million	11.4%	4
	answered question	35
	skipped question	10

Infrastructure projects usually need high capital investment. From the respondents in Table 5-7, the data showed that 40.0% of respondents have experience in delivering PPP projects of less than USD 100 million, and 60% others have experience in delivering project value more than USD 100 million. These include 17.1% who have

handled projects between USD 101- 500 million, 20.0% who have handled projects between USD 501- 1000 million, 11.4% have handled projects between USD 1001-2000 million and 11.4% have experience in delivering very large infrastructure projects which need more than USD 2000 million investment.

From the Indonesian respondents shown in Table 5-8, the data showed that 41.2% of respondents have experience in delivering PPP projects of less than USD 100 million. 17.6% have experience in delivering project of between USD 101-500 million. 23.5% have handled projects between USD 501-1000 million, and 17.6% have experience in delivering very large infrastructure projects that need more than USD 2000 million investment.

Table 5-8: The contract value of the PPP infrastructure projects for Indonesian respondents

How big is the PPP infrastructure project (contract value) in scale in USD that you currently have finished?		
Answer Options	Response Percent	Response Count
< 100 million	41.2%	7
101-500 million	17.6%	3
501-1000 million	23.5%	4
1001-2000 million	0.0%	0
> 2001 million	17.6%	3
	<i>answered question</i>	17
	<i>skipped question</i>	-

The procurements methods are the competitive open biddings that are more common in delivering PPP infrastructure projects. The survey result in Figure 5-5 shows that about 82.4% of projects have been delivered through open bidding, with direct negotiation with the governments being the next option for 14.7%, while the unsolicited projects, that are still less being practiced are about 8.8%. Another option that has been reported is by expressions of interest from pre-qualified prospective tender.

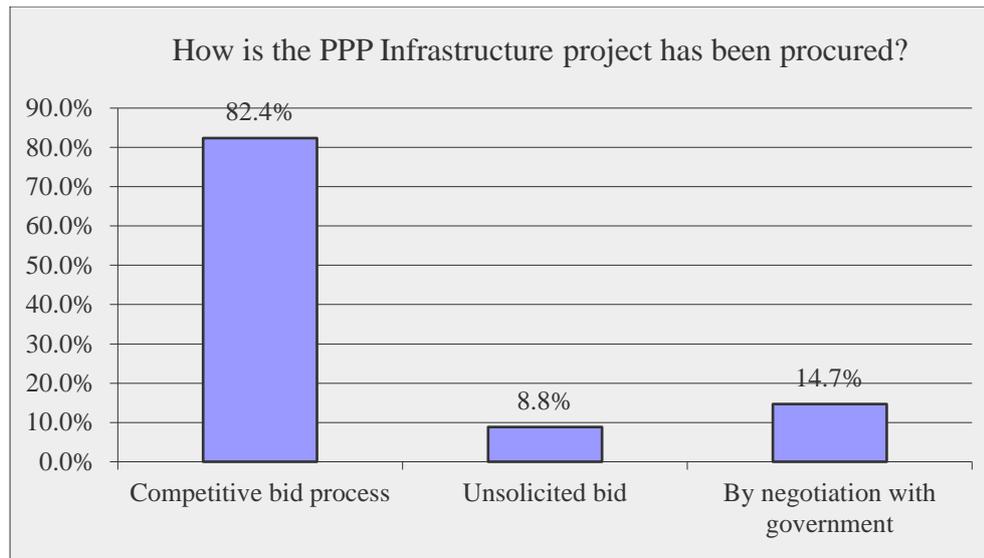


Figure 5-5: Methods of procurement

Table 5-9: PPP infrastructure project financing methods

How was the selected PPP project financed?		
Answer Options	Response Percent	Response Count
Traditional project finance (> 8 years)	68.8%	22
Term finance (> 8 years)	6.3%	2
Term finance (< 8 years)	12.5%	4
Bond issue	0.0%	0
Government finance (Supported debt/credit guarantee finance)	18.8%	6
Other (please specify)		6
	answered question	32
	skipped question	13

Traditional project finance with tenure more than 8 years was the most common financing mechanism, with 68.8% of the responses. The second most common financing is with government support, such as supported debt/credit guarantee finance, with 18.8% of the responses. 12.5% of respondents used terms of finance of less than 8 years and 6.3% used terms of finance of more than 8 years as shown in Table 5-9.

For Indonesian respondents, shown in Table 5-10, traditional project finance with term of >8 years was also the common financing mechanism, with 58.8% responses, and the second most common financing is with government support, such as

supported debt/credit guarantee finance, with 17.6% responses. 11.8% of respondents used term of finance of less than 8 years.

Table 5-10: PPP infrastructure project financing methods for Indonesian respondents

Answer Options	Response Percent	Response Count
Traditional project finance (> 8 years)	58.8%	10
Term finance (> 8 years)	0.0%	0
Term finance (< 8 years)	11.8%	2
Bond issue	0.0%	0
Government finance (Supported debt/credit guarantee finance)	17.6%	3
Other (please specify)		1
	<i>answered question</i>	16
	<i>skipped question</i>	1

Table 5-11 shows that the leverage of projects or the ratio of debt and equity, is around 1.1-2 for 32.1% of the responses and for 39.3% is 2.1-3.0. This indicates that the finance mechanism would be that of traditional project finance and normal term finance with equity about 25% to 33%. 7.1% of projects have leverage of less than 1, and 10.7% are around 3.1-4 and >4. 17 respondents did not answer this question.

Table 5-11: Project leverage (ratio debt and equity)

For the selected project what was the Project Leverage calculated by dividing project debt by investor's equity?		
Answer Options	Response Percent	Response Count
< 1	7.1%	2
1.1-2	32.1%	9
2.1-3	39.3%	11
3.1-4	10.7%	3
>4.1	10.7%	3
Other (please specify)		3
	<i>answered question</i>	28
	<i>skipped question</i>	17

To leverage the PPP infrastructure projects, there are different types of government supports that can generally be accommodated. Government contributions that have been listed in the questionnaire include subsidy, guarantee, land/asset contribution, working capital state financial contribution, stimulus policy, credit wrap/insurance, borrower guarantee, and independent credit rating. The results from the survey in Table 5-12 show 51.5% for guarantees, 36.4% for land contributions, 21.2% for

working capital, 18.2% for subsidies and 9.1% for stimulus policy. Other types of government support that were quite rare were borrower guarantees, which were implemented in 6.1% of projects, and independent credit rating, implemented in 9.1% of projects. Further, another type mentioned was tax incentives. Twelve respondents did not answer this question.

Table 5-12: Types of government support for PPP infrastructure projects

Related to the selected project what type of supported finance was obtained from the Government?		
Answer Options	Response Percent	Response Count
Subsidy	18.2%	6
Guarantee	51.5%	17
Land/asset contribution	36.4%	12
Working capital/ State financial contribution	21.2%	7
Stimulus policy	9.1%	3
Credit wrap/insurance	0.0%	0
Borrower guarantees	6.1%	2
Independent credit rating	9.1%	3
Other (please specify)		6
	<i>answered question</i>	33
	<i>skipped question</i>	12

As shown in Table 5-13, for the Indonesian respondents the government contribution results from the survey were 17.6% for subsidies, 41.2% for guarantees, 23.5% for land contributions, 5.9% for working capital, and 5.9% for stimulus policy.

Table 5-13: Types of government support for PPP infrastructure projects from Indonesian respondents

Answer Options	Response Percent	Response Count
Subsidy	17.6%	3
Guarantee	41.2%	7
Land/asset contribution	23.5%	4
Working capital/ State financial contribution	5.9%	1
Stimulus policy	5.9%	0
Credit wrap/insurance	0.0%	0
Borrower guarantees	0.0%	0
Independent credit rating	0.0%	0
Other (please specify)		0
	<i>answered questions</i>	17
	<i>skipped questions</i>	1

Table 5-14 shows the Internal Rate of Return (IRR) that has usually been considered by respondents to be the basis of decision-making on investment. The results of the survey show that the IRR of 11-15% has been considered by 47.1% of respondents, IRR of 7-10% has been considered by 23.5% of respondents, IRR of 16-20% has been considered by 14.7% of respondents, and an IRR above 21% has been selected by 2.9% of respondents. An IRR of less than 6% could still be accepted by 11.8% of respondents.

Table 5-14: The Internal Rate of Return (IRR) of the infrastructure projects

For the selected project what was the Internal Rate Return (IRR)?		
Answer Options	Response Percent	Response Count
< 6%	11.8%	4
7-10 %	23.5%	8
11-15%	47.1%	16
16-20 %	14.7%	5
> 21 %	2.9%	1
	<i>answered question</i>	34
	<i>skipped question</i>	11

For the Indonesian respondents, Table 5-15 shows that an IRR of 11-15% has been considered as a preferred option by 58.8% of respondents, an IRR of 7-10% has been considered by 17.6% of respondents, IRR 16-20% has been considered by 17.6% of respondents, and an IRR less than 6% has been selected by 5.9% of respondents. There is no respondent who has experience in handling any projects with an IRR of above 21%.

Table 5-15: The Internal Rate of Return (IRR) of the infrastructure projects for Indonesian respondents

Answer Options	Response Percent	Response Count
< 6%	5.9%	1
7-10 %	17.6%	3
11-15%	58.8%	10
16-20 %	17.6%	3
> 21 %	0.0%	0
	<i>answered questions</i>	17
	<i>skipped questions</i>	-

The Break Even Point (BEP) for infrastructure projects usually is taking longer time of investment. The result of the survey in Table 5-16 shows that 41.2% of

respondents have projects with BEP of 6-10 years, 20.6% of projects have BEP of less than 5 years, 26.5% have BEP of about 11-15 years, 8.8.7% would consider BEP in 16-20 years and only 2.9% of respondents would consider a project with BEP >21 years.

Table 5-16: The Break Even Point (BEP) of the projects

Infrastructure Financing Survey		
For the selected project how long was the Break Even Point (BEP)?		
Answer Options	Response Percent	Response Count
< 5 years	20.6%	7
6-10 years	41.2%	14
11-15 years	26.5%	9
16-20 years	8.8%	3
> 21 years	2.9%	1
<i>answered question</i>		34
<i>skipped question</i>		11

For the Indonesian respondents, the results of the survey in Table 5-17 show that 52.9% of respondents have projects with BEP of 6-10 years, 23.5% have BEP of about 11-15 years, 8.8% had BEP of 16-20 years and >21 years is 5.9%.

Table 5-17: The Break Even Point (BEP) of the projects for Indonesian respondents

Answer Options	Response Percent	Response Count
< 5 years	5.9%	1
6-10 years	52.9%	9
11-15 years	23.5%	4
16-20 years	5.9%	1
> 21 years	5.9%	1
<i>answered questions</i>		17
<i>skipped questions</i>		-

The normal concession period for infrastructure projects was long-term cooperation. From the survey results in Table 5-18 it is found that 68.6% have a 21-30 years concession, and 14.3% have about 11-20 years. For 8.6% of respondents the concession period was <10 years, and similarly, 8.6% for 31-40 years. So far there was no respondent working in concessions of longer than 41 years.

Table 5-18: The concession period of the projects

Infrastructure Financing Survey		
For the selected project how long was the Concession Period?		
Answer Options	Response Percent	Response Count
< 10 years	8.6%	3
11-20 years	14.3%	5
21-30 years	68.6%	24
31-40 years	8.6%	3
> 41 years	0.0%	0
<i>answered question</i>		35
<i>skipped question</i>		10

For Indonesian respondents, from the survey result in Table 5-19, it is found that 76.5% have 21-30 year concession, and 11.8% have 11-20 years. The concessions of less than 10 years and 31-40 years are considered each by 5.9% of respondents, so far there was no respondent working in concession of longer than 41 years.

Table 5-19: The concession period of the projects for Indonesian respondents

Answer Options	Response Percent	Response Count
< 10 years	5.9%	1
11-20 years	11.8%	2
21-30 years	76.5%	13
31-40 years	5.9%	1
> 41 years	0.0%	0
<i>answered question</i>		17
<i>skipped question</i>		-

5.2.3. Quantitative Data Analysis

To support the PPP framework development and select the parameters, there are several methods of quantitative data analysis that needed to be conducted. The quantitative data analysis conducted in this research includes Relative Importance Index (RII) in order to have the listed ranking parameters based on the important justification of the stakeholders, factor analysis to see the correlation amounts of the parameters, one-way ANOVA to test the level of significance that is stated in the research hypothesis and to see the general correlations of the parameters and Mann-Whitney U-Test to find the significant amount of stakeholders to justify the parameters also the Mann-Whitney U-Test to compare listed parameters.

Table 5-20: Summary of quantitative analysis tools

Quantitative Analysis Tools	The Process	To Solve
Relative Importance Index (RII)	The relative important index of the parameters from the weighting given to each factor by respondents in likert scale questionnaire.	The result would be the listed ranking parameters based on the important justification of the stakeholders.
Exploratory Factor Analysis	Factor analysis has assisted to categorize the parameters, refining of grouping of the parameters by using factor analysis in dimension reduction tools.	To categorize the parameters and to find level of the correlation amounts of the category in parameters.
One-way ANOVA	One-way ANova to test the level of significant that states in research hypothesis and see the general correlation of the parameters, to determine whether there are any significant differences between the means of two or more independent (unrelated) groups.	In this research, it has shown the correlation of the stakeholder justification of the observed parameters and ranked the parameters base on the mean value.
Mann-Whitney U-Test	To find the level of Significant value from Mann-Whitney Test to stakeholder to justify the parameters and in other process to categorize parameters in different tiers.	To find level significant each of the stakeholder to justify the parameters and categorize of the parameters in different tiers.

5.2.3.1. *Relative Importance Index (RII)*

The Relative Importance Index (RII) was computed for each parameter to identify the most significant factors affecting the success of PPP financial performance. The most significant key parameters are ranked based on their RII values. A higher RII value will be more prioritized in the ranking system.

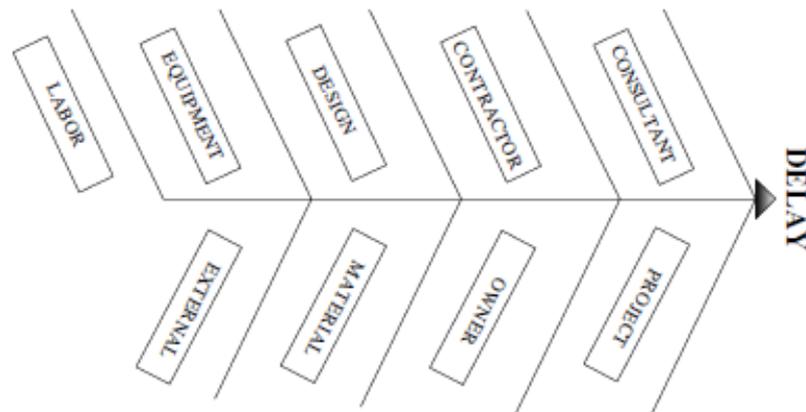


Figure 5-6: Categories and factors that cause schedule delay (Ishikawa Diagram)

Source: (Gündüz et al., 2013)

The RII value had a range of 0 to 1; the higher the RII, the more important was the cause of delays. Gunduz et al.’s study (2013) has attributed the causes of delay to

labour, equipment, design, contractor, consultant, project, owner, material and external.

The same method was adopted in this study. Relative importance was considered as experts' opinion on the selected parameters that give stronger effect on financial performance or value for money in supporting decision-making.

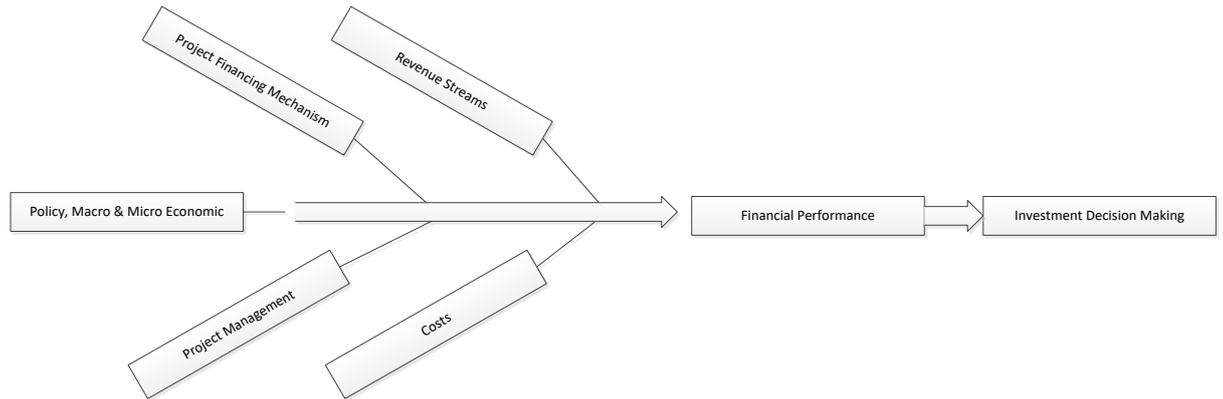


Figure 5-7: Groups of parameters that influence the financial performance of the PPP infrastructure projects

The parameters in this research have been grouped into five big groups of parameters, shown in Figure 5-7. These are: (i) policy, macro and micro economic, (ii) project management, (iii) project financing mechanism, (iv) revenue streams, and (v) costs.

Table 5-21: Parameters that influence the financial performance of the PPP infrastructure projects

Parameters related to policy, macro & micro economic	Parameters related to the project financing mechanism
Supported Government Policy	Private equity capital
Lengthy bidding preparation	Government equity
Defining inflation assumption	Amount of bank loan
Defining interest rate in monetary policy	Bank loan period
Defining taxes policy	Additional working capital loan
Defining social discount rate	Mezzanine loan for additional capital
Lengthy bidding evaluation	Debt refinancing
Lengthy contract negotiation	Lengthy of Grade Period
Lengthy delay due of political involvement	Value of Interest During Construction (IDC)
Foreign exchange fluctuation	IDC payment method
Land acquisition process	IDC payment period
Parameters related to project management	Financing risk and costs
Organization human resources during	Quality of Feasibility Study (FS)

construction	
Material availability during construction	Cost of construction the FS
Labour availability during construction	FS due diligence
Organization human resources during operation and maintenance	Donor Funding (International Financing Institutions) contribution
Parameters related to revenue streams	Parameters related to costs
Marketing (wilingness & ability survey) and competition study	Construction costs & investment
Tariff or fee approved by government	Technology investment
Tariff or fee growth	Overrun during construction
Demand volume	Bank guarantee for construction
Demand growth	Regular operation costs
Additional incomes	Regular maintenance costs
	Insurance / risk transfer expenses
	Operational cost overrun

The complete RII computation can be seen in detail in Table 5-22.

Table 5-22: Relative Importance Index (RII) results from all parameters for all five factor groups

Factor Group	Parameter in financial	Likert Scale					Ranking Average	RII	Ranking
		Not at all	Less extent	Moderate extent	Very extent	Very large extent			
Policy and Micro & Macro Economic	Supported Government Policy	3	0	9	17	11	3.83	0.77	2
	Land acquisition process	5	3	7	11	14	3.65	0.73	6
	Lengthy delay due of political involvement	3	5	8	16	8	3.53	0.71	11
	Lengthy contract negotiation	3	6	14	14	3	3.20	0.64	27
	Defining taxes policy	4	4	18	10	4	3.15	0.63	30
	Defining interest rate in monetary policy	5	2	20	9	4	3.13	0.63	31
	Lengthy bidding preparation	5	4	17	11	3	3.08	0.62	33
	Lengthy bidding evaluation	4	6	15	13	2	3.08	0.62	34
	Defining inflation assumption	5	4	18	12	1	3.00	0.60	40
	Foreign exchange fluctuation	4	8	17	7	4	2.98	0.60	42
Project Management	Defining social discount rate	5	9	17	7	2	2.80	0.56	45
	Labour availability during construction	4	5	12	14	5	3.28	0.66	22
	Organization human resources during construction	3	6	17	9	5	3.18	0.64	28
	Material availability during construction	4	7	14	8	7	3.18	0.64	29
	Organization human resources during operation and maintenance	4	6	16	10	4	3.10	0.62	32
Project Financing Mechanism	Amount of bank loan	3	1	12	13	11	3.70	0.74	5
	Financing risk and costs	3	1	10	19	7	3.65	0.73	7
	Quality of Feasibility Study (Foss & Ellefsen)	2	2	14	13	9	3.63	0.73	9
	Bank loan period	4	3	10	14	9	3.53	0.71	12
	FS due diligence	4	2	14	15	5	3.38	0.68	17

Factor Group	Parameter in financial	Likelihood					Ranking Average	RII	Ranking
		Not at all	Less extent	Moderate extent	Very extent	Very large extent			
	Cost of construction the FS	2	5	15	15	3	3.30	0.66	20
	Private equity capital	7	1	16	8	8	3.23	0.65	24
	Lengthy of Grade Period	2	7	16	10	5	3.23	0.65	25
	Value of Interest During Construction (IDC)	3	7	14	10	6	3.23	0.65	26
	Government equity	4	7	14	12	3	3.08	0.62	35
	IDC payment period	4	6	17	9	4	3.08	0.62	36
	Additional working capital loan	4	6	16	12	2	3.05	0.61	37
	Debt refinancing	4	6	15	14	1	3.05	0.61	38
	IDC payment method	5	7	14	11	3	3.00	0.60	41
	Mezzanine loan for additional capital	5	7	16	9	3	2.95	0.59	43
	Donor Funding (International Financing Institutions) contribution	7	5	17	5	6	2.95	0.59	44
Revenue Streams	Tariff or fee approved by government	4	0	9	14	13	3.80	0.76	3
	Demand volume	4	1	11	9	15	3.75	0.75	4
	Demand growth	4	1	12	11	12	3.65	0.73	8
	Tariff or fee growth	3	3	9	16	9	3.63	0.73	10
	Marketing (wilingness & ability survey) and competition study	5	3	13	13	6	3.30	0.66	21
	Additional incomes	6	4	15	12	3	3.05	0.61	39
Potential Costs	Construction costs & investment	2	1	7	19	11	3.90	0.78	1
	Overrun during construction	2	4	14	13	7	3.48	0.70	13
	Operational cost overrun	2	4	11	19	4	3.48	0.70	14
	Insurance / risk transfer expenses	3	3	13	16	5	3.43	0.69	15
	Regular operation costs	2	3	16	15	4	3.40	0.68	16
	Technology investment	2	4	15	15	4	3.38	0.68	18
	Bank guarantee for construction	2	4	15	15	4	3.38	0.68	19
	Regular maintenance costs	3	4	15	15	3	3.28	0.66	23

The RII was computed for each parameter to identify the most significant effect to financial performance. The higher RII value would be more prioritized in the ranking system. According to the study results, the shortlist of 15 key parameters considered significantly strong in PPP financial performance are: (1) construction costs & investment, (2) supportive government policy, (3) tariff or fee approved by government, (4) demand volume, (5) amount of bank loan, (6) land acquisition process, (7) financing risk and costs, (8) demand growth, (9) quality of FS, (10) tariff or fee growth, (11) lengthy delay due of political involvement, (12) bank loan period,

(13) cost overrun during construction, (14) operation costs overrun and (15) Insurance/Risk Transfer Expenses. Explanatory factor analysis and Mann-Whitney U-Test have been explored to categorize the parameters in the next chapters.

Table 5-23: The 15 critical parameters resulting from the Relative Importance Index (RII)

Parameters which More Considered	RII
Construction costs & investment	0.78
Supportive Government Policy	0.77
Tariff or fee approved by government	0.76
Demand volume	0.75
Amount of bank loan	0.74
Land acquisition process	0.73
Financing risk and costs	0.73
Demand growth	0.73
Quality of Feasibility Study (FS)	0.73
Tariff or fee growth	0.73
Lengthy delay due of political involvement	0.71
Bank loan period	0.71
Overrun during construction	0.70
Operational cost overrun	0.70
Insurance / risk transfer expenses	0.69

Based on the ranking, the five most important parameters from groups of policy and micro & macro-economic aspect were: supportive government policy (RII=0.765), land acquisition process (RII=0.730), lengthy delay due of political involvement (RII=0.705), lengthy contract negotiation (RII=0.640), and taxes policy (RII=0.630).

From the project management aspect, the ranking results would be labour availability during construction (RII=0.655), organization human resources during construction (RII=0.635) material availability during construction (RII=0.635), and organization human resources during operation and maintenance (RII=0.620).

The five most significant parameters from project financing mechanism aspects were amount of bank loan (RII=0.740), financing risk and costs (RII=0.730), quality of Feasibility Study (Foss & Ellefsen) (RII=0.725), bank loan period (RII=0.705), and FS due diligence (RII=0.675).

Revenue streams' significant parameters would be by a tariff or a fee approved by government (RII=0.760), demand volume (RII=0.750), demand growth (RII=0.730), tariff or fee growth (RII=0.725), and marketing (wilingness & ability survey), and competition study (RII=0.660).

The five significant parameters from costs aspects were construction costs & investment (RII=0.780), overrun during construction (RII=0.695), operational cost overrun (RII=0.695), insurance/risk transfer expenses (RII=0.685), and regular operation costs (RII=0.680).

From the RII results and the weighted factor analysis, all of the parameters have a value above 0.500, which are all considered as important parameters. However, from a total of 45 parameters that have been tested in this survey, 14 parameters were considered as less important parameters in financial decision-making by all the stakeholders. The 14 parameters were: Defining social discount rate, Donor Funding (International Financing Institutions) contribution, Mezzanine loan for additional capital, Foreign exchange fluctuation, IDC payment method, Defining inflation assumption, Additional incomes, Debt refinancing, Additional working capital loan, IDC payment period, Government equity, Lengthy bidding evaluation, Lengthy bidding preparation and Organization human resources during operation and maintenance.

Table 5-24: Key parameters considered less important by the stakeholders in this survey

Parameters which Less Considered	RII
Organization of human resources during operation and maintenance	0.62
Lengthy bidding preparation	0.62
Lengthy bidding evaluation	0.62
Government equity	0.62
IDC payment period	0.62
Additional working capital loan	0.61
Debt refinancing	0.61
Additional incomes	0.61
Defining inflation assumption	0.60
IDC payment method	0.60
Foreign exchange fluctuation	0.60
Mezzanine loan for additional capital	0.59
Donor Funding (International Financing Institutions) contribution	0.59
Defining social discount rate	0.56

From Table 5-25, as the result of the RII average per factor group, the policy and micro & micro economic became the most important, followed by the revenue streams and potential costs, project financing mechanism, and the project management.

Table 5-25: Summary ranking of results based on the factor groups

Factor groups	Overall RII for main factors	Ranking
Policy and Micro & Macro Economic	0.708	1
Project Management	0.636	5
Project Financing Mechanism	0.650	4
Revenue Streams	0.706	2
Potential Costs	0.693	3

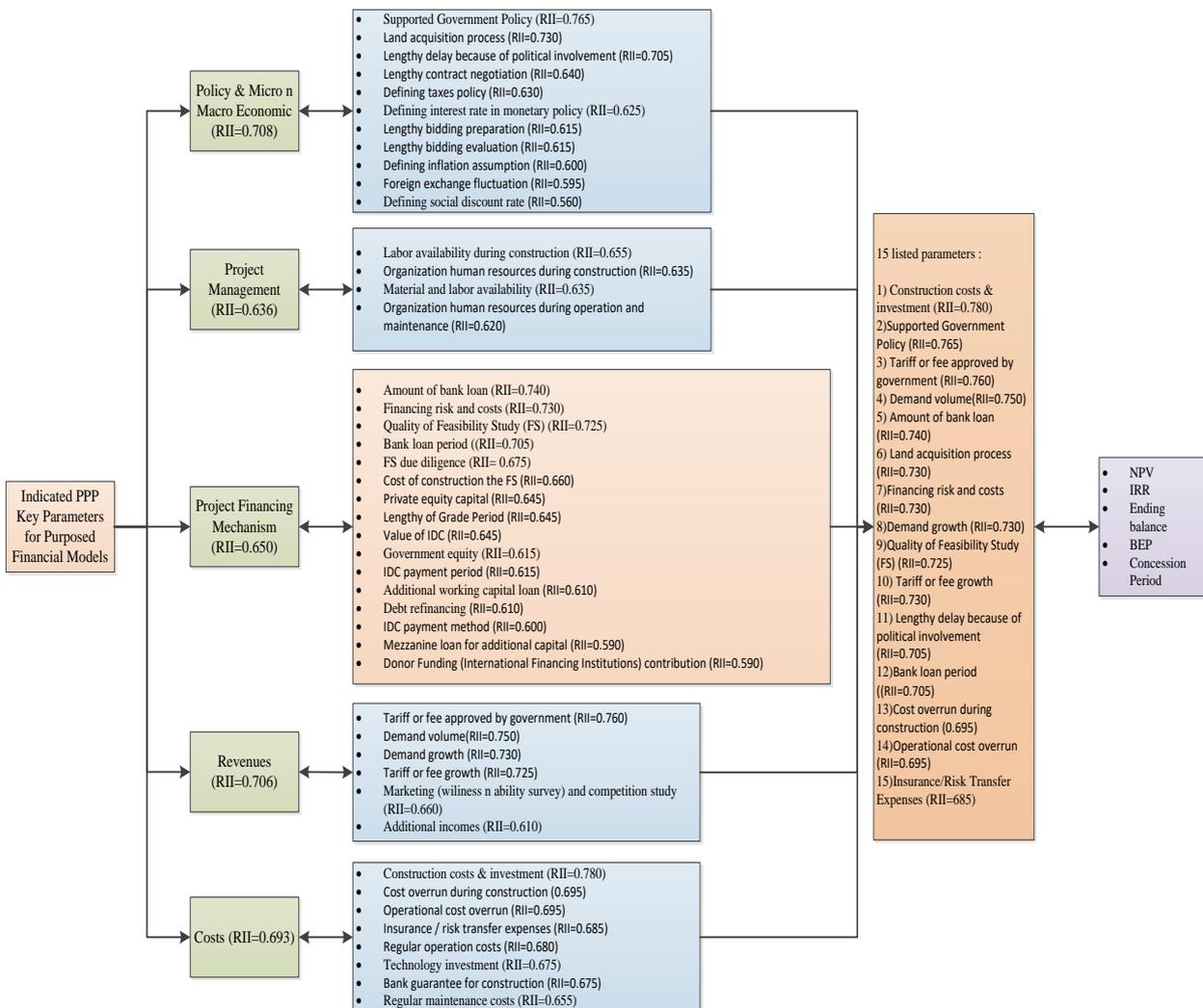


Figure 5-8: The framework of critical parameters affecting PPP financial decision-making

5.2.3.2. Explanatory Factor Analysis

Factor analysis was used to assist the categorization of the parameters; refining of the parameter groupings can be done by using factor analysis as in dimension reduction tool. This tool indicated to group all the parameters into 12 components in 88.97% cumulative initial eigenvalues, then reduce then into five components, 66.31% cumulative initial eigenvalues (>50%). The Rotation Sums of Squared Loadings show the eigenvalues and variance after rotation (A. G. Yong & Pearce, 2013). The cumulative and number of components is also shown in the figure of the scree plot. Figure 5-9 below shows the five components groups of parameters. The factor analysis tool that has been used is the principal component method.

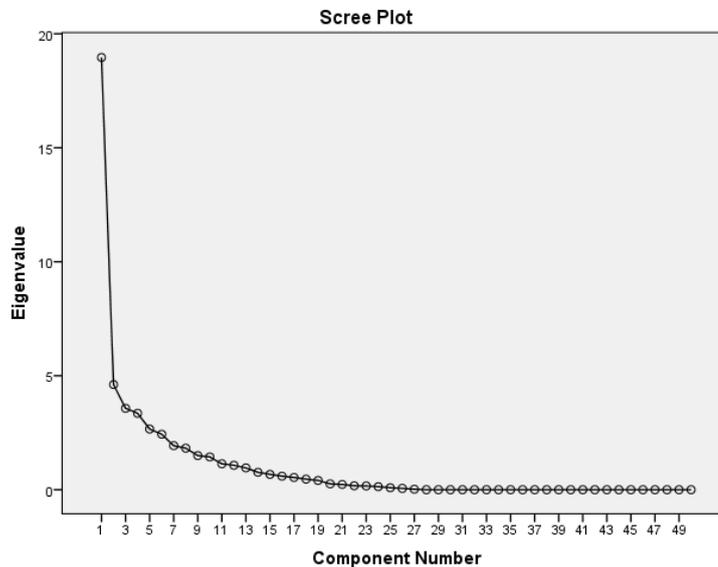


Figure 5-9: Scree plot to show the number of components suggested in factor analysis

The rotated eigenvalues and scree plot (Figure 5-9) help to determine the number of significant factors. It indicates of having 5 categorized group factors that has been shown in Table 5-26. As explain in Tabachnick and Fidell (2007), the correlation r must be 0.30 or greater since anything lower would suggest a really weak relationship between the parameters (Tabachnick & Fidell, 2007) that can be deleted.

Other methods to check the sampling accuracy in order to do the factor analysis are by proceed with a Kaiser-Mayer-Olkin (KMO) measure of sampling accuracy and Bartlett's test of sphericity. The result is in Table 5-26 that the KMO is 0.736 and it

is > 0.600 and the Sig. in Bartlett's test is 0.000 and it is < 0.050 . So, it shows that the sampling accuracy can be accepted.

Table 5-26: KMO and Bartlett's test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.736
Bartlett's Test of Sphericity	Approx. Chi-Square	1351.3
		21
	Df	378
	Sig.	.000

Table 5-27: Pattern matrix to categorize the parameters

Pattern Matrix^a	Component				
	1	2	3	4	5
Categorized Group 1					
Regular Operation Costs	.856				
Regular Maintenance Costs	.840				
Debt Refinancing	.786				
Additional Working Capital Loan	.725				
Mezzanine Loan for Additional Capital	.723				
IDC Payment Method	.655				
IDC Payment Period	.654				
Lengthy of Grade Period	.620				
Value of Interest During Construction	.616				
Insurance or Risk Transfer Expenses	.589				
Financing Risk and Costs	.558				
Overrun During Construction	.538				
Private Equity Capital	.367				
Categorized Group 2					
Material Availability During Construction		.807			
Labor Availability During Construction		.801			
Additional Incomes		.701			
Organization Human Resources During Construction		.695			
Lengthy Bidding Evaluation		.647			
Lengthy Contract Negotiation		.644			
Technology Investment		.607			
Marketing and Competition Study		.603			
Quality of Feasibility Study		.542			
Demand Growth		.508			
Lengthy Bidding Preparation		.500			
Demand Volume		.489			
Construction Costs and Investment		.472			
Organization Human Resources During Operation and		.471			

Pattern Matrix ^a	Component				
	1	2	3	4	5
Maintenance					
Cost of Construction The FS		.470			
Categorized Group 3					
Tariff or Fee Approved by Government			.784		
Amount of Bank Loan			.724		
Bank Loan Period			.716		
Tariff or Fee Growth			.708		
Land Acquisition Process			.612		
Supported Government Policy			.521		
Bank Guarantee for Construction			.480		
FS Due Diligence			.449		
The Break Even Point					
Categorized Group 4					
The Internal Rate Return				.654	
Donor Funding				.637	
Categorized Group 5					
Government Equity					.814
Lengthy Delay Due of Political Involvement					.607
Organization					.554
Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.					
a. Rotation converged in 48 iterations.					

Table 5-28: Component correlation matrix

Component Correlation Matrix					
Component	1	2	3	4	5
1	1.000	.331	.284	-.157	.082
2	.331	1.000	.222	-.089	.195
3	.284	.222	1.000	-.092	.105
4	-.157	-.089	-.092	1.000	.008
5	.082	.195	.105	.008	1.000
Extraction Method: Principal Component Analysis. Rotation Method: Oblimin with Kaiser Normalization.					

In Table 5-28, the correlation matrix shows the level of correlation of the parameter groups. It shows that the parameter in group 1 and group 2 have the high correlation of above 0.300, and means that the parameters in group 1 and group 2 have significant correlation as compared to other groups.

5.3.2.3. *One-Way ANOVA*

The one-way analysis of variance (ANOVA) is used to determine whether there are any significant differences between the means of two or more independent (unrelated) groups. In this research, was used to show the stakeholder justification to the observed parameters and to rank the parameters based on the mean value.

The data description of the 15 shortlisted parameters is in Table 5.29. Construction and investment costs as the most importance parameter have the highest values of means in all of the stakeholders' opinions. 4.111 refers to governments, 4.333 refers to bankers, 4.000 refers to entrepreneurs, 4.273 refers to consultants and 3.500 refers to donor agencies. Other parameters related to the stakeholders' opinions are shown in detail in Table 5-29.

Table 5-29: Summary of descriptive means and std. deviation from SPSS

	Governments (N=9)	Bankers/Financial Institution (N=6)	Entrepreneurs/ Private Sectors (N=7)	Consultants (N=11)	Donor Agencies (N=2)
Construction Costs & Investment	4.111 (0.601)	4.333 (0.516)	4.000 (0.817)	4.273 (0.786)	3.500 (0.707)
Supported Government Policy	3.667 (0.500)	4.667 (0.516)	4.143 (0.690)	4.091 (0.831)	4.000 (1.414)
Tariff or fee approved by government	3.889 (0.782)	4.667 (0.516)	3.857 (0.900)	4.091 (1.221)	3.500 (0.707)
Demand volume	3.444 (1.236)	3.857 (1.215)	4.429 (0.787)	4.364 (0.809)	3.00 (0.000)
Amount of Bank Loan	3.333 (1.225)	4.000 (0.894)	4.286 (0.756)	4.182 (0.874)	3.00 (0.000)
Land Acquisition Process	3.000 (1.118)	4.000 (1.265)	4.286 (1.496)	4.182 (1.250)	3.500 (0.707)
Financial Risk and Costs	3.444 (1.130)	4.333 (0.816)	4.000 (0.817)	4.000 (0.447)	3.000 (0.000)
Demand Growth	3.333 (1.118)	4.000 (1.264)	4.427 (0.787)	4.091 (0.831)	3.000 (0.000)
Quality of FS	3.222 (0.667)	4.333 (0.816)	4.429 (0.535)	3.818 (0.873)	3.000 (0.000)
Tariff or fee growth	3.444 (1.014)	4.333 (0.817)	3.714 (1.113)	4.091 (0.701)	3.500 (0.707)
Lengthy Delay due of Political Involvement	3.222 (0.833)	3.333 (1.211)	4.143 (1.464)	4.091 (0.701)	3.500 (0.707)
Bank Loan	3.333	4.167	4.000	3.727	3.000

	Governments (N=9)	Bankers/Financial Institution (N=6)	Entrepreneurs/ Private Sectors (N=7)	Consultants (N=11)	Donor Agencies (N=2)
Period	(1.414)	(0.753)	(0.816)	(1.191)	(0.000)
Cost Overrun During Construction	3.556 (0.882)	4.000 (0.894)	3.714 (0.756)	3.545 (1.128)	3.500 (0.707)
Operation Costs Overrun	3.778 (0.667)	4.000 (0.632)	3.857 (0.900)	3.273 (0.905)	3.500 (0.707)
Insurance Risk Transfer Costs	3.222 (1.093)	4.167 (0.753)	3.429 (0.976)	3.273 (0.786)	3.500 (0.707)

To observe the level of significance of the parameters, a one-way ANOVA method in SPSS has been utilized and this is summarized in Table 5-30. Almost all of the Sig value for all parameters were > 0.05 . This means that the null hypothesis was accepted. Regardless of respondents, it can be concluded there is not a statistical significant difference between the stakeholder groups regarding the parameters of decision-making in finance. The stakeholders have their own perceptions and justifications of all the parameters. The respondents were independent in justifying the parameters. Quality of FS is the only parameter that has Sig $0.010 < 0.050$. It means that all stakeholders would like to have the best quality of FS as their basis for negotiation.

Table 5-30: Summary of the ANOVA for the 15 shortlisted parameters

Between Groups	F	Df	Sig.
Construction Costs & Investment	0.695	4	0.601
Supported Government Policy	1.810	4	0.153
Tariff or fee approved by government	0.962	4	0.443
Demand volume	1.850	4	0.145
Amount of Bank Loan	1.795	4	0.156
Land Acquisition Process	1.483	4	0.232
Financial Risk and Costs	1.814	4	0.152
Demand Growth	1.813	4	0.152
<i>Quality of FS</i>	<i>4.033</i>	<i>4</i>	<i>0.010</i>
Tariff or fee growth	1.197	4	0.333
Lengthy Delay due of Political Involvement	1.441	4	0.245
Bank Loan Period	0.836	4	0.513
Cost Overrun During Construction	0.281	4	0.888
Operation Costs Overrun	1.096	4	0.376
Insurance/ Risk Transfer Expenses	1.094	4	0.377

Table 5-31: Summary of the ANOVA for the output financial performance consideration

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Project Leverage Debt by Equity	Between Groups	8.339	4	2.085	2.143	.108
	Within Groups	22.375	23	.973		
	Total	30.714	27			
The Internal Rate Return	Between Groups	5.291	4	1.323	1.515	.224
	Within Groups	25.327	29	.873		
	Total	30.618	33			
The Break Even Point	Between Groups	4.148	4	1.037	1.027	.410
	Within Groups	29.293	29	1.010		
	Total	33.441	33			
The Concession Period	Between Groups	.500	4	.125	.212	.930
	Within Groups	17.671	30	.589		
	Total	18.171	34			

The following tables show the result of a simple ranking based on the highest value of means to check the parameters that are listed based on the stakeholder's justifications. The shortlisted parameters based on the stakeholder overview will become an input in developing the basic PPP Framework that will be explained in the next chapter.

The lists of parameters ranking based on the value of the mean with standard deviation for the government's justification are as follows:

Table 5-32: The shortlisted parameters based on the governments' justification

Parameters of Government Justification	Mean	Standard Deviation
Construction Costs and Investment	4.1111	.60093
Tariff or Fee Approved by Government	3.8889	.78174
Operational Cost Overrun	3.7778	.66667
Supported Government Policy	3.6667	.50000
Private Equity Capital	3.5556	1.01379
Cost Overrun During Construction	3.5556	.88192
Bank Guarantee for Construction	3.5556	.88192
Regular Operation Costs	3.5556	.72648
Demand Volume	3.4444	1.23603

Parameters of Government Justification	Mean	Standard Deviation
Financing Risk and Costs	3.4444	1.13039
Tariff or Fee Growth	3.4444	1.01379
Technology Investment	3.4444	1.01379
Bank Loan Period	3.3333	1.41421
Amount of Bank Loan	3.3333	1.22474
Demand Growth	3.3333	1.11803

The lists of parameters ranking based on the value of the mean with standard deviation for the bankers/financial institution's justification are as follows:

Table 5-33: The shortlisted parameters based on the bankers/financial institutions' justification

Parameters of Bankers	Mean	Standard Deviation
Supported Government Policy	4.6667	.51640
Tariff or Fee Approved by Government	4.6667	.51640
Financing Risk and Costs	4.3333	.81650
Quality of Feasibility Study	4.3333	.81650
Tariff or Fee Growth	4.3333	.81650
Construction Costs and Investment	4.3333	.51640
FS Due Diligence	4.1667	.98319
Insurance or Risk Transfer Expenses	4.1667	.75277
Bank Loan Period	4.1667	.75277
Demand Volume	4.0000	1.26491
Land Acquisition Process	4.0000	1.26491
Demand Growth	4.0000	1.26491
Bank Guarantee for Construction	4.0000	1.26491
Amount of Bank Loan	4.0000	.89443
Cost Overrun During Construction	4.0000	.89443

The lists of parameters ranking based on the value of the mean with standard deviation for the entrepreneurs /private sectors' justification are as follows:

Table 5-34: The shortlisted parameters based on the entrepreneurs/private sectors' justification

Parameters of Private Sectors	Mean	Standard Deviation
Demand Volume	4.4286	.78680
Demand Growth	4.4286	.78680
Quality of Feasibility Study	4.4286	.53452
Land Acquisition Process	4.2857	1.49603
Amount of Bank Loan	4.2857	.75593
Lengthy Delay Due of Political Involvement	4.1429	1.46385
Supported Government Policy	4.1429	.69007
Lengthy Bidding Evaluation	4.1429	.69007

Parameters of Private Sectors	Mean	Standard Deviation
Construction Costs and Investment	4.0000	.81650
Bank Loan Period	4.0000	.81650
Financing Risk and Costs	4.0000	.81650
Value of Interest During Construction	4.0000	.81650
Defining Taxes Policy	3.8571	.89974
Tarif for Fee Approved by Government	3.8571	.89974
Operational Cost Overrun	3.8571	.89974
Additional Working Capital Loan	3.8571	.89974

The lists of parameters ranking based on the value of the mean with standard deviation for the consultant justification are as follows:

Table 5-35: The shortlisted parameters based on the consultants' justification

Parameters of Consultants	Mean	Standard Deviation
Demand Volume	4.3636	.80904
Construction Costs and Investment	4.2727	.78625
Land Acquisition Process	4.1818	1.25045
Amount of Bank Loan	4.1818	.87386
Tariff or Fee Approved by Government	4.0909	1.22103
Supported Government Policy	4.0909	.83121
Demand Growth	4.0909	.83121
Tariff or Fee Growth	4.0909	.70065
Lengthy Delay Due of Political Involvement	4.0909	.70065
Financing Risk and Costs	4.0000	.44721
Marketing and Competition Study	3.9091	1.04447
Quality of Feasibility Study	3.8182	.87386
FS Due Diligence	3.8182	.60302
Bank Loan Period	3.7273	1.19087
Insurance or Risk Transfer Expenses	3.7273	.78625

The lists of parameters ranking based on the value of the mean with standard deviation for the donor agencies' justifications are as follows:

Table 5-36: The shortlisted parameters based on the donor agencies' justification

Parameters of Donor Agency	Mean	Standard Deviation
Supported Government Policy	4.0000	1.41421
Construction Costs and Investment	3.5000	.70711
Tariff or Fee Approved by Government	3.5000	.70711
Land Acquisition Process	3.5000	.70711
Tariff or Fee Growth	3.5000	.70711
Lengthy Delay Due of Political Involvement	3.5000	.70711
Operational Cost Overrun	3.5000	.70711
Cost Overrun During Construction	3.5000	.70711
Insurance or Risk Transfer Expenses	3.5000	.70711
Lengthy Bidding Preparation	3.5000	.70711

Parameters of Donor Agency	Mean	Standard Deviation
Defining Inflation Assumption	3.5000	.70711
Defining Interest Rate in Monetary Policy	3.5000	.70711
Organization Human Resources During Construction	3.5000	.70711
Marketing and Competition Study	3.5000	.70711
Regular Operation Costs	3.5000	.70711

5.3.2.4. *The Mann-Whitney U-Test*

The Mann-Whitney u-test needed to be conducted in order to observe the level of significant amount of the stakeholders to justify the tested parameters. The results of the Mann-Whitney U-Test are presented in Table 5-36. The significance which is less than 0.05, is significant and indicates accepting H1, while the significance greater than 0.05 will accept the H0.

The significance for governments and bankers, the governments to private sectors and the governments to consultants are 0.000, it accepts the H1, and it means that there is a statistical significant difference that governments have alternative to justify the significant parameters for bankers, private sectors and consultants. Whereas, the significance of governments and donor agencies is 0.368, it means that the H0 is accepted, therefore there is no statistically significant difference that the government have no alternative to justify the donor agencies in perceiving the level of importance of the parameters.

The significance values of the bankers to the private sector and to consultants are above 0.05, it means that H0 is accepted, and therefore the bankers could not influence the justification of the private sectors and consultants. While the significance value of bankers to donor agencies is 0.000, and therefore H1 is accepted. Therefore the bankers could influence the donor agencies in justifying the level of importance of the tested parameters.

The significance values of the private sector to consultants and donor agencies are less than 0.05, therefore H1 is accepted, and therefore the private sector could influence the consultants and donor agencies in justifying the tested parameters.

Lastly the significance value of the consultants to donor agencies is 0.000; it means that H1 is accepted, and therefore the consultants could influence the donor agencies to justify the level of importance of the tested parameters.

The results are summarized as follow:

Table 5-37: Mann-Whitney U (U), Wilcoxon W (W), Z (Z), Exact Sig (2-tailed) (Sig.) of the means of the parameters

	Level of Correlations	Governments	Bankers	Private Sectors	Consultants	Donor Agencies
U	Governments	-	534.000	204.000	506.000	904.000
W			1569.000	1239.000	1541.000	1939.000
Z			-3.873	-6.543	-4.093	-.905
Sig.			0.000	0.000	0.000	0.368
U	Bankers	-	-	781.000	967.500	507.500
W			-	1816.000	2002.500	1542.500
Z			-	-1.875	-0.364	-4.204
Sig.			-	0.061	0.719	0.000
U	Private Sectors	-	-	-	657.500	169.500
W			-	-	1692.500	1204.500
Z			-	-	-2.872	-6.964
Sig.			-	-	0.004	0.000
U	Consultants	-	-	-	-	497.000
W			-	-	-	1532.000
Z			-	-	-	-4.269
Sig.			-	-	-	0.000

The Mann-Whitney U-Test has also assisted in comparing the amount of relation of the parameters. The first test takes the constructions costs & investment (the first parameter from RII) as the main comparator to other parameters, shown in Table 5.37. The results are the level of significance from the Mann-Whitney test that above than 0.05 have been included in the Tier 1, the Constructions Costs & Investment have high correlation to the other parameters as Tier 1, shown in Table 3.38. The parameters that are included in Tier 1 are construction costs & investment, supported government policy, tariff or fee approved by government, demand volume, amount of bank loan, land acquisition process, financing risks & costs, demand growth, quality of FS, tariff or fee growth, length of delay because of political involvement and bank loan period.

The parameters which have significance below 0.05 were further tested using cost overrun during construction as the main comparator. Table 3-39 is the result of the

Sig Mann-Whitney test as Tier 2. Tier 3 is shown in Table 5-40 with foreign exchange fluctuation as the main comparison.

Table 5-38: Tier 1 of the categories of the parameter from significances of the Mann-Whitney U-Test

	Sig Mann-Whitney	
Construction costs & investment	Supported Government Policy	0.778
	Tariff or fee approved by government	0.871
	Demand volume	0.770
	Amount of bank loan	0.397
	Land acquisition process	0.654
	Financing risk and costs	0.226
	Demand growth	0.380
	Quality of Feasibility Study (FS)	0.162
	Tariff or fee growth	0.269
	Lengthy delay due of political involvement	0.142
	Bank loan period	0.157

Table 5-39: Tier 2 of the categories of the parameters from significances of the Mann-Whitney U-Test

	Sig Mann-Whitney	
Overrun during construction	Operational cost overrun	0.915
	Insurance / risk transfer expenses	0.924
	Regular operation costs	0.727
	FS due diligence	0.793
	Technology investment	0.660
	Bank guarantee for construction	0.660
	Cost of construction the FS	0.442
	Marketing (winess & ability survey) and competition study	0.613
	Labour availability during construction	0.505
	Regular maintenance costs	0.425
	Private equity capital	0.440
	Lengthy of Grade Period	0.250
	Value of Interest During Construction (IDC)	0.303
	Lengthy contract negotiation	0.266
	Organization human resources during construction	0.188
	Material availability during construction	0.273
	Defining taxes policy	0.173
	Defining interest rate in monetary policy	0.148
	Organization human resources during operation and maintenance	0.125
	Lengthy bidding preparation	0.114

Sig Mann-Whitney		
	Lengthy bidding evaluation	0.108
	Government equity	0.112
	IDC payment period	0.940
	Additional working capital loan	0.081
	Debt refinancing	0.087
	Additional incomes	0.118
	Defining inflation assumption	0.054
	IDC payment method	0.066

Table 5-40: Tier 3 of the categories of the parameters from significances of the Mann-Whitney U-Test

Sig Mann-Whitney		
Foreign exchange fluctuation	Mezzanine loan for additional capital	0.996
	Donor Funding (International Financing Institutions) contribution	0.944
	Defining social discount rate	0.505

5.3. Qualitative Analysis: PPP Project Lifecycle, Stakeholders and Mechanism

Interviews with professional PPP practitioners have been conducted to gain their opinion of their expertise in executing PPP infrastructure projects. There were originally 20 interviews conducted with practitioners based in Jakarta, Palembang (Indonesia), Perth, Sydney, Brisbane, Gold Coast (Australia), Singapore, Kuala Lumpur (Malaysia), Dar es Salaam (Tanzania) and London (UK). The 12 interviews have been included in the data analysis. There are no exact rules in defining the number of samples in PhD research in interview study. A study focusing on defining the number of samples and the level of saturation found that the smallest sample used was a single participant used in a life history study, which might be expected due to the in-depth, detailed nature of the approach, while the largest sample used was 95 participants, which was a study utilizing a case study approach (Mason, 2010). In the present study, the interviews reached data saturation after analyzing 12 interviews.

Therefore, from the 12 respondents selected, it was expected that the responses came from the relevant and credible experts. The respondents that have been interviewed

had different backgrounds and came from different institutions. Respondents who came from the government background also had several different functions, such as from the National Planning Agency, from Ministry of Finance, from Finance Authority Services. Other respondents who are not government officers are from SOEs, bankers, contractors, consultants, private investors and academics.

Briefly, the respondents for interviews are shown in Table 5-41.

Table 5-41: The respondents interviewed

Number of Respondents	Experience and Responsibility
Respondent 1	More than 10 years' experience, Senior Professor in a university in Queensland and has long experiences of advising government on infrastructure development.
Respondent 2	More than 10 years' experience, Government of Queensland Advisory, Brisbane, Australia A senior advisory for the government of Queensland regarding finance and infrastructure development, also a former of head of government institution.
Respondent 3	More than 5 years' experience, An officer in land transportation institution in Perth, actively managing several infrastructure projects in Perth.
Respondent 4	More than 10 years' experience, Lead Consortium of New City Kigamboni Development, Tanzania, Africa. A consortium leader to develop a new city in Tanzania with responsibility in arranging finance from private equity to support the new city from very initial stages up to later develop the city.
Respondent 5	More than 10 years' experience, Director of a Monorail manufacturer, an urban transport company, Malaysia
Respondent 6	More than 10 years' experience, Commonwealth Advisory, London, UK He is the former PPP Director and senior advisory in Commonwealth Secretariat.
Respondent 7	More than 10 years' experience, Director of a private company managing PPP projects in Indonesia, Jakarta, Indonesia Now he is actively as senior advisory for the governments institution focusing in PPP and infrastructure development.
Respondent 8	More than 5 years' experience, 3 Senior Staffs in Financial Service Authority (FSA), Jakarta, Indonesia
Respondent 9	More than 5 years' experience, a senior staff in Planning Division of Government Institution, Jakarta, Indonesia
Respondent 10	More than 10 years' experience, Vice President of State Owned Company, Jakarta, Indonesia.
Respondent 11	More than 10 years' experience, Commissionaire of State Owned Company, Jakarta, Indonesia
Respondent 12	More than 10 years' experience, 3 Directors of Construction Company, Sydney

The interviews were conducted using semi-structured questions and the questions were able to be expanded to explore further information related to the respondents' expertise. The interviews were recorded and transcribed. NVivo was utilized and assisted in storing the qualitative data, coding and modelling to perform analysis.

5.3.1. Coding

The coding was conducted by analyzing the transcripts and identifying the key themes throughout the process. The coding structure emerged from the interviews data but triangulated with the key themes identified from the literature and quantitative analysis. The main nodes/themes developed in this research are the most relevant factors to the PPP infrastructure delivery in Indonesia. Figure 5-10 presents the 6 main nodes/themes that has been generated from the coding and analysis of transcript, namely External Consideration, Financing Mechanism, Infrastructure, Project Life Cycle and Stakeholder Organization.

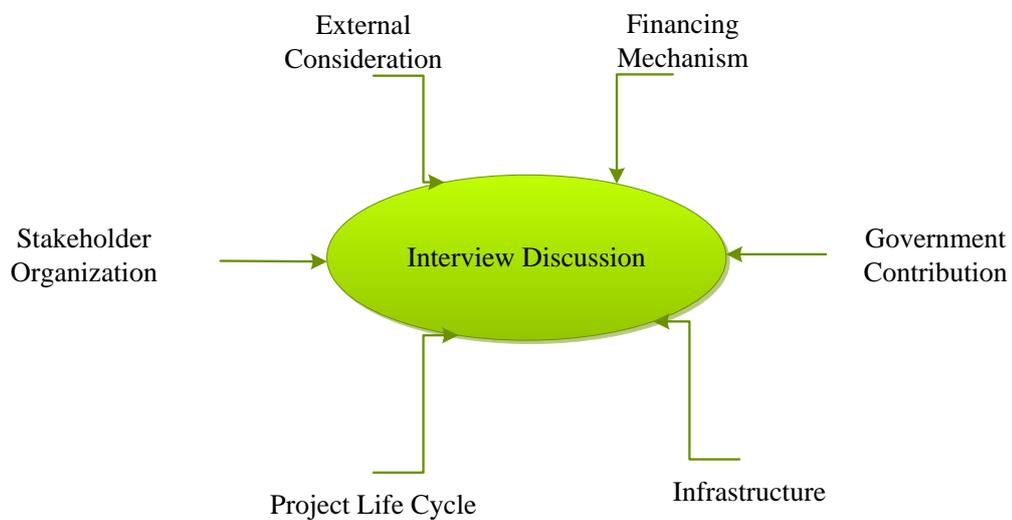


Figure 5-10: The main nodes in NVivo

173 nodes/themes were developed in the process of coding in NVivo resulting from interviews and discussions from this research. Figure 5-11 showed the more detailed level nodes/themes resulting from the interviews transcripts that have been processed in NVivo.

As mentioned, each of the main nodes consists of more detailed nodes that are explained in the following sub-chapters. The discussion commences with defining the type of infrastructures. The infrastructure type is considered essential to define since it can lead to the financing mechanisms. Basically, the infrastructure types are the social and economic infrastructure. From the discussion in the interviews, it has been found that there is infrastructure that are driven by political commitment that can be considered one the findings of this research arguing for the need for these to be addressed in the future research.

The discussion was then directed towards the stakeholders of PPP infrastructure projects, These stakeholders, namely the consultants, government, the private sector, operators, financiers, consortiums, SOEs and donor agencies, have played specific roles in different stages of PPP project delivery. In the discussion on the life cycle of PPP projects, the discussions involved the common project stages of planning, procurement, construction and evaluation. Most of respondent's experience is in the ongoing infrastructure project development and operation. Many related issues on financing mechanism such as Bank Fees, Assets, Value Capital, Equity, Financial Closing, Collateral, Bank Loans, Bank Loan Periods, Costs, Interest Rates and Financial Performance are discussed in this section too. To leverage the viability of the infrastructure projects, one of the methods involves optimizing government contribution. There are several methods of government contribution that have been explored in the interviews related to direct fiscal budget, public assets and supporting policy.

5.3.2. Infrastructure, Related Stakeholders and Life Cycle of PPP Infrastructure Projects

5.3.2.1. Type and Size of Infrastructure

The types of infrastructure that have been discussed in the interviews are economic infrastructure, social infrastructure, infrastructure driven by political reason and urban integration infrastructure. Expanding from the discussion, the integration of urban infrastructure development and the common size of investment to build infrastructure has been raised in the interviews.

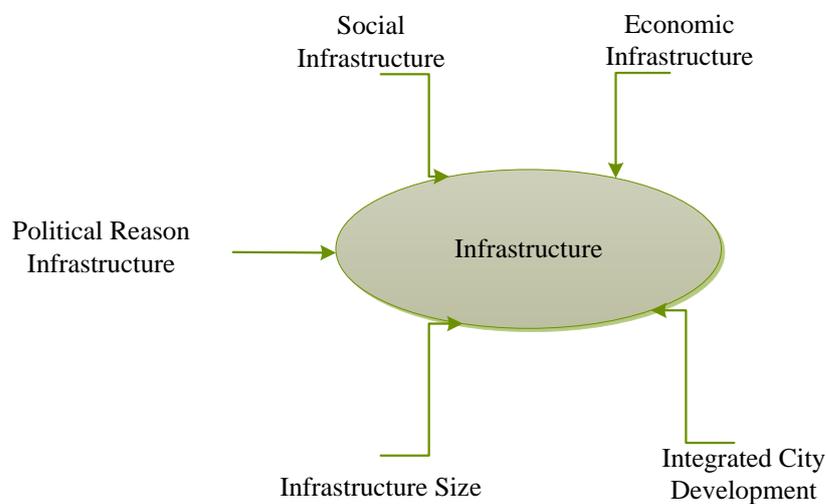


Figure 5-12: Nodes of the infrastructure

Respondent 3 was involved in developing the Perth Stadium. According to this respondent’s information, the sports stadium is considered social infrastructure: however, in Perth, the new stadium is also a commercial center, with a very busy agenda and with the expectation of generating large revenues and another social PPP project is the prison project (Respondent 3). Other social infrastructure projects are hospitals and student accommodation complexes (Respondent 1 and 2). Respondent 1 stated that his largest project that had been accomplished was the multi-stage student accommodation project in Victoria. It was a 38,600 unit, student complex built to three levels in Melbourne, that was part of a university’s social infrastructure.

There is a new PPP economy infrastructure project in Perth, the railway station and railway development to airport. Mass transport needs more subsidizing from the government (Respondent 3). Other economy infrastructures project for example are the car park, motorways infrastructures and support buildings, also LRT and railways station that have been built at the Gold Coast (Respondent 1) and traffic tunnel projects (Respondent 2).

In current situation, the development of infrastructure is not only considering economic and social aspects, but it can be driven from the political campaign. It is a different situation if the project is based on political reasons, risk guarantee related to political government reasons will be very important (Respondent 3). And the government support of risk guarantee for infrastructure projects is coming into Asian countries (Respondent 3). Furthermore, to overcome the political risks in PPP projects would need a lot of on-going negotiations to make deal. Consideration of the accountability of a project for a project that was politically motivated, it usually becomes unaccountable (Respondent 1). Consequently, to overcome this situation, therefore the contribution from fiscal budget will maintain the performance to keep the project doing (Respondent 1). The direct fiscal budget to support PPP projects could be as a fiscal instrument from the government (Respondent 11).

Considering the size of investment in infrastructure, public projects in Australia typically fall into three levels, the first level is the market size of the mega projects, with values from AUD 500 million to AUD 500 billion and would be, for example, a pipeline of two or three ongoing railway projects (Respondent 1 and 12). The second level is the small project like the budget for schools, small hospitals, car park, small bridges, smaller motor ways: the value of investment here is up to AUD 100 million. Some other projects fall within the third level, in between the small to mega projects; the investment size tends to be in AUD 100 million to AUD 500 million, which includes social infrastructure like hospital improvement. In some cases, there is expansion of the project; for example, the initial project is AUD 100 million then expands into AUD 500 million as additional projects are added. Another PPP projects are the Southern Railway Station. It is one the biggest railway stations in the world, with an investment value of AUD 400 million. The Perth Stadium project value was USD 700 million (Respondent 3).

The value of PPP infrastructure projects vary considerable. From the interviews (Respondent 5), it was found that this can range from USD 600 million (for example Sao Paolo L18 monorail project in Brazil) to USD 15 billion (Malaysia MRT1 project),

5.3.2.2. Related Stakeholders in PPP

The stakeholder organizations that have been discussed are the consultants, government, the private sector, operators, financiers, consortiums, SOEs and donor agencies. Other stakeholders such as supplier have also been discussed partially in this chapter too. These stakeholders have played specific roles in different stages of PPP project delivery.

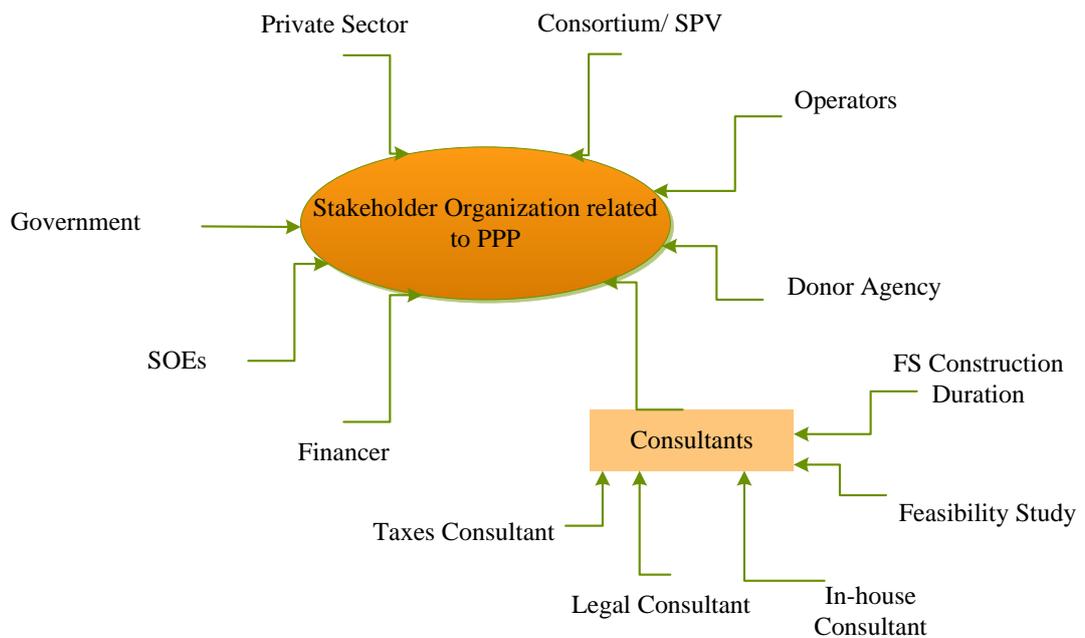


Figure 5-13: Nodes of the related stakeholders

Government

It can be considered that government is the key stakeholder to deliver successfully on the infrastructure delivery. Getting the institution right is not an easy task. From the government perspective, the treasury has usually dominated and the treasury will use monetary policy and then fiscal policy (Respondent 1). Infrastructure financing to finance the project is very important. Government, representing the public, has to develop bank regulations as an institution and develop the necessary procedures that

every country faces (Respondent 1). There is a good success story following the institutions setup in the Philippines, which have achieved good results from PPP's; they have got strong institutions to support the PPP project delivery. Hence the government are typically involved with developing banking policy and capital market environment (Respondent 1 and 8).

As the key stakeholder in PPP infrastructure projects, government has one of the main roles that is the planning stage in order to integrate the infrastructure projects in-line with national and regional government planning (Respondent 9). To improve the government involvement in developing PPP projects from the government perspective, they should have shared in the upside of the project to get the profits to motivate them (Respondents 6).

Consultant Services

There are two types of consultant services. Consultant services can be a part of the in-house team of the project consortium or private institution, which bid for the infrastructure project, and consultant services can be hired from consultant companies.

In discussion with Respondent 1, he stated that in his institution/ private institution has in-house consultants or expertise to form the project team. Minimally, two professional advisors are employed, but for very complex cases a second opinion will be invited from other consultants. A general in-house project team would be a project manager, financial advisor and general manager, a contract officer, and also a part-time quantity surveyor to give certainties and cost. The capability of in-house consultant in an organization with a special committee are reviewing any project undertaking prior to getting BoD approval (Respondent 1 and 5). Specific need in accounting and audit in PPP projects, it is familiar by engaging the third-party review/ consultants (Respondent 5). They usually seek these third-party inputs when they lack in-depth knowledge, for example, with the local taxes, laws and consultancy provisions (Respondent 5).

The government also usually separately engages special consultants for a specific need (Respondent 3). For example, if there is a need for the verification of a study to

have further opinion on the level of feasibility for a complex case. Developing the feasibility study (FS) and developing financial models are the essential need for hiring external consultant (Respondent 3). The external consultants were engaged to verify in-house computations (Respondent 1, 3 and 6).

The FS is always changed, even before the bidding (Respondent 1). The reason for this is that the FS always uses feedback from quantity surveyors, builders, contractors, sub-contractors and lenders. All their advices have to be fed back into the assumptions and the feasibilities be redone again. The FS constructed in this process can go on for three months, of constant work and could include re-visiting the site to check the site test was conducted with due diligence, soil testing, considering the specific interests of the consortium and then finalizing the bid and submitting it. So this process of FS preparation is often done up to 3 times, initially when getting the feedback part of RoI, just before recourse for tender, and once it has proceeded. The FS model actually to gain higher RoE, RoI and in the same time also to estimate the lower RoE, RoI that can be tolerant (Respondent 1).

The FS projections can only be based on assumptions when attempting to establish values and time (Respondent 1 and 5). If the FS has included built-in buffers in the cost to provide for the uncertainty, the FS may be no longer feasible. At the same time, it also discourages efforts to reduce costs when later executed, as most managers will manage their expenses according to the budget. Only when the project is executed will the real impact of cost and time be known, and the longer the period of execution the greater the risk of error that the original FS projections are exposed to (Respondent 1 and 5). In one scenario, the currency fluctuations during the initial 12 months of a 36-month project implementation need to be handled carefully (Respondent 5). The sovereign currency dropped by 25% and rendered the project margins no longer profitable. The only saving factor was the fact that the project incurred delays that altered the billing milestones and thus reduced the exposure received from the event. The FS is recommended for use largely as a tool to identify projected/estimated costs of the project and the financing and method of financing required including capital structure, debt equity ratio and the promoter's share of total cost (Respondent 5).

As regards another issue in constructing the FS, the FS can have big differences if the project evolved in tandem with market changes (Respondent 6).

Consortium

The consortium team in a PPP infrastructure project usually include the builders, financier designer, who become the committee and become the shareholders of the Specific Purpose Vehicle (SPV) (Respondent 3). The consortium manages the finance. A consortium usually consists of big companies of financiers and usually 4-5 consortia put forward their specific interests for certain government projects (Respondent 2). To settle the financing, there is no involvement from the government, and it is completed by the consortium of banks and investors (Respondent 2). In large infrastructure project that has been offer to public, there is a potential risk factor in a SPV consortium when the company is going into receivership (Respondent 2). Receive company is the last company of buying the public offer. In the case of social infrastructure in Perth, the government became the biggest source of finance in the consortium (Respondent 3).

Donor Agency

The donor agencies have been considered as playing a vital role in supporting the infrastructure development (Respondent 1). The World Bank has set new global banking regulations and, effectively regulates project finance; they limit lending for the long-term, they limit lending on limit recourse basis and they limit large loans. They also provide a computer program, which can graphically give feedback on assumptions and include the repayment and the estimated schedule.

There is a tendency that in third world countries the donor agency has a role to play in providing a grant of funds to build essential remote infrastructure as precursor to subsequent developments, such as roads and hospitals (Respondent 4). However, there is also a risk in getting funding from the UN Fund; the money is only given once the project has been constructed and approved. The risk then is that the UN may not approve the project. This would mean that if the project was already constructed the country would not get paid, in this situation the risk will be on the developer with the construction company's money.

Financier

Getting the finance for infrastructure project is very important (Respondent 1). The Macquarie Group has financed infrastructure projects (Respondent 2), it was part of the main source of borrowing. Macquarie Group also act as an equity investor that will sell their share and profit for a certain period (Respondent 2). Other financing institutions such as the Queensland Treasury Corporation (QTC) and Queensland Investment Corporation (QIC) have become main financing institution to build infrastructure in Brisbane.

Respondent 4 said as he had experience of working for an investment company in USA, Washington DC, that looked after 1 trillion dollars for one project. The money or the financing was in different places (Respondent 4). The money was not only from America; it was from Dubai, or from Africa, and involved private investors. The private investors wanted to be part of the project; they wanted to put in a finance officer and at least one or two members of the board of directors for the whole project, because they need to know where the money's going (Respondent 4). Basically, they provide an amount of money first, and then once milestones are completed, they release some more funds. That money never comes in one big chunk to the bank; in actual fact, they cannot move such a large amount of money in any one go, so it has to be in phases (Respondent 4).

In Africa, basically most of the money would come into the main bank (Respondent 4). So basically, what happened is they will have to open up bank account with the main clearing bank, and then work through them, not through their lead bank manager, such as in Tangoro. So it is controlled financially, so that it does not suddenly flood this country with 500 million dollars, as that would destabilize the country (Respondent 4). Thus, it can be seen that the government has to closely consider how to distribute and place the large investments with the financial institutions.

Private Sector

Respondent 5 was currently working for a company which had manufactured monorails, bus systems and integrated urban transport management. The company also was also a member of a consortium that bid on infrastructure projects. The

private sector will mostly take on secure infrastructure projects - secure on finance and government risk (Respondent 5). Also, the government guarantee to cover some infrastructure project risk is considered very necessary, and must be addressed in the stage of the financial close (Respondents 10 and 11).

Some PPP project agreements for the private sector involve the operator to deliver services for the infrastructure. Thus, the operator for a PPP infrastructure project may have to facilitate towards completion followed by a separate contact with the operator (Respondent 3). Once the building was finished, the tender for operator was carried out and the contract closed.

In the PPP cooperation, specifically in Indonesia, State Owned Companies (SOEs) can undertake two roles, as public sector when the SOE receiving appointed letter from government to execute the infrastructure projects without invite any partners. And SOE can act as private sector when the SOE bid the infrastructure projects in open bidding. SOEs also have important roles in PPP infrastructure projects that the government can appointed SOE is a part of government contribution.

5.3.2.3. Life Cycle of Project Development

The life cycle that was discussed involved the common stages of planning, procurement, construction and evaluation. The transfer of the asset at the end of the concession was not discussed since most of the respondents still have no experience yet in ending the concession. Most of their experience is in the ongoing infrastructure project development and operation.

In planning, issues that have been discussed include: Land Acquisition Resettlement Action Plan (LARAP), Market Study, Market Sounding Plan Socialisation, Donor Support in Planning, and something that was really new was the Project Delivery Partner (PDP).

Procurement includes: the Open Tender, Limited Tender, Direct Negotiation, Lease Contract and Unsolicited. One thing to accelerate the cooperation to develop infrastructure is to accommodate a business contract. It is also needs to be considered that the procurement cost is a relatively high cost.

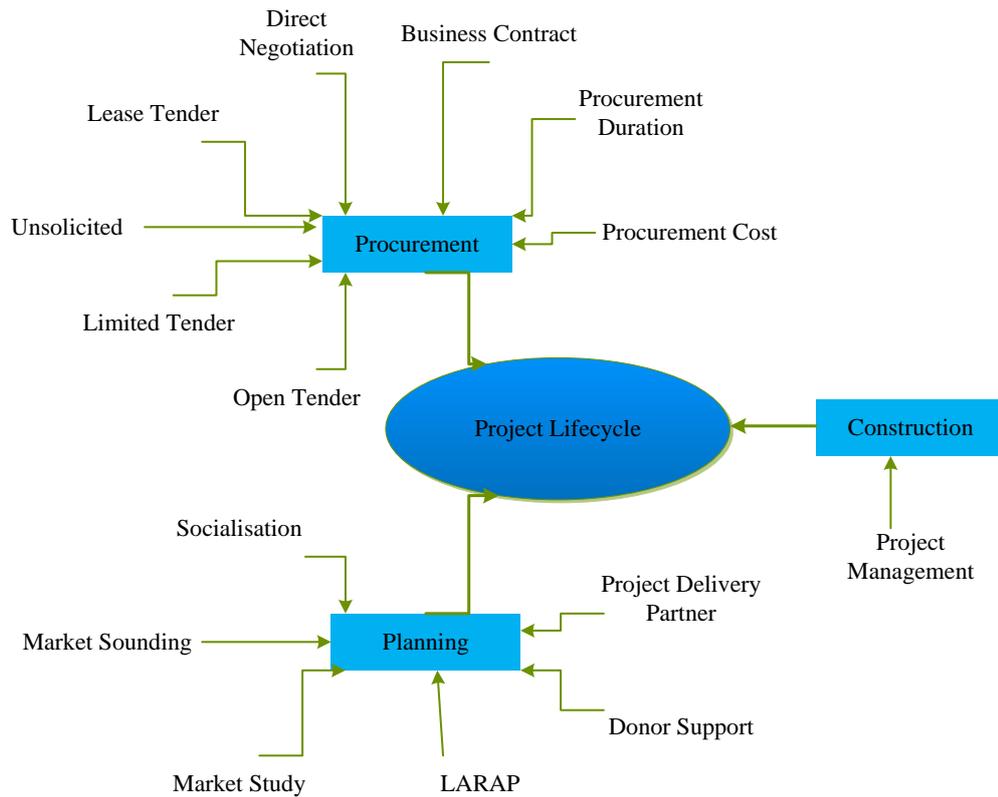


Figure 5-14: Nodes of the life cycle of infrastructure projects

Planning

Respondent 9, who works in a National Planning Agency in a planning division, has explained that so far PPP infrastructure projects in Indonesia are still driven by demand proposals. Only if the regional government or sectoral departments propose the PPP infrastructure projects to be included in the National Planning, then will the infrastructure projects be listed in the National Planning, and it will be stated in MP3EI that will then need to be adjusted to local conditions. The infrastructure projects are not really driven from national planning yet (Respondent 9).

Different to the case in Indonesia, in Australia the FS for PPP projects had to be realistic with clear specification and concepts of achieving returns and the verification of the returns (Respondent 3). Government need to know, so they can tell the private sectors the needs. The private companies in the bidding process have to prepare and develop the proposal and identify risks to pay (Respondent 3). Currently financiers and investors were looking for other sources of PPP that would give them a better return with a lower risk profile, and that the planning had to be in

very well executed (Respondent 2 and 3). The return on infrastructure projects has to be planned, and it can be for planning of the long-term of 50 years ahead such as a railway system project (Respondent 4).

Donor Support in Planning

Respondent 7 is the senior advisor for Indonesia's National Planning Agency; he is one of the team to set up an assisting fund from ADB. There was an agreement that ADB would provide a loan package of about \$35 million to establish a key team of assistants to aid the governments (Respondent 7). The key team is called the IRSDP, previously it was called the Private Sector Participation Development Facility (PSPDF). The loan package from ADB was for six years, and it will soon be finished; once the ADB package is finished, the PPP division will move under the Ministry of Finance (Respondent 7). The other donor agency that assists in developing PPP projects is AusAid. The AusAid budget to assist developing PPP projects is under the Department of Foreign and Trade. They are interested to assist the development of a PPP Centre. The PPP Centre has been discussed and planned would be under the Ministry of Finance or Ministry of Economy Coordination (Respondent 7). AusAid is interested to focus on developing PPP projects on water management and sanitation, and national road programs. The fund from AusAid will be a grant, not a loan. The PPP Centre would manage blocks of funding for project preparation. This is similar to an idea from USAid; Washington DC has recommended funding as a revolving fund, revolving the costs that have to be paid. The costs that have been spent for project preparation, up to the cost of tendering until getting a private company as the winner, will be exchanged or paid by the company that wins the bidding. USAid has budgeted 2 million USD to prepare for this center. In the tender already included is the cost of project development, so it is expected that the 2 million USD could be reallocated, so the costs of the project preparation will be paid by the winner, then the fund will be used in the center with no need to apply for funds to a donor agency again after the budget finished (Respondent 7). Other experience in Donor Agency involvement in Africa has explained by Respondent 4. The investors from the private sectors who build and construct the road have a partnership with the government, people with cars, get in the road, probably non-stop may be two to three hundred in and then go and get percentage of that money, to help pay back for the road. He had several projects in

the Congo. There are six different parts of a 2000 km highway but that money for the development is going to be paid back by the UN, which provided a soft loan (Respondent 4).

LARAP and Plan Socialisation

The land acquisition is one of the biggest problems in the first stage of developing the infrastructure (Respondent 7). Even for national road programs, there are still questions as to the level of involvement of regional government and how to define the ownership. The price of land in Indonesia is legally based on the NJOP (value based on land taxes), and that is a price a lot lower than the market price. Problematically, the government can only manage to allocate in the government budget around 1.5 times the NJOP price, while most of the landowners want to have the still higher market price. In this case disputes will take a longer time to settle, sometimes years, and some of the projects have been cancelled because the dispute could not be settled. The existing solution that has been implemented is Land Capping, where the price of land has been decided by a judge and the money to settle has been managed in the judge's court: however, the progress is also still relatively slow.

To make land acquisition smoother, the government pays the owner 100% of the value of the house and the land, and everyone has to follow the entire plan (Respondent 4). The government has a strong role in the land acquisition process (Respondent 4). Respondent 4 relayed an anecdote of a friend of his, based on his experience developing a new city in Tanzania. The friend was in Messangi. He had a big six-bedroom house, and he knew that in the new city plan, the house would be directly in the main street, which would mean that he would have to move somewhere else as could not live that near to the main street. He was a close personal friend of the President so the government cleared the people out. The private sector cannot do that, they do not have the power to remove people. It only can be done by a government.

The government is powerful in Tanzania. The government mostly own the lands, as is the case in the UK. They also have the power to compulsory purchase property (Respondent 4). If the government want to put a new road in or through a property

they can buy the property, e.g. a farm, and the people have no say about it. If there is a difference in pricing the property, there is always disputes, with the property owners wanting more money; however, from the government side there is often no negotiation or more bulldozers will come in.

However the government has to have good plan in land acquisition process, resettlement has to be in the plan (Respondent 4). There is continuous traffic from/to Dar es Salaam to and from Kigamboni areas every day. The ferry is always busy and chaotic. The question is where do these people come from? Where do they go? There is no industry in Kigamboni, not that many houses, but the people do not want to move far from Kigamboni because that is where their life is and where they friends are. These are the local people at Kigamboni. Therefore a resettlement plan becomes crucial (Respondent 4). Part of the resettlement plan, is to try to keep people as close as possible to where they are. So these people will still have the same environment and still feel part of the city development, and in this way the resistance can be reduced.

Market Study & Market Sounding

The market sounding is part of project preparation (Respondent 1). Usually it is the responsibility of the government to provide the initial market study. They have to address it well. They do market briefing, express interest, pre-qualification, tender, and define the process for processes and licencing. From the beginning of the projects, in the market sounding process, the government should work with big financial institutions around the world to convince them that those projects are viable projects (Respondent 1 and 4).

The objectives of market study are mostly to have information of the ability to pay and the willingness to pay (Respondent 4). This information will become the basic consideration for financiers as the only way forward. For example, to build toll roads financiers have to think how to get their money back, and the ability of people to pay the tolls has to be studied and estimated.

Project Delivery Partner (PDP)

PDP has been successfully practiced in Malaysia. Respondent 5 has been involved in delivering urban infrastructure projects. PDP is a part of planning for a specific infrastructure (Respondent 5). The objective is to deliver a project successfully and involve the private sector from the beginning. The Malaysia MRT1 project was placed out under a new format of PPP, today termed PDP (Project Delivery Partner). In this scenario, the government raises the funds required for private placement; however, management of the works is done by the private sector 'main contractor' (Respondent 5). This would be Malaysia's first undertaking of an MRT transit type project located in the capital city of Kuala Lumpur. The Sao Paulo L18 monorail project is the third monorail project to be tendered by the local government and the first under a PPP scheme. This project is a part of the city's efforts to elevate traffic congestion in the city of Sao Paulo. All the projects mentioned above are put out as open tenders or international bids. Specifically, for the PDP concept this is where the procurement angle was different to the rest of the schemes.

Construction

The construction of infrastructure project is consume a lot of time. The construction and project management took about twelve months, and up to two to three years, for each stage (Respondent 1). From financing scheme in the construction phase to getting different bank swap rates, and bank bill swap rates, it was about 20-90 days of full construction; this is a full investment of seven years, and the spread was 160-260 basis points, so the interest rate of 6% then the 1.6% bank margin, 7.6% (Respondent 1). The construction of the Perth Stadium would be totally completed by mid-2018; it involves four years of construction works (Respondent 3). The labourers for this construction phase are supplied by a mix of a lot of local contract workers and immigrants. The construction company not only constructed the infrastructure but they needed to conduct the Engineering Procurement Construction (EPC) tender to find the optimal suppliers (Respondent 2). The construction company or the supplier also can be part of the consortium of owners, and build the infrastructure.

Procurement

There are several methods of procurement and contracts that have been discussed in

the interview such as Open Tender, Unsolicited, Limited and Confirming Tender, Lease Contract, Direct Negotiation and a Business Contract.

In Australia, there is concern about trying to find a sustainable procurement model, being driven by a number of failures (Respondent 2). This was the only issue that observed as always affecting PPP, and that there are so many different style of PPP to categories. The more projects are bundled together then the harder they become to procure. Simplifying the bidding process is necessary. For example, with train design, to separate heavy track from medium track and light track. So, the government looks at what they want and what they got, and they look at how the procurement processes were in the end, and they look at how the end product is operating.

Regarding a different case in Africa, in Tanzania mostly the projects went to tender, open tender or close bidding (Respondent 4). Respondent 4 said procurement in Tanzania was relatively simple. The company registers interest by formal letter by certain dates to the government department. The company shows interest such, as in building the houses, maybe on a 90 -100 pages long letter, and lets the department review 10 documents from the company. Since the human resources in government procurement offices are still relatively inexperienced in conducting infrastructure open bidding, the evaluation is conducted by taking the cheapest offer as the winner in the bidding (Respondent 4). However, the problem can be that the tender goes to the cheapest applicant, not necessarily the best. The cheapest bid can mean means that they are going to use the cheapest product, rely on cheap deals with local producers, use segmented ships and ship by container into the port (Respondent 4). The consequences are that currently, Chinese companies have made the cheapest bids and that it is quite difficult for other companies to beat them

Other simple procurement is through direct negotiation, Respondent 6 has experience of being directly appointed to handle an old school in the center of a land swap PPP, and all negotiations were done on a partnership basis, i.e. non-advertorial.

However, the most common procurement method is by open competitive bidding. Respondent 5 said this was the case for projects: (a) Brazil - Sao Paulo L18 Monorail

Project, (b) Chennai Monorail Project - bid preparation and submission, (c). Malaysia MRT - bid preparation. All the projects mentioned above are put out as open tenders or international bids. Specifically for the PDP concept, this is where the procurement angle was different to the rest of the schemes. Standard pre-qualification will lead to a short listing and further tender on an open bid basis. Similarly to Respondent 5, Respondent 3 said that 3 million PPP projects in Perth had been procured by open tender with special interest lodged first through fully open tender, then culled down to a short list. The whole policy of open tender is to allow fair access and opportunity. In support of Respondents 5 and 3, Respondent 1 said that in Australia there was always competitive bidding - open bidding or for specific cases direct appointment or may be by invitation by the letter of interest. The tender process is well defined, involving market briefing, expressing interest, pre-qualifying tender.

For more information on procurement in Australia, the Queensland Government rarely uses unsolicited bids, most of the projects were tendered by open tender or confirming bid (Respondent 1). The confirming bid is used when the innovation comes out with new technology, for example, for expenses for streets and railway stations opened at the Gold Coast.

Estimated procurement costs and duration have been discussed in the interviews also. Procurement in infrastructure projects was costly, and that a simple approach to procurement could minimise costs and reduce risks (Respondent 5). Similar to Respondent 5, Respondent 1 said procurements restricted processes and that procurement protocols added a couple of months to each stage; also a hold up here is one of the big risks that PPP faces. Procurement can have big costs and can mean that a big team of workers has to stand by awaiting something to happen on average from round 9 months until 2 years. Even in Britain the complete procurement can take up to four years.

Evaluation

Evaluation is also very important process in establishing PPP infrastructure projects. Evaluation was lightly discussed, including evaluation planning, evaluation of tender planning, on-going projects evaluation and export evaluation. Accountability and

Key Performance Indexes (KPI) become part of the evaluation methods.

The planning evaluation is also needed to be conducted (Respondent 7 and 9). Referring to experience in Indonesia for preparing and planning the PPP projects from PPP books there were 100 projects being planned and published in the PPP book. In the next year there would be 80 projects, and the following year again 27 projects. And the level of success from planning stage to tender stage was less than 50%, and even in the transaction stage was less than 5%. In the institution's procedures, the PPP projects have been prepared and planned in BAPPENAS, but the execution on the Contracting Agency and other sectoral institutions, so it is a bit difficult to define in which of institution there has been a failure.

During the tender for Perth Stadium, category elements have to be addressed and criteria have to be clearly addressed (Respondent 3). Stakeholders or the owner of the project had specific requirements, and there was a lot of detail in the Request for Proposal (R/P). Also, the tender process has to follow the Australian standard Public Service Comparison (PSC) requirement. The same situation has been explained by Respondent 4 for infrastructure projects in Africa, though the situation is different since the government officials still have limited skills and experience, hence the criteria for the tender process and assessment are relatively simple and easy to conduct (Respondent 4).

The evaluation were needed to be started in the proposal stage, getting many proposals and comparing and comparing the structures of what was submitted (Respondent 3 and 12). The evaluation can be carried out in the due diligence process, accountable for the budget and accountable in politically aspect, and accountable in the evaluation (Respondent 1). The project evaluation was on-going as the application of lessons learnt allowed for improvement of the projects (Respondent 3). In the construction process the monitoring and evaluation needed to be conducted regularly: daily, weekly and monthly (Respondent 12).

5.3.3. Infrastructure Financing Mechanism

Many issues that were related to the financing mechanism have been discussed.

These included the Bank Fees, Assets, Value Capital, Equity, Financial Closing, Collateral, Bank Loans, Bank Loan Periods, Costs, Interest Rates and Financial Performance.

PPP has been implemented in Australia since about 15 years ago, citing the BOTs scheme, which was formalized in the PPP framework about 2001 (Respondent 1). The biggest PPP projects could be considered to be the Southern Railway project. The first capital can be gained from the bank lending margin with a relatively small rate, depending on London Interbank Offered Rate (LIBOR), the bank margin was usually about 30 basis points and might have a base rate of 6% that the bank spreads with the perception of the risk of the capital required (Respondent 1).

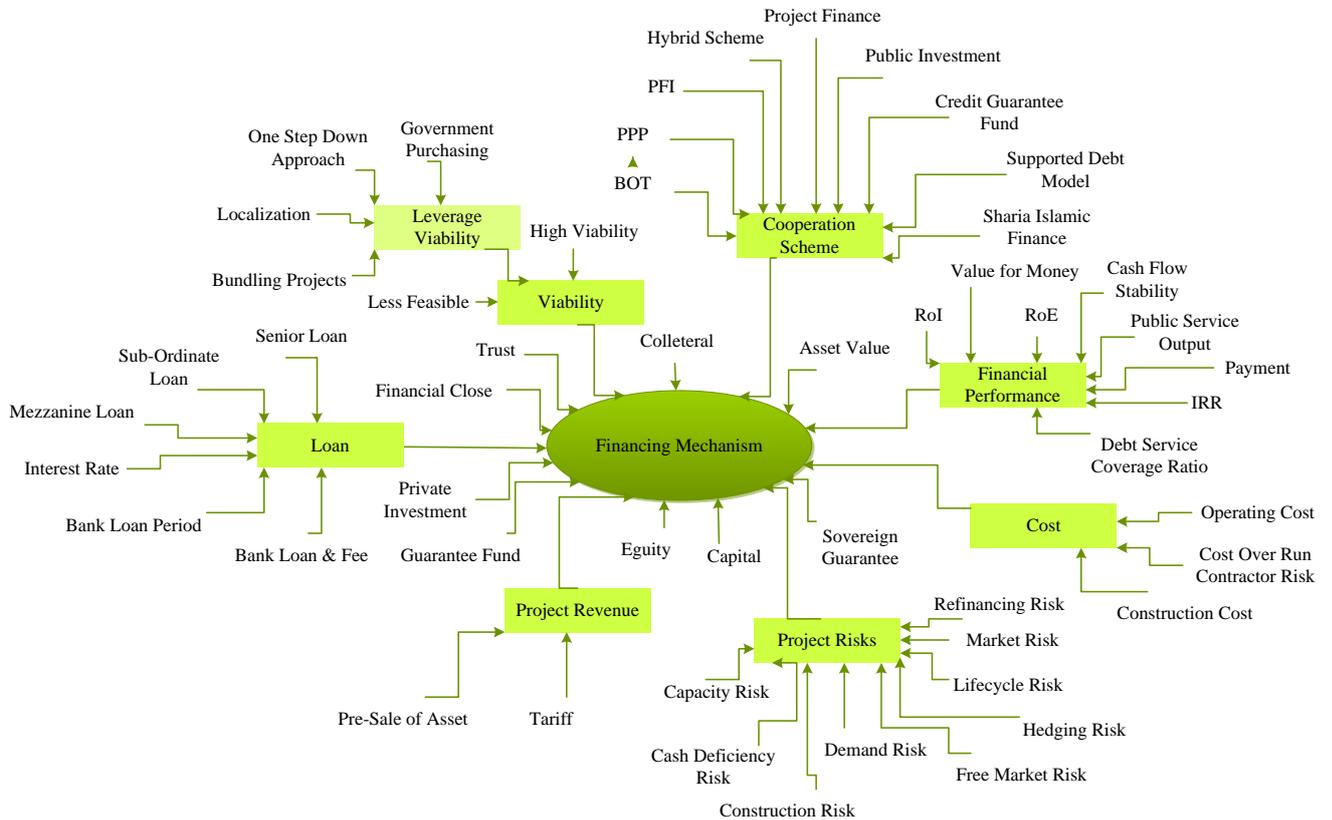


Figure 5-15: Discussion nodes in financing mechanism

The interest background colored many of the potential opportunities with some doubt, and that now financiers and investors are now looking for other sources of PPP that will give them a better return with a lower risk profile (Respondent 2). Specifically, in Australia with a relatively small total population of twenty two

million people, they made very big projects which there will be not enough individual or population support for them. For this case a good Value of Money is available for the purchaser (Respondent 2). In the capital industry, the proposition government capital will be utilized, a line or sectoral department which handling PPP infrastructure projects will borrow money with cheaper interest scheme, Queensland Treasury Corporation (QTC) can borrow money with cheaper financial cost. For good projects, to build quickly and ahead of time, the government keeps assets to provide services to the general public. The private firms and lenders and the government had supported PPP projects in Australia (Respondent 1). The banking system in Australia had the project secure 7 years of financing, the period of the loan was 7 years, and the equity investors will be taking a 15% return. Private sector investors undertook a feasibility study to have Debt Service Coverage Ratios (DSCR), and then took it to banks, and the banks looked closely at it and added their terms of conditions. The BOT schemes were a familiar finance scheme for constructing infrastructure such as car parks, hospitals, and student accommodation complexes (Respondent 1). To support BOT, the project finance was applied with the strict loan security ratios and the project supported by a robust income stream. The most important thing to support PPP projects was getting finance to the project, therefore the government and public have to understand the country's banking regulations. The Philippines is an example of a country with a very good approach to developing PPP projects supported by the national banks.

Respondent 2 gave a different perspective, he said that current PPP projects were slowing down as there was not a lot of money around and superannuation funds were becoming an alternative. Preparation for and indication of risk was very important, based on experience of successfully building a traffic tunnel in Sydney, Australia: however, the return was relatively poor, which is also explained by Respondent 12. Another PPP projects is the Southern Railway Station in Sydney. It is one the biggest railway stations in the world. In Sydney, a massive complex with three generators serves the city, with an investment value of 400 million dollars. The bidders expected to gain higher RoE and RoI to this infrastructure projects which has considered as a very viable project combine with toll road to contribute to the regional economics.

A Design Build Finance Management scheme (DBFM) was applied to build the Perth Stadium (Respondent 3). The procedure of financing includes the proposal that many finance components including the maintenance and cash flow show a revenue stream. It is dependent upon the structure how much of the finance is kept: it is just really Design Build Maintenance (DBM) so the structure that has been set to do whole maintenance is a whole lot of money; the majority of the infrastructure is built by the government, and not fully by private concerns. The newly built sport stadium, precinct PTA, transport until under strategic project department treasury. It has value, typically a project done by building management work (BMW) value, anything above a certain value goes to strategic projects or to existing projects. Naturally, the sport stadium is social infrastructure; however, in Perth, the new stadium is a stadium with a very commercial center, with an active agenda and able to generate substantial revenue. Similarly, with a hospital project, commercial buildings have generated good revenue (Respondent 3). The private funds were looking to invest in projects with a secure return of investment, including housing projects (Respondent 4).

Some other issues related to financing such as capital, collateral, public investment and private investment have also been discussed in the interviews.

Public Investment, Collateral and Private Investment

Respondent 5 said that the Malaysian MRT was funded via mid and long-term notes/bonds raised by a special vehicle fully owned by the Ministry of Finance (MoF) Inc. No government security was given; however, the MRT being a fully owned legal entity of the government, the SPV received positive credit agency ratings. The majority of these notes were pre-sold to institutional buyers such as the nation's EPF Co. The government also gained more local funding by putting out special public investment schemes that were guaranteed by the government.

Funding of such a mega-scale project typically had to be done in stages with various models and types of instruments (Respondent 5). A building block concept is adapted, where the types of instrument used at the various stages take into consideration the risk and collateral value that presents itself differently at the various stages of the contract.

Different situation may be encountered in less developed countries. Many governments in less developed countries suffered from severe constraint to their fiscal budget to build the infrastructure, therefore governments were looking for infrastructure investment from the private sector (Respondent 4). As an example, in Tanzania, the President has discounted several countries trying to raise funds from private funds. Tanzania was looking purely for private investment as a way of helping the country as the country was broke. The government wants to build new bridges, and toll roads. People who have large private funds still want to invest, but their company will only do equity financing, which means they want to own a part of the project. It is not a loan; it is a buy, as shareholders would own 30-40 % of the actual project.

Equity and Project Finance

In Australia the equity is ranged at about 25% financed for recourse finance in terms of seven year projects financed by a limited bank (Respondent 1 and 12). In this situation, the first entity to lose would be the equity investor. It is more psychological that equity investor could take return of 15%. Project financing for an infrastructure project usually take 70% as a bank loan for 20 years, the current situation for borrowing from a bank is normally for seven years. Project finance funding was through bank borrowings as applied to the building of a new school, and thereafter the old site sponsors funded construction (Respondent 6). The debt portion was taken out when the completed development 'flipped' into a listed REIT. Respondent 2 reported having experience in building seven tunnels; however, they had mostly overestimated the traffic. In this situation, the institutional investors that have invested their fund in equity share into these projects ended up having no share price road because of the traffic flow being so unrealistic that it never made a return. So, that colored a lot of the potential opportunity with some doubt, and now financiers and investors are looking for other sources of PPP that will give them a better return with a lower risk profile.

Supported Debt Model

Respondent 1 related that there is an interesting lesson from the UK called Credit Guarantee Finance (CGF). In Australia, there is another version, it is called the

Supported Debt Model (SDM); however, the SDM is relatively difficult to implement. There part of theory loan 70% of government equity for this project down. In England, the equity can be 15-20%, then a mezzanine loan can be applied to add to the value of the equity, mostly the cost for the mezzanine loan is more expensive, therefore it is somewhat difficult to implement.

PFI

In Melbourne they have built a prison called Raidens Wood with PPP projects with the private investment similar to PFI and government fund organization (Respondent 2). In Queensland, an almost similar private investment of a consortium of big companies and financiers had applied to build a school, including the supporting infrastructure and facilities.

Hybrid Scheme

For a huge investment to build infrastructure in certain stages, no one instrument was sufficient to accommodate a mega scale project (Respondent 5). Thus a hybrid scheme was actually adapted when setting up, for example, the MRT project. Additionally, the bond is the best instrument in developing world markets as economic growth is usually on an upward trend. In most cases the growth inertia of such markets are progressively northward and steady. At the same time there are no huge fluctuations in the long-term. This enables such funds to be monitored and traded without unnecessary pressure from the surrounding market events.

Value for Money

There is a percentage than would thought gives for real good value of money for client perspective, more leverage in finance element (Respondent 3). Existing project develop breaking into new sectors with higher profile project designs and good portfolio from perspective of contractor, developers and markets.

In order to leverage infrastructure projects, that every project was different, having different elements that influence the viability and feasibility of the project (Respondent 5). In most cases, projects fail because of a wrong intent and conduct by the promoter. Almost all projects that he had been involved in from the Second Severn Crossing in Wales, toll roads in India and Malaysia, Rail projects in Asia,

petro chemical complexes, and a new city, Putrajaya, where the work is professional it all comes together as a great achievement, at the same time when the politicians get involved it was meant to be wrecked from the start. The schemes of PPP, PFI, PDP, BOT, DBOT, DBOOT are project implementation structures that come into play when a client does not have the means to pay using conventional approaches. In most cases the cost of these projects are much higher compared to the conventional; however, in most instances the indirect benefits are together also larger. Applied correctly it is a winning formula and when applied wrongly it can bring down a nation's economy.

Sharia Islamic Finance

The Islamic finance method has a wider market for distribution as an alternative to financing infrastructure development (Respondent 6). In the near future in Indonesia, the Transport Infrastructure Project Funding, for example rail, airport, seaport, will be directed to sharia-based financing (Respondent 7). Development of urban transport such as congestion solutions aeromovel, monorail and LRT for the TSB project in Bekasi will need investment of about Rp.2 trillion, to the next nine cities will need about Rp.20 trillion, and Rp.3 trillion for greater Jakarta. The funding is directed to the Islamic financing center in Indonesia, with funds from the Middle East. Currently most of Islamic financing in Indonesia are used to build hospitals and universities, and they are still relatively small-scale investments. Islamic Development supported by the IDB has an agenda to study nine cities from Medan, Palembang, Lampung, Jakarta, Bogor, Bekasi and Depok, Bandung, and Yogyakarta. Next, several other cities have also been proposed to be developed through Islamic financing to build infrastructure, such as the cities of Semarang, Surabaya and Makassar.

Financial Performance

Financial performance has been discussed including the Return of Equity (RoE), Payment, IRR, Debt Service Coverage Ratio (DSCR), and BEP. Public Service Outputs and Cash Flow Stability are part of the financial performance that is a new consideration that can be found from the interviews.

The biggest considerations for making an investment decision would differ

depending on the institution interested (Respondent 5). If a government and the execution are for social and public services, NPV and RoE may be of higher interest. If it is the private sector investing than the RoI and IRR would take priority.

The investment decision is related to the potency and projection, also the sensitivity of the markets and how it can be measured in present value (Respondent 11). The present value can be compared with the return of equity, the length of the breakeven point, the cost of funding, together with the robustness of the assumption and projection, and these values can be relevant points for decision-making. The financial performance as outputs of the financial projections is a good parameter to base the decision whether to establish investment selection. To simplify the investment decision in Indonesia, particularly the National Development Planning Agency have provided some numbers as guidance, for example, the value of the IRR for the bankable projects is around 16% and the return of equity nearly 22%.

Return of Investment

Related to investment decision-making for short-term equity, investors consider the value of the RoE and RoI (Respondent 1). For example, Macquarie Bank undertakes a five-year underwriter risk, when the cash flow stabilizes it then talks to a superfund. The superfund has a different perspective; a superfund will not worry about RoI but more consider the maturity of cash flow. For the construction company, they want to get paid after completing the constructions. And from the perspective of the government one of the major considerations is the public service delivery.

The private funding is looking for a return of investment (Respondent 4). To build the new city of Kigamboni, the first part of the process was to sell the idea to the government; the first stage would then be to get investment institutions from America, China, Russia, UK, etc. lined up, then sell the concept to get their interest. The big financial investors are looking for big returns on their money. For example, there are six more power projects, ranging up to 4.5 billion dollars, in Tanzania, including new houses and hospitals and 750 million dollar for Zanzibar. In case of no money being provided by the government and with the investment value of more than 900 million dollars, they want 1.5 billion back expected as a return on

investment. Another example of private investors looking for return of investment include another project that was established in Tanzania, the national airline of Tanzania was to be offered to the private sector. The airport had planned to expand into a hub for the whole of Africa. To do so they must employ 1000 peoples in 10 years, make it profitable and return 1.5 million dollars a year profit. Air Tanzania may become a big flag carrier for the nation, a very modern airline. It has different facilities, and becomes a viable proposition in 10 year, becoming worth 26 billion dollars.

Financial Closing

Several aspects discussed relating to financial closing are the types of loans, such as senior loan, junior loan and mezzanine loan, bank loan period, interest rate, bank fee, trust fund, asset value and sovereign guarantee.

The financial closing can involve two types of loan, the loan came first that this sort of senior and junior loan, this loan to finance the construction costs to build infrastructure until commissioning, then the income from infrastructure service starts to pay the loan as that standard practice (Respondent 1). Junior loans can be replaced by investment funds. The financial closing has to be without the involvement of the government, it was done only by the consortium, banks and investors (Respondent 2).

Bank Loan

As regards project finance practices in Australia, there is no strict loan security ratios for the project finance, there is no limit, and the lendee can get 100% or up to 200% as what tends to be looked at is the underlying economics of the project and the robustness of the income streams (Respondent 1). The lending could support up to 100%; it is high risk money - if things go wrong, the first person to lose would be the equity investors.

Perception of risks is more psychological, while the institutional perception on the economic capital is of a market value. Businesses like those in Australia use the short-term rate, so they tend to be cheaper compared to US borrowing for long-term borrowing, such as 20 year bonds. The market is saying very strong but always

saying about risk. The financing shows the equity, credit, subsidiaries from government, shareholders, dividend, principal interesting taxes, operating cost, plan 20 years project, IRR project, return on equity, coverage ratio, debt service coverage, present value of all taxes subsidiaries.

Bank Fee

For lending processes, banks would charge for borrowing (Respondent 1). Commonly in Australia, the bank charge with basis point is 8% of one, so 1% equals 100 basis points in finance. Lenders only talk about basis points of 2%. For lending on first capital, it is called the bank lending margin, which is very small. The first capital depends on the current LIBOR and the bank margin is usually about 30 basis point; it might have a basis rate of 6%. The Bank spreads the perception of risk.

Project Revenue

Project revenues that have been identified come from tariff and pre-sale of the assets. There is a sample of the pre-sale of assets in generating revenues and to fund PPP infrastructure projects to build school blocks (Respondent 6). The project was funded by sponsors that funded construction of a new school and thereafter developed the old site. Funding was through bank borrowings, contractor-financing and also the pre-sale of one of the tower blocks.

Project Risks

Projects risks that have been discussed were the capacity risk, construction risk, hedging risk, life cycle risk and market risk. Cash deficiency is part of risk that was newly discussed; also the free market concept is part of the risk that needs to be considered differently.

The most important to be considered before investment decision-making is to identify market risk, take-up risk relating to the sale of the development and ensure the return of investment (Respondent 6). For mega projects even in the beginning the structure the contract has defined the structure of the risk. One important risk that needs to be structured into the contract is risk of collateral value that is with the lenders (Respondent 5).

To manage the risks would need a very strong legal team, to define what the risks were and to distribute them to stakeholders (Respondent 3). Also it needed to develop a good team to bring a mix of people and points of view. Robust contracts were very effective for risk allocation (Respondent 1), for example, the life cycle cost risk, construction risk, site condition risk, market risk, income stream risk to pay with the interest, refinancing risk, operation risk have to be covered in robust contracts.

Wrong estimation can cause cost overrun, and that the risk would be entirely carried by SPV (Respondent 1). The first entity that would be hit by this risk is the contractor. The biggest risk for the contractor is the cost of overrun that the contractor has to pay for.

5.3.4. Government Contribution

There are several methods of government contribution that have been explored in the interviews that are related to direct fiscal budget, public assets and supporting policy. The direct Fiscal Budget can be formed as the Government Capital, VGF and Subsidy. Public Assets contribution is a part of government contribution that needs to be explored more. Another direct contribution in the fiscal budget is the potency of a loan from the government by creating specific SOEs that have the responsibility of providing a loan for infrastructure projects; this method was applied by the Queensland Treasury Corporation (QTC) and the Queensland Investment Corporation (QIC). Indonesia has SMI and IIGF as a part of government contributions to supporting PPP infrastructure projects.

Other government contribution that related to policy also have been discussed, such as the Tax Incentive, Risk Guarantee, State Guarantee, Sovereign Guarantee and Legal Permits.

Type of government contribution that have been discussed in the interviews can be seen in Figure 5-16.

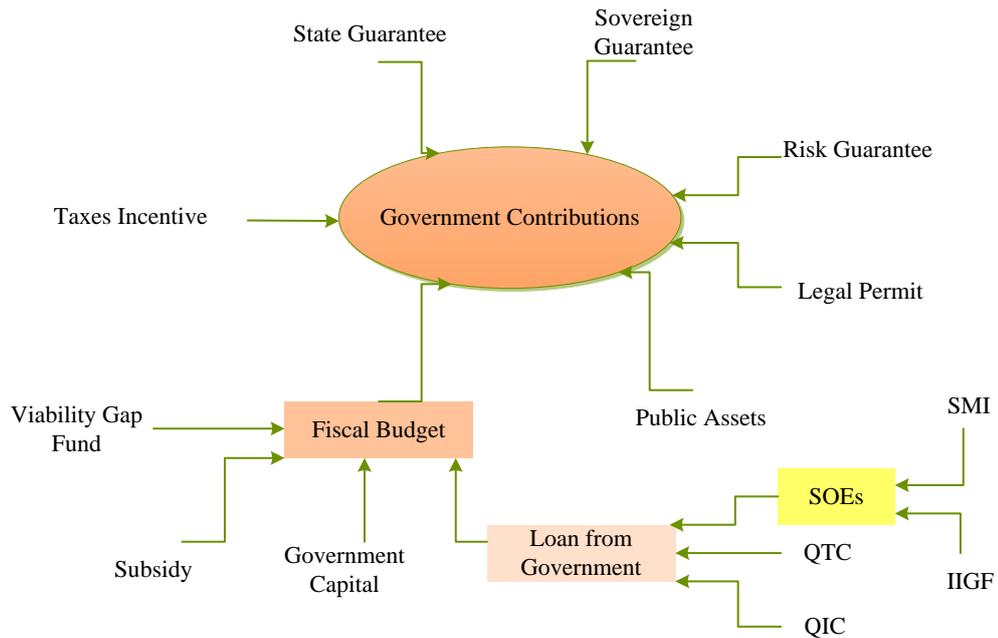


Figure 5-16: Types of government contribution to support PPP infrastructure projects

Particularly in Australia the government does not support risk guarantees (Respondent 1); they have direct investment within the government, investment to private firms, and as lenders. This is similar to in England, the US and commonwealth countries. The government support of risk guarantee is coming into Asian countries. It is a different situation if the project is based on political reasons, some of the infrastructure has been built based on governmental political reasons (Respondent 3), in this situation, risk guarantee related to political government reasons will be very important.

Tax Incentive

In Queensland as the federal government with federal system, they set up their government and taxes system (Respondent 2). Australian has framed doing government business supported in sovereign government system. Related to PPP infrastructure projects, the government would be a facilitator and give corridor policy and guidance (Respondent 2).

Sovereign guarantee

The huge infrastructure projects and the development of a new city would involve a huge capital investment from private companies, such as if Suisse group wanted to

be involved or to have a billion dollar available (Respondent 4). In this case the sovereign guarantee will be very important to give support, sometime the involvement of the President from central government will be much needed too. In a different situation raised by Respondent 6, he said state guarantees such as these inadvertently create contingent liabilities for the State.

Risk Guarantee

The risk guarantee is needed for long-term project management to secure the viability (Respondent 1). Australia has been considered to have mature private investors; it is quite rare that the government will cover risks; therefore private investors have arranged financing very carefully that involves a consortium among the banking segment, and they do both syndication and manage risk internally.

In PPP projects, the government could give a guarantee through secure demands, for example, being the permanent tenant for three to nine years in the complex that was built by a PPP cooperation (Respondent 2).

Public assets

Respondent 2 gave an example of a public asset being utilised to support PPP projects. In the school project, the government provided the land from the public assets; the consortium built the schools and the consortium will basically own the schools (Respondent 2). They conduct all of the maintenance and up-keep, everything from grounds to broken window, to the plumbing getting fixed, etc. The state still does the education and control teachers and curriculum. The differences in this one, unlike a state-owned school, is that all the cleaning staff and academic staff will be hired by the owner's consortium.

Similar to the school projects, hospitals also have been built using these methods. These methods have given higher value for money for government and for the purchaser delivering the public services driven by basic needs. The infrastructure projects can be deliver and build quickly and government still own the assets to deliver service to general public.

Legal Permit

The private sector would be paying for all the works and investment, therefore the government would facilitate getting all the bridging permits and then facilitating that side of the project (Respondent 2). In another situation, in China, it was necessary for thousands of permits to be organized for a foreign investor if doing business in China and probably would take two years view of planning before opening for business, for example, starting a business in 2005 required having to pay permits since 2003.

Fiscal Budget and Government Capital

Consideration of the accountability of a project, for a project that was politically motivated, it becomes unaccountable, therefore the contribution from fiscal budget will maintain the performance to keep the project doing (Respondent 1). The direct fiscal budget to support PPP projects could be as a fiscal instrument from the government (Respondent 11). A government fiscal instrument as the equity product leverages infrastructure investment from private investors and to fills the finance gap from conventional financing from commercial banks. Perth Stadium is state project under the Treasury Department, and was state and federal funded (Respondent 3). The government is the bigger source of finance in the consortium.

Viability Gap Fund (VGF), Subsidy, Loan from Government

Fiscal contribution from the government can be in VGF or in subsidy or loan from government. The VGF as a direct fiscal contribution was needed to leverage PPP projects (Respondent 7). In mass transport needed more subsidizing from the government (Respondent 3). For more information, subsidiaries from the government for PPP infrastructure projects together with equity, credit, shareholders, dividend, principal interesting taxes, operating cost, and 20-year plan, is adjustable from the assumption sheet in order to have a good IRR project, return on equity, coverage ratio, debt service coverage, present value of all taxes subsidiaries (Respondent 1). The Malaysian MRT is funded via mid and long-term notes raised by a special vehicle fully owned by the MoF Inc. (Respondent 5)

Innovation of the Financial Institution in Queensland

Queensland Treasury Corporation (QTC)

The QTC and whole house to the state and federal treasuries would fund research projects (Respondent 2). QIT, which is the Queensland Investment Corporation, is looking at developing a sustainable procurement model for PPP. QTC borrows money for the state government and local authorities to their projects.

QTC borrows the money from overseas on behalf of the government. It is like a merchant bank, signed for by the government to protect their own territory. They raise funds overseas for government building projects in infrastructure road projects, like building the Gold Coast Highway, they do all the government borrowing, and they are like an internal merchant bank.

The same as in Queensland, in South Australia the local authority have one there called South Australian Local Authority & Corporation. It raises money for local councils in Southern Australia to get money to build their project on a smaller scale. This one works for the state government and the local authority, offering the best interest to borrow cheaper money, because the bank in the state might be able to get 1.5%, which is lower. But the problem which they have is that then they have to lend that money to the line department, then the line department becomes responsible for using that money to build the project. Inefficiency can start to creep in because the line department may be less competent managing their own contract. This can then cause disputes, cost overruns and further state debt.

QTC under the federal policy, therefore parliament monitors the QTC system, and QTC has to report to parliament.

Queensland Investment Corporation (QIC)

Similar to QTC, QIC would also fund research projects. QIC, which is the Queensland Investment Corporation, is an independent company and the only shareholder is the Queensland Government (Respondent 2). QIC has a big investment fund from a superannuation fund. The government sold profitable projects that designed by the department of mainland transport to QIC for refinancing, which manages the state-owned superannuation fund, and they make

investments on behalf of the government to help finance the fund and the public service. The Queensland Government, through QIC, has a specific method of managing risk for infrastructure projects' capacity risk, Respondent 2 said. For example, toll ways and tunnels, and other infrastructure similar to these projects with demand risk, are projects that are compulsory for the government to provide, unfortunately these projects can go slowly and there can be less demand over time. For example, with the Queensland motorways, the government build up a lot of toll ways around Southern Queensland and estimated that they would be managed until all the roads became freeways; however, before becoming freeways the government shut down the toll roads and sold them to QIC, and QIC will continue to manage the toll roads and take the risk.

Similar to QTC, QIC is under the federal policy and the monitoring system that QIC has to report to is parliament.

Similar to QTC and the Queensland Government, the Indonesian Government has also established SOEs to support the development of infrastructure.

Innovation of the Financial Institution in Indonesia

Sarana Multi Infrastruktur (SMI)

Respondent 11 is one of the commissioners in Sarana Multi Infrastruktur (SMI). SMI has developed three business pillars: investment, project preparation and advisory services are the core business of SMI today (Respondent 11).

SMI itself is actually a state-owned institution; it is 100% owned by the Indonesian Government through the Ministry of Finance. SMI is used to leverage the government's infrastructure investment, especially from the private sector or to fill the gap of the current financing market that did not exist in conventional financing, in this context as an Equity Banking Product.

SMI, because the government initially formed it, was the first stock financing shortages of infrastructure. Lack of infrastructure is one of the most important issues in financing, financing in the context of what time it is need, while there is situation that at the time of the bank's liquidity is quite high which look for viable projects to

be financed, but cannot match to finance infrastructure since the infrastructure has long-term payback period. It is the mismatch problem.

In terms of equity there are not many developers who have sufficient liquidity to get into the infrastructure business. Therefore, forming an infrastructure financing institution that provides a flexible product to bridge the financing is needed. In the domestic current of banking, the financing is relating strongly to equity owners or shareholders and collateral. The infrastructure financing model is not based on the collateral value of a corporation, but mostly from financing where basically the collateral is cash flow of the project itself. Banking institutions in Indonesia are generally not familiar with this concept; they are more familiar with a collateral-ship of the facilities they provide. Collateral is not always physical, it can be a guarantee, it is not only guarantee of a corporation or SPV, but also guarantee from the project sponsors or owners.

SMI can even be equity investors and have a direct share in the SPV company infrastructure. This means that the project is still greenfield projects that developed by SPV or a sponsor, SMI project participates as one of the shareholders and may be as a passive shareholder.

SMI functions as a catalyst for infrastructure projects that require no collateral from financial institutions, especially banks, when there is cash deficiency for the project. Blending methods to secure the return on investment, the project finance which is the value of the pure cash flow and guarantee from sponsors, can cover and relay the senior loan, in the unlikely event of obligation deficiency cash then it can pay all the facilities. Then in terms of financing and investment, there are some products that try to meet the needs of the market. First, a senior loan from SMI together with possible excess banking senior loan have a longer tenor. The conventional banking loan has longest tenor in 5 years, whereas in the SMI has exposure up to 15 years in terms of product flexibility. Then, a junior loan or sub-ordinate loan, which is not as prized as a senior loan, but it could be a second choice; however, it certainly has more risk than a senior loan, because there is no collateral guarantee such as with a conventional bank. So a junior loan product has a relatively higher price than a senior loan; however, it turns out this is precisely the junior loan product that is most

needed, especially for infrastructure actors as it offers a solution to the limitations of liquidity to leverage equity limitations. For example, if a company has limited capital but is required to raise a 30% equity, then the junior loan product may be used as a loan to help meet the 30% equity.

Another product is a mezzanine loan that is similar to a junior loan. This product has a long-term tenor; it gives comfort to the developer as well as for other financial institutions to be co-financiers. The mezzanine loan is so key in stage of IDC construction periods. SMI can join to the consortium with their facility so that the project could be constructed and start to operate. Later, when after about two years of operation, balance sheet revenue streams will have started to appear to sustain a cash flow, and at that moment a commercial banking loan facility could replace the SMI facilities. This refinancing scheme has shown that SMI has a role in terms of the catalyst.

SMI role is to leverage the infrastructure projects of the government funds. So SMI established a subsidiary, called the Indonesian Infrastructure finance (IIF), here in IIF receives incoming funds from multilateral agencies, such as from the IMF and the ADB, so that ownership of the IIF is by multi stakeholders of the multilateral agencies. Because the SMI is 100% owned by the government, the SMI functions to support infrastructure projects from the government and does not really focus on a commercial role; however, the IIF is designed for truly commercial infrastructure projects.

Respondent 11 stressed that the financial feasibility level should refer to parameters, not a number. The selected parameters can create the robustness financial models to have more credible value present results and projected income. The standard in BAPPENAS is an IRR of 16% and return on equity of about 22%; it is only to simplify the facilitation. For projects in the bundling of the vendor or private sectors, IRR of about 14%, 15%, 16% could be acceptable.

Indonesia Infrastructure Guarantee Fund (IIGF)

Respondent 10, who worked as Vice President in the Indonesia Infrastructure Guarantee Fund (IIGF), explained that SPV often bore the financial obligations of

covering the Contracting Agency's (CA) mistakes, which resulted in no charge to the business entity, when the bill cannot be paid by the CA, for example, bad service delivery, this risk because of the CA's mistake is not the responsibility of the IIGF to guarantee (Respondent 10).

The initial goal of the establishment of IIGF was to separate the financial risks of the projects earlier to hit the government fiscal directly. Additionally, it is to cover risk to the state budget from refinancing, so any guarantee request must go through the IIGF as a one door service.

IIGF is established to avoid risk of overheating the state budget, for example, in the case of a project needing to pay termination of Rp.30 trillion (USD 1 billion), the parties have agreed in the event of termination upon a series of procedures to be bypassed, and make sure there is room for the state budget to do the adjustment; termination will inevitably exert an obligation to the government but will not place too great a burden upon the state budget.

When Bolivia was threatened with bankruptcy, it itself created a contingent repayment obligation. Spain also has suffered, and Indonesia did not want to experience the same failure, so it is necessary to avoid the situation of the IIGF being formed. If there is a significant risk of a catastrophic event affecting the viability of the project, IIGF needs to ask for a guarantee together with the Finance Ministry.

Respondents 11 said that IIGF is an instrument that only happens in Indonesia and is a positive task for promoting PPP project. So that means projects undertaken through PPP auction, where the risk is shared between private and public entities, are now partly covered for risk as the government will be insured through the IIGF.

Not all the infrastructure projects are conducted through PPP schemes, there is a B2B, and there is the old model IPP exclusion of Power Purchase Agreement that have not been eligible to get a guarantee from IIGF. IIGF becomes involved in PPP projects to: leverage bankability; indicate risks; structure guarantees in terms of public need; structure and indicate risk shared by the SPV and the distribution risks

to the project sponsor, contractor and suppliers, the local government, including a variety of licensing so that risks are not all held by the SPV.

5.3.5. External Consideration

To create a good investment climate, the external considerations also need to be studied. External considerations that have been discussed in the interviews included the factors that influence the micro & macro-economic and monetary policy, and also the potential capital markets. Capital markets are an alternative source of funding for investment, especially for investment in infrastructure and building a city, which generally need a huge investment of funds.

The capital markets that were discussed in the interviews included Initial Public Offering (IPO), credit rating and bonds. The following types of bonds were discussed: corporate bonds, government bonds such as infrastructure bonds, municipal bonds, state bonds and listed bonds. Some areas that related to the issuing bonds were also discussed. These were bond policy, including the requirement of issuing bonds as corporate bonds or government bonds. Project bonds were also discussed. One of the discussions encompassed the functions of securities companies; it covered how to issue bonds in stages, including estimating the bond rate, estimated bonds sales, how to sell bonds, including base effort and full commitment sales, offering the counter sales and the result of the expected bond rate. It is also discussed the Otoritas Jasa Keuangan (OJK=FSA: Financial Service Authority) and other areas, including credit rating, bond appraisal, bond guarantee and secondary markets.

The macro & micro economy was discussed in relation to population, monetary, bank regulation, inflation, government policy, political risk, natural resourcing, indirect or multiplier benefits, and the process of resettlement of local people.

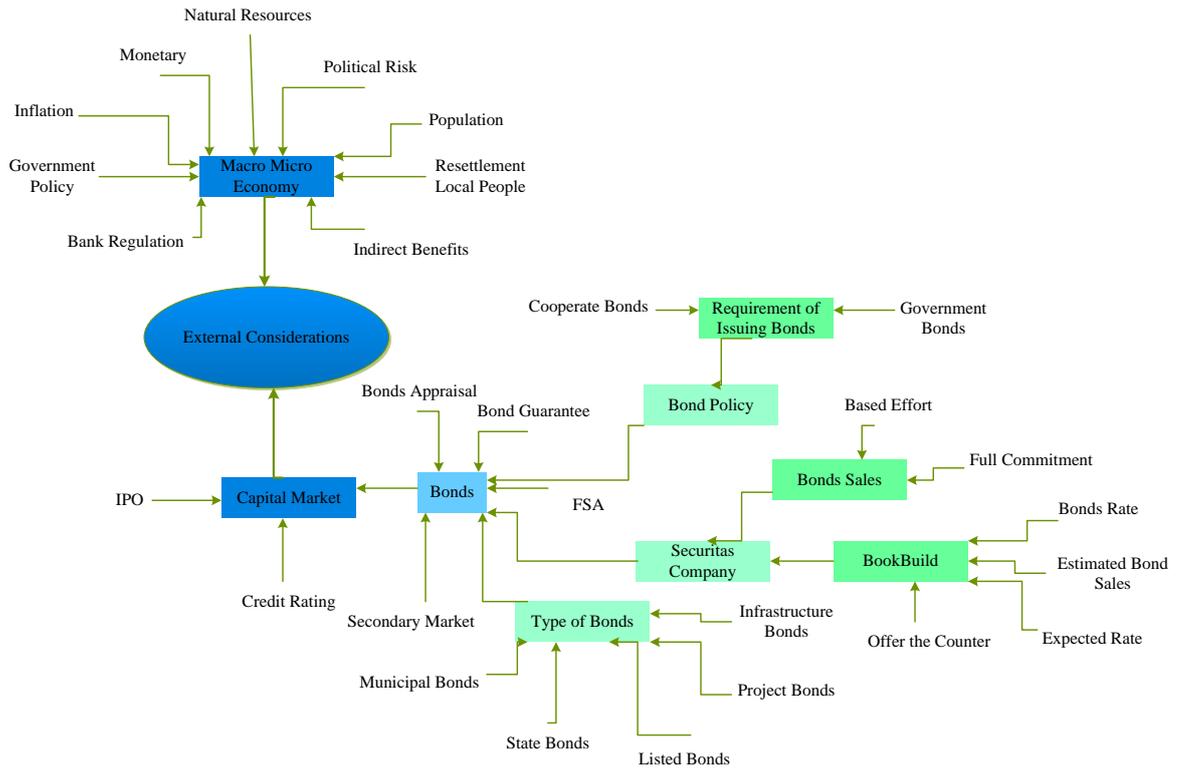


Figure 5-17: The external consideration to a create good climate for infrastructure financing

5.3.5.1. *Macro and Micro Economic Consideration*

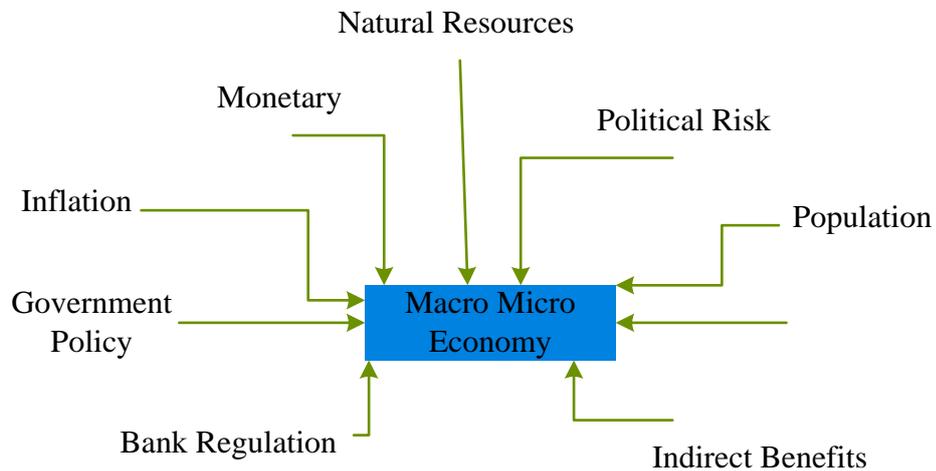


Figure 5-18: The external consideration of the macro and micro economy

The PPP, PFI, PDP, BOT, DBOT, DBOOT were project implementation structures that come into play when a client or a government does not have the means to pay along conventional lines (Respondent 5). In most cases the cost of these projects were much higher when compared to being conventionally financed by fiscal budget;

however, in most instances the indirect benefits are larger. Applied correctly, it is a winning formula and when applied wrongly it can bring down a nation economically.

The infrastructure projects were related to institutional perceptions on the economic capital, a market value (Respondent 1). The market is saying very optimistic but always relates to risk, perception of risk will affect the rate. The business financing in Australia is mostly short-term with cheaper financial costs. But if compared to the US, to borrow, they were going to be borrowing long-term, such as with a 20-year bond. Long-term borrowing will mean borrowing more funds; it will have a bigger spread.

Stress testing relates to prove market perception, it might put some condition on needing more equity, more lending and then lender from a limited resource. It would take decades to have maturity in the market, so there is a lot to do with bank regulation, political risk and other things. Governments, physical policy, monetary policy, they must not act in unpredictable ways in the short term, and they must not become the jeopardize of the project; against these behaviors, the lender wants insurance from the government.

Ten years ago, Indonesia was a lot worse than it is now. Then, they could not get any money for projects because government sovereign guarantees were so low. Now there is a more robust banking system and better regulation, so a more mature process.

The World Bank has developed regulations for global banks over many years and set new banking regulations for the world. It does regulation most effectively when it comes to project finance, they limit lending for the long-term, they limit lending on a limited recourse basis, and they limit large loans.

Respondent 4 said that to leverage infrastructure projects or to develop viability in the area, natural resources could be explored, such as coal, oil and gas.

Bank Regulation

The maturity in the market had to do with bank regulations, political risk and other things (Respondent 1). In the case of Indonesia, currently there is viable progress, a more robust banking system and better regulations, so more of a mature process.

A very advanced country has reserved banking and an independent treasury. If the treasury was not trusted, then they are not allowed to regulate the bank, because if they do it could be from a political perspective. Getting an institution right over time is not an easy task as it is difficult to be sure if one agency is better than another.

The Malaysian system is just at its beginning and does not work effectively on tasks; they are trying different thing, just trying to fix problems. They stuck with what they had and gradually worked harder and it give them more power; however, with more power the treasury started to dominate them. The treasury can use monetary policy trait or fiscal policy for the same ends.

The first thing that is very important is getting finance to the infrastructure project. The government has started to develop robust bank regulations as an institution, as part of the development life-cycle that every country faces. The Philippines is very good on PPP; they have got strong institutions that are supported by national banks. In the economics of a country, the banking sector is very important.

Government Policy, Monetary and Inflation

The most significant risk considered before deciding to execute a project was government policies and political stability (Respondent 1 and 5).

Tanzania was a rich country with rich natural resources. Investors are interested but they are also looking for a guarantee of return on their investment (respondent 4). Receiving cash in huge amount of more than 500 million to two trillion dollar for infrastructure projects in this country also would destabilize the monetary situation in the country. The transaction of investment has to be managed carefully. Infrastructure to connect the regions has big problems. From Dar es Salaam to Burrundi or Rwanda by truck takes more than three days because it is so ineffective. It should be connected by fast train; however, there are no railway tracks yet. This

country has many minerals such as coal, oil and gas that could be possible to monetize as guarantees for finance to build the needed infrastructure.

Natural Resourcing, Political Risk

The natural resources could be monetarised as a guarantee of the foreign financing and also can be explored by giving the rights to mine concessions, etc. (Respondent 4).

Political risk for third world countries and developing countries was considered to be very high and would therefore require government guarantee. There was no magic formula to overcome political risks (Respondent 5). Every project is different and elements that influence the viability and feasibility of projects differ. In most cases projects fail because of wrong intent and conduct by the promoter. Almost all projects that he had been involved in from the Second Severn Crossing in Wales, toll roads in India and Malaysia, rail projects in Asia, petro chemical complexes, and a new city Putrajaya - where the work is professional it all comes together as a great achievement, at the same time when the politicians get involve it means it can be dysfunctional from the start. While for developed countries, there is no government guarantee necessary since good governance has been applied to govern the nation to eliminate the political risk.

There was no involvement of politicians, and no guarantees in Australia for political risks (Respondent 1). Australia has a mature market, so there are many bank regulations, and political risk is avoided through strong government regulations. Respondent 3 said that to overcome the political risks would need a lot of negotiation. Sometimes governments make projects for political reasons; PPP projects need a lot of on-going negotiations to make deal.

Population, Resettlement Local People

Population is part of the potential market. Especially for third world and developing countries which have huge population as potential buyers.

Infrastructure projects usually require large areas of land. Some of the projects need to consider the existing people who have lived there for many years. Respondent 4,

who had experience building a new city, had faced the issue of moving a local population. In this case the government are basically buying their properties and their lands and moving them somewhere else. They will be given, 100% of the value of the houses. The government conducts obligatory purchasing at standard prices, then the houses that will be demolished have a red sign, *Bomba*, written on them that means ‘God’ and the houses will be demolished. Also in Andalusia, in the West Indies, they redeveloped an area in West Indies and moved all the people away from the land. They let the people live in a nearby area so that they will feel to be a part of the development; they can be in apartments and houses.

5.3.5.2. *Potential Capital Markets to be Optimized*

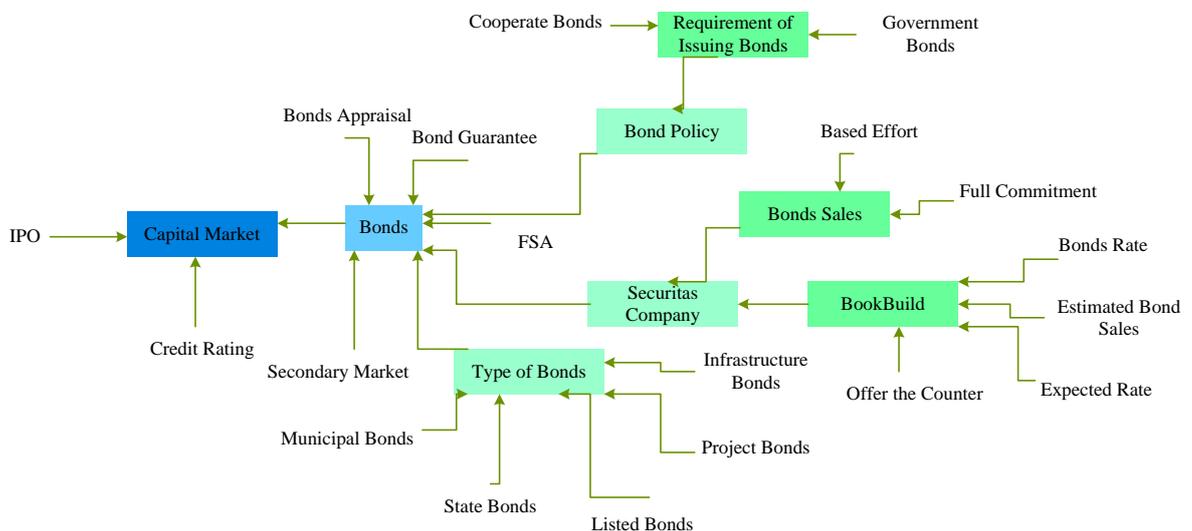


Figure 5-19: The external considerations of the capital markets

In the federal system in Queensland the relationship between the government under state and federal financial arrangements, with the local authority on state government, the issues is there a lot of money around, and people are unaware where they put the money (Respondent 2).

Bonds

Bonds were the best instrument in developing world markets as economic growth is usually on an upward trend (Respondent 5). In most cases the growth inertia of such markets are progressively northwardly and steady. At the same time, there are no huge fluctuations in the long-term. This enables such funds to be monitored and

traded without unnecessary pressure from the surrounding market events. However, he has sure that no one instrument was sufficient to accommodate a mega scale project of this scale, thus a hybrid scheme was actually adapted when setting up the MRT project.

The capital markets could be a solution for infrastructure financing (Respondent 8). For most bonds that were issued by the government, 80% to 90% were issued under Offer the Counter (OTC) or off-exchange trading outside from the security exchange, only a small amount of government bonds were sold on open exchange trading. Capital markets have a huge potential as a source of funding; however, since the issuer of the bonds itself is the bank bond issuer (sekuritas), hence the value of the bonds that can be issued can only be based on the capacity of the issuer itself. In this case the potential bonds buyers will require guarantees from the issuer.

Respondent 1 said that the regulation of short and long-term bonds in Australia could be checked on BISL3. Respondent 2 explained that the QIC issue bonds on behalf of the Queensland Government, and Respondent 4 said that bonds are not yet common in Tanzania.

Type of Bonds

Project Bonds, State Bonds, Municipal Bonds, Listed Bonds, Infrastructure Bonds

There are infrastructure projects with mainly project bonds (Respondent 6). There was not keen on state guarantees as these inadvertently create contingent liabilities for the state.

A local government could issue municipal bonds based on the fiscal and financial reports from the government that were audited by the auditing authority, and that minimally three years of audited financial reports were necessary to have good standing (Respondent 8). There are bonds issued by the government that would be under control of Indonesian State Banks. Bonds that are issued by corporations would be under Custodian Central Effect of Indonesia (CCEI). Both of these bonds can be listed on the stock exchange and then become listed bonds. The price of bonds, including the benchmark price of bonds, is monitored over time.

The Malaysian MRT was funded via mid and long-term notes raised by a special vehicle fully owned by the MoF Inc. No government security is given (Respondent 5); however, being a fully owned legal entity of the government the SPV received positive credit agency ratings. The majority of these notes were pre-sold to institutional buyers such as the nation's EPF Co. The government also raise more local funding by putting out special public investment schemes, schemes guaranteed by the government. There are bonds that are medium and there are long-term bonds; however, these are not government bonds but instead corporate bonds supported by government. For the MRT, relatively all the cost is paid through bonds placement.

Infrastructure bonds in Indonesia are still under discussion by the Financial Service Authority (FSA=OJK (Otoritas Jasa Keuangan)). Implementing infrastructure bonds could be based on the general bond policy and that an institution or a project could issue bonds based on the financial year report (Respondent 8). However, the difficulty would be to convince the potential partners to buy these bonds. It can be done if there are strategic partners that are already interested to buy the bonds. A certain President Decree can be issued to support these bonds if the bonds are issued in order for public service interest.

Bond Appraisal, Bond Guarantee, Bond Policy

Case in Indonesia, the bond appraisal would be appointed from appraisals that had been listed in OJK (Respondent 8). A constraint of bonds was again the guarantee. For the company bonds issuer, they also need to provide the guarantee to cover the value of the bonds that have been issues (Respondent 8). The guarantee can be from a re-insurance company, bank guarantee, asset collaterals, and the project itself, similar to project financing. There is also a premium charge for the guarantee services.

The bond maturity policy for the capital markets (Respondent 8). The corporate and municipal bonds policy have been considered mature enough to accommodate the current needs. However, the policy related to project bonds or infrastructure bonds is still under discussion. Based on corporate bonds, bonds can be issued with a one year financial statement; however, the difficulty will be to convince potential

investor to buy the bonds.

Corporate Bonds, Government Bonds

For corporate bonds the corporation had to be audited for three years, and to have a very good margin, if it was to be listed on the stock exchange (Respondent 8). A company can issue bonds based only on the one year financial report, but it cannot be listed. Corporate bonds are under the Custodian Central Effect of Indonesia (KCEI).

There were several types of government bonds that were issued by the central government, such as ORI, SUN and tax income as the guarantee for the payment and yield (Respondent 8). By having taxes as the income guarantee it can be said that bonds that have been issued by the central government can be considered to have no risk. Bonds that are issued by regional or local government as municipal bonds are still facing difficulty; none of any of the regional or local governments has been able to issue municipal bonds yet, since one of the requirements is the rating of BBB- or a financial report that has been audited for at least three years. The usage of bonds that will be issued as municipal bonds has to be clear; the projects have to be approved by parliament boards. The policy to cover the municipal bonds has to be stated in regional policy and also needs approval from the parliament. Banks and the company bond issuer can assist regional government.

OJK FSA Finance Service Authority

The Finance Service Authority (OJK) for Indonesia has been recently established. Previously the banking and the monetary policy in Indonesia were under the control of the State Bank of Indonesia (BI). Currently, the banking system and capital markets are under OJK, and BI only manages the monetary policy.

Since capital markets were relatively new that SMI had also become good partner for OJK regarding the current type of financing for infrastructure (Respondent 11). SMI as a part of a government institution that has the specific function of modifying infrastructure financing. SMI and OJK will need to educate the corporate and infrastructure bonds markets.

Secondary Market, Securitas Company

The secondary market in trading also would need more exploration (Respondent 8). Additionally, securitas company, or bonds issuer, or underwriter have very important roles in bonds policy.

Bookbuild, Expected Rate, Estimated Bond Sales, Bond Rate. Offer the Counter (OTC), Bond Sales

The first stage of issuing bonds would be the book build (Respondent 8). Book building is a preliminary process to issuing bonds, the objectives of the book build are to observe the market response, to estimate the bonds price and sales, and also to estimate the bonds rate that would be applied for a fixed rate over years or for a floating market rate. The book building also had a role in anticipating loss for underwriters or bonds issuers. The underwriter will find it easy to issue bonds for a corporation that has a profit history for three or more years in a row.

The 80-90% of bonds were sold by the offer the counter (OTC) or off-exchange trading (Respondent 8). Most of government bonds are sold bilaterally. The market is more comfortable buying bonds by bilateral transaction, direct negotiation and reporting to OJK. IMF is one of the biggest bonds' buyers. Sukuk or Islamic Bonds still in the exploration phase and so far have been offered through OTC.

Full Commitment, Best Effort

The underwriter is the first institution that takes risk in issuing bonds (Respondent 8). The underwriter has functions as the guarantor. There are two types of bond offers to the market: (i) by best effort, and (ii) by full commitment. By best effort, the underwriter will issue as many bonds as the market can absorb. By full commitment, the underwriter will take the rest of the bonds that could not be absorbed by the market. The full commitment method, with the underwriter as full guarantor, will be more trusted by markets.

Credit Rating, IPO

The Malaysian MRT was funded via mid and long-term notes raised by a special vehicle fully owned by the MoF Inc. No government security is given; however, being a fully owned legal entity of the government the SPV received positive credit

agency ratings (Respondent 5). The majority of these notes were pre sold to institutional buyers such as the nation's EPF Co. The government also raises more local funding by putting out special public investment schemes; schemes guaranteed by the government, and offering medium and long-term bonds; however, these are not government bonds, but instead they are corporate bonds supported by the government. For the MRT relatively all the cost is paid through bonds placement.

5.3.6. Viability of the Infrastructure Projects

Levels of viability of infrastructure projects that have been discussed in the interviews are: high viability; less feasible; and projects that the viability need to be leveraged by involving government purchase, management of localization or local resources, conducting bundling projects such as integrated urban development, and managing projects executed by state owned companies with a one step down approach.

Respondent 6, who works as a senior advisor for the Commonwealth secretariat, said that most of the projects he had handled gave high returns for the project proponents. Respondent 5, who worked on the manufacture of a monorail said that as regards the level of viability of infrastructure projects it was very important to recognize that the viability and feasibility of infrastructure projects differs. Respondent 3 said that PPP projects had been selected by putting specifications and ideas for verification of the return by first developing them in the feasibility study. For example, the stadium in Perth project that was supposed to be social infrastructure was instead set up as a commercial center, with a full annual agenda bringing in a large amount of revenue.

Respondent 2, who worked for the investment board in Queensland, explained that to justify the level of viability of the projects, sustainable models were required; however, this model probably develop in 100 different ways since is talking about public perception. Also, the free market is an interesting thing to observe. The government has to be aware of the free markets. For example, with the toll road project in Brisbane, there is a traffic risk for the private sector that becomes debatable as to its profitability. At the same time the government is usually reluctant to be involved demand risk. Therefore, the government has to understand an

important aspect of the free market concept, i.e. that people gain. Infrastructure projects such as roads, bridges, and tunnels are not for charitable purpose; these projects need to get a Return on Investment, as, for example, superannuation funds have other options to consider and commit to. In PPP projects, the government wants to benefit, and can do by getting the project up and running sooner, on target time, under budget, and they can develop mutual partnerships. For several infrastructure projects, the Queensland Government used the QTC, which is Queensland Treasury Corporation, which borrows the money on behalf of the government from overseas. An example is the 1.8 to 3 billion dollars project of the toll road gateway, the Darling Down Gateway to western Queensland. The federal government was always keen to build a bypass road for Woomba City. The current highway has the following problems: all the trucks must go through city; and it is very inefficient. Because of the steep gradient it is very difficult and dangerous for big trucks, and because of the gradient there is a high amount of wear and tear. A truck can use 40-50 dollar worth of fuel because of the gradient. Trucks are quite happy to pay a 25 dollar toll. In this situation the market has to pay attention.

To justify a high level of viability in Queensland, the infrastructure projects needed a mature process, good regulation and a robust banking system (Respondent 1), 10 years ago in Indonesia the condition was worse than today; it was difficult to leverage the projects because of the government sovereign risk was so low.

Related to leverage viability, the private sector constructs a feasibility study to obtain the debt service coverage ratios and other financial statements (Respondent 1). They take it to the bank, and the bank studiously investigates the feasibility study through due diligence and adds the terms of their interest, depending on their different perspective. As an equity investor, there are two things to be considered. For the short-term investor, the concern is about RoE and RoI. For example, Macquarie bank is going to underwriter a five-year risk. When the cash flow stabilises, then superannuation funds can be considered for the long-term investment; they will not worry about RoI and ROE. They are concerned about a mature cash flow more than RoE and RoI. So from an investment perspective, financial leverage will come first, then after the cash flow stabilises then long-term investment finance such as superannuation funds will become involved. In the short view, entrepreneurs/private

sector will consider more the RoI and RoE, the financier will consider the investor funds interest, the builder/ construction company just want to get paid as soon as the construction is finished, and the stakeholders want to get paid from the government. The government will consider the public services that could be delivered.

The government had a key role in leveraging the financial projection of PPP infrastructure projects (Respondent 2). For example, in the government's official project in Brisbane the government may be tenant for three or nine years in order to give a guaranteed RoI, In this way the private sector knows that the government will be a permanent occupant or guarantee of payment for a certain amount of years. Another example is Abbot Point port where a lot of expansion was being paid for by the government of northern Queensland.

Another method of leveraging a project is by bundling the project as an integrated urban development. Respondent 4, who works as a consortium leader developing a new city in Africa has given the example of developing the new city of Kigamboni, as part of the extension of Dar es Salaam, in Tanzania. Respondent 4 said that to build a new city is started by having plan: what is important, what we can do, what does it need, what is viable in that area, etc., i.e. the stages have to be in place. For example, building the new city of Kigamboni was started by building the electricity infrastructure and plant, followed by building roads and connectivity, gas and water, then production facilities were built, a commercial district and housing. To leverage the city development project, it is necessary to assess the viability of the area; natural resources could make the city viable, such as coal fire, gas, oil, and putting in a power plant. For Kigamboni, a twin power plant based on gas resources will be built in Zanzibar Island to supply energy to Dar es Salaam and Kigamboni. A gas pipe will run underground from Zanzibar Island to the mainland. The government will buy the electricity (Government Purchase) so that would be viable; so, to structure the city, the sustainability and viability of the financing have to be fundamental.

Respondent 5 suggested that managing the resources of an area is a positive for PPP projects as they would ensure better and faster returns on investment.

In Indonesia, said that the reason why PPP projects in Indonesia were very slow to

progress and actually almost stagnant was because the government had little interest in business (Respondent 7). Cooperation between government and business is considered complicated. Therefore there is a need to develop new methods that create government institutions that are able to talk business to business with the private sectors, and then become business to business corporations to deliver public services; this can be called a one step down approach. The one step down approach method establishes a new state owned company that can be appointed project owner of the infrastructure project; then the new state owned company can have cooperation with the private sector to build the infrastructure and to deliver the public service. This approach will be implemented to build urban mass transport in the city of Bekasi, Banten Indonesia. The municipal of Bekasi has established a new state owned company, and currently the state owned company has conducted a limited tender to find a private partner. This method is expected to be faster than the conventional PPP methods that have been implemented so far.

5.4. Summary

Infrastructure financing typically involves the function of finance and accounting. Finance involves many interrelated functions, including obtaining funds, using funds, monitoring performance, and solving current and prospective problems (DELTA, 2008). The order of investment is considered efficient in allocating resources if it delivered the highest ratio of benefits to costs compared to other alternatives (C. Chan et al., 2009). A basic tenet of investment theory was that an efficient investment was one in which a project was expected to yield benefits that exceed risk-adjusted costs.

This chapter has studied key parameters from quantitative and qualitative surveys that influence the success of PPP financial decision-making and would identify and evaluate the criteria for the selection of the appropriate financing parameters for PPP transactions delivering infrastructure services.

The relative importance index (RII) was computed for each parameter to identify the most significant effect on financial performance. The higher that the RII value is

means it has a higher priority in the ranking system. According to the study results, the shortlist of 15 key parameters that are considered significant in PPP financial performance are: (1) construction costs & investment, (2) supported government policy, (3) tariff or fee approved by government, (4) demand volume, (5) amount of bank loan, (6) land acquisition process, (7) financing risk and costs, (8) demand growth, (9) quality of FS, (10) tariff or fee growth, (11) lengthy delay due of political involvement, (12) bank loan period, (13) cost overrun during construction, (14) operation costs overrun and (15) Insurance/Risk Transfer Expenses.

From the result of the RII analysis, it was expected to have a significant correlation of the parameters to the stakeholders. The null hypothesis testing found no significant difference between the stakeholder groups regarding decision-making parameters in finance. The stakeholders have their own perceptions and justifications about all the parameters. The respondents independently identified the parameters; their perceptions were not the results of chance.

In summary, these findings signify the following:

- 1) There are significant parameters that will be considered in financial modeling for investment decisions. The listed parameters will help the stakeholders to make robust anticipation and estimation in the planning and preparation of the projects.
- 2) In general, there is no significant correlation between the stakeholders' decision-making. The stakeholders are independent when identifying the parameters. The government officials, the bankers, the entrepreneurs, the consultants and donor agencies have their own judgments.
- 3) In specific tests between two groups, a correlation for the identification of the same decision-making parameters were found for several stakeholders. The stakeholders that did correlate are the government to bankers, government to private sectors, the government to consultants, the bankers to donor agencies, the private sector to consultants, the private sectors to donor agencies and the consultants to donor agencies.
- 4) Knowing the different organizational perspectives provides an understanding of why stakeholders groups select the significant parameters in investment decision making. In order in the future to develop PPP infrastructure projects, this

understanding of the stakeholder's relative importance of different parameters will help the development of frameworks in this research.

The quantitative and qualitative analysis will be continued in the mixed triangulation analysis. The triangulation analysis will be explained and discussed in Chapter 7.

CHAPTER 6

CASE STUDY:

PALEMBANG MONORAIL PROJECT

6.1. Participant Observation: Case Study of Palembang Monorail Project

To enhance understanding about the progress of PPP in Indonesia, a participant observation in an internship program has been conducted by the author within the case study that organized in *Badan Perencanaan dan Pembangunan Nasional* (BAPPENAS, the National Development Planning Agency). During this internship, the planning stage of PPP project preparation and the procurement processes up to the project transaction phase were studied. This chapter contains of explanation on the data collection through participant observation within the case study. It is also included the deep analysis and finding alternative solution in the case study to assist the reader to get deeper understanding after gaining information from previous chapters.

In choosing a case study or case studies for this thesis, originally five infrastructure PPP projects were considered. The five projects were all government infrastructure projects in the preparation stage, with the government in the process of constructing supporting procurement documentation. The five projects considered were:

- The Multipurpose Deep Tunnel Project, DKI Jakarta, Indonesia
- Monorail Project, Palembang, Province of South Sumatra, Indonesia
- The Water Supply and Plant, West Semarang, Central Java, Indonesia
- Kalimantan 40 km railway, Indonesia
- Waste Disposal Plant, Batam, Indonesia

From these five projects, however, only one has gone ahead in a way suitable to its use as a case study for this thesis. Due to a significant change in the processes of the Central Government, the Multipurpose Deep Tunnel Project was postponed and will

be developed as a Government to Government (G to G) cooperation with a ‘soft loan’ from China not as PPP project. Also, The Water Supply Plant in Semarang has been postponed due to the fiscal guarantee required. The Waste Plant Project in Batam has been canceled due to a land clearance conflict. The railway in Kalimantan finished the tendering process at the end of 2012; however, the continuity of the project is under question as it has many problems, particularly in the areas of finalizing financial aspects, land acquisition and local social conflict.

Hence, due to the cancellations and difficulties in feasibility of the other projects, the Monorail Project in Palembang has been selected as the case study. The Monorail Project was still on scheduled progress during the data collection and analysis of this research, and therefore provided a significant research opportunity to be observed as a case study. The method of data collection was observation, to better understand PPP Indonesia at the provincial level. The participant observations were conducted by the researcher by taking the role of advisor to the Governor for the provincial government of South Sumatra, with a special task to provide advice on infrastructure financing in the monorail project. The governor decree as governor advisory for the researcher is on Appendix 6.

In 2012, the project was in the Feasibility Study (FS) development stage and financed by the regional budget. In 2013, the FS documents were evaluated by the BAPPENAS, Central Government, and it was found that the project had a moderate tendency to be less viable and would therefore require a fiscal contribution from the Viability Gap Fund (VFG). In 2014, the follow up studies, including the environmental assessment and business integration study, were conducted. The approval of a monorail corridor was also issued in 2014. Also in 2014, since the level of viability of the project was rather low, it was advised to develop the scenario of bundling the monorail project together with Transit Oriented Development (TOD); the TOD areas were in the process of getting approval from the Governor. In 2014, the TOD was still in the process of procurement preparation. In 2015, with the new president eager to fast-track infrastructure building, responsibility for the monorail changed, and it became a central government project. The monorail project was then changed into a Light Rail Transit (LRT) project, to be financed through the

fiscal budget under the Ministry of Transportation (MoT). The LRT Palembang project will now be executed by two State Owned Enterprises (SOEs).

In this case study, the complexity of the coordination, the functions of the related institutions, and the development of a framework for the PPP projects to support PPP infrastructure projects in Indonesia, is highlighted. The type of government supports and procedures, the supporting policy, and the amendments to support this project, are also explained in this chapter.

6.1.1. South Sumatra Province and the City of Palembang

The South Sumatra Province consists of an area of 91,774.99 km² and is the largest province in the island of Sumatra. The province has 13 municipalities, four cities, 223 districts, 384 smaller districts and 2,812 villages. In 2011, the population of South Sumatra reached 7,593,425 inhabitants, with a growth rate of 1.92%. The rate of population growth in South Sumatra is driven by population growth in Musi Banyuasin, with a population of 580,489 inhabitants, and is 3.39%. In 2012, the recorded population of South Sumatra increased by 108,103 inhabitants compared to the total population in 2011. In 2012, the population of South Sumatra reached 7.7 million, a growth of 1.42%, and about 8.4 million in 2013 (Noerdin, 2014).

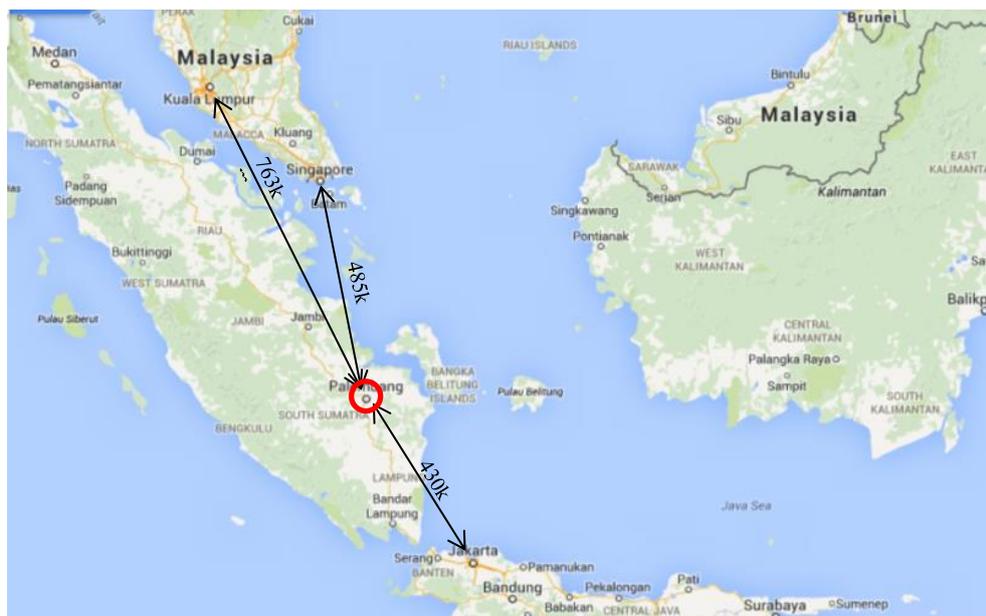


Figure 6-1: Distance of Palembang City, South Sumatra Province with Kuala Lumpur, Singapore and Jakarta

The city of Palembang is the capital city of South Sumatra and has the potential to become a business city to support South East Asia. The city of Palembang is located between three very busy Southeast Asian cities: Singapore, Kuala Lumpur and Jakarta. The distance by plane to these three cities is less than one and a half hours. Regular flights have been scheduled to accommodate the business flowing into and out of Palembang.

Table 6-1: The comparison area and population in City of Palembang, Singapore and Kuala Lumpur

City	Area	Population
Palembang	374 km ²	1.74 mil
Singapore	718 km ²	5.47 mil
Kuala Lumpur	243 km ²	1.63 mil



Figure 6-2: Map of South Sumatra Province

Source: (Noerdin, 2014)

The natural resources in South Sumatra are abundant (22.24 billion tonnes); nearly 50% of the Indonesian coal reserve is found in South Sumatra. Gas and Oil have been exploited in a relatively small exploration, and the coalbed methane and geothermal reserves are under study for exploration. With these natural resources,

South Sumatra has a great deal of potential as the source of energy for the nation, and also potentially to supply energy to Singapore and Malaysia.

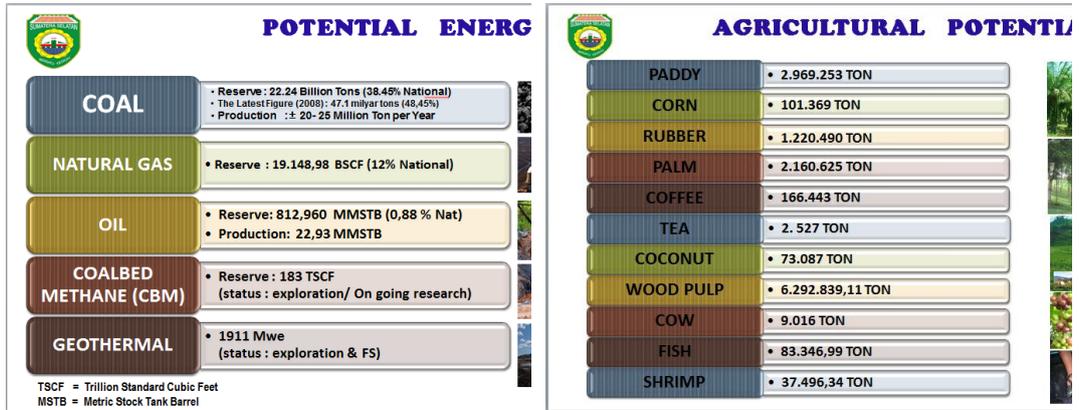


Figure 6-3: Natural and agricultural resources in South Sumatra Province
Source: (Noerdin, 2014)



Figure 6-4: The Ampera Bridge, landmark City of Palembang

The South Sumatra Province also has a significant agricultural potential. The rubber production is the largest production in Indonesia (1,220,490 tones). The rice paddy production (2,969,253 tones) has met the regional needs, and 25% of the production has also been delivered to other regions. Wood pulp (6,292,839 tones) is the second biggest product and is used for making paper. The production of palms (2,160,625 tones) for palm oil places the South Sumatra Province among the top five biggest

producers in Indonesia. Coconut, corn, coffee, tea, and fishing also have a huge potential for future development (see Figure 6-3).

Palembang is the capital city of the South Sumatra Province, Indonesia. Located on the Musi riverbanks on the east coast of southern Sumatra Island, it has an area of 374.03 square kilometres and a population of 1,742,186 people (2013 estimate). Palembang is considered as the second-largest city in Sumatra after Medan and the seventh-largest city in Indonesia after Jakarta, Surabaya, Bandung, Medan, Semarang and Makassar.

The total population to be served for the fulfillment of basic needs is expected to soon reach 2 million in Palembang. This is mainly due to the relatively increasing high number of people who stay in the suburbs of Palembang but are not registered residents of the city and the large number of commuters in this region.

As one of the large cities in Indonesia with inadequate public transport services, the city of Palembang is facing traffic congestion. Traffic congestion in the city has been caused by:

- High traffic volume on the main thoroughfare between Damri passing through Ampera Bridge.
- Road design layout and U-turns created along the road result in interrupted traffic flow in both road directions.
- No other effective public transport system - city buses are low in numbers and frequency.
- Traffic is 'locked-in' with the grid road layout system. Lack of secondary roads as alternatives.
- Parking on the street along main roads in the city.

Solutions to overcome the congestion are being put into place, improving the bus system and building the monorail are seen as the back-bone of the urban transportation and will be prioritised.

6.1.2. Preparation of the Palembang Monorail Project

The South Sumatra monorail has been initiated by H.E. Mr. Alex Noerdin, Governor of South Sumatra Province. Since this monorail project was initiated by the Provincial Government of South Sumatra, all the project developments costs were budgeted under the regional budget of this province, with the procurement process also the under management of the provincial government.

The feasibility study for the monorail was conducted in 2011-2012 under the supervision of the Transportation and Information Technology Agency of South Sumatra Province Government, with the basic design study and environmental assessment completed in 2013. By 2014, the final monorail corridor was in the process of approval by the Transportation Department of the provincial government of Indonesia.

In mid-2014, Palembang city, South Sumatra Province, was officially appointed as the host of the Asian Games, scheduled for October or November 2018. Therefore the Provincial Government of South Sumatra was really keen to make this project work.

The basic Feasibility Study (FS) has been documented since 2012. The summary of the basic FS will be explained in the subsequent section. It includes the explanation of the project profile, plan of procurement, the proposed shareholders (sponsor/company), and a description of the base-line financial model underpinning the feasibility study.

6.2. Feasibility Study and Technical Principal of the Palembang Monorail

The Palembang Monorail Feasibility Study (Transportation Agency of South Sumatra, 2012) was conducted by The Transportation, Communication and Information Agency of South Sumatra Province (*Dinas Perhubungan, Komunikasi dan Informatika South Sumatra Province (DISHUB)*). This was undertaken by hiring a local consultant company, PT, *Dwi Eltis Konsultan* from Jakarta. It was conducted

in 2012, and covered project demand predictions, analysis and feasibility. It also covered analysis of the city’s expansion, transportation projections and an engineering overview, preparatory organisation, and a financial and environmental impact overview. The demand projection considered aspects of the economics, current road density and transportation. The main shortcoming of this FS, however, was the price of construction; it referred to out-dated information from 2008-2009, and this needed adjustment.

In the first stage of the monorail’s development, the monorail track corridor that will be built is Corridor 1, this will be about 24.5 km length and will cross the city centre of Palembang city, with 13 stations along the corridor. Eventually, there will be two corridors. The first corridor, Corridor 1, will be from the airport to Masjid Agung, and the second corridor will be from Masjid Agung to Jakabaring sport centre, up to the OPI Depot. This monorail corridor is foreseen to integrate businesses, education, government, hotels, shopping malls, entertainment and sport facilities within the inner city, with a potential catchment of one-hundred thousand passengers a day. Figure 4-3 is the route of the Palembang Monorail.



Figure 6-5: Monorail Corridor from Airport to Masjid Agung to Jakabaring Sport Centre up to OPI Depot

Source: (Transportation Agency of South Sumatra, 2012)

Palembang has high traffic density in its city centre and its main roads. During peak hours, large events and public holiday, the traffic intensifies. The monorail has been selected as the urban transport solution for Palembang because it provides the best outcomes for neighbourhood impact, high reliability, route flexibility and safety. The straddle beam monorail technology is the most widely used monorail system in the world, and it provides safe, reliable and successful monorail implementations. Therefore, in the near future, when a petrol energy crisis may occur, Palembang will have an energy efficient, flexible and yet reliable alternative rapid transportation system.

It is in-line with the findings from quantitative and qualitative analysis that the government's greatest concern is the cost of the investment. The result of the FS has recommended that the monorail project can reach an IRR of 8.96%, with the investment being about USD 20 million per km, and the total investments estimated around USD 550 million. It is estimated as being capable of carrying 100,000 passengers per day, and the fare would be IDR 20,000 (USD 2).

The project would be economically feasible under certain conditions. The first condition is that the transportation network must be integrated and the Palembang Bus Rapid Transit (*Transmusi*) must become the feeder solution for the monorail, and will also serve to extend the monorail's coverage. The monorail will be the backbone and dominant transportation solution for the city. The second condition is that the daily users of the monorail should be no less than ninety thousand a day. The third condition to be met is that the ticket price should be no less than IDR 15,000 (USD 1.5) per corridor. Another approach to achieving the higher IRR would be through financial support of the government. The financial review and sensitivity analysis can be seen in the Table 6-2 and 6-3 and Figure 6-6.

Also in-line with the quantitative and qualitative analysis, the private sector or potential investors will typically be concerned about their return on investment, therefore the demand, or potential revenue, or potential payment, has to be accurate. The FS conducted in 2012 considered three scenarios of financial modelling:

pessimistic, moderate and optimistic. With the basic assumptions listed in Table 6-2 in the financial model, the results of the FS were as follows:

- The Net Present Value (NPV) in the pessimistic scenario is negative, so it cannot be considered profitable to proceed.
- Moderate and optimistic scenarios may be followed up if further funding scenarios can be developed.

Table 6-2: Financial basic assumptions in financial model of FS

	Variable	Conservative	Moderate	Optimistic
1	Passenger Volume per day	90.000	100.000	110.000
2	Average Tariff (IDR)	15,000	20,000	25,000
3	Investment per Km (million USD)	30	20	15
4	Loan interest	6%	6%	6%
5	Loan and Capital Ratio	30:70	30:70	30:70
6	Section distance 1 (Airport – Masjid Agung)	15 Km	15 Km	15 Km
7	Section distance 2 (Masjid Agung – Jaka Baring)	10 Km	10 Km	10 Km
8	Number of route sections	2 Sections	2 Sections	2 Sections
9	Full load train capacity	780 person	780 person	780 person
10	Taxes	30%	30%	30%

Source: (Transportation Agency of South Sumatra, 2012)

It should be noted that the interest on the loan assumptions used in the FS is 6%, thus requiring prospective investors to be able to provide a cheaper source investment fund or source funds from abroad, when compared to a commercial loan from a commercial bank in Indonesia, which has a 12% interest rate per annum based on the bank rate issued by State Bank of Indonesia². Assumptions for the existing corporate tax is at a rate of 30%, which can be considered quite high given that the infrastructure are for public services.

The optimistic scenario was based on revenue streams originating from the target number of passengers. In the optimistic scenario, the IRR is sufficiently attractive, as it is higher than the interest rate of the State Bank of Indonesia. In the situation that in optimistic scenario has, therefore the investors bidding can be direct procured

² <http://www.bi.go.id/id/perbankan/suku-bunga-dasar/Default.aspx>

without any fiscal support from the government. However, the assumption of the investment cost is about USD 15 million per km (based on 2009 data), and hence it is an obsolete rate. This will make it difficult for the monorail project to find investors at the proposed rate of return.

Table 6-3: Financial sensitivity for Palembang monorail project

Matrix 1 (Conservative 1)			Matrix 5 (Optimistic 1)		
Investment / Km	30.00	million USD	Investment / Km	15.00	million USD
Throughput	100,000.00	People	Throughput	90,000.00	people
Tariff	20,000.00	Rupiah	Tariff	25,000.00	Rupiah
Initial investment	825.00	million USD	Initial investment	412.50	million USD
IRR	4.94	%	IRR	13.81	%
BCR	0.84		BCR	1.41	
NPV	-58.15	million USD	NPV	367.38	million USD
Matrix 2 (Conservative 2)			Matrix 6 (Optimistic 2)		
Investment / Km	30.00	million USD	Investment / Km	15.00	million USD
Throughput	90,000.00	People	Throughput	100,000.00	people
Tariff	20,000.00	Rupiah	Tariff	25,000.00	Rupiah
Initial investment	825.00	million USD	Initial investment	412.50	million USD
IRR	4.03	%	IRR	15.26	%
BCR	0.78		BCR	1.49	
NPV	-124.44	million USD	NPV	446.52	million USD
Matrix 3 (Conservative 3)			Matrix 6 (Optimistic 3)		
Investment / Km	30.00	million USD	Investment / Km	15.00	million USD
Throughput	90,000.00	People	Throughput	110,000.00	People
Tariff	15,000.00	Rupiah	Tariff	25,000.00	Rupiah
Initial investment	825.00	million USD	Initial investment	412.50	million USD
IRR	1.65	%	IRR	16.62	%
BCR	0.62		BCR	1.56	
NPV	-287.10	million USD	NPV	525.46	million USD

Source: (Transportation Agency of South Sumatra, 2012)

In the moderate scenario, the IRR is very low and the NPV is negative, and will thus require government support, such as asset contributions, VGF, guarantees and share capital (government investment), as well as corporate tax cuts stimuli.

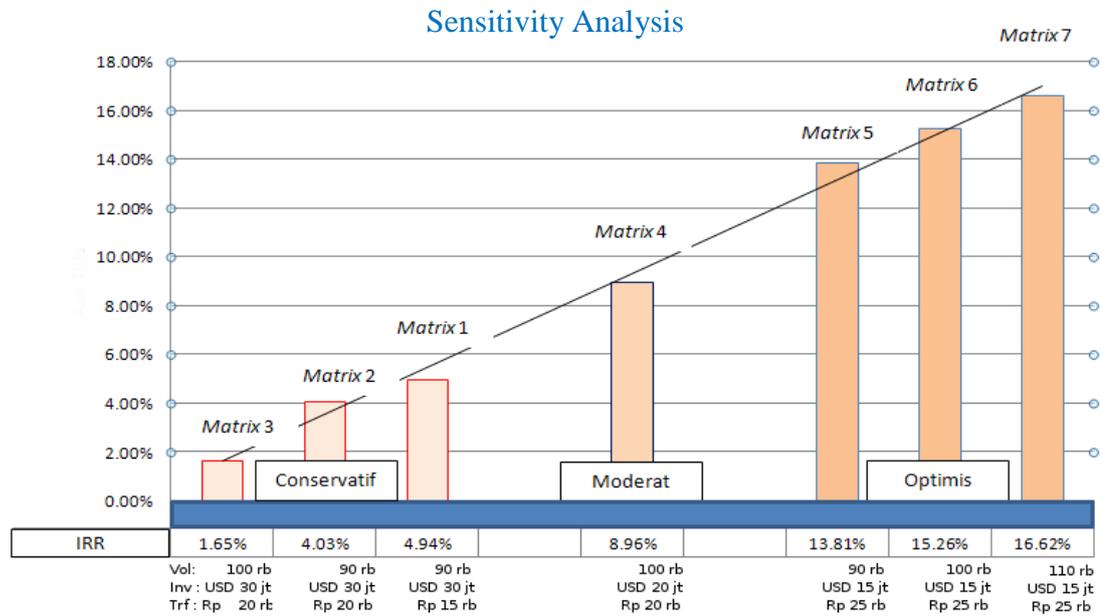


Figure 6-6: The sensitivity analysis of IRR to passenger estimated volume, tariff and investment cost per km based on the FS

Source: (Transportation Agency of South Sumatra, 2012)

The result of the FS also recommended the application of fiscal support from the central government of about USD 150 million and a 30% subsidy for the ticket tariff. Those two types of government support have been discussed by the relevant Ministries in the central government in 2014. However, in 2014, it was the presidential election and political conditions were unstable, therefore up to 2014, requests for government support which related to direct fiscal supports had been declined, and the central government didn't allocate any budget for any PPP projects. Then, in 2014, the study of other leverage method without any direct fiscal support began.

Based on the FS there are a number of strategies, project planning and risk mitigations that can be proposed. One strategy to ensure a successful and lucrative monorail operation is to have a combination of good government support on energy, subsidised tariffs, and a transportation policy that strengthens the monorail as the

premier solution for transportation in Palembang. A second strategy is to attract business investment in South Sumatra, which include tourism, property and manufacturing industries. These strategies also need to be stated in the structure of a PPP scheme so that investors and lenders have fewer risks in bearing the financing. The third strategy is to use a design and build scenario in the project implementation in order to mitigate technology and construction design risks, these include the electronic power technology, traffic control systems and safety technologies (Transportation Agency of South Sumatra, 2012).

6.3. Obstacles Facing the Palembang Monorail Project

Land Acquisition in this project is relatively straightforward since the monorail will be constructed above the existing roads that run along the monorail corridors. Land acquisition will only be needed in several areas of the intersections..

This project still faces some obstacles. The first obstacle is the complexity in coordination of the government institutions, and the second obstacle is the need to develop the PPP framework, due to the low viability of this project.

The first complexity then is coordination of the many government institutions. In the earlier stage of planning and preparation there were fewer obstacles. The initiator of the Palembang Monorail project is the Governor or the provincial government; therefore all the costs related to the project development are financed from the provincial budgets. The project development costs cannot be met by the provincial government. However, the provincial government could arrange for other budgets to support the preparation of the project, such as the budget for market sounding/ promotion or expert assistance.

The complexity of the budgeting can also be seen in the case where the provincial government has allocated a budget to assist the project, but the program that has been budgeted for by the central government does not match with the needs of the Provincial Government. For example; the provincial government had arranged a budget to construct the Final Business Case (FBC) in 2015, while the Provincial

Government did not need the FBC but did need a budget for tender assistances to construct the Request for Proposal (RFP), a part of the tender preparation, but the budget for FBC cannot be easily diverted to tender assistance.

Another complexity in coordinating with the Transportation Department of the provincial government is the arrangement to get the corridor approval as regulated by the Train Directorate General Transportation Department (Government of Indonesia, 2012b). The process of obtaining corridor approval was nearly a one-year process in 2014. In early 2015, the main corridor of the monorail had been approved by the Train Directorate General Transportation Department, and furthermore, in 2015, there was planned that a budget from the Transportation Department as a Specific Allocation Budget (DAU) was to be allocated for the Palembang Monorail as a direct contribution to reducing the construction cost.

A further complexity that has been indicated is that of developing coordination with the Ministry of Finance (MOF) of the provincial government and SOEs under management of the MOF, in order to process government support related to fiscal needs, such as capital support for construction costs, the viability gap fund, and demand guarantees, political guarantees, and tax incentives.

The provincial government has also faced complex coordination needs because of the amount of provincial agencies. The Transportation Agency and other agencies such as the Regional Planning Agency and Public Work Agency have the same level of administrative authority. The Palembang Monorail Project is managed under the Transportation and Communication Agency, while the monorail planning is managed under the Planning Agency. The monorail plan has to be approved by the Regional Planning Agency and the utilization of roads needs to get approval from the Public Works Agency. At the same time there is a city administration which has authority related to public assets. Because of the equal levels of administrative authority, it is somewhat difficult for the Transportation Agency to control the coordination. To integrate the coordination, therefore, the South Sumatra Governor's Office has taken a role in leading the project.

6.4. Alternative to Leverage the Feasibility

As found in the triangulation mixed analysis, discussed in the previous chapters, the government has concerns about the investment cost of building the infrastructure, whilst the financiers are more concerned about the sustainability of the project lifecycle, which means that the certainty of a supportive government policy becomes very important. While the private sector has agreed that return on investment is the most important factor in investment decision-making, the demand volume and the potential to grow are also essential. Considering that the monorail project for Palembang city has moderate viability, efforts to leverage that viability are much needed.

There is a fiscal constraint in the provincial government. The main aim of assessing the different approaches of instruments for private financing for infrastructure investment is to address the viability gap. This would be done by assessing the current instruments available in the FS to mobilise support or address the risk in the infrastructure financing. These government support instruments can include capital transfers, concessionary financing, output-based aid, consumer subsidies as well as credit enhancements, insurance and guarantee products. It is necessary to map these instruments against previous market failures in order to assess which is the most effective instrument for a particular set of constraints.

In this case study of the Palembang Monorail, the financial performance in the moderate scenario, based on the FS, has become the guideline for further development. Since the outcome of the moderate scenario FS has a low level of financial performance, with very low IRR and negative NPV, it requires government or other support to increase the feasibility of the project.

The fiscal governmental support that had been denoted in the FS will take a longer time to process from the central government; therefore the researcher has given input to the provincial government to apply two methods to leverage the feasibility. The first scenario is to develop the project as an integrated urban development. This can be achieved by bundling the monorail projects with property development under the Transit Oriented Development (TOD) concept. The second scenario is the one step

down approach, achieved through establishing regional state enterprise to be part of the Joint Venture (JV) of the Special Purposed Vehicle (SPV).

This sub-chapter will also review the focus of the project from the financier's point of view, the sustainability of the project, the supporting regional government policy, and alternative financing from capital markets.

6.4.1. Integrated Urban Development for Palembang City

The first method to leverage the feasibility of the monorail project, without fiscal support, is by bundling the monorail project with the TOD estate property development as integrated urban development for Palembang city. This method was proposed to the Governor and related agencies to get approval. The scenario of combining the monorail project with TOD property estate development in the city has been approved in principal by the Governor of South Sumatra in 2014. The development of the Palembang Monorail should be integrated with the Urban Property Development and land assets of the Province Government of South Sumatra that are available along the monorail track. It is envisaged this will accelerate the development of the project.

This new policy, that have been prescribed in Indonesian Presidential Decree number 38, 2015 (Government of Indonesia, 2015c), has allowed for the development of the areas as integrated urban development. The usual approach to developing integrated urban development uses the TOD concept. TOD refers to any form of “transportation-oriented development,” including bus and rail oriented development as well as development along freeways (Chisholm, 2002; Lefaver, 1997). Closely related to TOD is transit joint development (TJD). While the distinction between the two is not always clear, in general their differences lie in their scale. TOD generally encompasses multiple city blocks, representing more or less a neighborhood in size and character. TJD, on the other hand, tends to be project-specific, often occurs within a city block and is tied to a specific real estate development. Whereas TOD is often spearheaded and choreographed by a public agency, TJD usually occurs through a partnership of public and private interests working in tandem to achieve “win-win” outcomes, whether in the form of air rights leasing of publicly owned

space, station connection fees, or the joint sharing of capital-construction costs (Chisholm, 2002). The right term for the bundling of the monorail project would be TJD; however, the most common understanding in Indonesia is that of the term 'TOD'.

In combining with TOD asset development to overcome the viability gap, several related agencies that have authority to manage the government assets that might be bundled in the project(s) have not yet reached agreement. There are several difficulties in coordination. Provincial agencies, such as the Regional Planning Agency and the Public Work Agency, have their own agenda as regards the government assets in the TOD areas. It is ego-sectorial that relatively normal in Indonesia. These agencies would like to keep the TOD projects separate from the monorail project, and they want to manage the tendering process themselves under their own authority. To develop the monorail project together with TOD estate development, the Governor needs to issue a Governor's Decree to secure the areas and public assets that will be included in the monorail project as the TOD estate development. The Governor's Decree to combine bundled the monorail and TOD projects was given in early 2015 but it ceased in mid-2015. Also the monorail project was transformed into an LRT project financed through the fiscal budget.

The amalgamation of the Palembang Monorail project and urban property development will require the participation of a global consortium, which consists of companies; the monorail operator, the monorail manufacturer, urban developers, funders and urban designers. To develop this amalgamated monorail project by optimizing provincial government assets in the Public Private Partnership (PPP) mechanism, the financing method that is possible to apply is the Total Return SWAP. The Total Return SWAP method is used together with the management of property development as Transit Oriented Development in order to gain a viability bonus, and the viability bonus from the property development is expected to cover the viability gap of the monorail operation.

The location of TOD estate development around monorail stations that have been planned is as follows:

- a) Hajj station, with an area of 20,000 m²

- b) Provincial Hospital station, with an area of 50,000 m²
- c) Station before Flyover (BP3MD Office), with an area of 3,394 m²
- d) Office of Transportation and BAPPEDA Station Prov. South Sumatra, with an area of 9694 m²
- e) Cinde Market Station, with an area of 6.540 m²
- f) Station Home Jakabaring Stadium Sport City, with an area of 20,000 m²
- g) Station Home OPI, with an area of 20,000 m²
- h) Stations and Depots OPI Jakabaring, with an area of 40,000 M2

An additional area that could be developed to achieve a viability bonus and support the monorail project would be at Special Economic Zones (SEZs) at Tanjung Api-Api. The provincial government in of South Sumatra has planned to develop the SEZ Tanjung Api-Api as a new industrial area to support economic development in the region.

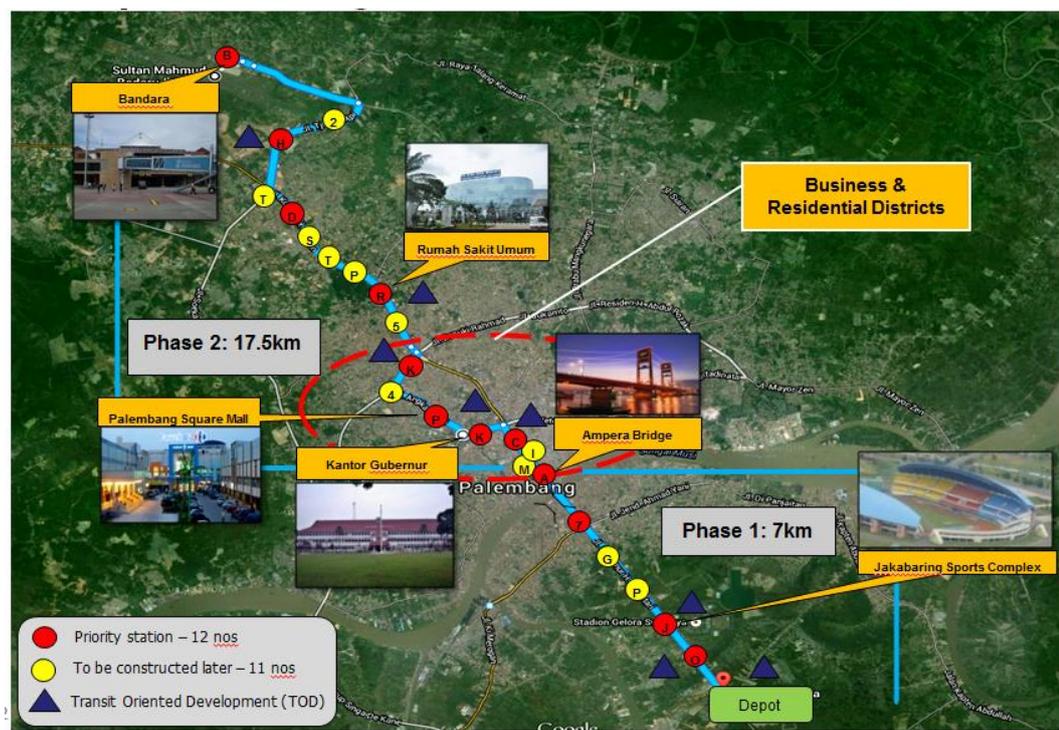


Figure 6-7: The proposed of staging contracting monorail and Station in line with TOD Development

Source: (Transportation Agency of South Sumatra, 2012) and survey modification

The construction of the monorail has developed into two phases with priority to build the selected stations with TOD areas. Phase 1 is the 7 km from Depot OPI to Masjid Agung. And Phase 2 is the 17.5 km from Masjid Agung to the airport.

There are some potential areas, provincial government assets, which have not yet been agreed upon to be included in this project, though they could be seen as very relevant to the project. These areas have been explored by one of the interested investors as a potential way of increasing the viability of the monorail project.



Figure 6-8: The 7 prioritized monorail stations which have large areas to be developed in integration TOD

Source: (Transportation Agency of South Sumatra, 2012) and survey modification

● TOD at Bandara Aiptot (50 acres)



Existing Facilities:

- 55 Domestic flights, 2 International flights daily
- Limited duty-free shops and restaurants



The Future:

- ✓ Special station design - airport users & luggage
- ✓ Premium Outlet Stores and Restaurants
- ✓ Park and Ride
- ✓ Monorail trains with luggage storage area (cargo car, folded seats, etc)
- ✓ Airport toll charge to be included in tickets



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Figure 6-9: TOD at Palembang Airport with about 20 hectare areas

Source: Field survey, google map and artist impression

● TOD at Ampera Bridge (8 acres)



Existing Facilities:

- Local Water Transportation
- Market and Bazaar
- Riverside attractions, restaurants, historical monument (Benteng Kota)



The Future:

- River cruise
- Shopping Mall
- High rise commercial and residential buildings
- "Eye of Palembang" – Ferris wheel
- Revival and refurbishment of Ampera Bridge

Figure 6-10: TOD at Ampera Bridge with about 3 hectare areas

Source: Field survey, google map and artist impression

• TOD at Jakabaring Sports City (50 acres)

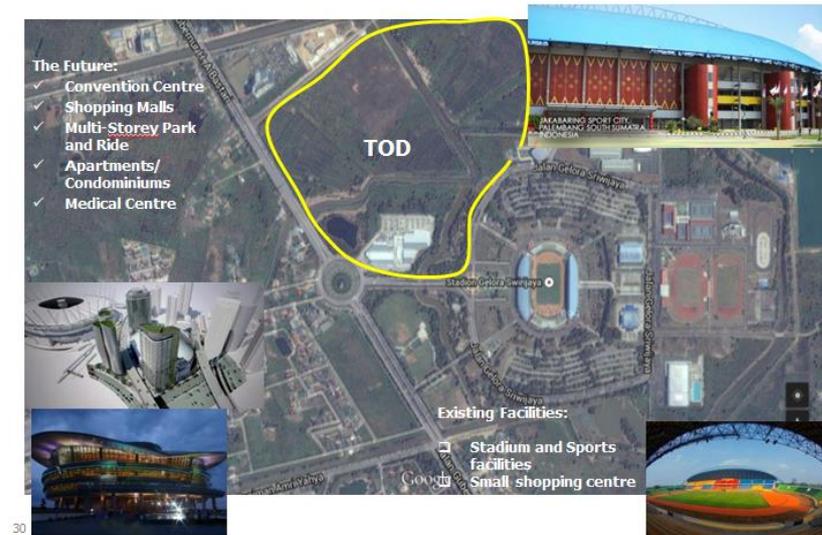


Figure 6-11: TOD at Jakabaring Sports City with about 20 Hectares Areas

Source: Field Survey, Google Map and Artist Impression

• TOD at Depot (8 acres)



Figure 6-12: TOD at OPI Depot with about 3 hectares areas

Source: Field survey, google map and artist impression

6.4.2. Viability of Bundling Projects

The type of work includes the design & build of monorail rolling stock, and the form of the contract for this is BOLT (Build Operate Lease Transfer). For the design and

build of the monorail systems, the form of contract is EPC. For the design and build for civil works, the form of the contract is EPC, and for the design and build of the depot and secondary stations, the form of the contract is also EPC. The estimated cost value of project management for the TOD is USD 8 million and for project management of the monorail is USD 5 million. The estimated cost value of work to build the TOD is USD 34 million, and to establish rolling stock in BOLT is USD 70 million. To build a depot and civil works with EPC is USD 439 million. Total costs are estimated at USD 556 million. The sources of funding scenarios for the TOD are from investor/developers, for the BOLT through leasing, and for the EPC through subsidies from TOD earnings. More detailed assumptions and financial modeling results are shown in the following tables.

Table 6-4: Scenario of the development and the assumptions (analysis & calculation)

Scope of Work	USD	%	Funding Options
Preliminaries	29 mil	5%	
Monorail Bridge	14 mil	2.5%	Privatized - BOT
System Integration	11 mil	2%	
Training, Spares, Warranty	10 mil	1.7%	O&M
Sub-total	64 mil	11.5%	
Civil & Structural			
Stations – TOD (3.8mil x 4 stations)	15 mil	2.7%	TOD
Stations – Secondary (2mil x 3 stations)	6 mil	1%	TOD
Sub-stations (0.8mil x 7)	6 mil	0.9%	TOD
Depot + OCC	7 mil	1.2%	TOD
Guideway Beam (incl. Moulds, Switch Decks, Depot Beams)	254 mil	45.7%	
Sub-total	288 mil	51.8%	
Systems			
Rolling Stock (12x4 cars)	75 mil	13.5%	Leasing
Signaling (ATP)	34 mil	6.1%	
Communications	28 mil	5%	
Power Supply & Dist.	42 mil	7.5%	
Depot Equipment (incl. Work Car, Special Tools & Jigs)	9 mil	1.5%	O&M
Switches (8 sets)	9 mil	1.6%	
AFC (0.86mil x 7 stations)	6 mil	1%	O&M
Total	556 mil		
USD per KM	\$23.2mil/km		

Total costs, estimated at USD 556 million, are nearly the same as that planned in the FS that has been developed by the government. In the scenario of the amalgamated projects, it was able to utilize the financing schemes, such as leasing and EPC, to have better project outcomes, including the development of the TOD areas.

Table 6-5: Funding requirements (analysis & calculation)

Funding requirements	USD
Total loan amount for borrowing	389,250,000
Instalment per year	25,950,000
Instalment per day (324 days per year)	80,093

Table 6-6: Funding strategy (analysis & calculation)

Funding Options	Amount (USD mil)	Scope
Total to be funded via Privatized BOT	14	Monorail Bridge
Total to be funded via O&M	25	Spares, DEQ, AFC
Total to be funded thru Leasing	75	RST
Total	114	
Balance required from other funding options	442	
➤ Total required to be funded thru TOD contribution	286	All stations, Sub-stations, Depot, Guideway Beams, Prelims, SI
➤ Total required to be funded thru Farebox Collection	156	Signaling, PS&D, Comms, Switches

Table 6-7: Revenue stream of the monorail operation (analysis & calculation)

System capacity per direction (based on 10 train sets in operation)	Value	Remarks
1) No. of trains in operation	5 sets	Capacity per train set is 400 pax
2) Headway	10 mins	
3) Passenger Per Hour Per Direction (PPHPD)	2300	
4) Total no. of passengers per day	41,000	50% Discounted Ridership
5) Revenue tickets per day	USD 29,571	At average ticket price of Rp.8000,- per person
6) Total amount recoverable after 15 years	USD 143,717,143	*Shortfall compared to the total loan amount payable above

Table 6-8: Estimated income from TOD (analysis & calculation)

	Unit	Value
Total Built Up Area	Ha	432
Saleable area 70%	Ha	303
Assumed Construction Cost / acre	USD	2,489,143
Total Gross Development Cost (GDC)	USD	1,860,883,200
Total Gross Development Value (GDV)	USD	2,605,236,480
Developer's Profit (DP)	USD	744,353,280
Less = 40% from DP for Project Funding	USD	(297,741,312)
Nett Developer's profit	USD	446,611,968 or (24%)

The bundling approach's financial modelling has shown that the viability of the monorail project can be leveraged. The TOD profits could be the additional income necessary to leverage the infrastructure monorail project.

6.4.3. One Step-Down Approach

As a back-up to the combined projects approach another method has also been prepared, that of leveraging the viability by applying the one step down approach. This method will require the project team appointed by the provincial government to establish a regional state owned company with the Provincial Government of South Sumatra as the majority shareholder. The one step-down approach is another method applicable in PPP mechanisms. In cooperation between government and business entities it is sometime difficult to find a shared matching of interests. The government's priority may be delivering infrastructure public services, while the commercial private partner typically has the priority of generating a return of investment and a profit. To negotiate and establish the same interests, the government needs to step-down by establishing a state-owned company. The state-owned company can then negotiate with the business entity to cooperate in order to achieve a profit and to look for a solution to secure investment in a shared vision.

In this Palembang Monorail case, the regional state owned company has yet to be established. Once established, it will then hold the direct fiscal contribution that can be allocated from both regional and central budgets to support the monorail and the TOD estate development projects. The fiscal support will be assigned to the state-owned company as equity and working capital.

The Provincial Government was aware that investment in mass transport such as the monorail typically requires large investments with a relatively low viability level. Thus the effort to reduce monorail investment costs in order to reduce the liability of investors needs to be undertaken. Therefore, once again in early 2015, with a new President of Indonesia and a new Minister of Transportation, and also a new Head of the Transportation Province Agency, the Provincial Transportation Agency requested the Ministry of Transportation/Railways Directorate General to specifically allocate a budget to develop the monorail bridge that crosses along the Musi River and stretches approximately 1.2 km. With an estimated budget of Rp.500 billion (about USD 50 million) required, the construction costs will be further studied by the provincial transportation agency. At the same time the Provincial Transportation Agency will try again to apply for the Viability Gap Fund to the Ministry of Finance, supported by the Ministry of Transportation, with the VGF proposal worth Rp.1.5 trillion (about USD 150 million). This was declined in 2014 by the previous ministry cabinet. The fiscal support from the Central Government will contribute to their share in the regional state owned company.

The application of the one-step down approach, by establishing the state-owned company, can be completed through two procurement methods. The first method is open tender. In this case, the state-owned company is prepared to be the partner of the private company that wins the tender. The second method is direct negotiation. The Governor can provide a letter of appointment to the state-owned company to be the owner of the project. The state-owned company could then undertake direct negotiations with a private company, which will have the relevant professional experience to build, manufacture, operate and maintain the monorail.

6.4.4. Fiscal Contribution to Finance Investment Costs

In the last progress report of this project, the provincial government was informed by the head of transportation, South Sumatra Province, in the discussion in June 2015, that the Palembang Monorail project will be handled by the provincial government; it will not be under the Provincial Government. The Palembang Monorail project has also been changed into a Light Rail Transit (LRT) project. It will be fully financed by the provincial government. To avoid tendering and further delays, the President

will likely issue a presidential decree to PT Adhi Karya (State Owned Enterprise) as the owner of the project. Adhi Karya will work together with a company from China, and therefore the technology of LRT will be from China, and the finance will also be included in a blanket loan of USD 40 billion from the Chinese Government to the Indonesia Government. The construction will be started in early 2016, with the expectation that it will be finished in 2018 to support the Asian Games. The PPP project that will be offered is the operation & management method. Adhi Karya will adapt the FS of the monorail into the LRT project, and the estimation of the investment costs predicted is similar to the monorail investment estimation in the previous FS. It will now require USD 550 million. The basic assumptions from the previous FS can be applied to develop the scenario of the financial model, with an investment cost from the fiscal budget of the Central Government that will not require a return on investment. Instead, the return would be the delivery of the project within the intended time frame.

6.4.5. Supported Regional Government Policy

The target is that the Palembang Monorail project will be launched in 2018 to support the Asian Games 2018. To support the success of monorail operation services, it will be necessary to enact several Regional Regulations of the Provincial Government of South Sumatra, including:

- i. Regional Regulation of Prohibition of On-Street Parking along the monorail road corridors and the inner city-center streets to encourage the public to use the monorail for their daily travel activities.
- ii. Regional Regulation of The Electronic Road Pricing (ERP) System on the main corridor of roads in the City of Palembang, restricting access for motorcycles and private vehicles to the main corridor thoroughfare.
- iii. Regional Regulation to require government officials to use the monorail for their daily activities, and to provide subsidized monorail tickets for the government officials from the local budget.
- iv. Regional Regulation of Concessional Monorail Ticket Subsidy for students and seniors/elders; to be budgeted at the beginning of the year and can then be reimbursed in the supplementary budget.

- v. Other Regional Regulations to support other public transport to be more integrated with the monorail.

Artist impression of Integrated Urban Transport for Palembang City:



Figure 6-13: Artist impression of integrated urban transport development for Palembang City

Source: Field survey and artist impression

6.5. Market Sounding

The market sounding had been conducted several times in 2014 and formally managed by the Central Government. This has been conducted prior to the monorail project planning being taken over by the provincial government, and has included several visits from potential investors to Palembang, where the project has been presented by the Governor of South Sumatra.

The project has also been presented in market soundings and infrastructure summits managed by the Investment Coordinating Board, BAPPENAS, Kadin (Chamber of Commerce) in 2014.

Through the market sounding/ project promotion, potential investors have been identified who may be interested in the monorail project in South Sumatra combined with TOD estate development include:

- A monorail manufacture company from Switzerland
- A monorail and MRT manufacture and operator company from Malaysia
- A monorail manufacture and operator company from Canada
- A monorail and MRT operator company from Singapore

The potential investors have delivered inputs to improve the project in a special project consultation discussion, the feedback and input from each of the investors is discussed below.

The monorail manufacture company from Switzerland

Development of the monorail combined with TOD property development is seen as a good idea. This company proposes that the tender is done separately between the monorail infrastructure with TOD property, but it stipulates that the local government policy must dictate that the profit from TOD management be used to subsidise management of the monorail. However, once the monorail and property development TOD tender process is conducted, it would require a consortium of parties. Prior to the implementation of the pre-qualification and submission of the Request For Proposal document, all the problems related to TOD must be solved by the local government. This includes the land acquisition (if any), licensing, land use TOD, and ownership of land and building assets between the provincial government and the City Government.

The monorail and MRT manufacture and operator company from Malaysia

This group have experience of combined projects between a monorail and TOD properties developments, as this has been done in Malaysia. However, TOD property development will be gradual, so a concessionary period of 30 years for property TOD should be established and detail accordingly with the cooperation agreement.

The monorail manufacture and operator company from Canada

This group also stated that the bundling project is a good plan. However, they also raised the issue of whether the monorail could be replaced with Light Rail Transit, allowing cheaper technology for the construction. However, they were not sure if the

project was possible to complete within the time limitation of the commencement of the 2018 Asian Games.

The monorail and MRT operator company from Singapore

The double investment opportunity, in the monorail and in the property development TOD, is the main attraction of this monorail project. They especially refer to land with a taxable value around Rp. 2,000,000.00. (US\$ 160.-). To cover the investment for the monorail the expected TOD total land area of approximately 400 hectares of developed property business is envisaged. They are also interested in developing the area of Jakabaring, and this can be done gradually.

Most of the potential investors have agreed with the idea of the bundling project combining the monorail project with the TOD estate development. Considering the limited time, i.e. operational for the Asian games 2018, it has been deemed advisable to accelerate the tender process.

6.6. Political Risks and Policy Changes

This project was initiated by the Provincial Government and therefore based on the previous Perpres (Government of Indonesia, 2010c), with the process of procurement to be managed by the Provincial Government. In 2014, the tender committee was formed, which consisted of 13 government officials from relevant institutions and three senior PPP experts.

The preparation of the project, developing the support studies and documentation, ran from 2011 until 2014. The Pre-Qualification (PQ) and Request for Proposal (RFP) documents were ready by 2015. The previous plan was for the tender to be opened in January but this was then postponed until February 2015. However, up to the point of writing this thesis, the tender is still on plan to be tendered in 2016. The construction time of the monorail will need around 20-30 months for 24.5 kms. It is targeted that the monorail will be complete and operational in mid-2018 to support the Asian Games.

However, in mid-2015, the central government changed their plan for this project, that previously would be developed purely through a PPP scheme. To accelerate the Light Rail Transit (LRT) delivery in the South Sumatra Province the central government has appointed PT Waskita Karya and PT KAI to handle this project. They have done this through a direct appointment scheme financed by the fiscal budget (Government of Indonesia, 2015g). After the construction is complete, the operation and management may be offered to private partners within a PPP scheme. However, since there has been limited time to conduct research into these late developments, this analysis only covers the period up to mid-2015, before the project was handled by the central government.

6.7. Summary

The city of Palembang is currently starting to face traffic jams. For the future sustainability of development in the city, it has planned to introduce a monorail as an integrated urban development. In preparation for the Asian Games in 2018, urban mass transport has been planned to accommodate the movement of people from the airport to the city and to the sports centers.

This case study of the Palembang Monorail has illustrated the approach to leverage viability of PPP infrastructure projects.

A basic FS of the monorail project, with a planned total investment of nearly USD 550 million, has shown that the IRR in the moderate scenario is about 8.9% with a very low NPV. The result of the FS has recommended that the monorail project can reach an IRR of 8.96% with investment of about USD 20 million per km, with total investments estimated around USD 550 million, and an estimated 100,000 passengers per day, with a tariff of Rp.20.000. The FS has recommended that it would require the fiscal support from the central government about USD 150 million and a 30% demand subsidy.

Coordination between the many government institutions and government bureaucracy is arising as the most complex element in developing the PPP framework. The changing of the president and the cabinet, and also the changing of

high-level government officials, has led to differing levels of political risk. In 2014, there was no fiscal support from central government, as it had been declined, so a solution to securing a return of investment had to be found. The integrated urban development has been briefly presented in this research to illustrate the method of leveraging monorail project through the TOD bundling projects.

The financial models for bundling the Palembang Monorail with TOD projects have been developed in order to show empirically how to secure the return of investment for an infrastructure project. Total costs have been estimated to be USD 556 million, which is nearly the same as planned for in the FS that had been developed by the government. In the scenario of the combined projects, financing schemes, such as leasing and EPC, have been utilized to have better project outcomes, including the development of the TOD areas.

In mid-2015, the monorail project in Palembang became an LRT project. As a case study, this project has demonstrated various complexities such as the length of project preparation, the complex inter-institutional coordination, the moderate then low-level viability assessment of the project, and the change of policy and uncertain political risk. These types of complexities have been faced by many infrastructure projects delivered in Indonesia.

CHAPTER 7

FINDING AND DISCUSSION: TRIANGULATION ANALYSIS

7.1. Introduction

The quantitative and qualitative analyses employed in this study have been explained in Chapter 5. In mixed method analysis, the qualitative data is used as an important counterpoint to inform and clarify the quantitative data analysis results. The qualitative analysis draws upon the personal experiences and firsthand observations of the PPP experts. Figure 7-1 shows the triangulation method used to integrate the quantitative and qualitative analysis with the related literatures and strengthens it with a case study.

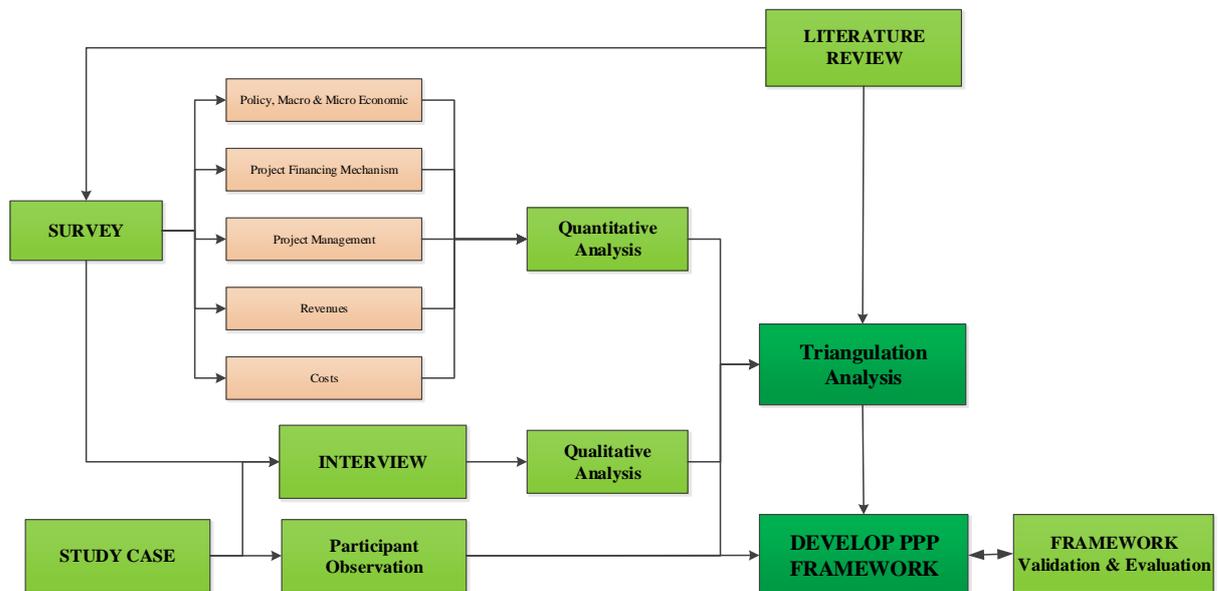


Figure 7-1: Integration of the research analysis framework

The results of integrating quantitative data analysis, qualitative data analysis and the literature review have become the input used to develop the PPP infrastructure framework discussed in Chapter 8.

7.2. Mixed Methods Analysis

In the mixed analysis, integration of the qualitative analysis results with the quantitative analysis can result in the identification of the critical parameters that influence the decision-making in investment of the key stakeholders. The results from the quantitative analysis benefit greatly from being strengthened by combining them with the literature review and the participant observation case study.

As discussed previously in chapter 2 in the literature review, the types of infrastructure commonly used are those of ‘economic infrastructure’ and ‘social infrastructure’ (Argy, Lindfield, Stimson, & Hollingsworth, 1999), and also ‘hard infrastructure’ and ‘soft infrastructure’ (defined in Darrin, Grimsey and Lewis, 2004). The respondents in the quantitative survey have experience in the delivery of social and economic infrastructures. The basic types of infrastructures have been understood by all the respondents in the quantitative survey and interview survey. This research found good understanding of the types of infrastructure from three respondents in the interviews. Respondents 1, 3 and 4 have specifically discussed infrastructure that derived from political interest, they explained several cases of infrastructure arising from the effect of political influence, and it is called Political Driven Infrastructure. This type of infrastructure has arisen through the democratic process and has been implemented widely in many countries. Also the community has become smarter and voted for potential leaders that could develop their region or fight for their interests. In this situation, the politicians campaign by promising to develop a certain infrastructure for a region. The political driven infrastructure has facets that include:

- Infrastructure that has been promised in the campaign
- Infrastructure that is not really define the level of viability
- Very high political involvement
- High commitment of the newly selected political leader to accomplish the infrastructure
- Politically guaranteed in the period of leadership
- Optimization of the fiscal budget and other alternative financing sources

However, experience recorded from respondents 4 and 5 also point out that too much involvement of politicians could jeopardize projects.

7.2.1. Significant Parameters

It has been seen in the literature review that PPPs can assist to improve infrastructure investment without accumulating to government borrowing and debt, and are also useful to progress the delivery of infrastructure projects when governments having fiscal constraints that avert the use of conventional government tender approaches (A. P. C. Chan et al., 2009; Darrin Grimsey & Lewis, 2005; Yescombe, 2007). Also, infrastructure projects usually need high capital investment and complex financing.

To understand the critical parameters that influence PPP's financial performance and decision-making is important to prevent failure. Use of the PSC that has been explained in chapter 2 is a part of the preparation in the beginning stage of PPP infrastructure project development that could be conducted by the public sectors. This provides the public sectors with an approximate measure of the range of outcomes that the public sectors are likely to face in delivering a project under conventional procurement or other types of procurement. Respondent 3 discussed setting up of clear criteria in assessing the RFP in PSC assessment. Also respondent 4 explained the use of simple criteria in being effective in the tender process as a guideline for the government itself. Australian Government policy outlines several positive aspects of the usefulness of the PSC tool, including that a PSC will be:

- completed by qualitative deliberations in defining the possible value for money of a PPP arrangement.
- subject to sensitivity examinations and scenario analysis to define the toughness of its undertaking assumptions, and their effect on the PSC's outcomes.
- sufficiently flexible to permit new information to be combined as it comes to light improving the integrity of the PSC as a benchmark whereas sustaining the correctness of the project development and procurement evaluation (Australian Government, 2008).

In order to maintain the robustness of the underlying assumptions in creating the PPP infrastructure project by the government in the preparation stage, it is crucial to comprehend the standing of the parameters that have been deemed necessary by the related stakeholders.

The critical parameters that have been identified and ranked in this study would be very useful in indicating and preventing risks and obstacles in financial decision-making. The early participation of financiers and using a transparent one-stop financial model would contribute to decreasing the transaction time (Liu & Wilkinson, 2011). Here according to the study's result, the 15 key parameters ($RII \geq 0.70$) that were considered in PPP financial performance were:

1) construction costs & investment, and 13) cost overrun during construction

Construction costs & investment, and cost overrun during construction have been considered as very important parameters in PPP projects in this research. According to EPAC (1995), Jennings (1992), Quiggin (2002), and TIAC (2004), who researched the sources of investment risk related with infrastructure, there was a construction risk arising from unexpected design problems, cost overruns and delays in construction works. This risk could be important for capital intensive infrastructure projects and need to be present during the construction and warranty stages of a project (C. Chan et al., 2009). Design and construction risk (to cost and time) has been studied by Akintoye (1998) and Delmon (2010).

Integrated to the results of the interview, the size of the investment is also to be considered. In Australia there are two main investment size groups. The first group is the mega projects, with a value from 500 million to 500 billion Australian dollars, such as the railway projects (Respondent 1). The second group is the smaller projects like the budget for schools, small hospitals, car parks, small bridges, and motorways. The value of the investment in these projects is up to 100 million Australian dollars, including the construction of connection roads. For other projects, in between small to mega projects, the investment size tends to be from 100 million to 500 million Australian dollars, that includes social infrastructure such as improvement to hospitals. In some cases, there are some infrastructure project which are up to 100 million Australian dollars for the initial project, and then up to 500 million

Australian dollars for expansion of the initial project or for additional projects (Respondent 1). The mega project size in some infrastructure projects can reach up to 700 million USD (Respondent 3). In Malaysia Mass Rapid Transit 1 (MRT1) with a project value of about USD15 billion (Respondent 5), the investment costs have included the costs for project development in the early stages of strategic planning and the procurement strategy by the Government of Malaysia (Respondent 5). Sao Paulo, the L18 Monorail Projects have costed USD600 million (Respondent 5).

Furthermore, Delmon (2010) suggested that these risks rise from multiple sources, such as capital budget, construction time, construction cost, operation cost, politics and policies, market conditions, cooperation credibility, and the economic environment (Delmon, 2010). Akintoye (2000) concluded that the main factors affecting cost estimating practices are complexity of the project, scale and scope of construction, market condition, production performance data for labor, and plant and subcontractor costs (Akintola Akintoye, 2000).

2) tariff or fee approved by government, and 5) tariff or fee growth,

Delmon (2010) discusses the concession model as a source of revenue, where users/people who will pay the compensation for public services that has provided. 'Tariffs' associates to an income stream obtained from consumers (Delmon, 2010). Affordability is becoming the key consideration for infrastructure projects (Yescombe, 2007). From the interview, project revenues that have been identified come from tariffs and pre-sales of the assets. An example of a pre-sold asset that generated revenue and funds for PPP infrastructure projects was a social infrastructure project to build school blocks (Respondent 6). The project was funded by sponsors who funded construction of a new school and thereafter developed the old site (Respondent 6). Similarly, the Perth Stadium project will generate good income because of the event agenda that has been scheduled for years and is supported by the government (Respondent 3).

4) supported government policy, and 11) lengthy delay due of political involvement,

As mentioned by Chan et al. (2010), lengthy delays in negotiation have become the biggest obstacles in implementing PPP in China (Albert P.C. Chan et al., 2010; Darrin Grimsey & Lewis, 2004). While in Hong Kong, the obstacles were the project accountability and project costs (Albert P.C. Chan et al., 2010; Darrin Grimsey & Lewis, 2004). The situation in both countries was almost the same in the United Kingdom (Albert P.C. Chan et al., 2010; Darrin Grimsey & Lewis, 2004; Matsukawa & Habeck). The same situation was also described in Li (2005) and that other obstacles in the bidding process were the high transaction bidding costs (Bing Li et al., 2005). Supported government policy and any government contributions were very important for the sustainability of the project. According to EPAC (1995), Jennings (1992), Quiggin (2002) and TIAC (2004), the sources of investment risk associated with infrastructure contain (C. Chan et al., 2009) regulatory (sovereign) risk raised in infrastructure projects, either owned or managed by private sectors, since public sector regulations might affect project profitability. Such a risk could be interrelated to a transform in planning and environmental requirements, pricing determinations, and regulatory conditions governing the entry of new service providers. In some cases, public sectors might expropriate privately owned infrastructure assets. Regulatory or sovereign risk is needed during the life of a project. Akintoye (1998) also has explained that the regulation and legislation risk are really significant parameters to be considered (Akintola Akintoye et al., 1998). Yescombe (2007) has listed the characteristics of a successful PPP programme and it can be summed up as political will and an adequate legal framework (Yescombe, 2007). Almost all the respondents were also aware that political issues and government regulation have supported projects. In third world and developing countries, the political risk guarantee is much needed, while in developed countries with good governance, which reduces political involvement, there is no political guarantee necessary. According to Respondent 5, the most significant risk to be considered before deciding to execute a project are those of government policies and political stability. The government, physical policy, monetary policy, they can't do strange thing overnight, and they can jeopardize the project, so the lender want a bit insurance from the government that won't happened (Respondent 1).

3) demand volume, and**7) demand growth,**

Maturity of demand is expected by all the stakeholders. According to EPAC (1995), Jennings (1992), Quiggin (2002) and TIAC (2004) the sources of investment risk related with infrastructure include (C. Chan et al., 2009), demand risk, since the demand for infrastructure services and the project revenue might diverge from projections. This risk was present throughout the life of a project. An unexpected decrease in demand could effect to a lessening in the value of the infrastructure asset. Demand for volume/usage risk has also been studied by Akintoye (1998) (Akintola Akintoye et al., 1998). His findings nearly match the findings from a study conducted by Zhang (2005), i.e. that the investment environment and economic viability are part of the critical success factors. The investment environment and economic viability are related to the demand. Zhang (2005) listed the five main critical success factors. These are: (1) favorable investment environment; (2) economic viability; (3) reliable concessionaire consortium with strong technical strength; (4) sound financial package; and (5) appropriate risk allocation via reliable contractual arrangements. The demand volume and growth are essential, as confirmed by most of the respondents in the interviews. Specifically, with experience in Australia, with less population and less direct demands, the investment costs of infrastructure cannot be only individually carried (Respondent 2). Therefore, financing mechanisms that involve the open market and the capital market are essential for a developed country which has limited population with a high income rate (Respondent 2).

6) amount of bank loan, and**12) bank loan period,**

Chan (2011) has reviewed Zhang (2005) analysis of the crucial success factors for PPP projects in infrastructure development. A number agreement factors were found to be important in ensuring PPP success (Afthanorhan, 2013), namely: (1) concession agreements; (2) loan agreements; (3) guarantees/support/comfort letters; (4) supply agreements; (5) operation agreements; (6) off-take agreements; (7) design and construct contracts; (8) shareholder agreements; and (9) insurance agreements (A. P. C. Chan et al., 2011). Almost all respondents from this study's interviews also agreed that the amount of a bank loan is a very significant parameter in investment decision-making. All of the respondent have understand that the common financing mechanism in PPP infrastructure projects is the project finance, that the projects

have been financed through the project finance mechanism, with a 70% bank loan in certain periods of the loan. Specifically, in Australia, the term of lending is mostly a seven year term, and this is similar in Indonesia.

8) financing risk and costs,

According to EPAC (1995), Jennings (1992), Quiggin (2002) and TIAC (2004), the resources of investment risk associated with infrastructure include raised risk, because the expected availability and cost of finance might not materialize. This could occur as interest rates and exchange rates change over time. The financing risk was present throughout the life of a project. The interest rate of bank lending at some points has considered the financial risks; the perceived higher risks of a country will lead to higher rates of loan banking interest (Respondent 2).

9) quality of FS,

Limited information on project profiles that are offered to open bidding will create many variations of financing of the projects by the private sector actors in their Feasibility Studies (Foss & Ellefsen, 2002), and it will also lead to high bidding costs for these private sector actors (Bing Li et al., 2005). Therefore, the short-listed private companies will tend to have strong arguments that their FS is the best one (Liu & Wilkinson, 2011). As confirmed by almost all of the respondents in the interview, the FS is a very important part of the planning stage. In the FS most of the risks can be identified and estimated. The FS can be changed many times based on the advice of surveyors, estimators and others stakeholders before bidding process (Respondent 1, Respondent 3). Bankers also will do due diligence in respect to the FS. The FS will be much more complex if considering the free market concept (Respondent 2).

10) land acquisition process,

Land acquisition is one of the biggest obstacles (A. P. C. Chan et al., 2011) in developing PPP infrastructure projects. This is the case in Indonesia, where the land price follows the market price. While in other countries, land acquisition is under management of public entities and it is relatively easy to be controlled and budgeted since the government could control the price of land. For example, in the case of the

resettlement of local people involved in the expansion of a capital city for Dar es Salaam, the land acquisition can only be done by the government (Respondent 4).

14) operation costs overrun

According to EPAC (1995), Jennings (1992), Quiggin (2002) and TIAC (2004), the resources of investment risk associated with infrastructure contain a raised operational risk because the planned level of service availability from an asset might not eventuate. This risks that cause the operating costs overrun were commonly related with unpredicted complications in staff management, maintenance and other elements of operating (Respondent 1, Respondent 3).

15) insurance / risk transfer expenses

There are several studies related to infrastructure investment risk that were conducted by EPAC (1995), Jennings (1992), Quiggin (2002) TIAC (2004), Delmon (2010) and Akintoye (1998); however, risk transfer was not included in their study (Akintola Akintoye et al., 1998; C. Chan et al., 2009; Delmon, 2010). However, the study by Chan (2009) has reviewed the equitable risk sharing for achieving substantial risk transfer (A. P. C. Chan et al., 2009). These are: risk transfer (the allocation of risk), the long-term nature of projects (including whole-of-life costing), the project specification, competition in bidding, performance measurement and incentives, and private sector management skills (Darrin Grimsey & Lewis, 2005). In a consortium of private companies to execute the infrastructure projects in a developed country with a mature investor, they already prepare the risk transfer as a key part of the consortium (Respondent 1). However, in a developing country with high political risk, the country has established a state-owned company to provide several government guarantees to risk transfer. Indonesia has established an SOE, the IIGF, a state-owned company, which is obligated to provide a guarantee for PPP infrastructure projects that meet the regulated criteria (Respondent 10).

7.2.2. Roles of Stakeholders developing PPP Infrastructure Projects

The stakeholders in the interview are the government, the private sector, the banking or financiers, the consultants and the multilateral agencies, as well as stakeholders that were involved in the quantitative survey. The questionnaire has obtained

perspectives from different institutions: the government, bank/ financial institutions, entrepreneurs/private sectors, consultants and donor agencies. PPP experts from consulting backgrounds became the majority of respondents in the quantitative survey since there are many types of advisory consultancies, such as FS consultant, legal consultant, project consultant and academics from universities. Project stakeholders are the parties that influence the success of the projects itself; therefore defining their roles and finding types of risk that they could handle is essential. Interviews were conducted with professional PPP practitioners representative of all related stakeholder institutions. The roles of the shareholder in risk allocation of the PPP infrastructure financing is important to define. Referring to Abednego and Ogunlana (2006), the foundation to developing good project governance is through discovering the perception of proper risk allocation of each party involved and utilizing these outcomes (Abednego & Ogunlana, 2006).

Governments' Roles

The role of the public sector is extremely significant in the success of PPP infrastructure projects (A. P. C. Chan et al., 2009). From Table 5-31 in sub-chapter 5.2, the government's point of view, it has been found that the parameters which as means more than 4 in the statistical analysis as the most significant parameters that need to be considered in financial performance were: Construction Costs and Investment, Tariffs or Fees Approved by Government, Operational Cost Overrun, Supported Government Policy, Private Equity Capital, Cost Overrun During Construction, Bank Guarantees for Construction, Regular Operation Costs, Demand Volume and Financing Risk and Costs. Five parameters in the last listed of 15 shortlisted are Tariff or Fee Growth, Technology Investment, Bank Loan Period, Amount of Bank Loan and Demand Growth. This situation has been confirmed by most of the interview respondents. The value of investment really needs to be considered in order to match the government budget capacity (Respondent 1, Respondent 3, Respondent 4, Respondent 9). The investment cost to build the infrastructure is as key parameter to be considered in the allocation of budgeting and government contribution. Also tariffs and fees that are approved by the government is a key driver in obtaining the revenue for the projects.

Bankers / Financial Institutions' Roles

As it is shown in Table 5-32 in sub-chapter 5.2, bankers or financial institutions have stated that the parameters that have strong significance were: Supported Government Policy, Tariff or Fee Approved by Government, Financing Risk and Costs, Quality of Feasibility Study, Tariff or Fee Growth, Construction Costs and Investment, FS Due Diligence, Insurance or Risk Transfer Expenses, Bank Loan Period and Demand Volume. The five parameters in the last listed of 15 shortlisted are Land Acquisition Process, Demand Growth, and Bank Guarantee for Construction, Amount of Bank Loan and Cost Overrun During Construction. The supported government policy and tariffs or fees that are agreed by the government become the most important factor to be considered, followed by the risk allocation, the quality of the FS, and the financial mechanism, the investment costs and loans from banks (Respondent 1, Respondent 2, Respondent 11). The financier will consider to the sustainability of the project lifecycle, therefore the certainty of a supportive government policy becomes very important.

Entrepreneurs/ Private Sectors' Roles

Fiscal policy limitations have stimulated public sector to seek greater private sector to participate in the delivery of infrastructure under a variety of structures (Darrin Grimsey, 2005), one of which is the PPP scheme (C. Chan et al., 2009; Darrin Grimsey & Lewis, 2005; Yescombe, 2007). As shown in Table 5-33 in sub-chapter 5.2, entrepreneurs and private investors considered the most significant parameters in financial decision-making to be: Demand Volume, Demand Growth, Quality of Feasibility Study, Land Acquisition Process, Amount of Bank Loan, Lengthy Delay Due of Political Involvement, Supported Government Policy, Lengthy Bidding Evaluation, Construction Costs and Investment, Bank Loan Period, Financing Risk and Costs, Value of Interest During Construction, Defining Taxes Policy, Tariff or Fee Approved by Government, Operational Cost Overrun and Additional Working Capital Loan. The return on investment is most important consideration for a private sector actor to decide to invest (Respondent 5); therefore the demand volume and potential to grow are essential.

Consultants' Roles

Consultants have an important role in developing FS for infrastructure projects (Yescombe, 2007). As shown in Table 5-34 in sub-chapter 5.2, consultants' stated that the parameters that would be more significant in financial decision-making would be: Demand Volume, Construction Costs and Investment, Land Acquisition Process, Amount of Bank Loan, Tariff or Fee Approved by Government, Supported Government Policy, Demand Growth, Tariff or Fee Growth, Lengthy Delay Due of Political Involvement, Financing Risk and Costs, Marketing and Competition Study, Quality of Feasibility Study, FS Due Diligence, Bank Loan Period and Insurance or Risk Transfer Expenses. Consultants were having opinion that demand, as the revenue stream, is as important as the investment cost. The FS is developed by the consultant (Respondent 1). The process of the project is started by a proposal for a feasibility study, proposed to the National Development Planning Agency in central government. As discovered in the interviews, the FS is often changed even before the bidding process; this can come from feedback from quantity surveyors, builders, contractors, sub-contractors and lenders. All their advice is considered and assumptions and feasibilities are recalculated. Constructing the FS in this stage can take three months, often involving three iteration cycles. The financial model in the FS shows financial scenarios from the best expectation, with high ROE and ROI, and also the worse expectation, by estimating the lowest ROE and ROI that can be tolerated. For a certain situation, the FS has substantial differences if the project evolved in conjunction with market changes.

Donor Agencies' Roles

As shown in Table 5-35 in sub-chapter 5.2, the respondents from donor agencies have justified that the significant parameters were: Supported Government Policy, Construction Costs and Investment, Tariff or Fee Approved by Government, Land Acquisition Process, Tariff or Fee Growth, Lengthy Delay Due of Political Involvement, Operational Cost Overrun, Cost Overrun During Construction, Insurance or Risk Transfer Expenses, Lengthy Bidding Preparation, Defining Inflation Assumption, Defining Interest Rate in Monetary Policy, Organization Human Resources During Construction, Marketing and Competition Study and Regular Operation Costs. In the case of projects in Africa, government support, in

the form of policy, it is very important in relation to have donor agency involvement (Respondent 4). At the same time, the amount of investment cost is also very necessary to consider at the beginning of the project's development (Respondent 2, Respondent 4).

Risk Transfer Institution's Roles

Studies by Chan (2009), and Grimsey and Lewis (2005) have reviewed the equitable risk sharing and allocation of risks in order to achieve substantial risk transfer (A. P. C. Chan et al., 2009; Darrin Grimsey & Lewis, 2005). Realising the importance of the risk transfer company, the Government of Indonesia has established Indonesia Infrastructure Guarantee Fund (IIGF) as a risk transfer state owned company, which provides several types of guarantee for PPP infrastructure projects (Respondent 10).

7.2.3. Government Policy the Supports the Leveraging of Viability of Infrastructure Projects

It is already known that in order to improve the provision of infrastructure and to improve the quality of public services, there is a need to increase the role of government and local government facilities, as well as the private sector's role in the of PPP cooperation. To sustain the economy, the government should give more attention to external and internal disproportions and construct regulation space (United Nations, 2014b, 2015). Government programs already underway with the supply of infrastructure are done through the development of a national infrastructure finance system that is effective and efficient. This can be done by subsidizing development advances, the use of liquidity facilities, as well as the integration of public infrastructure savings in the national social security system.

The government's involvement is central to the success of infrastructure delivery. Based on the Table 5-25 on page 176 of the summary ranking results of the group factors of the quantitative survey, the first ranked of group factors of this research is the government policy, its micro & macro economy. Furthermore, as demonstrated in Table 5-31 on page 182 to Table 5-35 on page 184, the critical parameter of a supportive government policy has been tested in quantitative analysis based on the

stakeholders' opinions. The stakeholders have ranked a supportive government policy as follows:

- Government (ranked 5th)
- Bankers/financiers (ranked 1st)
- Private sector actors (ranked 7th)
- Consultants (ranked 6th)
- Donor agencies (ranked 1st)

This has shown that all the stakeholders agree that a supportive government policy is a crucial parameter to be considered.

Land acquisition and resettlement of local people can be part of the complexity in the earlier stages of infrastructure projects because infrastructure development usually needs large areas. Especially in the Land Acquisition and Resettlement Action Plan (LARAP) process, the government is the decision maker. The government has identified the asset or land that are owned by the government as well as owned by others that may require acquisition. When the development is inevitably causing displacement, resettlement has to be a crucial part of the plan. As a part of the resettlement plan, the planning of the resettlement should try to keep the displaced tenants in the vicinity, i.e. around the area of development to minimize potential resistance.

In-line with the idea of the role of the government to successfully deliver infrastructure, it is very important to sustain the infrastructure projects. Another role of government is setting up policy on government contributions to infrastructure projects. There are many methods available to leverage the infrastructure projects that have been indicated as economically viable, though less immediately financially viable, by optimizing the government contribution. The specific public sector costs in the fiscal policy to support PPP financing that have a challenge on recent and future budgets contain:

- Annual payments for the life of PPP projects
- Capital contributions to establish PPPs
- Revenue losses from forgoing user fees
- Contingent liabilities such as guarantees

- Tax expenditures such as accelerated depreciation taken for private investment (Posner et al., 2009)

Analysis from the discussion in the qualitative interviews shows that the empowering the role of government policy to accelerate infrastructure delivery is achieved by managing the government contribution through developing policy. The government contributions that leverage the viability of infrastructure projects that have been discussed are public asset contribution, fiscal support, government policy support, supplying direct capital to appointed state owned companies, bundling infrastructure projects, SWAP trading, monetized natural resources and optimizing hybrid financing schemes.

Public asset contribution (Posner et al., 2009) is a direct method to leverage the PPP infrastructure project cooperation. As discussed, Respondent 1 has given the example of building schools on public lands. An office block in Brisbane had been built on public property but built by a private company and the property has then been rented by the government institution (Respondent 3). Also parking spaces for the Perth airport are planned to be built on government land (Respondent 3), and the extended development in some areas of Darling Harbour are on government land (Respondent 12). Also the Indonesian Government has developed a system to budget for land acquisition as public assets or land for PPP projects (Respondent 9, Respondent 10). In the Palembang Monorail, it has been arranged for the use of government assets to support the project, such as the land along the monorail or LRT corridors and other government assets to be used for the stations and TOD.

Fiscal support in PPP infrastructure projects has been explained in many studies (EPAC, 1995; Merna & Njiru, 2002, (C. Chan et al., 2009; Delmon, 2010; Posner et al., 2009; H. K. Yong, 2010). Respondent 1, 2, 9, 10 and 11 have stated how fiscal support is really important for PPP infrastructure projects.

Furthermore, to public sector budgetary payments, some countries prepare more indirect arrangements through a government policy of subsidies and concessions for PPP projects. Guarantees and other arrangements of payment are often generated

when projects fall below certain financial thresholds, constituting a contingent liability. In many countries, budget and accounting rules do not entail appropriations for these contingent claims (C. Chan et al., 2009; Michael Regan et al., 2011b). The fiscal budget is a direct contribution and source of finance to build infrastructure (Respondent 11). The UK policy has really supported the development infrastructure through the PFI scheme's fiscal annual payments to develop social infrastructure (Respondent 6). The government policy is strongly needed in the planning stages to provide a fiscal budget on project preparation development (Respondent 9). The other form of fiscal support is the government guarantee that needs to be put in place through government regulation (Respondent 10).

Appointed state owned companies is one of the methods to accelerate infrastructure delivery (C. Chan et al., 2009). Several urban transport projects that have been built in Kuala Lumpur, Malaysia, have been conducted by the SOEs (Respondent 5). A SOE will be appointed to build aeromovel urban mass transport for the city of Bekasi, Indonesia (Respondent 7). SOE has been empowered by the Government of Indonesia to provide loans to finance infrastructure development (Respondent 11). The current situation in the case study is that the Palembang Monorail has changed into LRT projects, and two SOEs have been appointed to deliver the LRT projects.

Bundling projects as a method to build sustainable infrastructure has been used in many cities (Cervero et al., 1991; Lefaver, 1997; (Chisholm, 2002). The city of Brisbane and the Gold Coast are examples of integrated bundling projects in TOD developments (Respondent 1, Respondent 2, Respondent 5). The building of the city of Kigamboni has been allocated into several bundled project packages (Respondent 4). In the Palembang Monorail, the TOD concept has been offered to leverage the viability of the project.

SWAP Trading is one of the complex methods available to keep the economy of a region sustainable. It needs strong government of the region to arrange the development participations concerning obligatory payments or in-kind transfers of capital assets and trades (DELTA, 2008; Public Infrastructure Financing, na).

Respondents 1, 2, 4 and 5 have reported on their experiences in complex regional development.

Monetizing natural resources is another complex method to sustain a region and even to sustain a country (C. Chan et al., 2009; Public Infrastructure Financing, na; Michael Regan, 2008c). The Tanzanian Government developed policy to monetize four areas for Liquefied Natural Gas (LNG) exploration and to gain funds to build the new capital city for Tanzania (Respondent 1). This policy needed strong presidential leadership to coordinate the numerous ministries involved. Western Australia successfully manages the mining industry to help building its city (Respondent 3) by establishing policies of high taxes on the natural resource exploration as a direct contribution to the government fiscal reserves. Respondent 5 shared his knowledge about city building in Malaysia and Brazil. Respondent 8, working for the *Otoritas Jasa Keuangan* (OJK: FSA: Financial Service Authority) in Indonesia, stated that monetizing natural resources will be highly relevant for them to study.

Hybrid scheme capital markets are the markets for long-term debt (debt with a maturity of more than year) and corporate stocks (DELTA, 2008; G20, 2013; Public Infrastructure Financing, na). However capital markets are very influenced by business perceptions. Infrastructure projects can be typically related to institutional perceptions of the economic capital, a market value (Respondent 1, DELTA, 2008; G20, 2013; Public Infrastructure Financing, na). Market is one of the strong indicator but there is always potential risk. Risk perception will affect the lending interest rate. Most businesses in Australia are short-term with low risk and low rates, which indicates cheaper financial costs. US borrowing is mostly long-term, such as 20 year bonds. Long-term borrowing will adopt more funds with a lengthened risk spread.

Bonds are one of the capital market instruments in debt securities (Respondent 8). A bond is a certificate that contains a contract between the investor/bondholder with the party issuing the bond; it states that the investor/bondholder had lent some money to the party that issued the bond. The issuing party has an obligation to pay interest on a regular basis in accordance with a predetermined period and to pay the

principal at maturity. The municipal bonds issuing party is the local government and regional government. Municipal bonds are used to finance projects that can provide benefits to the public and generate revenues.

7.3. Findings and Discussion

Defining Politically Driven Infrastructures

The common typology of infrastructure are those of economic infrastructure and social infrastructure (Jefferies & McGeorge, 2009), and also hard infrastructure and soft infrastructure (Darrin Grimsey & Lewis, 2004). Economic infrastructure is considered as providing main intermediate services to businesses and industry and its principal function is to improve productivity and innovation initiatives. Social infrastructure is providing basic services to households, its main role is to advance the quality of life and welfare in the public. Some respondents (Respondent 1, Respondent 3, Respondent 4) have specifically discussed infrastructure that derived from political interest, they explained several cases of infrastructure arising as the effect of a political campaign; it is called political reason infrastructure.

7.3.1. Comparison of Stakeholders Involvement from Less Developing Country, Developing Country and Developed Country in PPP Infrastructure Project

For analytical purposes, World Economic Situation and Prospects (WESP) categorizes all countries of the world into one of three wide-ranging groupings: developed economies, economies in transition and developing economies. Countries have also been categorized as high-income, upper middle income, lower middle income and low-income (United Nations, 2014a, 2014b, 2015). For discussion purposes in this research, the country classification combines the GDP and income ratio together, and three groups have been described: less developed countries, developing countries and developed countries.

This research has conducted a quantitative survey and interviewed relevant experts from the less developed countries, developing countries and developed countries. The quantitative survey has involved respondents from less developed countries such

as Afghanistan, Zambia and Nigeria, and an interview has also been conducted in Tanzania. Respondents from developing countries such as Brazil India, Indonesia, Laos, Malaysia and Thailand have been involved in the quantitative survey, and the interviews have also been conducted in Indonesia and Malaysia. To add a wider perspective, there are respondents in the quantitative survey from developed countries such as Australia, Greece and Singapore, and the interviews also have been conducted in Australia, Singapore and the United Kingdom. One of the findings of this research related to stakeholder involvement and their roles in different countries.

Various problems, risks, and obstacles have been encountered in PPP initiatives around the world that have eventually brought project failure. A differing level of interest and involvement on the part of the stakeholders has been testified as the key reason for failure in several occurrences (El-Gohary et al., 2006). As such, this research captures the stakeholder involvements vital to the success of PPP infrastructure projects. The roles of the stakeholders in influencing the success of infrastructure projects have been represented in many formulas. The stakeholders in PPP infrastructure have to be more formed. Stakeholder Involvement (SI) in an interdisciplinary way to support PPP projects has been studied by other scholars. For example, a study has indicated that the PPP project failures related to stakeholders oppositions were mainly because the public was: (a) unaware of the concept of PPP; (b) not sufficiently educated about PPP; and (c) denied access to detailed information contained in the consortium's PPP proposals (El-Gohary et al., 2006).

PPP infrastructure projects are not purely a vehicle for public sector to deliver infrastructure projects by relocating all the risks to the private sector and thus shedding all their responsibilities. Relatively, they necessitate suitable allocation and management of risks. For infrastructure in the beginning has defined the structure of risk since it involves substantial financing. To manage the risks will need a legal firm to define what the right risks to distribute among the parties are. One important risk that needs to be structured in the contract is the risk of collateral value, which is agreed by the lenders. A robust contract can be very effective for risk allocations, for example for the life cycle cost risks, construction risks, site condition risks, market risks, income stream risks to pay with the interest, refinancing risks, and operational and maintenance risks. A PPP infrastructure project tender protocol

should be constructed on public and private sectors win-win principle. Therefore, knowing the roles of the related stakeholders is essential to the allocation and distribution of risks for the partnership.

In summary, the understanding of the roles of stakeholders that has been collected from this study is presented in Table 7-1.

Table 7-1: Comparison the Roles of Key Stakeholders related to Infrastructure Financing in Three Groups of Countries

Key Stakeholders	Less Developed Country	Developing Country	Developed Country
Government	<ul style="list-style-type: none"> Develop basic infrastructure 	<ul style="list-style-type: none"> Develop basic infrastructure Fiscal support for PPP projects 	<ul style="list-style-type: none"> Develop basic infrastructure
Multilateral Agency, Grant and Soft Loan	<ul style="list-style-type: none"> Develop basic infrastructure Building capacity 	<ul style="list-style-type: none"> Support studies Building capacity Develop basic infrastructure 	<ul style="list-style-type: none"> Standardize Global bank Regulation
SOEs	<ul style="list-style-type: none"> Start up to establish SOEs for specific purposes 	<ul style="list-style-type: none"> Basic SOEs for banking, consultant, construction, O&M SOE provide lending To be assigned to build infrastructures specially infrastructure from political reason 	<ul style="list-style-type: none"> Advance level of SOEs SOE provide lending SOE Investment Fund & management
Private sectors	<ul style="list-style-type: none"> Establish JV with government to own the infrastructure projects Foreign Direct Investment with compensation of natural resources exploration 	<ul style="list-style-type: none"> Foreign Direct Investment Public Private Partnership 	<ul style="list-style-type: none"> Foreign Direct Investment Public Private Partnership
Consultant	<ul style="list-style-type: none"> Develop Supporting Documents, Feasibility Study 	<ul style="list-style-type: none"> Develop Supporting Documents, Feasibility Study, 	<ul style="list-style-type: none"> Develop Supporting Documents, Feasibility Study,

Key Stakeholders	Less Developed Country	Developing Country	Developed Country
		Project Transaction	Project Transaction
Banks	<ul style="list-style-type: none"> • Commercial loan and corporate loan • High interest rate 	<ul style="list-style-type: none"> • Commercial loan and corporate loan • Relatively high interest rate • Loan for Project Finance will require high portion of Equity up to 30%) 	<ul style="list-style-type: none"> • Commercial loan and corporate loan • Standard LIBOR • Loan for project finance with less position of Equity (5-10%) • Mature investment atmosphere
State Bank	<ul style="list-style-type: none"> • Regulate 	<ul style="list-style-type: none"> • Bank Regulation • Monetary control 	<ul style="list-style-type: none"> • Bank Regulation • Monetary control • Create mature investment atmosphere
OJK - Bonds	<ul style="list-style-type: none"> • Government Bonds, taxes payment guarantee 	<ul style="list-style-type: none"> • Government Bonds, taxes payment guarantee • Corporate Bonds • Purposing Infrastructure Bonds 	<ul style="list-style-type: none"> • Government Bonds, taxes payment guarantee • Corporate Bonds • Infrastructure Bonds
Insurance Company - Superannuation Fund	<ul style="list-style-type: none"> • No yet explored, uncertainty 	<ul style="list-style-type: none"> • As Investment buying government bonds • Being explored for infrastructure projects with high political risks 	<ul style="list-style-type: none"> • As Investment buying government bonds • As Investment to infrastructure projects

Though there are different contexts and situations in different countries, the less developed countries, the developing countries and the developed countries have all been encouraging private sectors to become further involved in infrastructure development. In less developed countries, donor agencies provide grants of funds to build remote essential infrastructure as the trigger for other developments such as roads and hospitals. In less developed countries such as some countries in Africa, governments are seeking more private investment because the government are facing constraint fiscal budget to build infrastructure, and therefore they are eagerly looking for infrastructure investment from the private sector. They are typically looking for

purely private investment as a way of helping their country, which has a limited source of finance. Government has a bad financial proposition to build a new bridge, toll roads and other basic infrastructures, but people who have large private funds still want to invest; however, their company will only do equity financing, which means they want to own a part of project. The investment is not structured as a loan; it is structured as a buy, and as shareholders they will hold 30-40 % of the actual project.

The roles of SOEs in less developed countries can be considered less significant, based on the discussions conducted by this research in these countries, the SOEs are still in the start-up stage and are only used for specific purposes. Countries such as Tanzania, for instance, are just starting to establish SOEs to operate and own ports and airlines (Respondent 4). In developing countries, the function of SOEs are more established; the SOEs have run many aspects of business including the national banking, contractors, operation and maintenance of infrastructure business and consultancies. There are also SOEs that provide lending such as the SMI in Indonesia, also SOEs which provide guarantees to part of the risk transfer mechanism. Some SOEs have been appointed to build infrastructure for political reasons. In developed countries, SOEs play advanced roles; SOEs can provide lending, raise funds and function as investment managers.

In Australia there is the Queensland Treasury Corporation (QTC), which raises funds from fiscal and multilateral agencies to finance infrastructure projects. In Indonesia there are *Sarana Multi Infrastruktur* (SMI) and Indonesia Infrastructure Fund (IIF), which also raise funds from fiscal and multilateral agencies and other sources of funds to finance infrastructure projects. Their services have similar financial mechanisms as a lending fund through senior, junior and mezzanine loans and also as equity investors. As an advanced practice, the QTC and SMI/IIF can implement Credit Guarantee Finance (CGF) and the Supported Debt Model (SDM) by coordinating national banking institutions to raise large funding for the successful PPP consortia. The SPV of the infrastructure project will have the project evaluated by a credit rating agency (the underlying rating) (Michael Regan, 2009). In the future, CGF and SDF can be implemented by SMI to develop SMI by providing government loans for infrastructure projects. Indonesia needs to establish a financial

institution that is similar to the Queensland Investment Corporation (QIC) in order to accommodate a superannuation fund and other insurance funds. The QTC and QIC are very good examples of financial institutions. SMI is a good start for the Government of Indonesia to have a flexible financial institution that is focused on supporting the acceleration of infrastructure development.

Banking institutions are generally familiar with a collateral-ship of the facilities they provide. In terms of equity, many developers or private investors have not the sufficient liquidity to get into the business of infrastructure development. A financial institution that provides a flexible product in order to bridge the financing and to provide adequate equity in infrastructure financing needs to be established. SMI has provided mezzanine loans to fulfill the needs of lending adequate equity. Moreover, collateral is not always physical, but it can be guaranteed by a corporation and the project sponsor.

In a developed country, with a mature investment environment, a consortium usually consists of large private companies, financiers and usually multiple consortia who put forward their specific interests for certain government projects. There is no fiscal involvement by the government; rather it is done only by the consortium of banks and investors. For example in Australia, there is no involvement of politicians and no government guarantees in Australia for political risks. Australia is taking investment market maturity, bank regulation has been developed very well, and to avoid political risk with good governance and strong government regulation.

The donor agencies have also played vital roles in supporting infrastructure development. The donor agencies in less developed countries and developing countries have contributed by giving grants and loans to develop basic infrastructures and building the capacity of government officers and communities. In developed countries, donor agencies have more specific tasks. The World Bank has assisted many countries for many years, setting new banking regulations for the world. The World Bank has effective regulation when it comes to project finance; they limit lending on long term loans, they limit lending on a limited recourse basis and they limit large loans.

7.3.2. Infrastructure Financing in Practise

To improve the PPP infrastructure delivery system, Indonesia can learn from many other countries how to adopt PPP infrastructure schemes. In summary, based on previous analysis the comparative financing sources in different countries have been presented. Table 7-2 shows the comparison between Indonesia and Australia since Indonesia and Australia are neighboring countries that could influence each other, and Table 7-3 shows the comparison in the function source of finance in the less developed, developing, and developed countries that have been discussed.

Table 7-2: Comparison in the Function Source of Finance between Indonesia and Australia

Source of Finance	Indonesia	Australia
Fiscal Budget	<ul style="list-style-type: none"> • Develop basic infrastructure • Some for land Acquisition and settle the conflict • Fiscal support for PPP projects; government capital, VGF, subsidy and Loan 	<ul style="list-style-type: none"> • Develop basic infrastructure • for land Acquisition • Fiscal support for PPP projects; government capital, VGF, subsidy and Loan
Multilateral Agency, Grant and Soft Loan	<ul style="list-style-type: none"> • Support studies • Building capacity • Develop basic infrastructure 	<ul style="list-style-type: none"> • Standardize Global bank Regulation
Private investment	<ul style="list-style-type: none"> • Foreign Direct Investment 	<ul style="list-style-type: none"> • Foreign Direct Investment
PPP	<ul style="list-style-type: none"> • PPP with government guarantee • Exploring PPP with Government franchising 	<ul style="list-style-type: none"> • PPP without government guarantee • Government franchising
Banks	<ul style="list-style-type: none"> • Commercial loan and corporate loan • Relatively high interest rate • Loan for Project Finance will require high portion of Equity up to 30%) 	<ul style="list-style-type: none"> • Commercial loan and corporate loan • Standard LIBOR • CGF and SDM have been implemented • Banks develop consortia to finance a specific infrastructure • Loan for project finance with less position of Equity (5-10%) • Mature investment atmosphere
Bonds	<ul style="list-style-type: none"> • Government Bonds, taxes payment guarantee 	<ul style="list-style-type: none"> • Government Bonds, taxes payment guarantee

Source of Finance	Indonesia	Australia
	<ul style="list-style-type: none"> • Corporate Bonds • Purposing Infrastructure Bonds 	<ul style="list-style-type: none"> • Corporate Bonds • Infrastructure Bonds
Insurance Fund & Superannuation Fund	<ul style="list-style-type: none"> • Investment buying government bonds • Being explored for infrastructure projects with high political risks 	<ul style="list-style-type: none"> • As Investment buying government bonds • As Investment to infrastructure projects

In practice in infrastructure cooperation, there are PPP, PFI, PDP, BOT, DBOT, DBOOT scheme project implementation structures that come into play when a client or a government does not have the means to pay along conventional terms (Respondent 5). In most cases the cost of these projects are much higher compared to the conventional financed by fiscal budget, however in most instances the indirect benefits are cumulatively larger. Applied correctly, it can be a winning formula and when applied wrongly it can bring down a nation economically. Therefore, to avoid the failure of an infrastructure delivery scheme, the framework of an overall concept of infrastructure financing is essential to be well known by all related stakeholders.

In Australia the government does not support risk guarantees. To reduce potential risks, they have direct investment within government institutions; the investment for private firms would be as lenders. This is similar to the UK, USA and most commonwealth countries.

Government support of risk guarantees is starting to appear in Asian countries. The government guarantee applies to a different situation, i.e. to cover the demand risk, performance risk and political risk. The political risks are considered a complex guarantee to be covered since in developing countries political instability is very high and most decision are made in a bureaucratic system.

Table 7-3: Comparison the Function Source of Finance between Countries

Source of Finance	Less Developed Country	Developing Country	Developed Country
Fiscal Budget	<ul style="list-style-type: none"> • Develop basic infrastructure • Develop supporting regulation 	<ul style="list-style-type: none"> • Develop basic infrastructure • Develop supporting regulation • Some for land 	<ul style="list-style-type: none"> • Develop basic infrastructure • Develop advance supporting regulation • for land

Source of Finance	Less Developed Country	Developing Country	Developed Country
		Acquisition and settle the conflict <ul style="list-style-type: none"> Fiscal support for PPP projects; government capital, VGF, subsidy and Loan 	Acquisition <ul style="list-style-type: none"> Fiscal support for PPP projects; government capital, VGF, subsidy and Loan
Multilateral Agency, Grant and Soft Loan	<ul style="list-style-type: none"> Develop basic infrastructure Building capacity 	<ul style="list-style-type: none"> Support studies Building capacity Develop basic infrastructure 	<ul style="list-style-type: none"> Standardize Global bank Regulation
Private investment	<ul style="list-style-type: none"> Establish JV with government to own the infrastructure projects Foreign Direct Investment with compensation of natural resources exploration 	<ul style="list-style-type: none"> Foreign Direct Investment 	<ul style="list-style-type: none"> Foreign Direct Investment
PPP	<ul style="list-style-type: none"> PPP with government guarantee 	<ul style="list-style-type: none"> PPP with government guarantee Exploring PPP with Government franchising 	<ul style="list-style-type: none"> PPP without government guarantee Government franchising
Banks	<ul style="list-style-type: none"> Commercial loan and corporate loan High interest rate 	<ul style="list-style-type: none"> Commercial loan and corporate loan Relatively high interest rate Loan for Project Finance will require high portion of Equity up to 30%) 	<ul style="list-style-type: none"> Commercial loan and corporate loan Standard LIBOR Loan for project finance with less position of Equity (5-10%) Mature investment atmosphere
Bonds	<ul style="list-style-type: none"> Government Bonds, taxes payment guarantee 	<ul style="list-style-type: none"> Government Bonds, taxes payment guarantee Corporate Bonds Purposing Infrastructure Bonds 	<ul style="list-style-type: none"> Government Bonds, taxes payment guarantee Corporate Bonds Infrastructure Bonds
Insurance Fund & Superannuation Fund	<ul style="list-style-type: none"> No yet explored, uncertainty 	<ul style="list-style-type: none"> Investment buying government bonds Being explored 	<ul style="list-style-type: none"> As Investment buying government bonds As Investment to infrastructure

Source of Finance	Less Developed Country	Developing Country	Developed Country
		for infrastructure projects with high political risks	projects

Sources of finance from issuing bonds, insurance funds and from superannuation funds are not yet known as familiar mechanisms in the less developed countries and developing countries. In these countries, risk perception in capital markets fluctuates highly. In this situation, tax payments become payment guarantees for government bonds. In developing countries, infrastructure bonds and corporate bonds, as alternative financing, are still under exploration. In developed countries infrastructure bonds have been widely used. Developing an efficient PPP framework to accommodate the need for infrastructure bonds is becoming essential.

The Malaysian MRT, for instance, is funded via mid and long term notes/bonds raised by a special vehicle fully owned by the Ministry of Finance (MOF) Inc. No government security is given; however, the MRT (being a fully owned legal entity of the government to the SPV) received positive credit agency ratings. The majority of these notes were pre-sold to institutional buyers, such as the nation's EPF Co. The government also raised more local funding by putting out special public investment schemes that were guaranteed by the government.

In less developed countries, the monetary situation of the country also needs to be considered before transferring cash or finance to build infrastructure. In the case of Tanzania, for instance, which is a rich country with rich natural resources, private investors have been attracted to invest. Investors are interested but they are also looking for a guarantee of a return on their investment. For the country to receive cash in large amount could also destabilize its monetary markets. The transaction of investment has to be managed carefully. Infrastructure to connect the regions requires serious solutions. At the same time, this country is rich in natural resources, and therefore the natural resources can potentially be monetarized as a guarantee for the foreign financing and can also be explored by giving the exploration rights as mining concessions to assist building up the country.

7.3.3. Leverage the Infrastructure Project Viability

Any investment in infrastructure typically has an expected return. Certainty or adequacy of demand and buying power of the community is essential for the investment return. Security of payment for infrastructure projects has become fundamental. The community, as the potential market, or demand, will pay the infrastructure services through user-pays charges. In developing countries, the population number is usually large, with an ability to pay; therefore it is becoming the key area that attracts investors to finance projects. In developed countries, on the other hand, there is usually a limited population in relation to that of the developing countries, therefore to investment is attracted by maintaining a secure investment environment with good governance and low costs of financial charges. The perception of risks in developing countries tends to be higher than the perception of risks in developed country.

A key challenge in many less developed countries and developing countries is to develop projects that are affordable (to the government and/or users) while profitable enough to attract private investors looking for projects with returns above their internal banking lending rates. In these countries, the usual two sources of cost-recovery for private investors (through users and/or public finance) (H. K. Yong, 2010) are not available: users cannot afford to pay for the services, while the government lacks the budgetary fiscal space to ensure payments over the life of the PPP projects. An alternative to these two sources of payment is monetizing idle government assets through offering them to private investors and optimizing grants from donor agencies to help bridge their project viability gaps.

The interviews have revealed that the biggest consideration in making investment decisions would be dependent upon the interest of the institution. Table 6-4 shows the decision-making indicators from the stakeholder's perspective as discussed. For the government as the owner and executor, the most considered aspects are those of social and public delivery services followed by NPV and ROE of higher interest. For the private sector, investing in infrastructure projects typically means high ROI, ROE and IRR as their priorities, followed by the shortened BEP and the possibility to be the operator and manager of the infrastructure operation. To simplify the

investment decision in Indonesia, the National Development Planning Agency has provided specific guidance. For example, the value of the IRR for the bankable projects should be 16% and the return of equity 22%. Investment decision-making for short-term equity investors will typically consider the value of the ROE and ROI. For example, Macquarie Bank in Australia as the equity investor in a PPP project is going to provide a five-year underwriter risk, and when cash flow stabilizes then a superfund will takeover to refinance and change the term of investment into a long-term loan agreement.

There is a different perspective held by superfunds, pension funds and insurance funds. These funds are unlikely to be worried about ROI but more likely to consider the maturity of cash flow. The superfund and other similar funds will finance or takeover financing of infrastructure projects when the projects have been sustainably run, since they have to reduce risks in order to keep paying the insurance claims and payment. An almost similar reasoning applies for funding from Islamic Syaria Financing, which also looks for infrastructure projects with sustained cash flow. For the construction company, their rationale for investing in infrastructure projects is to receive payment after completing the construction works. However, an operator company willing to invest in infrastructure project would expect to have sustained operation maintenance management over the concession agreement.

Table 7-4: Decision Making of Investment from the Stakeholders Perfective

Stakeholders	Decision Making Indicators of Investment
Government	<ul style="list-style-type: none"> ● Value for Money ● NPV ● ROE ● Social Need and Public Services
Private Sectors	<ul style="list-style-type: none"> ● IRR ● ROE ● ROI ● BEP ● Possibility be the owner of the infrastructure
Short term equity investors	<ul style="list-style-type: none"> ● ROE ● ROI

Stakeholders	Decision Making Indicators of Investment
Financiers	<ul style="list-style-type: none"> • Robustness of the assumption and projection • IRR • BEP • ROI • DCSR • Markets
Superfund / Insurance Fund	<ul style="list-style-type: none"> • Maturity Cash flow • DCSR
Islamic Syaria Financing	<ul style="list-style-type: none"> • Involve in the Project Delivery • Maturity Cash Flow
Operator	<ul style="list-style-type: none"> • Sustainability Operation and Maintenance Management
Contractor	<ul style="list-style-type: none"> • Construction is being paid

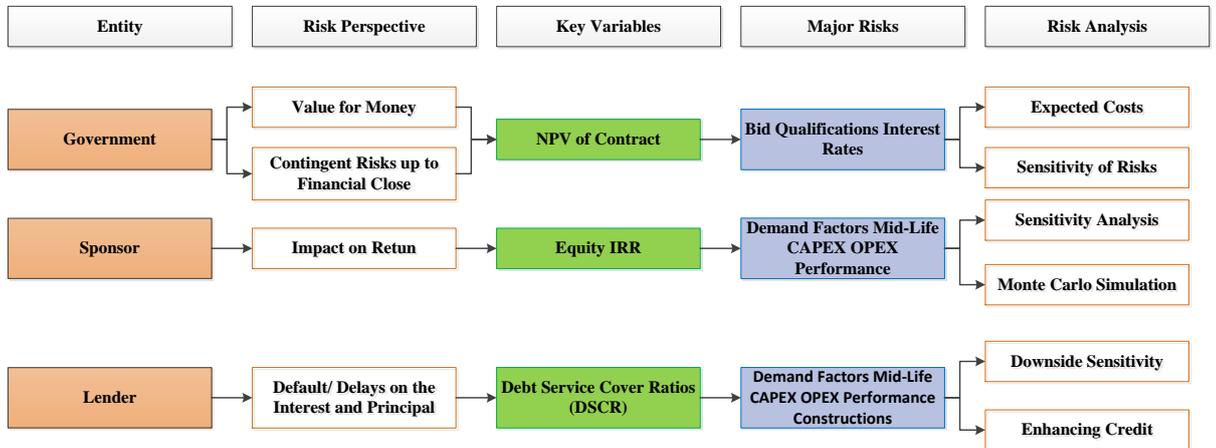


Figure 7-2: Risk Analysis

The security of Return on Investment (RoI) is very important for any potential investors, and the infrastructure projects mostly need huge investment. In some cases, there are infrastructure projects that have low financial viability but are economically viable, and the infrastructure is very needed by the community, in this situation the government then becomes the key institution to leverage viability of the infrastructure projects.

Figure 7-2 shows the schematic analysis of infrastructure projects to facilitate risk identification process. The government, sponsor or consortium of SPC and lender/financier become the major institutions that require the estimation of risk in infrastructure projects. The government will be concerned about the value for money and contingent risk on the investment required to build the infrastructure. The

sponsor or SPC focus more on return on equity and investment value. As for the lender/financier, there will be more focus on the risk of default or failure of or a delay in the payment of loans and interest on loans.

As regards key variables taken into consideration in estimating the magnitude of the risk, the government will consider the value of the NPV of the project, which represents the estimated value of the advantages of the project value for money on their infrastructure projects. Sponsor/business entities consider more the return value of the equity or that corporate investments are made. As for the financiers, they look to Debt Service Cover Ratios (DSCR) for the ability of the infrastructure projects to return the loan.

The major risk faced by the government is the failure of the tender to get the right business partners. For the sponsor the risks mostly are the insufficient demand risk and inefficiencies capital and operation expenditures. The financiers face the failure risk on investment and construction financing.

Identification of risk with significant parameters are needed to be done in the planning of infrastructure projects. By controlling the significant parameters greater losses may be reduced. Infrastructure financing will require in-depth investigation of the key parameters to spur financial performance (Akintola Akintoye et al., 1998; Albert P.C. Chan et al., 2010; A. P. C. Chan et al., 2011).

The common methods to leverage viability of the PPP infrastructure projects are by enhancing the government contribution. As explained previously, the Indonesian Government has several types of government contribution:

1. Public asset contribution.
2. Fiscal support: government capital, Viability Gap Fund, Subsidy, Government Loan.
3. Government policy: permits, government guarantee, tax incentives.
4. Appointed state owned companies. This is the one step down approach to optimize the SOE as the longer procurement procedure has become one of the biggest obstacles in delivering success PPP infrastructure projects.

Assigned SOEs are becoming one of the methods to shorten the procurement process.

Other methods of government contribution that are not yet explored in Indonesia include:

1. Bundling projects, Integrated infrastructure development. This is the most complex way to leverage the infrastructure project, by bundling the projects, developed as integrated infrastructure projects. One of the very common bundling infrastructure projects is the TOD concept (see below).
2. SWAP Trading.
3. Monetised natural resources, sovereign guarantee.
4. Hybrid schemes, capital market, government bonds / and infrastructure bonds.

Bundling a project is an integrated urban infrastructure development that is based on the Transportation-Oriented Development (TOD) concept and includes bus and rail oriented development as well as development along expressways (Lefaver 1997; (Chisholm, 2002). A combination of residential, retail and office uses are typically integrated with a supporting network of roads, bicycle and pedestrian ways, focused on supporting a high level of transit use. Transit-Oriented Development (TOD) has increased popularity as a means of rectifying a number of urban problems, together with traffic congestion, affordable housing shortages, air pollution, and incessant sprawl (Chisholm, 2002). Closely associated to TOD is Transit Joint Development (TJD). Whereas the difference between the two is not always clear, generally their differences lie within the scale. TOD generally incorporates multiple city blocks, representing more or less a neighborhood in size and character. TJD, instead, tends to be project-specific, usually happening within a city block and tied to a specific real estate development. In bundling projects, TJD is frequently classified into two groups: (1) revenue-sharing arrangements; and (2) cost-sharing arrangements (Cervero et al. 1991;(Chisholm, 2002).

Bundled projects usually requires the active involvement of the central government, provincial government and local government. The principal role of the central government in enabling TOD is one of providing a funding mechanism. The central

government can also encourage partnership among other levels of government and between the public and private sectors. Provincial government would usually promote TOD aggressively as a part of the urban management in their provincial capital city, generally through pro-TOD policy in provincial plans and main regulation documents. Provincial governments have several tools at their disposal to leverage TODs, together with provincial transportation plans, transportation improvement programs, growth management programs, and taxation laws. Subsequently local governments/ municipalities and counties have prerogative right to develop regulation on land-use regulatory and zoning controls and they are often better situated to influence TOD outcomes than other governmental entities. Local governments can comprehend their support for TOD through general plans, transportation plans, station area plans, and special zoning provisions. Local governments may also be involved in developing station area plans as additional regulations for guiding public and private investments in and around transit stops.

7.4. Summary

The basic types of infrastructure are economic and social infrastructure. However, a new type of infrastructure has been defined in this research, namely the Political Driven Infrastructure. This type of infrastructure emerged from the political practice of the democratic voting process, and the community has become better informed in knowing their right to vote for potential leaders that will likely develop their region or fight for their interests.

The top 15 of the critical parameters taken into consideration by key stakeholders, and the roles of these stakeholders, have been identified in this research through the integrated quantitative analysis, which has been strengthened by the qualitative analysis, enriched by the literature review and confirmed by observation.

The role of government was found essential in governing infrastructure development. PPP projects failures are mostly for the reason that the public was: (a) uninformed of the idea of PPP; (b) not adequately educated about PPP; and/or (c) denied access to comprehensive information confined in the consortium's PPP

proposals. PPP infrastructure projects are not simply a vehicle for public transport to deliver infrastructure projects by allocating all the risks to the private sector and thus shedding their responsibilities. Somewhat, they need suitable allocation and management of risks. Consequently, to avoid the failure of an infrastructure delivery scheme, it is essential to communicate the overall concept of infrastructure financing, and hence for it to be well understood by all related stakeholders.

The findings of the research grouped the roles of key stakeholders in infrastructure financing into three groups of countries, namely: the less developed countries, developing countries and developed countries. In less developed countries and developing countries, a government guarantee is much needed since the political risk is typically high. The governmental support of a risk guarantee is an emerging phenomenon coming into Asian countries. The government guarantee is another arrangement where the government covers the demand risk, performance risk and political risk. In many cases, the political risk is often considered too complex to be covered due to the typically high political uncertainty and in places such as developing countries is exacerbated by bureaucratic systems. In Australia for example, the government does not support risk guarantee. To reduce potential risks, instead, the Australian government has direct investment by government institutions with investment from private firms as lenders. It is similar to in England, USA and the commonwealth countries. In a typical developed country, with a mature investment environment, a consortium usually consists of large private companies, including the financiers, and usually four to five consortia put forward their specific interests in a government project. To settle the financing, there is no involvement by the government. Instead it is done by a consortium of banks and investors. This is enabled mainly by the maturity of the market, bank regulations, and minimum political risk with strong government regulation.

Any investment in an infrastructure project has an expected return. Therefore, certainty or adequate demand and buying power of the community are typically essential. The availability of security of payment for infrastructure projects has become fundamental. The community as the market that pays the user-charge is the potency of a strong revenue stream for infrastructure projects. It is understood that security of return on investment is important for any potential investors, therefore in

the case of infrastructure projects that need large investment, that are less financially viable (though still economically viable), and are very needed by the community, the government then becomes the key institution to leverage these infrastructure projects. One of the methods to leverage the infrastructure projects is by providing government contributions. Different government contribution have been identified and discussed in this chapter: public asset contribution, fiscal support; government capital, Viability Gap Fund (VGF), subsidy, government loan, government policy; permits, government guarantee, taxes incentive, appointed state owned companies, bundling projects, integrated infrastructure development, SWAP Trading, monetized natural resources, sovereign guarantee, hybrid schemes, capital markets, government bonds and/or infrastructure bonds.

CHAPTER 8

DEVELOPMENT OF PPP FRAMEWORK FOR INDONESIA

8.1. Introduction

The findings from the triangulated quantitative analysis and qualitative analysis, and the participant observation within the case study reported in the previous chapters of this thesis led to the development of the intended PPP infrastructure frameworks. Quantitative data in this research served as evidence to identify and verify the critical elements in the frameworks. The interview result within the qualitative analysis further verified and revealed the underlying reasoning of the critical parameters.

The elements in the PPP framework that emerged from this research include the critical parameters, processes in the life cycle, stakeholders and their roles. Together these define how PPP schemes can be implemented to promote stakeholder engagement and satisfaction in the PPP program. The involvement of the related stakeholders in any stage of the PPP infrastructure project lifecycle is also presented in a newly developed stakeholder framework.

Methods of leveraging infrastructure projects through empowering government to make contributions were also explored and subsequently formed the framework aimed to provide guidance for decision makers in PPP projects. The types of PPP financing mechanism that have been reviewed in Chapter 2 would also be included in the modality framework. It is important to be aware that strong legal advice and robust contracts are needed for effective risks allocation. For example the life cycle cost risk, construction risk, site condition risk, market risk, income stream risk to pay with the interest, refinancing risk, operation and maintenance risk can be indicated in the earlier stage.

Furthermore, the research outputs are expected to provide a platform for developing a robust PPP Framework for Indonesia including the potential of the capital markets in the format of government bonds to support the modality. The new PPP frameworks as resulted from this research are expected to assist government in identifying:

- Clear authority of the related stakeholders and government institutions in PPP delivering process development.
- Development of scope of work for PPP infrastructure projects.
- Faster identification of the business process in PPP delivery from planning, preparation until financial closing and construction even until O&M and preparation/anticipation of the assets transfer.
- Leverage methods in PPP infrastructure financing with financing mechanism alternatives to achieve the required bankability standard and achieve sustainable projects.
- Government institutional clarity and legal certainty in the PPP process.
- The complexities that have been faced so far, including the land acquisition, inter-coordination and develop sustainability of PPP projects to give certainty of investment return.
- The roles of SOEs in supporting PPP infrastructure project development as operators and accommodating the fiscal contribution from regional and central government budgets that will contribute as their share in SPV.

8.2. Developing the PPP Infrastructure Frameworks

In Liu and Wilkinson (2011), their research has focused on the important parameters of transaction costs and duration required for a PPP project. The transaction is part of the last stage of the project development. Number of measures were persuaded that would assist to evade pointless negotiation between the public and private sector through standardised project agreements and contracts. Likewise, the guideline regulations on PPP tender should be well prepared to rise the confidence of both parties throughout the PPP process. Correspondingly, the use of a more reliable and transparent risk allocation framework aligned with the published guidance material would likely accelerate the process of negotiation around risk allocation.

Developing a framework is needed to simplify the details and complex processes involved in developing and delivering PPP infrastructure projects. The frameworks developed in this study consists of life cycle, stakeholders and modality of the PPP infrastructure projects contextualized within the critical parameters.

The aim of the research is to develop a robust framework to assess the investment decision for infrastructure projects with PPP financing mechanism. Project risk can be reduced by a robust management process that can provide certainty of policy. The financing mechanism should be able to better align incentives for managing a range of project risks with responsibility for risk management. Fiscal budget constraint from the government and high demand of public services requires a new insight in the PPP financing mechanism, especially to finance infrastructure projects that are economically viable but less financially viable.

PPP arrangements can help in allocating construction and operational risks to private partners, while government reminds their policy roles and demand risk mitigation with an assurance to underwrite minimum revenue from user charges. A particular financing vehicle is perceived capable of reducing the total cost of financing where it can: (C. Chan et al., 2009)

- Better align the incentives for managing non-diversifiable project risk to those who have the competence to better manage this risk.
- Increase the portfolio balance for the investors, decreasing the market risk through diversification, consequently lowering the return required to hold this asset.
- Decrease duration transaction costs of financing and/or the costs of delay.

As regards lowering the total costs of financing, the most powerful approach is frequently for a financing vehicle to decrease the cost of contingent liabilities through aligning the incentives to better manage project risks (C. Chan et al., 2009).

The major financing task in a PPP project is meeting the investment costs upfront in a timely manner and efficiently managing project risk. Financing vehicles that allocate risks to the partner best placed to manage them efficiently will most likely

reduce the overall cost of the project. There may also be scope for the financing vehicle to influence efficiency by imposing greater discipline on investment and funding decisions. As a basic understanding in establishing a PPP, the public sector aim is to lessen the cost of project risks by allocating construction, operational and demand risk to the private sector (Yescombe, 2007; H. K. Yong, 2010). It also aims to bring in private sector expertise that has specialised skills such as better asset management; but, here too, incentive alignment matters for results. The main challenge is whether public sector is capable to select or appoint the right partner successfully in allocating risk to the private sector where the private sector is projected improved managing and later reducing the cost of risks (C. Chan et al., 2009).

Furthermore, the key aspects that need to be considered in developing PPP infrastructure frameworks for Indonesia revealed in this research are as follow:

1. Optimising the role of the public, private sectors, financiers, consultant, transfer risk institutions and donor agencies. The developed frameworks for Infrastructure Indonesia have focussed on how best to optimize the role of the public and private sectors and other related stakeholders in upcoming infrastructure development and management, including the part each sector can take roles in any stages including planning, preparation, procurement, financial closing, financing construction, operation and maintenance.
2. A national perspective to complement provincial territory. The frameworks are expected to accommodate the Indonesian infrastructure in a national perspective in setting priorities for infrastructure investment by adopting a principle-based approach with a strong cooperative related stakeholders focus.
3. Efficient use of existing infrastructure and resources. These frameworks for infrastructure in Indonesia have well-thought-out a wide range of potential solutions of leveraging the infrastructure projects, by structuring the government contributions and occupied option of PPP infrastructure financing that has been practiced globally. It is also shown that beyond

assessing new capital projects, other areas require change such as existing resource allocation or localization or optimising resources, including labours and materials.

4. Integration with previous infrastructure development plan. These frameworks for infrastructure Indonesia have integrated preparation of the proposals to existing infrastructure plan through considering PSC in the life cycle of developing the projects.
5. A long term, whole-of-life approach. The framework for infrastructure Indonesia that has been developed in this research has considered long term whole-of-life PPP projects in the life cycle PPP project development from the planning up to the end of the concession, and the costs and benefits when assessing infrastructure solutions and priorities. However, because of the constraints of time and resources, this study does not cover the long-term impacts of potential solutions on the environment, social equity and human behaviour. The environmental is usually assessed in a different study. The type of risk to the environmental is locally contextualised and will be different from project to project. The social and human behaviour are usually also in a different study, even some infrastructure projects were not required to have social and human behaviour studies. To optimize them, some FS have included social and human behaviour studies on wiliness to pay and ability to pay to understand the potential demands. In the current research, demand has been assessed as an important parameter to be included in the framework development.
6. Scrutinize demand and supply side patterns. Options and solutions have been a part of the consideration in PPP infrastructure development. In this stage, the framework could show the parameters related to the demand and supply side patterns. It is very important to consider the frameworks as integrated. These frameworks for Indonesian infrastructure are expected to give input in considering the parameters to examine demand and supply factors when assessing proposals and to ensure that decisions are based on a thorough examination of both factors.

7. The input that can be of further consideration for governments to establish thresholds is considered. For projects at Threshold and Ready to Proceed, a comprehensive cost benefit analysis and deliverability valuation is required. Further frameworks that governments could develop have been able to determine whether investment in that solution is vindicated on its qualities, including:
- Economic benefits exceeding costs, as measured by a robust benefit cost ratio (BCR);
 - Cost estimates and risk assessments provide assurance that the project can be delivered within budget and risks managed;
 - Need for non-government funding been fully explored for all or part of the investment, including user pays;
 - Specific technical requirements for a project of that nature been considered and the design is optimised.

8.3. PPP Infrastructure Developing Life Cycle Project Framework

The existing infrastructure project cycle in Indonesia has been explained in Chapter 3 in sub-chapter 3.3 and 3.5.2. PPP infrastructure projects in Indonesia defined into 2 groups, namely the solicited and the unsolicited projects (Government of Indonesia, 2005d, 2010c, 2011d, 2013). The procedure of promoting the solicited infrastructure projects or projects that are initiated by government institutions is provided in Appendix 1. The procedure for the unsolicited infrastructure projects is provided in Appendix 2. The most up-to-date policy improvement is the issuing of the President Decrees regarding the appointment of the SOEs to execute the infrastructure projects.

Combining the discussion in Chapter 5 and 7, the general life cycle of the infrastructure project is summarised in Figure 8-1. The common delivery stages of PPP infrastructure projects started with the PSC assessment by the government before the project was finalized as a PPP project, followed by the planning process, preparation documentation and the procurement. The financial closing banking

settlement that follows the Detail Engineering Design (DED) and LARAP also are captured in the finalization stage after the private sector has been decided as the winner appointed to execute the project and the SPV has been established. The construction stage carries the most significant risks in execution since in this stage the substantial construction and investment costs occur. The construction stage has to be delivered with a well-planned project management and consider the locality factors to minimise risks and optimise local potentials. Operation and maintenance and the management of the infrastructure would be conducted during the concession period, and the last stage of the PPP infrastructure life cycle is the ending of the concession, involving transfer of asset, or continuation of delivering the project for concession extension or termination and the project delivered back to government to operate and maintain.

The existing lifecycle framework for infrastructure development has been summarised in the following diagram:

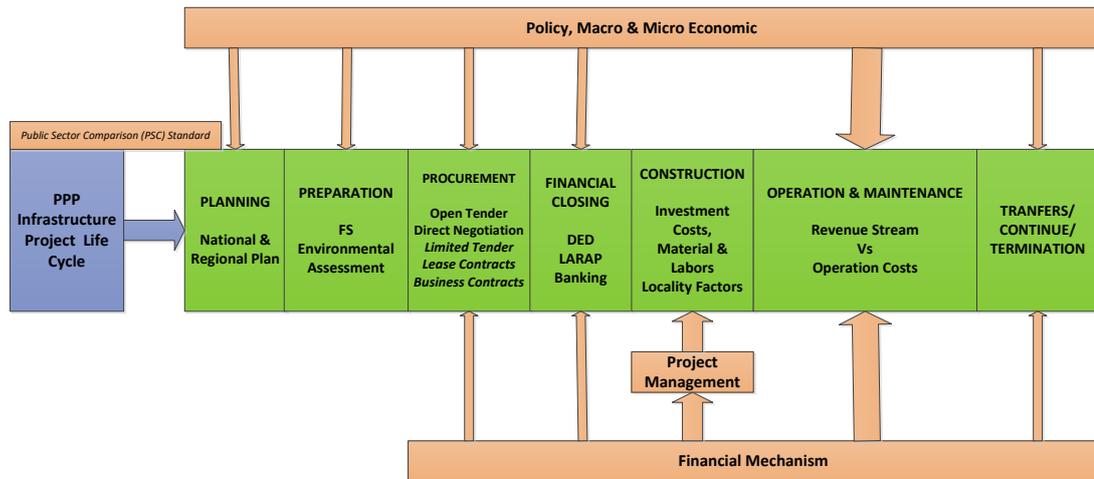


Figure 8-1: Existing life cycle for PPP infrastructure projects

The contribution of this study is to include the key parameters as part of the life cycle PPP infrastructure projects’ development framework. The key parameters could be the inputs for the assumptions to be considered for risk mitigation in developing the financial study of infrastructure development. The key parameters that have been selected for inclusion in the frameworks are shown in Table 8-1. Life cycle of the infrastructure projects has been typically considered using a 35-year or a concession timeframe measured from the first time the benefits of the proposal

accrue. Where a diverse appraisal period may be used, the summary of critical parameters here will assist to establish assumptions that should specify the basis for execution.

Table 8-1: Summary of mixed analysis of critical parameters input to PPP infrastructure life cycle frameworks

No.	Critical Parameters from Quantitative Analysis	Qualitative Interview	Related Literatures
1	construction costs & investment	Respondent 1, 3 & 5	EPAC (1995); Jennings (1992); Quiggin (2002); TIAC (2004) in Chan (2009), (Akintola Akintoye et al., 1998; Delmon, 2010)
2	supported government policy	Respondent 1, 5	(Albert P.C. Chan et al., 2010; Darrin Grimsey & Lewis, 2004), Chan et. Al. (2010), (Matsukawa & Habeck), EPAC (1995); Jennings (1992); Quiggin (2002); TIAC (2004) in Chan (2009), (C. Chan et al., 2009), (Akintola Akintoye et al., 1998), (Yescombe, 2007),
3	tariff or fee approved by government	Respondent 3, 6	(Delmon, 2010), (Yescombe, 2007)
4	demand volume	Respondent 2	EPAC (1995); Jennings (1992); Quiggin (2002); TIAC (2004) in Chan (2009), (C. Chan et al., 2009), (Akintola Akintoye et al., 1998), (Zhang, 2005)
5	amount of bank loan	Respondent 1, 2, 3 4, 5 ,6, 7, 8, 9, 10, 11 & 12	Zhang (2005), (A. P. C. Chan et al., 2011)
6	land acquisition process	Respondent 4	(A. P. C. Chan et al., 2011)
7	financing risk and costs	Respondent 2	EPAC (1995); Jennings (1992); Quiggin (2002); TIAC (2004) in Chan (2009), (C. Chan et al., 2009)
8	demand growth	Respondent 2	EPAC (1995); Jennings (1992); Quiggin (2002); TIAC (2004) in Chan (2009), (C. Chan et al., 2009), (Akintola Akintoye et al., 1998), (Zhang, 2005)
9	quality of FS	Respondent 1, 2 & 3	(Liu & Wilkinson, 2011), (Foss & Ellefsen), (Bing Li et al., 2005)
10	tariff or fee growth	Respondent 3, 6	(Delmon, 2010), (Yescombe, 2007)
11	lengthy delay due of political involvement	Respondent 1, 5	(Albert P.C. Chan et al., 2010; Darrin Grimsey & Lewis, 2004), Chan et. Al. (2010), (Matsukawa & Habeck), EPAC (1995); Jennings (1992); Quiggin (2002); TIAC (2004) in Chan (2009), (C. Chan et al., 2009), (Akintola Akintoye et al., 1998),

No.	Critical Parameters from Quantitative Analysis	Qualitative Interview	Related Literatures
			(Yescombe, 2007),
12	bank loan period	Respondent 1, 2, 3 4, 5 ,6, 7, 8, 9, 10, 11 & 12	Zhang (2005), (A. P. C. Chan et al., 2011)
13	cost overrun during construction	Respondent 1, 3 & 5	EPAC (1995); Jennings (1992); Quiggin (2002); TIAC (2004) in Chan (2009), (Akintola Akintoye et al., 1998; Delmon, 2010)
14	operation costs overrun	Respondent 1 & 3	EPAC (1995); Jennings (1992); Quiggin (2002); TIAC (2004) in Chan (2009), (C. Chan et al., 2009)
15	insurance / risk transfer expenses	Respondent 1 & 10	(A. P. C. Chan et al., 2009), (Darrin Grimsey & Lewis, 2005)

The framework in Figure 8-2, presents the life cycle PPP infrastructure projects based on the existing life cycle started with the planning, including the process of PSC, continued to preparation by constructing the feasibility study and environmental assessment, continued to procurement and financial closing, then the construction, continued to operation and maintenance and finally end the concession marked by transfer of the asset or continue operation or termination contract. The critical parameters resulting from quantitative analysis (boxes in yellow) were added considering the influences of government policy, macro & micro economic, the financial mechanism and project management.

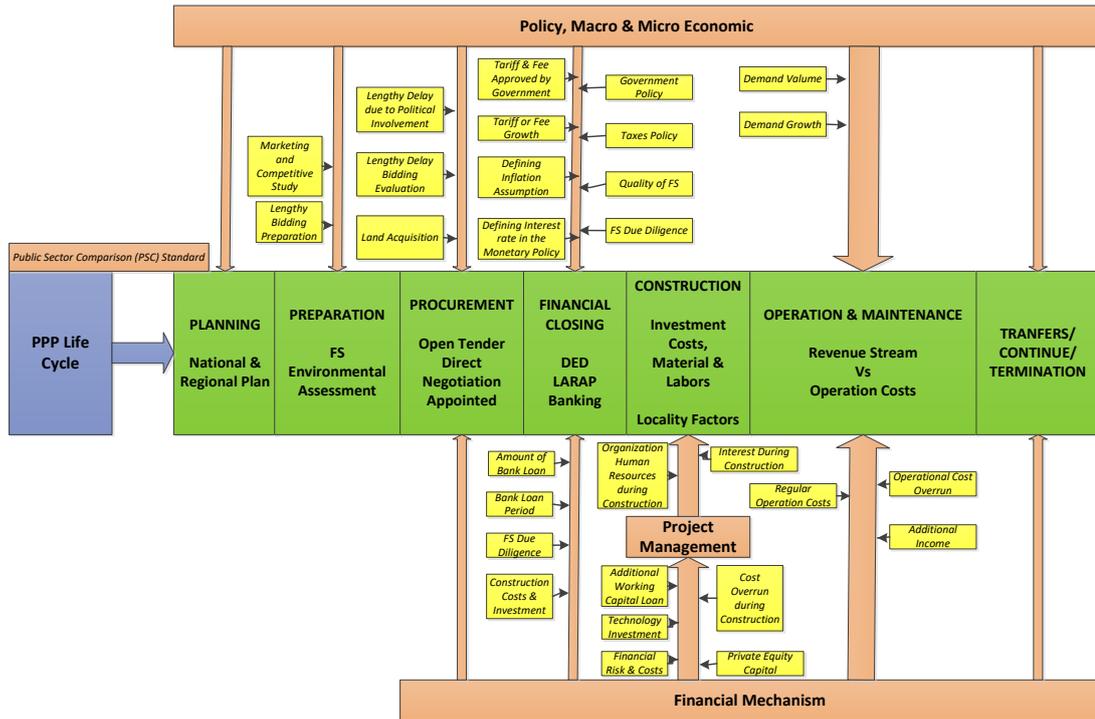


Figure 8-2: PPP infrastructure developing life cycle project framework developed from quantitative analysis

Out of the parameters that have been confirmed and verified in quantitative data analysis, there are some more inputs from the experts garnered during the interviews that were found essential to also be included in the framework. Several other parameters that have been discussed during the interviews to enhance the lifecycle frameworks are as follows:

- Natural resources
- Capital markets/bonds
- Donor agencies' loans
- Planning or demand driven
- Integrated urban development
- Bundling projects
- Government purchasing
- Infrastructure bonds
- LARAP with compulsory purchase and resettlement for people to near area development to be part of the development
- Project Delivery Partnership (PDP) and Service Delivery Partnership (SDP).

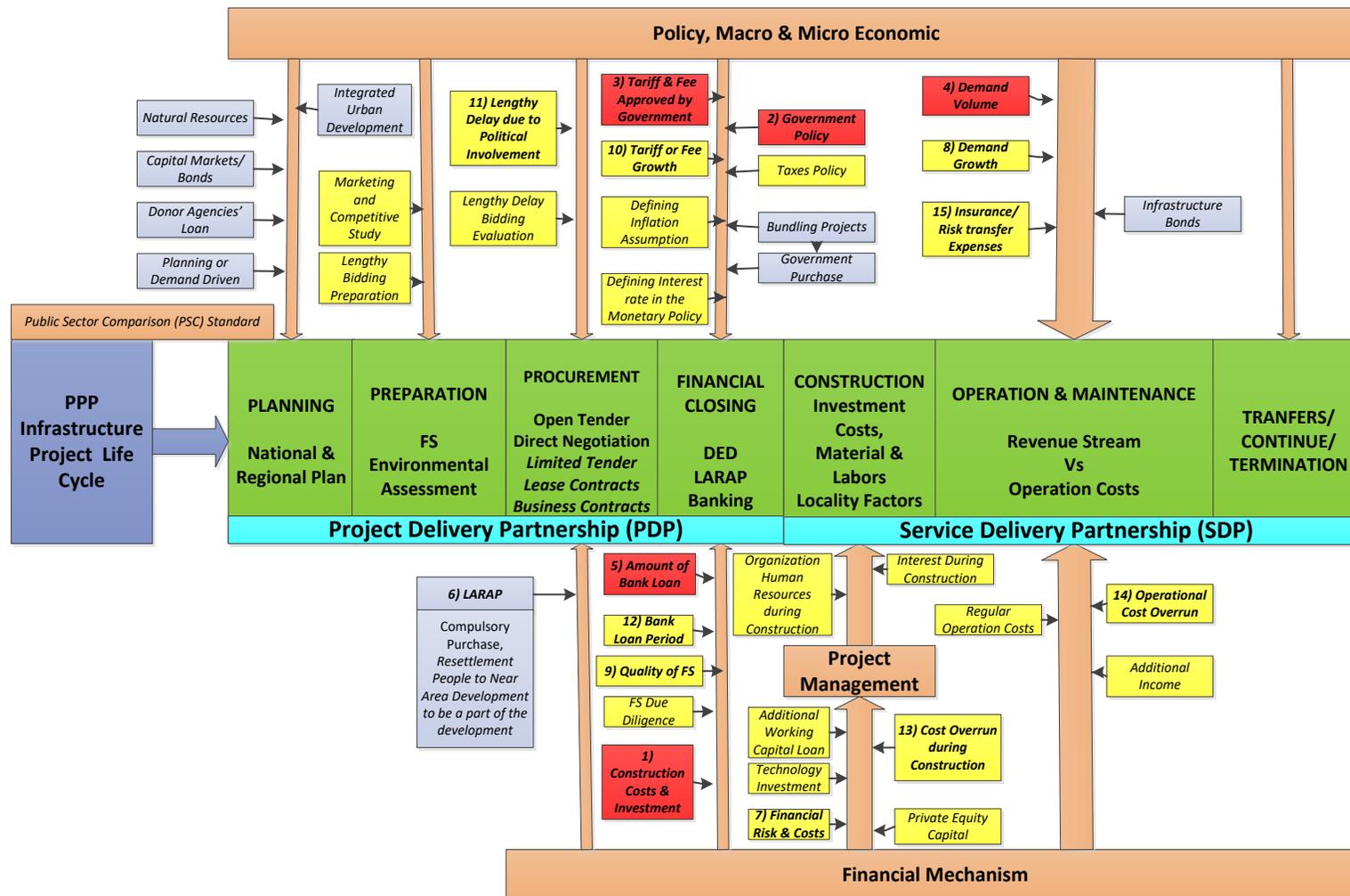


Figure 8-3: PPP infrastructure developing life cycle project framework developed from quantitative & qualitative analysis

The parameters in the red boxes are the top five critical parameters, the selected parameters have been explained in Chapter 5, quantitative analysis. The yellow boxes are parameters from the quantitative analysis and the light blue colour boxes are the parameters added from the interview analysis.

The land acquisition that occurred in the quantitative analysis was considered as government policy and included in the macro & micro parameters. The result from interview validation with the experts revealed that land acquisition and resettlement (LARAP) should be shown in the financial mechanism framework in order to better define and estimate the value and time of land acquisition, since availability of land is the most important start up foundation for the continuity of the infrastructure projects.

The results from the validation survey (explained in sub-chapter 9.3) gave an average score for Framework 1 of 3.88, which is near to a score of 4, helpful.

Based on the results of the validation survey, Framework 1 has been found to be applicable and no significant change is necessary. If change were to be undertaken, then it would be only to simplify the framework further.

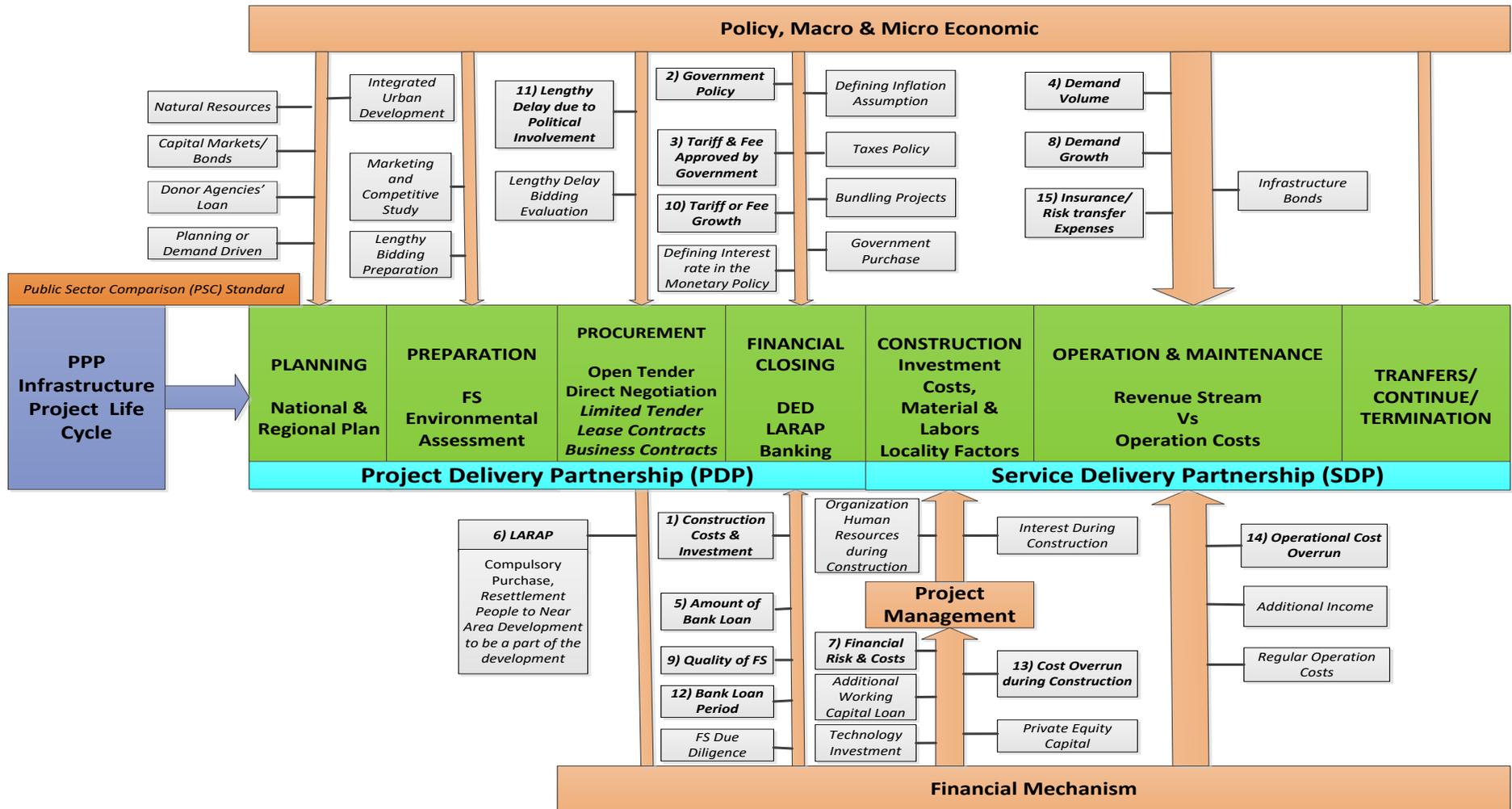


Figure 8-4: PPP infrastructure developing life cycle project framework developed from quantitative & qualitative analysis and validation survey

8.4. PPP Stakeholders Framework

The institutions that need to be considered in the existing stakeholder framework in Indonesia have been explained in sub-chapter 3.3 and in sub-chapter 3.5.1. The existing stakeholder model still considers it is the role of government institutions and the SOEs to specifically deliver public service by handling certain infrastructure. Appendix 1 and Appendix 2 showed the roles of the government institutions at different stages of the PPP projects preparation.

There are five stakeholders that have been selected and tested in this research and their findings presented in the resulting framework. There are two major sides, the public and private sectors. Donor agencies, financiers and consultants can be considered as the connectors of public and private cooperation in building the partnership. The SOEs have two main roles, i.e. as public sectors when it commits to deliver infrastructure as part of the Public Service Obligation (PSO), and as the private sectors when the SOEs develop the Joint Operations (JO) or Joint Ventures (JV) with the other private sectors to deliver the infrastructure services. The roles of stakeholders in PPP infrastructure projects are depicted in Figure 8-5 below.

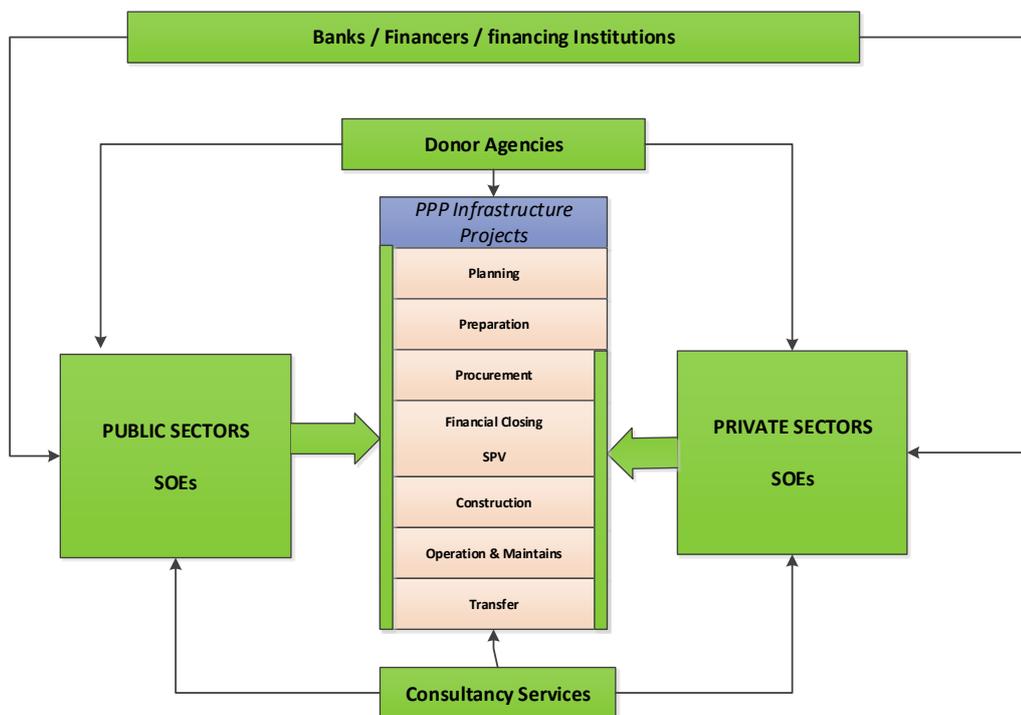


Figure 8-5: The simplified PPP stakeholder framework

The point of having stakeholder framework is related to the risk allocation and distribution to the right stakeholders. To link the key parameters and the related stakeholders' function to support PPP infrastructure project, there is a checklist in establishing risk distribution and risk allocation strategy. According to Ward et al. (1991), Edwards (1995), and Flanagan and Norman (1993), several conditions must be satisfied to determine whether project risks have been properly allocated or not. These conditions are as follows (Abednego & Ogunlana, 2006; Edwards, 1995; Flanagan & Norman, 1993; Ward & Chapman, 1991):

- Risks must be properly identified, understood and evaluated by all related stakeholders.
- Risk should be allocated to the stakeholder with the best capability to control the events that might trigger its occurrence.
- The appointed stakeholder must be willing to accept the risk.
- The appointed stakeholder must have the technical/managerial capability to manage the risks.
- The appointed stakeholder must have the financial ability to sustain the consequences of the risk or to prevent the risk from occurring.

As succinctly pointed out above about risk allocation strategy, the stakeholders who will receive the risk should be the best stakeholder who could handle that specific risk. Managing large projects involving private investors, the first party who takes investment risk will typically be the private equity investor (Respondent 4). The risk profiles are to be shared to stakeholders (Respondent 1, Respondent 2, Respondent 4). The PPP frameworks have been developed by employing an integrated understanding of the stakeholder roles and motivations of each stakeholder, consideration of the literature review of PPP schemes in Chapter 2 and also the literature review of PPP in Indonesia in Chapter 3, the mixed analysis involved in PPP infrastructure development that has been explained in sub-chapter 7.2.2 and 7.3.1, and the decision making in investment from the stakeholders' perspective. Table 8-2 displays the summary of the outcomes from the mixed method analysis regarding the critical parameters and stakeholder roles as inputs and an integral part of the PPP infrastructure stakeholder framework.

Table 8-2: Summary of mixed analysis of critical parameters and stakeholder function input to PPP infrastructure stakeholders frameworks

Stakeholders	Quantitative Survey	Qualitative Interview	Related Literatures
Governments	Construction Costs and Investment, Tariff or Fee Approved by Government, Operational Cost Overrun, Supported Government Policy, Private Equity Capital, Cost Overrun During Construction, Bank Guarantee for Construction, Regular Operation Costs, Demand Volume and Financing Risk and Costs	Respondent 1, 2, 3, 4, 5, 6, 8 & 9	(Abednego & Ogunlana, 2006), (A. P. C. Chan et al., 2009), (Albert P.C. Chan et al., 2010)
Financiers	Supported Government Policy, Tariff or Fee Approved by Government, Financing Risk and Costs, Quality of Feasibility Study, Tariff or Fee Growth, Construction Costs and Investment, FS Due Diligence, Insurance or Risk Transfer Expenses, Bank Loan Period and Demand Volume.	Respondent 1, 2 & 11	(Abednego & Ogunlana, 2006)
Private Sectors	Demand Volume, Demand Growth, Quality of Feasibility Study, Land Acquisition Process, Amount of Bank Loan, Lengthy Delay Due of Political Involvement, Supported Government Policy, Lengthy Bidding Evaluation, Construction Costs and Investment, Bank Loan Period, Financing Risk and Costs, Value of Interest During Construction, Defining Taxes Policy, Tariff or Fee Approved by Government, Operational Cost Overrun and Additional Working Capital Loan	Respondent 5, 11 & 12	(Abednego & Ogunlana, 2006), (Darrin Grimsey, 2005) (C. Chan et al., 2009; Darrin Grimsey & Lewis, 2005; Yescombe, 2007), (Albert P.C. Chan et al., 2010)
Consultants	Demand Volume, Construction Costs and Investment, Land Acquisition Process, Amount of Bank Loan, Tariff or Fee Approved by Government, Supported Government Policy, Demand Growth, Tariff or Fee Growth, Lengthy Delay Due of Political Involvement, Financing Risk and Costs, Marketing and Competition Study, Quality of Feasibility Study, FS Due	Respondent 4, 6, 7, 9, 10 & 11	(Abednego & Ogunlana, 2006), (Yescombe, 2007)

Stakeholders	Quantitative Survey	Qualitative Interview	Related Literatures
	Diligence, Bank Loan Period and Insurance or Risk Transfer Expenses		
Donor Agencies	Supported Government Policy, Construction Costs and Investment, Tariff or Fee Approved by Government, Land Acquisition Process, Tariff or Fee Growth, Lengthy Delay Due of Political Involvement, Operational Cost Overrun, Cost Overrun During Construction, Insurance or Risk Transfer Expenses, Lengthy Bidding Preparation, Defining Inflation Assumption, Defining Interest Rate in Monetary Policy, Organization Human Resources During Construction, Marketing and Competition Study and Regular Operation Costs	Respondent 1, 2 & 4	(Abednego & Ogunlana, 2006)

Figure 8-6 is the stakeholder framework that has incorporated the critical parameters that resulted from the quantitative data analysis. The new information that can be highlighted here is the insurance risk or transfer cost is now included in the top 15 critical parameters. The research has found that the risk transfer institution also plays an important role in PPP infrastructure project development. Therefore, risk transfer institutions are now included in the key stakeholders in PPP infrastructure delivery. The selected parameters that resulted from quantitative analysis are presented in yellow boxes in the following figure.

Parameters Indicators resulted from Quantitative Analysis

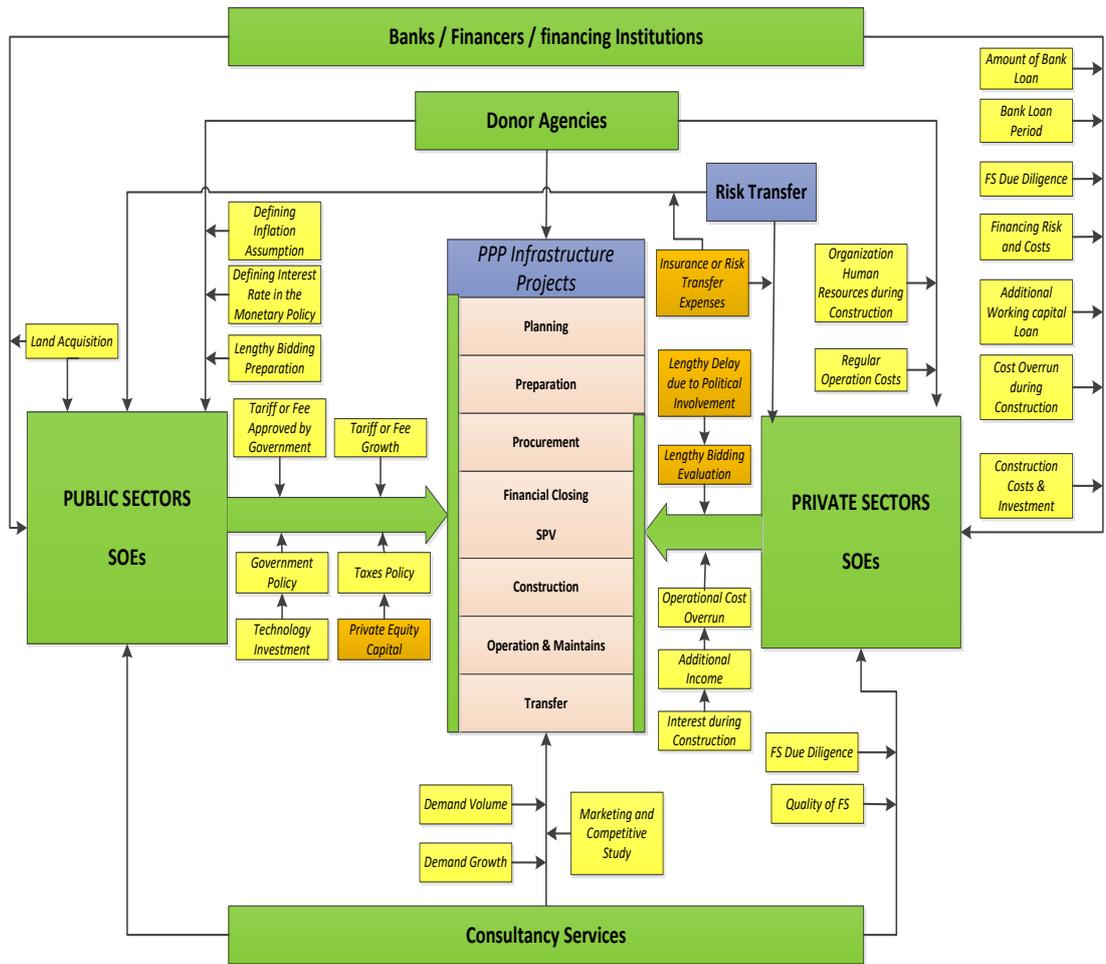


Figure 8-6: PPP stakeholder framework developed from quantitative analysis

Figure 8-6 presents the final stakeholder framework that resulted and forms one of the main contributions of this research. It considered the critical parameters from quantitative and qualitative analysis. The risk transfer institutions could be an institution representing government risk guarantee such as the Indonesia Infrastructure Guarantee Fund (IIGF) that has been established in Indonesia, or a private insurance company, which has been a practice in developed countries that have been involved in the consortia of the SPV in executing infrastructure projects.

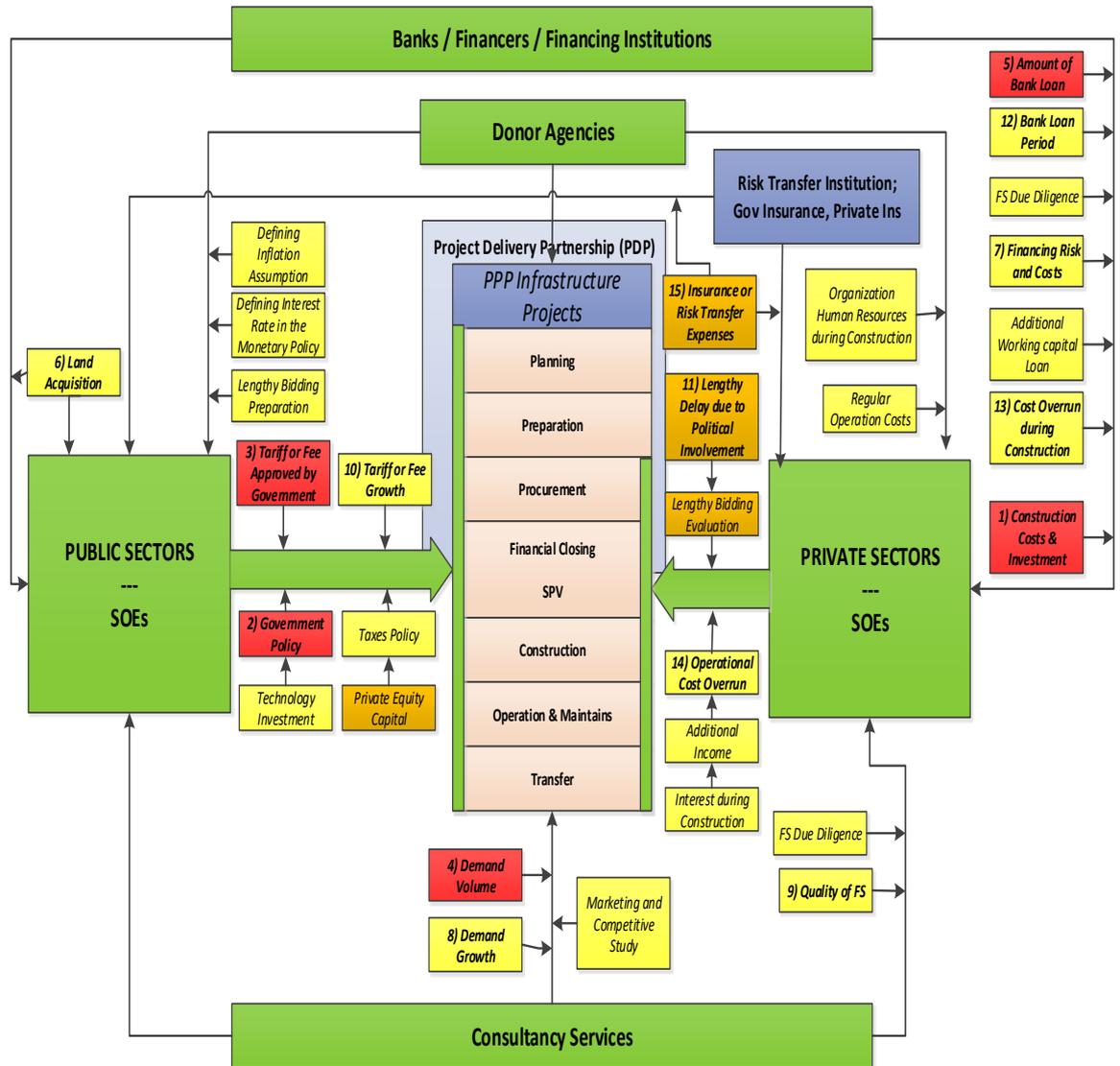


Figure 8-7: PPP stakeholder framework developed from quantitative, qualitative analysis

The results from the validation survey (explained in sub-chapter 9.3) gave an average score for the PPP stakeholders framework of 3.88, which is near to a score of 4, helpful.

Based on the results of the validation survey, PPP stakeholder framework has been found to be applicable and no significant change is necessary. If change were to be undertaken, then it would be only to simplify the framework further. Figure 8-8 is the PPP stakeholder framework developed from quantitative, qualitative analysis and validation survey

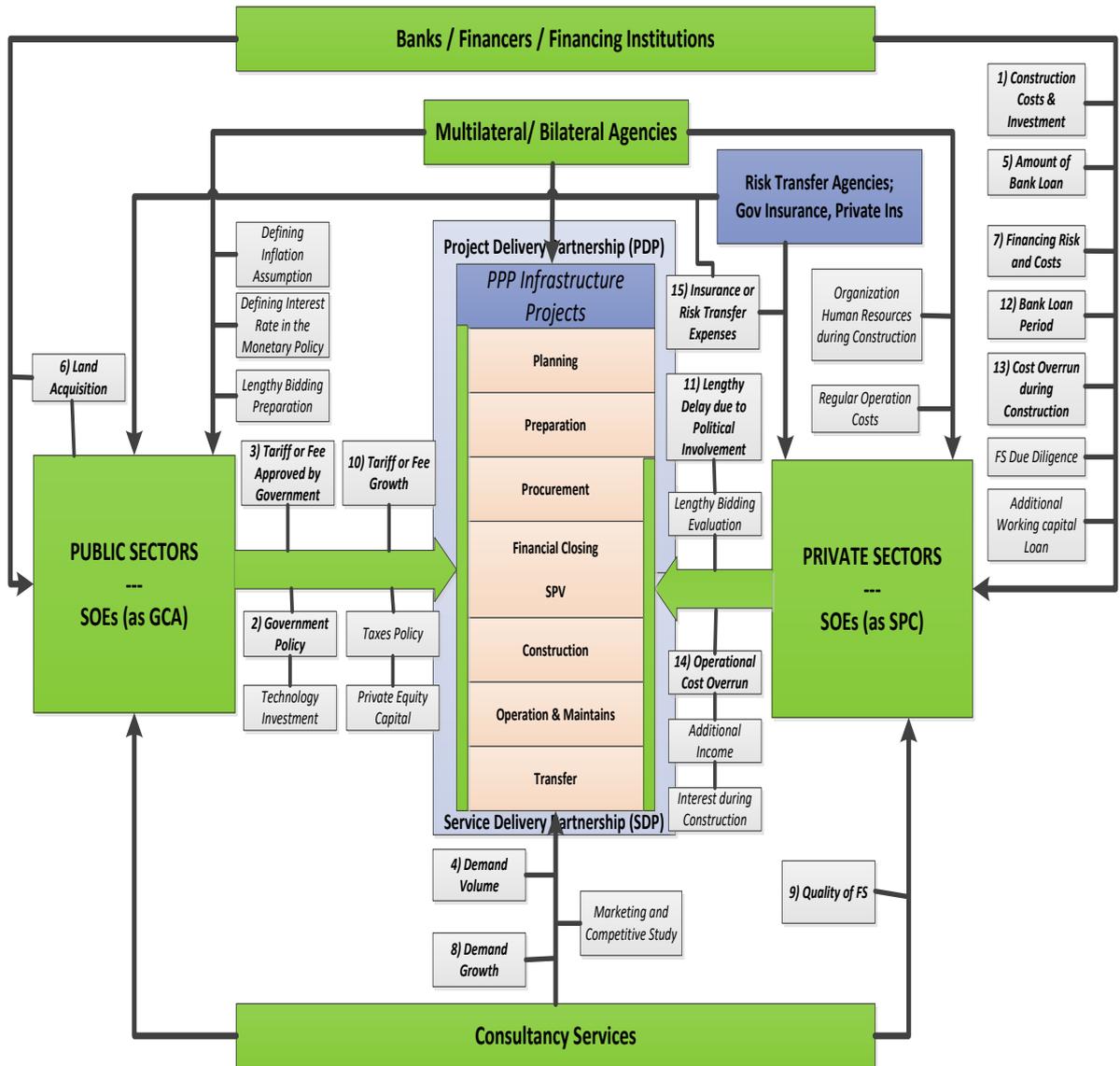


Figure 8-8: PPP stakeholder framework developed from quantitative, qualitative analysis and validation survey

8.5. Framework of Modality and Leverage Viability Infrastructure Project

Private ownership of infrastructures is not a new phenomenon; before the second world war many infrastructures in Europe were financed and built by private parties (Graham & Marvin, 2001). The private financing of infrastructure is, moreover, a common phenomenon with financial institutions frequently buying either general bonds that cover most public infrastructure financing or revenue bonds issued to finance specific infrastructures (Hackworth, 2002; Slack, 2005; Torrance, 2008). The

global finance markets consist of capitals. Not only is there an abundance of money, traditional equity allocations have been downsized due to the reminder that stock markets are turbulent and unpredictable that arrived at the end of the 1990s. Alternative investments are growing. As a result, international investors are looking for new financial products, increasingly owning more and more of the urban infrastructure landscape. The modern city ideal has been developing a way for locally bundled networks with private parties interested in selective and profitable infrastructure projects (Christopherson, 1992; Clark, 2000).

PPP infrastructure projects can be considered viable only if a reliable, long-term revenue stream can be established (Darrin Grimsey & Lewis, 2002). Typically, the providers of finance look to the cash flow of the projects for repayments. The key principle for large PPP projects is to achieve a financial structure with as little resources as possible from the sponsors whilst at the same time providing sufficient credit support so that the lenders can be satisfied with the credit risks.

To simplify the type of infrastructure based on viability of the infrastructure project, infrastructure projects could be defined in summary as follow:

- 1) Infrastructure projects which are profit-oriented; the infrastructure which estimated have high level of return, the infrastructure project that economically and financially viable, also bankable.
- 2) Infrastructure projects which are directed towards for-profit:
 - a. The infrastructure projects may have economically viable but financially less viable.
 - b. The infrastructure may have viability levels quite low/semi-cost recovery (thus, will not be able to attract private investors without government support).
 - c. Equity/initial capital from government is required to increase the viability level of these providers of the infrastructure projects.
 - d. Government funding may be in the form of public share or sunk cost and may be acquired through public finance mechanism, and private funding through corporate finance mechanism.
 - e. The infrastructure for political reason.

- 3) Infrastructure projects which are not-for-profit:
 - a. Basic infrastructure and social infrastructure through mechanisms of project finance which are PFI (availability-based).
 - b. Infrastructure that economy viable but really not financial viable, but the government need the infrastructure to be built for public services, the investment come from private parties, then the return of investment being secured by the government through annual payment methods.
 - c. This option is more suitable for providers of the infrastructure projects which are basic in nature, and therefore non-profit or not-for profit or even charity.
 - d. The central or local government may utilize multi-year budgeting to provide periodic repayment to the private sector investment.
 - e. The infrastructure for political reason.

The common modality framework in PPP infrastructure project development is shown in Figure 8-9. The private stakeholder(s) typically establishes a consortium of shareholders. The PPP infrastructure project is prepared by the government with any form of government support available. The government and private consortium sign the agreement to execute the PPP infrastructure project and establish an SPV.

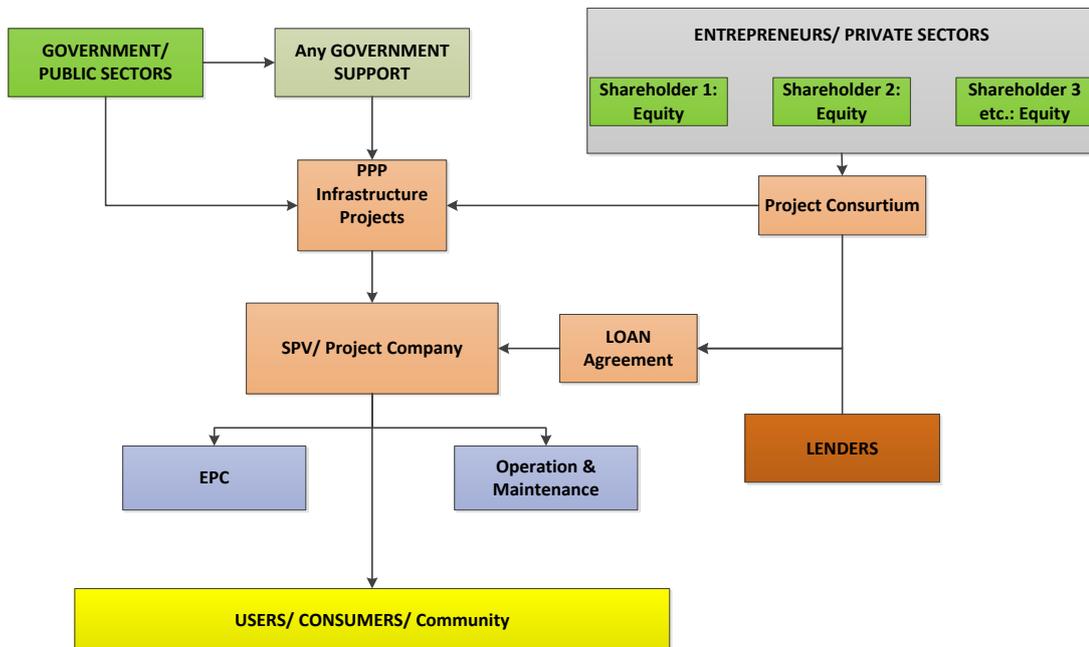


Figure 8-9: The existing modality framework in PPP infrastructure project development

The SPV is typically financed by lenders to build the infrastructure and the SPV will conduct the EPC for the construction and continue to operate and maintain in the concession period. The income will be generated from users or community charges or annual payment from government.

The quantitative and interview data analysis supported by the literature review have helped development of a better understanding regarding potential methods of optimising government contribution to leverage the level of viability of PPP infrastructure projects. Table 8-3 presents the potential leveraging methods that emerged from the mixed methods analysis in the PPP modality framework

Table 8-3: Summary of mixed analysis of government contribution to leverage input to PPP modality frameworks

Leveraging Methods	Qualitative Interview	Related Literatures
Public asset contribution	Respondent 1, 2, 3, 9, 10 & 12	(Posner et al., 2009)
Fiscal support	Respondent 1, 2, 9, 10 & 11	(H. K. Yong, 2010), (Delmon, 2010), EPAC (1995) and Merna and Njiru (2002) in Chan (2009), (C. Chan et al., 2009), (Posner et al., 2009), (Posner et al., 2009)
Government policy	Respondent 6, 9, 10 & 11	(C. Chan et al., 2009), (Michael Regan et al., 2011b)
Appointed state owned companies	Respondent 5, 7 & 11	(C. Chan et al., 2009)
Bundling projects	Respondent 1, 2, 4, & 5	(Lefaver 1997), (Chisholm, 2002), (Cervero et al. 1991)
SWAP Trading	Respondent 1, 2, 4 & 5	(Public Infrastructure Financing, na), (DELTA, 2008)
Monetized natural resources	Respondent 1, 3, 5 & 8	(C. Chan et al., 2009; Michael Regan, 2008c), (Public Infrastructure Financing, na)
Hybrid scheme	Respondent 1 & 8	(G20, 2013), (DELTA, 2008), (Public Infrastructure Financing, na)

Government contribution is an essential method in leveraging infrastructure projects. In Indonesia, various PPP projects have implemented several of the identified government contributions.

There are four types of government contribution have been implemented in Indonesia, namely:

- ✓ The public asset contribution.

- ✓ Fiscal support including government capital, VGF, subsidy and government loan.
- ✓ Government policy including permits, government guarantee and taxes inceptives.
- ✓ Appointed state owned companies.

The findings from this thesis have added more methods of government contribution to leverage the modality of infrastructure projects. The additional government contributions that have been identified in this thesis are:

- ✓ Bundling projects
- ✓ SWAP Trading
- ✓ Monetize natural resources and sovereign guarantee
- ✓ Hybrid scheme combine with municipal bonds and infrastructure bonds

The contribution of this thesis to improve the existing PPP modality frameworks is by integrating the government contribution and the PPP financing mechanism in the final PPP modality framework that is shown in Figure 8-10. The government contribution methods have been explained in sub-chapter 7.3.3, and the detail of understanding the PPP financing mechanism has been explained in Chapter 2. The option of PPP financing schemes for the SPV are project finance, the PFI, the forfeiting model, the CGF and SDM, infrastructure bonds and IPO. The source of funds for the project consortium and lender itself are from capital markets and superfunds.

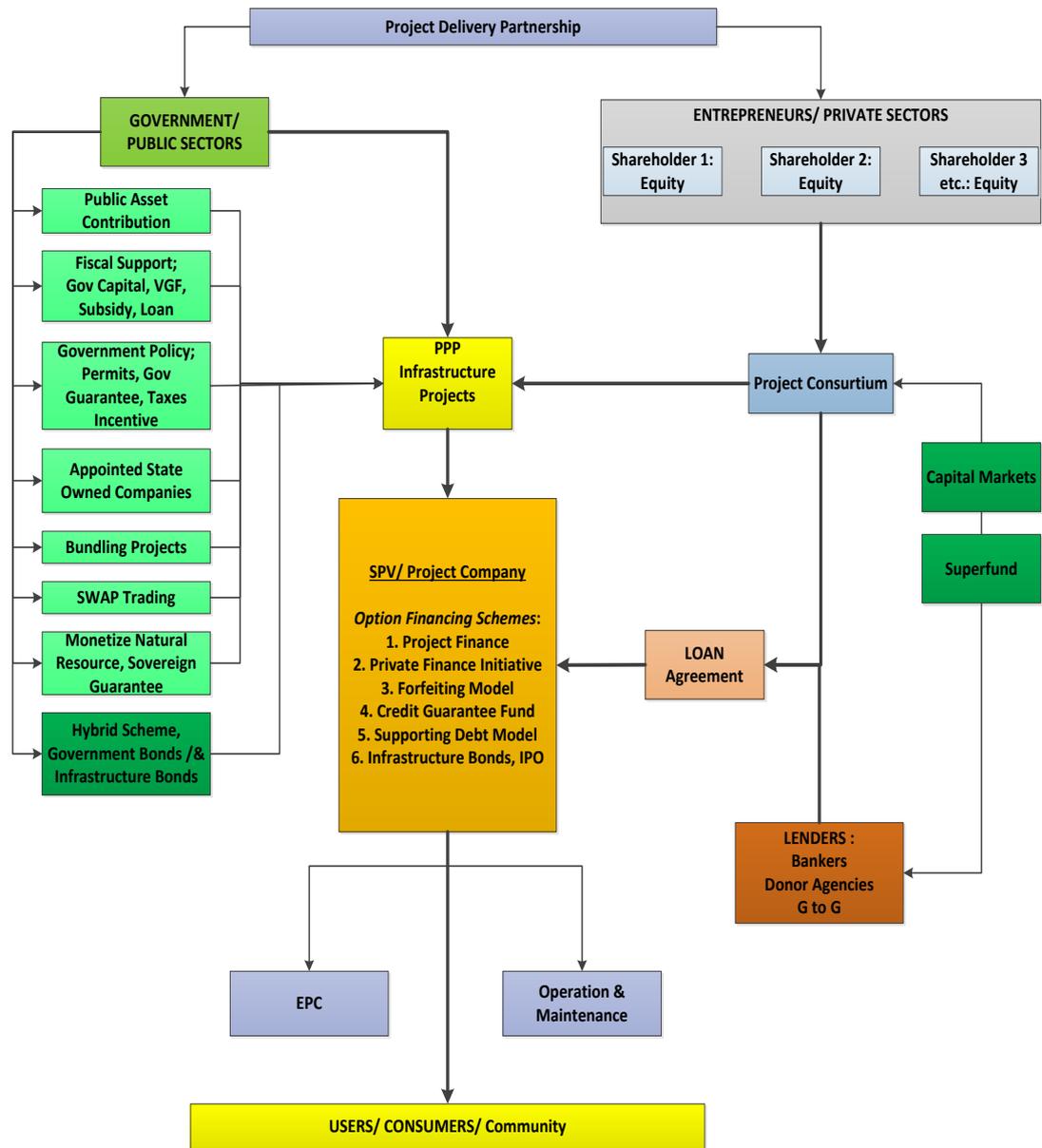


Figure 8-10: The modality framework generated from this research for PPP infrastructure project development

Modality framework in Figure 8-10 has been validated to PPP practitioners through validation survey. The responses from the validation survey were mostly positive. The average score for the PPP modality framework is 4.25, i.e. higher than score 4, helpful. It is simple additional information on the superfund with insurance and retirement fund, and the donor agencies become multilateral and bilateral agencies. Figure 8-11 is the modality framework generated from this research for PPP infrastructure project development and validation survey.

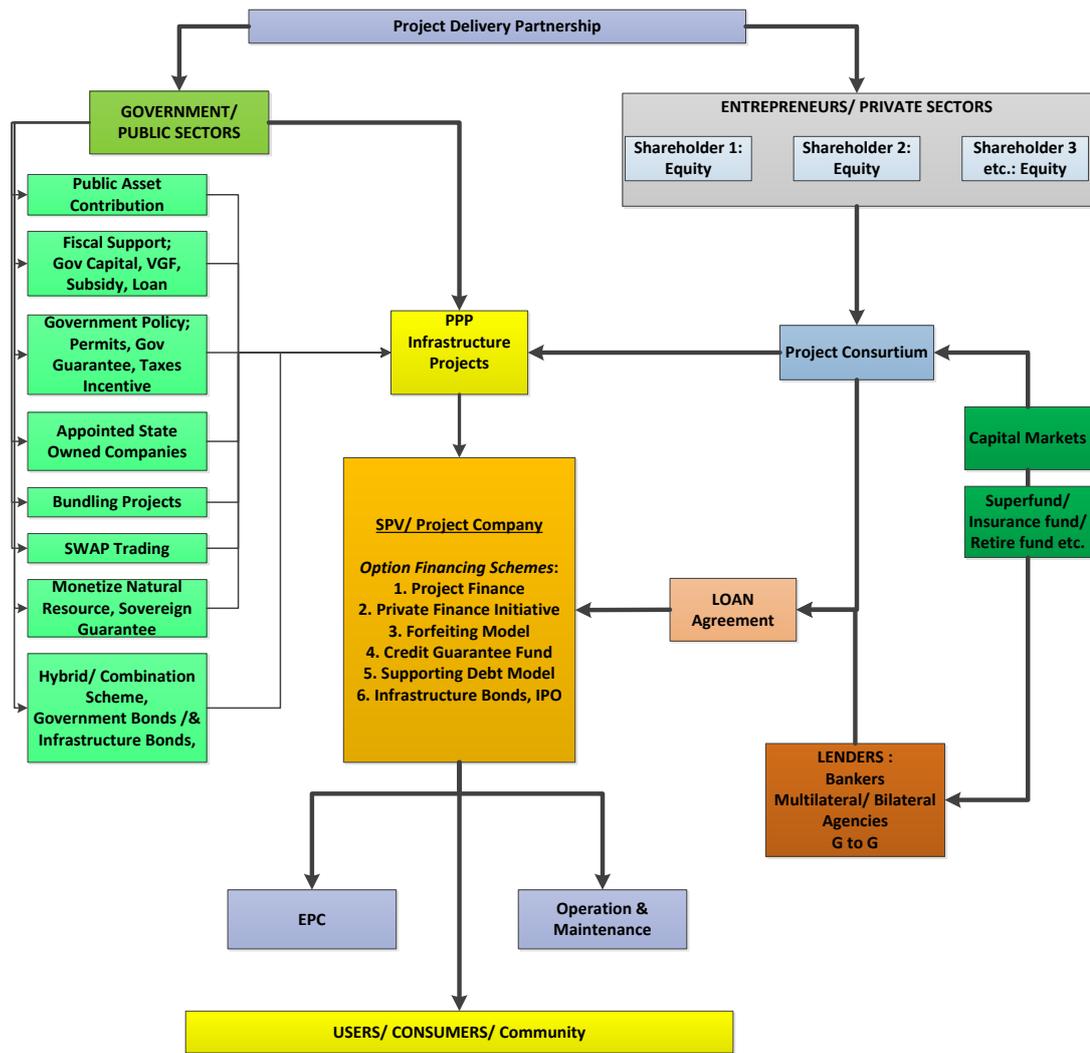


Figure 8-11: The modality framework generated from this research for PPP infrastructure project development and validation survey

8.6. Summary

The frameworks developed in this research are aimed at improving understanding and implementation of the complex processes involved in developing PPP infrastructure projects. Regarding the major financing task of meeting upfront investment costs in a timely manner, the central efficiency issue is selecting the best financing vehicle to manage project risks. The frameworks developed in this study include frameworks of the PPP project life cycle in Indonesia, as well as stakeholders and modality of the PPP infrastructure projects in Indonesia and incorporate the critical parameters.

The framework depicting the typical life cycle of infrastructure projects in Indonesia have integrated PSC in the life cycle of developing the projects. The framework for infrastructure in Indonesia developed here have considered the long-term whole life cycle of PPP projects from the planning up to ending the concession, costs and benefits when assessing infrastructure solutions, and priorities. Also considered are existing resource allocation, localization or optimising resources, including labour and materials in the construction stage, which could optimize the investment costs and drive regional economy.

The framework of stakeholders related to PPP infrastructure delivery has considered optimising the role of the public, private sectors, financiers, consultants, transfer risk institutions and donor agencies. The frameworks for PPP infrastructure in Indonesia have focussed on optimising the role of the public and private sectors and other related stakeholders in future infrastructure development and management, including the part each sector can play in any stages within planning, preparation, procurement, financial closing, financing construction, operation and maintenance.

The framework of modality of PPP infrastructure delivery in Indonesia has considered a wide range of potential solutions, looking beyond new capital projects to assess other areas requiring change such as bundling projects and monetised natural resources.

CHAPTER 9

EVALUATION AND VALIDATION

9.1. Introduction

The data collection methods of this research commenced with a questionnaire survey and then followed by interviews as a mixed methods triangulation. The interviews were conducted both to verify and better understand the quantitative analysis. The evaluation and validation was the last step of this research and was utilised to check the findings and also gain more inputs from related stakeholders in the infrastructure industry. It was expected that the frameworks resulting from this study would be useful to the industry. The inputs from evaluation and validation were employed to improve the frameworks developed as the findings of this research.

This chapter explains the methods of evaluation and validation in detail. A focus group discussion (FGDs) was selected as the first method for evaluation and validation of the research. The input from the FGD has been accommodated in the framework improvements. The second validation was also conducted by distributing a validation survey to the experts selected from the infrastructure industry. The inputs from the relevant stakeholders have been analysed and used to finalise the evaluation and validation of the study.

9.2. Focus Group Discussion and the Inputs

The research finding has been presented in the half-day FGD during October 2015 at Arya Duta hotel, Jakarta. The FGD was conducted and led by the Director of Infrastructure and Regional Development under the Coordination of the Ministry of Economic Affairs of Indonesia in central government. In addition, several detailed one-on-one discussions were continued after the FGD.

The researcher presented the research aims and objectives, methodology, analysis and findings to the invitees. It was attended by 40 invitees from related stakeholders of the PPP infrastructure development (the list of attendee is shown in Appendix 7). The attendees were from government institutions, state owned companies, multilateral agency, universities and private sectors. Government invitees were from the BAPPENAS, Coordinating Ministry of Economy Affairs, Ministry of Public Works and Housing, *Otoritas Jasa Keuangan* (OJK: FSA: Financial Service Authority), Infrastructure Reform Sector Development Project (IRSDP), *Komite Percepatan Penyediaan Infrastruktur Prioritas* (KPPIP: Committee of Acceleration Priority Infrastructure Delivery), *Komite Percepatan dan Perluasan Pembangunan Ekonomi Indonesia* (KP3EI: Committee of Acceleration and Expansion Indonesian Economic Development) and several staff. The invitees representing SOEs came from SMI and IIGF. Invitees from universities were from University of Gadjah Mada (UGM) and Bandung Technology Institute (ITB) and also from Infrastructure Partnership Knowledge Centre (IPKC). The World Bank was represented by a multilateral agency. Private sector was represented by Tusk and Ernst & Young.

The FGD involved approximately three hours of discussion. From the beginning, the invitees were informed that the FGD is also part of the validation process for PhD research supporting the Public Private Partnership program in Indonesia. The aim of conducting the FGD was to get input from the stakeholders. The 40 invitees were active in the discussion and have given positive inputs to improve the findings.

The frameworks that had been developed received positive inputs for improvement and integration with government policy to support infrastructure delivery services in Indonesia.

The input from the stakeholders is summarized as follows:

- 1) The responses and explanations given by respondents in the demographic data in quantitative analysis from other countries were noted as being very interesting. The FGD attendees also gave more specific input to Indonesian groups of respondents. This input has been accommodated in Chapter 5 in Table 5-10, Table 5-13, Table 5-15, Table 5-17 and Table 5-19.

- 2) Regarding the stakeholder justification that was analysed in the quantitative analysis of the top 15 critical parameters, the quality of FS has sig <0.05 (and is presented in Table 5-29). That means that the quality of FS is really important to all five stakeholders; therefore, this finding should be further explored. This input has been accommodated in Chapter 5.
- 3) The title of the thesis (that previously was, “Evaluation of Investment Return for Infrastructure Projects with PPP Financing Mechanism”) should be changed to, “Developing a Framework for the Successful Provision of PPP Infrastructure Delivery for Indonesia”. This has been accommodated in the candidacy variation that has been agreed by School of Built Environment in August 2016.
- 4) Regarding the top 15 ranking of the critical parameters in the frameworks, the rank number needs to be written in the frameworks. These inputs have been accommodated in Chapter 8, in Figure 8-3 and Figure 8-7.
- 5) The recommendation of the research related to the framework of the Project Delivery Partnership (PDP) was promoted to be developed to amend the President Decree No. 38 year of 2015 related to PPP projects (Government of Indonesia, 2015c). The PDP is the current method that has been evolved from the PPP scheme to accelerate private partners the PPP infrastructure project development, through developing a specific agreement to appoint a SOE or private company to deliver infrastructure projects. This PDP framework has been requested by the Deputy of Infrastructure from the Coordinating Ministry of Economy Affairs: the recommendation needs to be made more widely known in order to be followed up as a government program in 2016. This input has been accommodated in Chapter 10 as the second recommendation of this research.

9.3. Validation through PPP Experts

The second validation was by distributing survey forms to PPP experts from the infrastructure industry to gain their opinions on the improvements to the three frameworks that have been carried out in Chapter 8, based on the inputs from the FGD explained in sub-chapter 9.2. The experts that involved in this second

validations were different with the experts that had been interviewed in qualitative data collection.

The aim of the validation survey is to gain the opinion from the industry related to the outputs of this research. The objective of this validation was to define how these frameworks can relate to the actual PPP practices in the infrastructure industry. The three frameworks were expected to assist stakeholders in determining and assessing the levels of risk in the key parameters relevant to the investment decisions they have to make for infrastructure projects with PPP financing.

The first question in every framework asked to what extent the framework could help/assist the PPP practitioners in making decisions. The first responses (using the Likert scale) were as follows:

Not Helpful 1 2 3 4 5 Very Helpful

The scale is from 1 to 5, 1 is not helpful, 2 a little helpful, 3 is moderate, 4 is helpful and 5 is very helpful. This is followed by an explanation of their responses. The validation survey responses are provided in Appendix 8.

Figure 8-3 is the PPP infrastructure life cycle project framework that was developed from quantitative and qualitative analysis also from FGD inputs. The selected critical parameters are presented in the frameworks. Some important notes include:

- The parameters are grouped into the policy and micro- & macro-economic revenue streams, the potential costs, the project financing mechanism, and the project management. The parameters in red boxes are the top five critical parameters and the yellow boxes are parameters from the quantitative analysis and the light blue colour boxes are the parameters added from the interview analysis.
- Specific to the land acquisition that occurred in the quantitative analysis, it was considered as government policy and included in the macro and micro parameters. The result from the interviews with the experts revealed that land acquisition and resettlement (LARAP) should be treated in the financial mechanism framework in order to better define and estimate the value and time of land acquisition, since availability of land is the most important initial foundation for the continuity of the infrastructure projects.

- The Project Delivery Partnership and Service Delivery Partnership were new ideas as options to accelerate the infrastructure delivery by developing cooperation between government and a consortium private entity in the early stage of the lifecycle in PPP infrastructure projects.

Figure 8-7 is the stakeholder framework that has incorporated the critical parameters resulting from the quantitative, qualitative data analysis and FGD inputs. The new information that can be highlighted here is that the research has found that the Risk Transfer Institution also plays an important role in PPP infrastructure project development. Therefore, 'risk transfer institution' is now incorporated in the key stakeholders in the PPP infrastructure delivery. The key parameters that resulted from quantitative analysis are presented in yellow and red boxes in Figure 8-7 have been related to the each stakeholder's perceptions.

Figure 8-10 is the modality framework generated from this research for PPP infrastructure project development government and FGD inputs, its contribution is an essential method in leveraging the infrastructure projects through various government contributions. In Indonesia, various PPP projects have implemented several of the identified government contributions.

As previously explained, there are four types of government contribution that have been implemented in Indonesia, namely:

- i) Public asset contribution.
- ii) Fiscal support, including government capital, Viability Gap Fund (VGF), Availability Payment Scheme (APS), subsidy and government loan.
- iii) Government policy, including permits, government guarantee and taxes incentives.
- iv) Appointed state owned companies.

The findings from this research have added more methods of government contribution to leverage the modality of infrastructure projects. The additional government contributions that have been identified in this thesis are:

- i) Bundling projects.
- ii) SWAP Trading.
- iii) Monetising natural resources and sovereign guarantee.

- iv) Hybrid schemes combining those government contributions and municipal bonds and infrastructure bonds.

The contribution of this thesis towards improving the existing PPP modality frameworks is through integrating the government contribution and the PPP financing mechanism in the final PPP modality framework that is shown in Figure 8-10.

The three frameworks, Figure 8-3 as Framework 1, Figure 8-7 as Framework 2 and Figure 8-10 as Framework 3, have been validated with PPP professionals to gain more input to relate them to the real infrastructure industry. The second validation survey had 16 respondents. The summary of the results of the responses is shown in Table 9-1 below.

Table 9-1: Summary of the result of the validation survey

No.	Respondents	Position	Duration Experience (years)	Score Framework 1	Score Framework 2	Score Framework 3
1	Validation 1	Practice Leader – Maritime – Asia Pacific and Australasia	17	3	3	4
2	Validation 2	Group Leader of Infrastructure Advisory	18	1	1	3
3	Validation 3	Postgraduate Head, Civil Engineering	20	3	3	4
4	Validation 4	COO for Port Company	20	5	5	4
5	Validation 5	Senior Health Specialist	17	5	5	5
6	Validation 6	VP Development	20	3	4	4
7	Validation 7	Board of Commissioner and Chair of the Risk Assessment Supervisory Committee	20	4	4	5
8	Validation 8	Project Director for Energy Sector	35	4	4	5
9	Validation 9	Director	15	5	5	5
10	Validation 10	Senior Infrastructure	11	2	2	3

No.	Respondents	Position	Duration Experience (years)	Score Framework 1	Score Framework 2	Score Framework 3
		Policy Adviser				
11	Validation 11	Managing Director	25	5	4	4
12	Validation 12	Director	35	4	4	4
13	Validation 13	CEO	35	4	5	4
14	Validation 14	President Director	35	5	5	5
15	Validation 15	Independent Consultant	18	5	5	5
16	Validation 16	Director	25	4	3	4
				3.88	3.88	4.25

The responses from the validation survey were mostly positive. The average score of each response was near to score 4, which is ‘helpful’. The average score for Framework 1 is 3.88, which is near to score 4, ‘helpful’. The average score for Framework 2 is again 3.88, which is near to the score 4, ‘helpful’. The average score for Framework 3 is 4.25, i.e. higher than score 4, again ‘helpful’.

Only two respondents gave a low score. From their responses it would seem that they did not read the previous publication related to the literature study of this research, which can be downloaded online. They did not really understand the significant parameters that had been tested. They considered the framework complicated, while the frameworks have been developed to systematically simplify the very complex procedures in PPP infrastructure delivery.

Table 9-2: Summary of the result of the validation survey per stakeholder

			Duration Experience (years)	Score Framework 1	Score Framework 2	Score Framework 3
Consultant						
Validation 1	Practice Leader – Maritime – Asia Pacific and Australasia	Consultant	17	3	3	4
Validation 2	Group Leader of Infrastructure Advisory	Consultant	18	1	1	3
Validation 3	Postgraduate Head, Civil Engineering	Consultant	20	3	3	4

			Duration Experience (years)	Score Framework 1	Score Framework 2	Score Framework 3
Validation 9	Director	Consultant	15	5	5	5
Validation 10	Senior Infrastructure Policy Adviser	Consultant	11	2	2	3
Validation 11	Managing Director	Consultant	25	5	4	4
Validation 12	Director	Consultant	35	4	4	4
Validation 15	Independent Consultant	Consultant	18	5	5	5
				3.50	3.38	4.00
Private Sector						
Validation 4	COO	Private Sector	20	5	5	4
Validation 6	VP Development	Private Sector	20	3	4	4
Validation 13	CEO	Private Sector	35	4	5	4
Validation 14	President Director	Private Sector	35	5	5	5
				4.25	4.75	4.25
Donor Agency						
Validation 5	Senior Health Specialist	Donor Agency	17	5	5	5
SOE						
Validation 7	Board of Commissioner and Chair of the Risk Assessment Supervisory Committee	SOE (Operator Railway)	20	4	4	5
Government						
Validation 8	Project Director for Energy Sector	Government	35	4	4	5
Financier						
Validation 16	Director	Financier (SOE)	25	4	3	4

The government, donor agencies, SOE, and private sector have given very positive responses to all three frameworks. All of the score are more than 4, so the frameworks have really been rated as helpful for them to make decisions. The financiers also gave a relatively good response to these frameworks that have helped them to bring some guidance to the significant parameters.

Based on the result of the validation survey, the three frameworks have been found to be applicable and no significant change is necessary. If change were to be undertaken, then it would be only to simplify them further.

9.3.1. Input for Framework 1: PPP Infrastructure Developing Life Cycle Project Framework

Of note, the respondent, Validation 2, who gave a score of 1, gave input about the creditability of Government Contracting Agency (GCA) as missing. However, the credibility of GCA is not relevant as it is part of the public entity that is considered in Framework 2.

On the demand side in the operation and maintenance stage, there was input on the issue of affordability both from the public and private side, also on the user ability to pay (Validation 3).

The respondent, Validation 4, gives a score of 5 for Framework 1 on the lifecycle framework. This process clarifies the expectations of any participant in the infrastructure process. Currently, within Indonesia there is a great deal of speculation and uncertainty with regards the form and flow of infrastructure development, with a great number of government and associated interested parties involved in the project process – from conceptual development to operation. These include various regulatory interest groups at all levels. The notion that there can be a process at all is a new concept for Indonesia that will progress the infrastructure pathway towards greater transparency and diligence. These factors in the framework are very important in invoking confidence within the private sector to permit investment from new markets. Much of the current process is challenged by uncertainty within the infrastructure development pathway, and the confidence held in the level of accuracy and impartiality in the due diligence of studies underpinning the viability of the infrastructure project (Validation 4). The respondent, Validation 5, also gave a score of 5, and good input. The project framework was seen as ‘very helpful’. It helped to understand the project lifestyle and made it easier to understand as it used a graphical representation. The only comment was that as the political,

legal and economic situation changes in the country, the framework would need to be revised accordingly to reflect these changes (Validation 5).

The respondent, Validation 8, gave a score of 4, somewhat helpful. There are several other major issues in delays for infrastructure projects in Indonesia. These are:

- i. Spatial planning conformity between the infrastructure plan and the existing approved spatial planning. It is commonly found that the spatial planning has not taken into consideration the new infrastructure plan, while the spatial planning plan can only be revised every five years. Revision of spatial planning can be considered as a crime if not done properly.
- ii. Infrastructure projects are mostly hampered by conservation of forests or restricted forest areas. Dealing with these restrictions can mean a major setback in Indonesian infrastructure projects.
- iii. Currently there is a new law that provides a government budget for land acquisition for public infrastructure projects (Law No: 2 2012) (Government of Indonesia, 2012h); however, the steps for implementing this law requires multi-party involvement and sequential implementation that also takes a longer time. Various bottlenecks/issues can happen, particularly the landowner transfer in the acquisition settlement at land certification agencies (Validation 8).

The respondent, Validation 9, also gave a score of 5; it is 'very helpful' since it provides a comprehensive overview of the PPP process. One area of improvement is the inclusion of stakeholders within each stage of the lifecycle to make the overall process more clear (Validation 9). The same with respondent, Validation 11: the Lifecycle Project Framework was helpful since it identified the many bottlenecks involved in the delivery of PPP projects. The framework clearly showed the importance of PDP, since getting the initial stages right is crucial in ensuring successful projects delivery (Validation 11).

To some extent the framework has shown some aspects that influence the PPP process, but somehow there is a mixed understanding as regards project management and the financial mechanism. This should be detailed in which factors both influence each other (Validation 16).

The improvement of simplifying the framework has been accommodated in Figure 8-4 (Chapter 8). The simplification involves not using different colours for the boxes of selected parameters, deleting the arrow lines for the parameters and a re-ordering of the 15 most significant parameters.

9.3.2. Input for Framework 2: PPP Stakeholder Framework

Most of the respondents in the validation survey shared the opinion that the PPP stakeholder framework that had been presented was ‘very helpful’ framework since it captures almost all elements that contribute to the success of PPP delivery and helps in the understanding of the process (Validation 16, Validation 5, Validation 9). Also, the framework clearly identifies the various parties to the process and permits an understanding of the pathways and elements that must be engaged in the entire process and to simplify the diagram (Validation 4, Validation 9).

However it does not really capture the interests of the ultimate stakeholders, which are the end user customers and political leaders, and they are the main stakeholders that heavily influence the process and determine the successful PPP projects (Validation 16)

There is also a question about the position of the SOE's on both sides of the framework, from the public and private sectors (Validation 6, Validation 2, Validation 3). In Indonesia, the acceleration of infrastructure delivery is mostly appointed to the SOEs. In this stage the SOE will play roles in both sectors, SOEs could represent the government as the Government Contracting Agency (GCA) and invite private partners to deliver the infrastructure, and/or SOEs could directly deliver the infrastructure project as a government partner similar as private partners without inviting private sectors in the consortium.

Risk assessment and mitigation strategies are relatively new for developing countries’ policy makers and GCAs. Risk allocation and risk transfer under PPP projects should be carefully managed by risk institutions. Some risks are best managed by a government-established risk agency, while some others could be

managed using a risk institution established by the private sector. Their nature and capabilities are different. It was suggested to alter the framework to clearly distinguish the role of the two risk mitigation institutions, so the reader could appreciate the different capabilities of both institutions (Validation 7, Validation 2, Validation 3, Validation 14). There were also additional suggestions to differentiate between risk and key elements: for example, a lengthy delay because of political involvement can be grouped under the risk category, whereas government policy can be grouped under key elements (Validation 9).

Respondent Validation 8 gave the framework a ranking of 4. One of the most important factors for infrastructure financing is to attain low interest rates and long tenor financing. This financing type mostly requires government guarantee. Currently Indonesia has initiated an institution such as IIGF with limited liability. However they are still in the very early stage, and government insurance schemes like these need to be expanded (Validation 8).

In the stakeholder framework the role of the donor is not readily obvious. In some countries where donor agencies do not operate or in projects where donor agencies do not get involved such as coal fired IPPs, the role of donor become much less crucial to delivery of PPPs. Thus, perhaps a greater clarity of the role and scope of the donor will help the stakeholder framework (Validation 11).

The respondent Validation 2 is the only respondent who gave a score of 1. His suggestion cannot be accepted because it would mean the involvement of too many other parties, such as subcontractors, service beneficiaries, politicians, and SOEs as potential competitors (Validation 2), that it would make the framework more complex, while other respondents in the validation survey prefer to have a more simple the framework (Validation 9, Validation 7, Validation 3).

The improvement of simplifying the framework has been accommodated in Figure 8-8 (Chapter 8). Similar to Framework 1, the simplification includes not using different colours for the boxes of selected parameters, no arrow lines on the parameters and re-ordering of the 15 most significant parameters. There is additional information about the roles of SOEs, SOEs as public sector when the SOEs become

GCA, and SOEs as private sector when SOEs become member of a consortium in SPC. The donor agencies change as multilateral/bilateral agencies and risk transfer institutions would be more appropriate as risk transfer agencies.

9.3.3. Input for Framework 3: The Modality for PPP Infrastructure Project Development Framework

The responses from the validation survey relating to the modality framework were mostly positive. Respondent Validation 5 said the modality framework was really helpful (score 5). Points made included: the graph clearly indicates financing schemes, but more details could be added to explain the functions of the superfund (Validation 5); this more simplistically shows the interplay of the different parties (Validation 1); and that the framework is more systematic and places the project in the centre, which is the key success factor (Validation 6).

Based on the respondent, Validation 4, who gave a score of 4, this was very helpful to explain issues of funding, financing and modalities. However, forecasting and risk aspects were yet to be commented upon to complete the loop. Also as risk was always present and appears as a cost too, risk sharing and mitigation for each modality should be reflected in this framework, or risk treatment deserved one extra figure to be elaborated for each modality, i.e. risk sharing and Management Framework for PPP (Validation3).

The proposed new modalities will be useful to expand the policy options for the government. Respondent Validation 7 said it was interesting to open the door for creatively leveraging the involvement of the private sector. Recently, for Sumatra Toll projects, the Ministry of Public Works introduced a bundling mechanism whereby bidders for Java toll-road segments, given the fixed concession and tariff, had to indicate the additional length of road of the Sumatra toll-roads which had less IRR than Java. The private sector investors received this bundling policy relatively well (Validation 7). Other methods are worth investigating and promoting if the government could provide sensible incentives for private sector investors (Validation 7).

Respondent Validation 8 gave a score of 5 and also said that it was very useful to be able to visualise the framework. He also stated that the SWAP trading and bundling of projects are very innovative and they would be new ideas for Indonesian infrastructure development. It was also stated that the framework was very helpful since it provided broader options for government support in infrastructure financing (Validation 9).

Respondent Validation 10 also said that it is useful to see the different modalities set out, but that it would be more useful to see the situations under which they are appropriate, and not appropriate. For example, in the Indonesian context, the SOE has been appointed to deliver infrastructure on PPP scheme; however, in many cases these projects are loss making, so they are being used more as a substitute for national budgeting rather than as a true risk transfer away from the public sector (Validation 10).

The modality framework was found to be succinct and it expounds on the additional credit enhancement roles that the government can play in increasing the bankability of PPP projects. It may be useful to also explore new “funding” schemes that are popular in PPPs involving urban transport projects such as value capture strategies. The financing schemes are about raising immediate money to build the asset while funding schemes are about governments raising additional tax revenue via betterment tax, land and build value capture post-delivery of the infrastructure projects. These government funding strategies can increase the viability of such urban projects to show that over time the government will be able to “fund” such projects from increased value to the corridor, or region (Validation 11).

Respondent Validation 12 also said that the framework is a helpful in providing a high-level overview. However, it would need to be combined with methodologies for identifying what support is needed and therefore which PPP modality is most useful. In many cases, the support is needed in the shorter term before the corridor or location develops to provide a more robust revenue stream (Validation 12).

Input from respondent Validation 13 was to pay attention to the fact that the success of PPP projects are mostly led by Private Sector/Entrepreneurs and not by SOE, and

that this is the main weakness of PPP projects in Indonesia. SOE should focus on difficult projects and not high profit projects. Land acquisition has to be the concern of the state or government in order to ease and accelerate the process (Validation 13).

Respondent Validation 14 commented that the whole framework seemed a bit complicated; PFI is actually the "big picture" of the scheme; SWAP Trading should not be related to PPP projects; monetising was very important/critical; and that bundling was already being done in Indonesia (Validation 14). Respondent Validation 16 also said it was helpful, but that it was not clear enough as to what was meant by bundling, SWAP trading and monetising natural resources (Validation 16).

The improvement in simplifying the framework has been accommodated in Figure 8-11 (Chapter 8) the improvement is only on additional information the superfund that added with insurance fund, retirement fund etc. and donor agencies become multilateral/ bilateral agency.

9.4. Summary

The key issue in PPP financing mechanism for infrastructure projects is a result in efficiency gains that more than offset the higher rate of return required in private sector financing. The outcome of this research is expected to assist public authorities as the decision makers in a robust PPP framework to select the appropriate modality of PPP financing mechanism for infrastructure projects to secure the return of investment and to shorten procurement preparation.

The last stage of this research was carried out by conducting evaluation and validation, and the Focus Group Discussion (FGD) with the related institutions was the method that had been selected to have inputs from the stakeholders in the evaluation and validation stage. The FGD has been conducted and formally accommodated by the Coordinating Ministry of Economic Affairs at Arya Duta Hotel, Jakarta. The FGD was led by the Director of Infrastructure and Regional Development under Coordinating Ministry of Economic Affairs of Indonesia in central government. In general, the research findings have been accepted, and several

positive inputs from invitees have been accommodated to improve the research findings.

The second validation has also been conducted by distributing a validation survey to PPP practitioners in order to measure its relevance to infrastructure industry. The response from the validation survey is mostly positive. The average score of each response is near to score 4, indicating it is helpful. The average score for framework 1 is 3.88 (near to a score of 4, helpful). The average score for framework 2 is 3.88 (near to a score of 4, helpful). And the average score for framework 3 is 4.25 (higher than a score of 4, helpful). The government, donor agency, SOE, and private sector have given very positive responses to the three frameworks. All of the scores were more than 4, so the frameworks have been seen as really helpful for them to make decisions. The financier also gave a relatively good response to these frameworks, which have helped to give them some guidance around the significant parameters.

Base on the FGD, one of the recommendations of this research has been taken as an input to develop a President Regulation. The Project Delivery Partnership (PDP) framework will be continued to be studied in 2016 as an input to developing a President Regulation by the Directorate General of Infrastructure under the Coordinating Ministry of Economic Affairs. The PDP framework includes the Service Delivery Partnership (SDP) framework; these frameworks are expected to improve the current President Regulation appointing SOEs to build infrastructure.

CHAPTER 10

CONCLUSION AND FURTHER RESEARCH

10.1. Introduction

The role of infrastructure financing in developing PPP infrastructure projects has been thoroughly studied in this research. The study can help PPP project stakeholders to understand the process of PPP infrastructure delivery, the type of infrastructures, the role of stakeholders in the life cycle of PPP infrastructure projects, the modality and the method of leveraging the viability of the PPP infrastructure projects, the hierarchy of the PPP policy in Indonesia and the future potency of PPP policy. The research offers the PPP infrastructure project stakeholders more insights for their decision-making around involvement, and thereby a more efficient financing resources modality and management can be implemented. Application of the findings of the research can potentially lead to the reduction of overall costs of the project, shorten the PPP project developments, and can eventually result in greater value for money and lower the costs for the off-takes as the government may also share the gains leverage viability.

10.2. Conclusion

Research Objective 1: to identify and analyze the optimal infrastructure financing scheme based on analysis of best-practice PPP infrastructure financing.

Objective No. 1 has been explored in the literature review, which has been published. The title of the publication is ‘A Comparative Analysis of PPP Financing Mechanisms for Infrastructure Projects’. It was presenting in PPP International Conference 2013, and it is published in a book with the title ‘Body of Knowledge Public Private Partnership’ on page 209-218 with ISBN 978190192212. It was published by University of Central Lancashire, Preston, UK and it was edited by Prof. Akintola Akintoye, Dr. Champika Liyanage and Prof. Jack Goulding.

The research objective was to gain better understanding of the finance methods available in PPP infrastructure projects. This has been achieved by analyzing and comparing various PPP financing mechanisms. This contributes to the knowledge set for PPP project stakeholders. Different financing mechanisms can be used to improve the equity return for equity sponsors, risk mitigation, control key parameters, and to rescue distressed projects. Each strategy has its own merits and weakness, thereby a decision-making framework for undertaking the financing mechanism has been proposed for project stakeholders. As undertaking any financing mechanism is complicated and extremely time-consuming, caution must be taken when making a decision. It is important to define the problem or goal and assess its impact on the project. The project can tolerate the problem to be evaluated. The attitude and willingness of the Special Project Company/Special Purpose Vehicle (SPV) towards the problems also plays an important role in making the decision to undertake specific PPP financing strategies. Cost benefit analysis of each strategy with the comparison of competing strategies needs to be carried out. The mechanism undertaken must be able to solve the specific problem or achieve the specific goal efficiently at an acceptable cost. In addition, the strategy must also align with the expectation of the project company. For instance, whether to fully hedge a risk or to preserve the upside potential by speculation may result in different strategies.

Among those PPP financing strategies, the strategy to enhance project and equity value is a common financing technique used in PPP infrastructure projects. The nature of the strategy provides a good incentive from the government for the project SPV to implement it as the project SPV is profitability-driven. Furthermore, the nature of the PPP projects, which is a long-term life-cycle involving significant capital investment and requiring high leverage, can lead to substantial gain arising from undertaking such a PPP financing mechanism. Therefore, the need to understand more about the PPP financing mechanism of enhancing projects and equity value is emerging.

Research Objective 2: to determine from different stakeholders' perspectives the critical parameters in infrastructure financing affecting PPP finance performance.

Research Objective 2 intends to ascertain the key parameters affecting the PPP finance performance from different stakeholders' perspectives embedded in the PPP infrastructure projects has been achieved by structuring the flexibility as an option to refinance. The relative importance index (RII) was computed for each parameter to identify the most significant effect on financial performance. According to the study results, the shortlist of 15 key parameters that are considered significant in PPP financial performance are: (1) construction costs and investment, (2) supported government policy, (3) tariff or fee approved by government, (4) demand volume, (5) amount of bank loan, (6) land acquisition process, (7) financing risk and costs, (8) demand growth, (9) quality of FS, (10) tariff or fee growth, (11) lengthy delay due of political involvement, (12) bank loan period, (13) cost overrun during construction, (14) operation costs overrun and (15) Insurance/Risk Transfer Expenses. In general, there is no significant differences between the stakeholders in verifying the parameters for decision making in PPP infrastructure projects (the stakeholders are independent when identifying the parameters). The respondents involve government officials, the bankers, the entrepreneurs, the consultants and donor agencies which represent the major stakeholders in PPP infrastructure projects.

Research Objective 3, to develop a framework to support decision making to select the most appropriate form of finance method for a PPP project, has also been achieved.

As regards the first framework, the PPP lifecycle framework, the framework for infrastructure in Indonesia developed here has considered the long-term whole life cycle of PPP projects from the planning up to ending the concession.

The second framework, the PPP stakeholder framework, has considered how to optimize the role of the public, private sectors, financiers, consultants, transfer risk institutions and donor agencies. The frameworks for PPP infrastructure in Indonesia have focussed on optimising the role of the public and private sectors and other related stakeholders in future infrastructure development and management.

The third framework, the modality of PPP infrastructure framework, has well-thought-out a widespread range of potential solutions, looking beyond new capital projects to assess other areas requiring change such as bundling projects and monetising natural resources.

It is a significant contribution to improve the PPP policy frameworks for Indonesia.

The PPP infrastructure frameworks are expected to assist in:

- Clarifying the authority of the related stakeholders and government institutions in PPP delivering process development.
- Speeding up the identification of the business process in PPP delivery process from planning, preparation until financial closing and construction even until O&M and preparation/anticipation of the assets transfer.
- Identifying leveraging methods in PPP infrastructure financing with alternative financing mechanisms to achieve the requirement of the bankability standard and become sustainable projects.
- Better aligning the incentives for managing non-diversifiable project risk to those who have the capability to better manage this risk.
- Developing the scope of work for PPP infrastructure projects.
- Highlighting the clearance function of SOEs to support PPP infrastructure project development as operators and to accommodate the fiscal contribution from regional and central government budgets that will be contributes as their share of SPV.

10.3. Findings and Contribution to the Body of Knowledge

The following details the eight main findings of this research as the contributions to the body of the knowledge.

The first finding is the comparison of PPP financing mechanisms that have been commonly adapted in current PPP practices, which is presented in Table 2-3 on page 69. The comparison analysis contains of type of infrastructure and country development. Therefore, these comparisons would be expected to help PPP practitioners to indicate the type of financing for a certain infrastructure project in a

certain area of a country. The PPP financing schemes that have been reviewed are the project financing, the PFI, the forfeiting model, the credit guarantee financing, the supported debt model, the state guarantee, the government and infrastructure bonds, the empowering donor agency support funds and the other government contributions.

The second finding is that the slow progress of implementing PPP to build infrastructure has also been faced by other countries. The UK, after successfully implementing the PFI 1 and FPI 2 for mostly social infrastructure, since 2008 has innovated other modifications of PPP to accelerate the infrastructure delivery, especially for infrastructure projects that require huge investment costs. The UK Government developed partnerships with the private sector through Project Delivery Partnership (PDP) and Service Delivery Partnership (SDP). In line with the global trend, in Indonesia to accelerate infrastructure project delivery by the appointment of SOEs has been considered in the right direction. Through President Decrees, it could reduce the uncertainty of the political risks. This approach would need to be expanded to the private sector to contribute more actively and need further study to understand what would be the next procedures.

The third finding in this research defines a new term of infrastructure that is political reason infrastructure. The types of infrastructure commonly are economic infrastructure and social infrastructure (Argy et al., 1999; Jefferies & McGeorge, 2009), and hard and soft infrastructure (Darrin Grimsey & Lewis, 2004). In this research it was found that all of the respondents had experience of developing economic and social infrastructure. However, a specific case was identified by certain respondents which was that of infrastructure derived from political interest, which can be referred to as political reason infrastructure. This type of infrastructure has developed since the democratic approach of voting for the President or Parliament members has been implemented widely in many countries, and the community has become more educated in knowing their right to vote for potential leaders that could develop their region or fight for their interests. In this situation, the politicians campaign by promising the development of infrastructure for the region. The Political Driven Infrastructure has the following characteristics:

- Infrastructure projects are promised in the political campaign.

- The level of viability is thoroughly defined.
- Political involvement is very high.
- High commitment of the new selected politician leader.
- Politically guaranteed in the period of leadership.
- Optimizing fiscal budget and other alternative financing sources.

However, too much involvement by the politicians could jeopardize the projects. The findings of the research include the critical parameters that influence the investment decision-making and the justification of the stakeholders, the methods of leverage of the viability of the infrastructure projects, alternative financing and the framework of the PPP stakeholders' involvement, also the framework of modality and the framework of the lifecycle.

The fourth finding is related to the significant parameters that should be considered in financial modelling for investment decision. The listed critical parameters are: (1) construction costs and investment, (2) supported government policy, (3) tariff or fee approved by government, (4) demand volume, (5) amount of bank loan, (6) land acquisition process, (7) financing risk and costs, (8) demand growth, (9) quality of FS, (10) tariff or fee growth, (11) lengthy delay due of political involvement, (12) bank loan period, (13) cost overrun during construction, (14) operation costs overrun and (15) Insurance/Risk Transfer Expenses. It would help the stakeholders to make robust steps in prevention and estimation of risks in planning and preparation of the infrastructure projects. This study shows there is no significant correlation in the amount of stakeholders to make decisions in which critical parameters would be more important to themselves. The stakeholders are independent when identifying the critical parameters. The government official, the bankers, the entrepreneurs, the consultants and donor agencies have their own judgment. They are independent each other in justifying any financial parameters in investment decision made for PPP infrastructure projects. Only in the critical parameter of quality of FS do all stakeholders agree that it is important and they can exchange discussion to each other in order to have a robust FS.

The fifth finding is that through knowing the different perspectives of each organization an understanding can develop of what the significant parameters are relevant to each organization. In future development of PPP infrastructure projects, this understanding of the stakeholders' different identification of the significant parameters would actually help them to be share a similar understanding when negotiating for PPP infrastructure projects.

Developing a framework is part of simplifying the details in the complex process of developing PPP infrastructure projects. As the major financing task is meeting upfront investment costs in a timely manner, the central efficiency issue is which financing vehicle best manages project risk. The frameworks in this study that have been developed are frameworks of life cycle, stakeholders and the modality of the PPP infrastructure projects that identify the critical parameters.

The sixth finding is the framework of life cycle for infrastructure projects in Figure 8-4. Integrating with previous infrastructure development plan, these frameworks for infrastructure in Indonesia have focussed strongly on preparing proposals for existing infrastructure plans through considering PSC in the life cycle of developing the projects. The framework for infrastructure in Indonesia has considered a long term whole-of-life of PPP projects in life cycle PPP project development from the planning up to end of the concession and the costs and benefits in assessing infrastructure solutions and priorities. The 15 critical parameters have been the inputs to be considered in any stage in the life cycle of the PPP infrastructure project.

The seventh finding is the framework of stakeholders related to PPP infrastructure delivery in Figure 8-8. Optimising the role of the public, private sector, financiers, consultant, transfer risk institution and donor agencies, these frameworks for Infrastructure Indonesia have focussed on how best to optimize the role of the public and private sectors and other related stakeholders in future infrastructure development and management, including the part each sector can play in any stages including planning, preparation, procurement, financial closing, financing construction, operation and maintenance. The 15 critical parameters have enriched the consideration of the stakeholders in the PPP infrastructure project.

The eighth finding is the framework of modality of PPP infrastructure delivery in Figure 8-11. Focussing on the efficient use of existing infrastructure and resources, these frameworks for infrastructure in Indonesia have considered a wide range of potential solutions, looking beyond new capital projects to assess other areas requiring change, such as existing resource allocation or localisation or optimising resources including labour and materials. The type of government contributions and the financing schemes have been included in the framework of modality for PPP infrastructure.

10.4. Limitation

Real-life cases cannot be simply replicated exactly as they exist. The case study of the monorail project in this research has been selected by necessity as a method to understand the complex real case in a simplified way. The quantitative critical parameters and PPP framework that have been developed are not able to capture the entire aspects of the actual situation. For reasons of simplicity and applicability, the conditional option of frameworks as the results of the research is assumed to be sufficiently generic for consideration by the related stakeholders to make decisions in PPP infrastructure delivery process and development. Such limitations are occasioned by various areas of the work such as sampling, methods of collecting data, techniques of analysis, as well as the, perhaps more obvious, restrictions of time, money and other constraints imposed by the resources available. However, it has been preferable to carry out a reduced scope study thoroughly than a large study superficially.

The number of respondents in this research is considered adequate to fulfill the requirement of academic research: however, for better results, this research could be conducted over a longer time and more supported resources could be provided to involve more respondents.

The limitation of this research is also the time frame; the PPP regulations that have been studied are based on the regulations that have been issued by the government up to 2015 and a few regulations in 2016.

One area that was deemed outside the scope of the present study, though potentially applicable, was an analysis of corruption risks, which have also been considered as a problems in the Indonesian Governance and a threat to infrastructure development (Harun al-Rasyid Lubis, 2015).

10.5. Recommendations for Further Study

The recommendation of this research is **firstly** that the methodology of this thesis can be applied to other studies conducted by government institutions or any institutions. This would allow the testing of the parameters and further justification from other related stakeholders. The methodology has been developed that should be straightforward for others to follow.

Last reported in 2015, based on estimation of infrastructure funding needs in 2015-2019, the government is only able to fulfil 30% of total infrastructure funding needs, which is about Rp.1.433 trillion out of Rp.4.796 trillion in total (Chaniago, 2015) (Harun al-Rasyid Lubis, 2015). Approximately, 36% of the funding gap is expected to be fulfilled through cooperation with PPP schemes. In order to cover this gap one initiative of the government is to invite more roles and private initiatives in the form of public and private partnership (PPP).

The new era of presidential, President of Indonesia and the Work Cabinet for period 2014-2019. The vision they called Nawa Cita. The main focus of infrastructure development is to create the ocean toll, which will connect all the islands from Sabang (the Most Western of Indonesia) in Aceh to Merauke (the Most Eastern of Indonesia) in Papua (shown in Figure 9-1). The blue thick line shows the main logistic ocean lines. The second priority is to build a railway and highway for land transportation.

PPP cooperation have been implemented in many agreements, the partnership may take different forms such as Build Operate Transfer (BOT), Build Own Operate Transfer (BOOT), Leasing, Joint Ventures or Operation and Management contracts

(Darrin Grimsey & Lewis, 2004; Bing Li & Akintoye, 2003). The **second recommendation** in this study is to apply current methods for developing PPP schemes by implementing a program to study the Project Delivery Partnership to accelerate the PPP Infrastructure Project Preparation. PDP can be part of the continuation of the President Regulation (Prepres). Appointment of the SOEs to build infrastructure and the Prepres can be expanded to private sectors to contribute more actively. Furthermore, it would be much wiser if the SOEs were prioritized to execute the less financially viable infrastructure projects and avoid the business interest of political parties.

The Project Delivery Partnership (PDP) is one of the new methods that has just started to be implemented in London in 2008. It can be the answer for the Indonesian Government, which seek a solution to speed up the process of project preparation. More detail about PDP, the additional framework that is relevant to streamlining PPP project delivery is shown in the framework of the Project Delivery Partnership (PDP) in Figure 10-1.

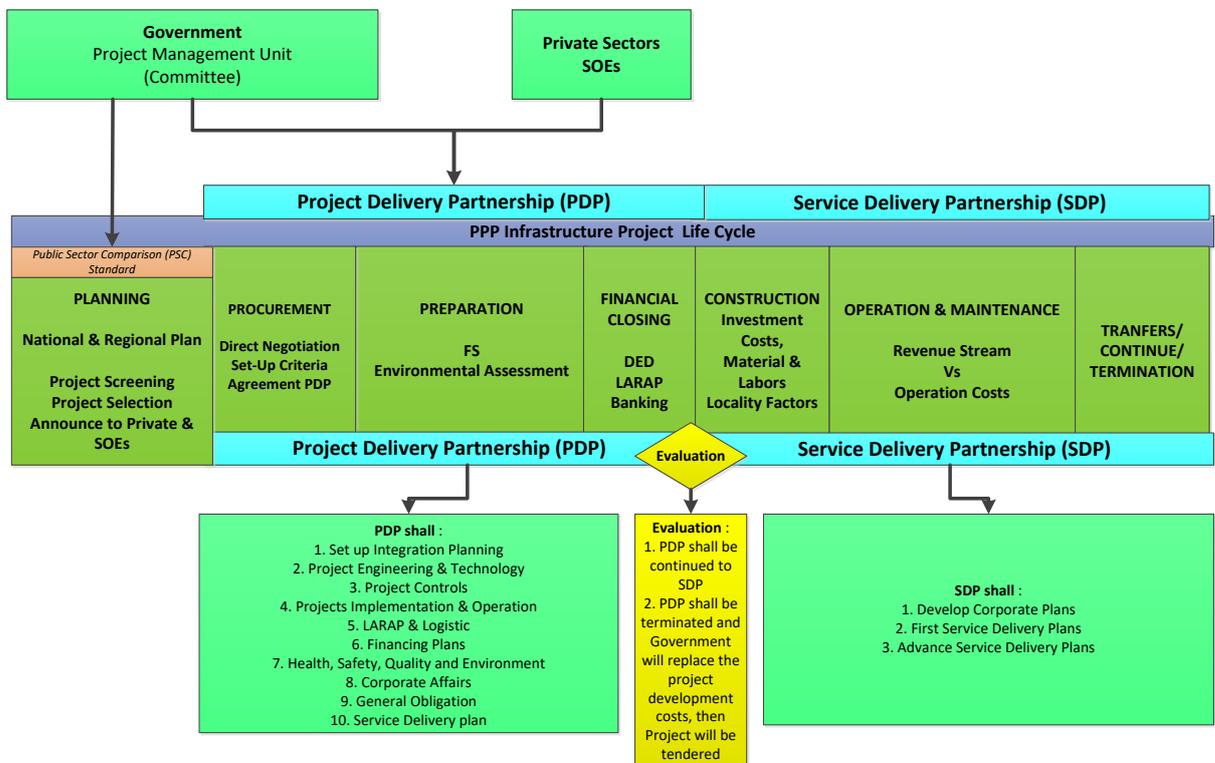


Figure 10-1 : The framework for Project Delivery Partnership (PDP) and Service Delivery Partnership (SDP)

Strong legal advice and robust contracts are effective for risk allocation; these include the life cycle cost risk, construction risk, site condition risk, market risk, income stream risk to pay with the interest, refinancing risk, operation and maintenance risk.

The discussion has shown that government has to be strong in any stage of the project development. The **third recommendation** is regarding the hierarchy of PPP policy in Indonesia. PPP regulation which has been arranged has been limited to President Decree level. The hierarchy should be improved to ensure a consistency of policies that can convince potential partners or investors. The life cycle of infrastructure projects can reach 30-80 years, from the preparation until the asset is handed back to the government. The length exceeds the effective period of one or two periods of governance; therefore, agreements need to be regulated in law at a level higher than President Decree. Neighboring countries such as the Philippines and Thailand have continued to improve their PPP frameworks of infrastructure policy and institutional inter-coordination. Currently, PPP infrastructure policy in Malaysia is more developed than in Indonesia.

Furthermore, to support the Nawa Cita and the gap in infrastructure financing, the Government of Indonesia has set fiscal measures to build infrastructure. The budget provision is undeniable; therefore, the **fourth recommendation** is to study where the funds to finance all the infrastructure projects is going to come from. At this point there are several factors that will impact on the Government of Indonesia, including:

- i. The depreciating rupiah.
- ii. The drop in oil prices and palm oil and coal. These are Indonesia's major exports and are no longer at the high commodity values.
- iii. The lack of in-house capability taking foreign funds on loan.

INDONESIA BACKBONE OF CONNECTIVITY 2025

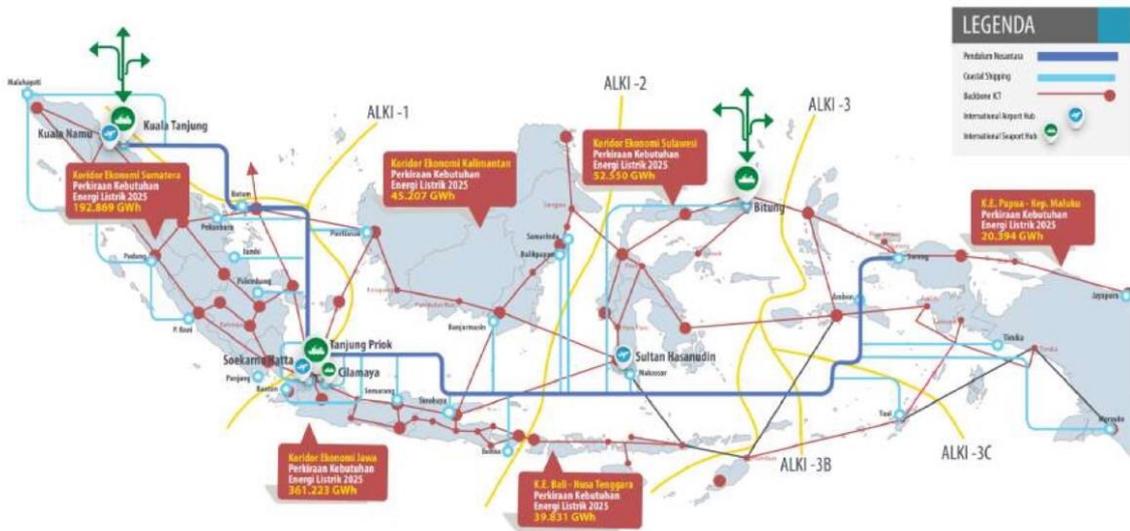


Figure 10-2: Indonesia Backbone of Connectivity 2025

Source: (Bappenas, 2013; Yudhoyono, 2011)

The fifth recommendation is to have more research on the settlement of the transferring of assets at the end of the concession of PPP infrastructure projects.

Given the current scenario for the economy, the country will be lumbered with very high foreign debt soon. So far the Indonesian financial markets lack liquidity as very few savings instruments are in play; the wealthiest Indonesians still keep their money outside the country. Also, the stock market is relatively flat. Currently the USA, Industrial Bank of China, European Union, JBIC, IMF, IDB and many more other countries are ready to offer lending to Indonesia to finance the infrastructure projects. Therefore the **sixth recommendation** would be to create supporting policy and prudent public debt management.

PPP infrastructure financing has also been strongly stimulated by the macro and micro economic conditions and capital markets.

The seventh recommendation is related to banking regulations in Indonesia to support the project financing from national banks. As projects are not reviewed

thoroughly and rushed there will be a high cost overrun for some projects. The pressure to recover a non-performing loan can mean that a bank will raise its interest rates, which will affect the common man on the street. Supporting bank regulations to support alternative financing for PPP infrastructure projects is essential.

Infrastructure Bonds are a good alternative source of finance for building infrastructure. The **eighth recommendation** would be that the government develops a supporting policy procedure of issuing infrastructure bonds or special purposed bonds. The government needs to conduct more supporting research on bonds guarantees and sovereign guarantees.

The ninth recommendation is related to the land acquisition for infrastructure projects. There is new policy in Indonesia, based on the Law No. 2 Year 2012 (Government of Indonesia, 2012g) for public service, Government of Indonesia has obligation to provide land, and this law has been effectively implemented in 2016. To extend the implementation on the land acquisition, the Government of Indonesia also has issued the Perpres No. 102 Year 2016 (Government of Indonesia, 2016b) that the Government of Indonesia will prioritize the fiscal budget for land acquisition for infrastructure projects in list of Strategic National Projects (Government of Indonesia, 2016a). To implement these new regulations, it requires amount of government budgeting to be budgeted every year. The effectiveness of this new policy will need to be evaluated.

The tenth recommendation is to develop the method of monetizing natural resources. This would collateralize the natural resources and forecast future values that could be developed into sovereign guarantees in order to attract more finance flow into Indonesia.

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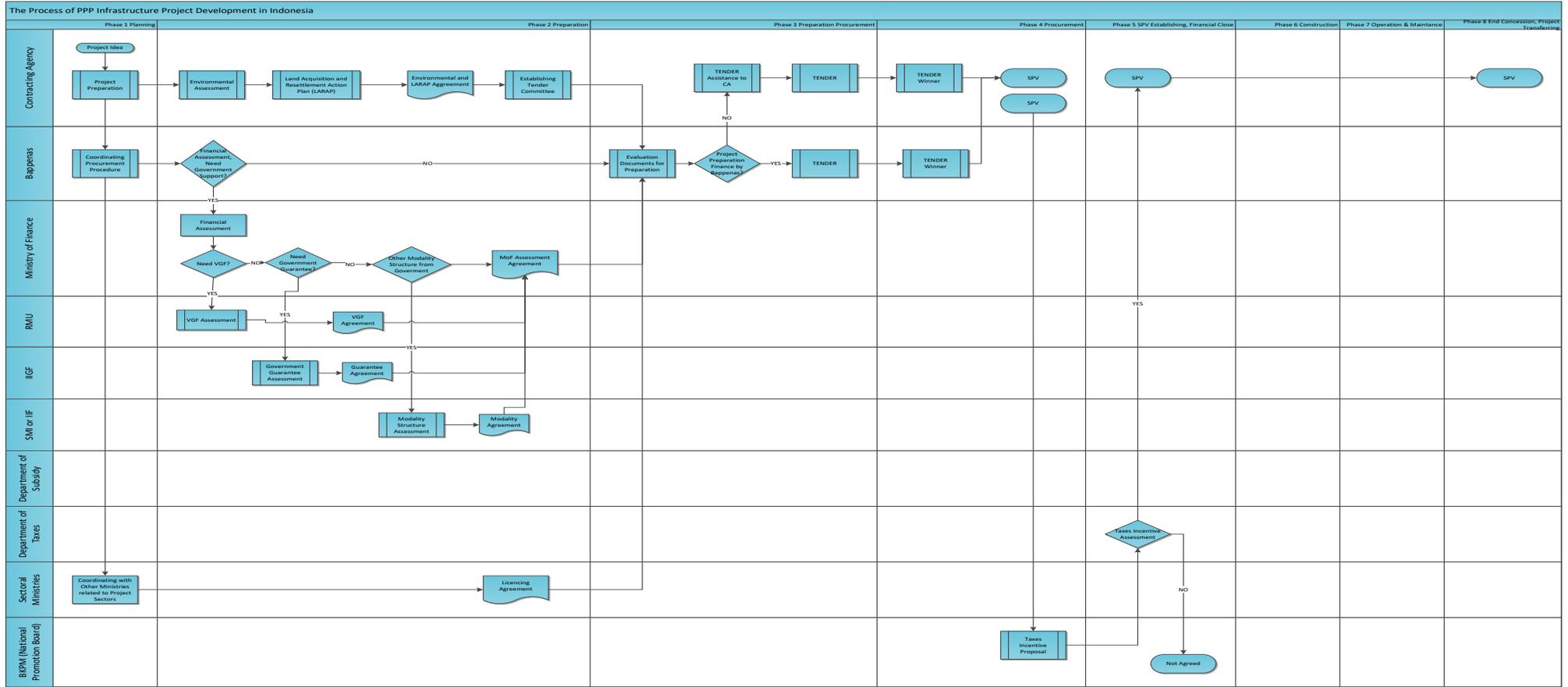
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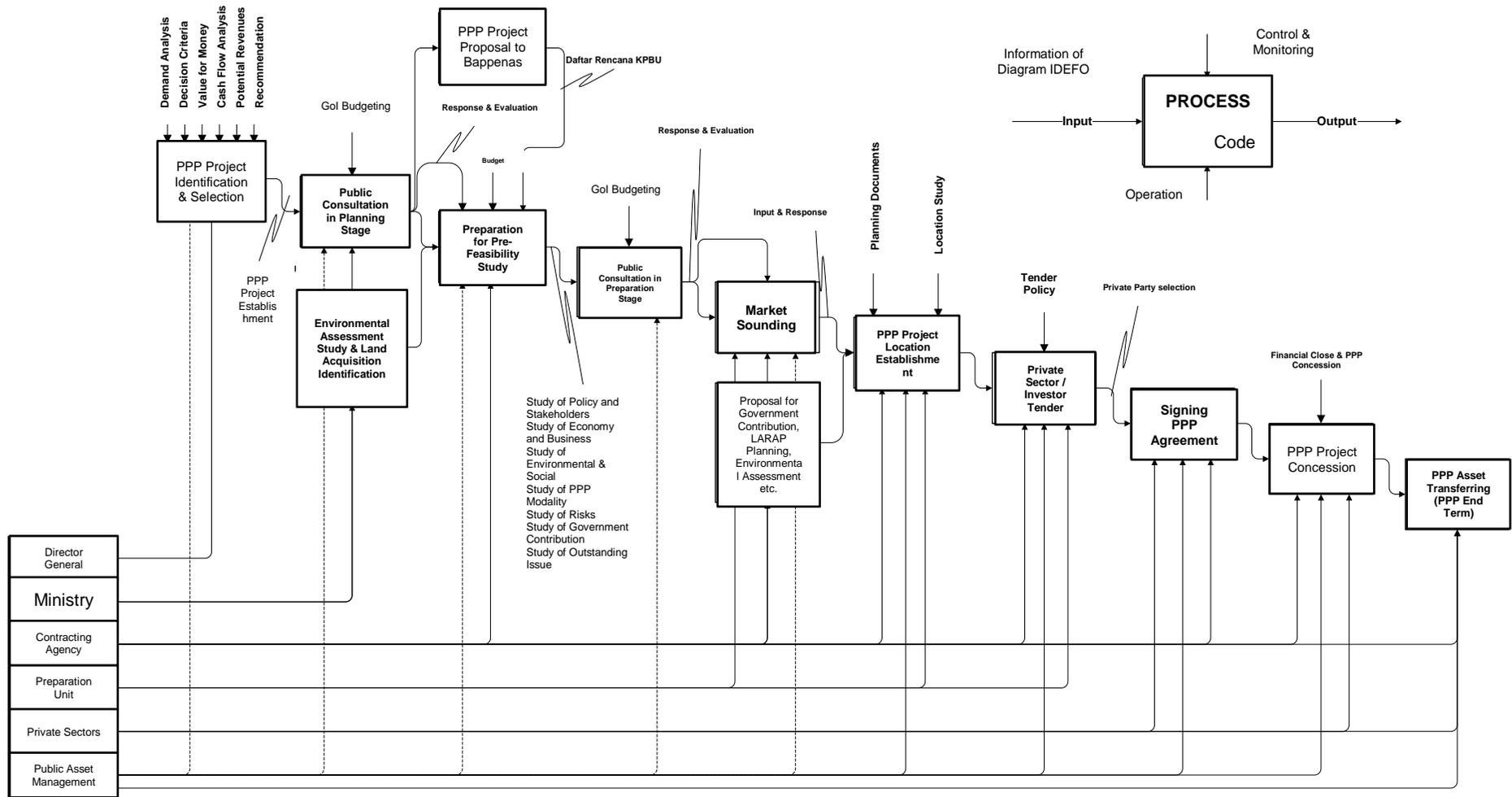
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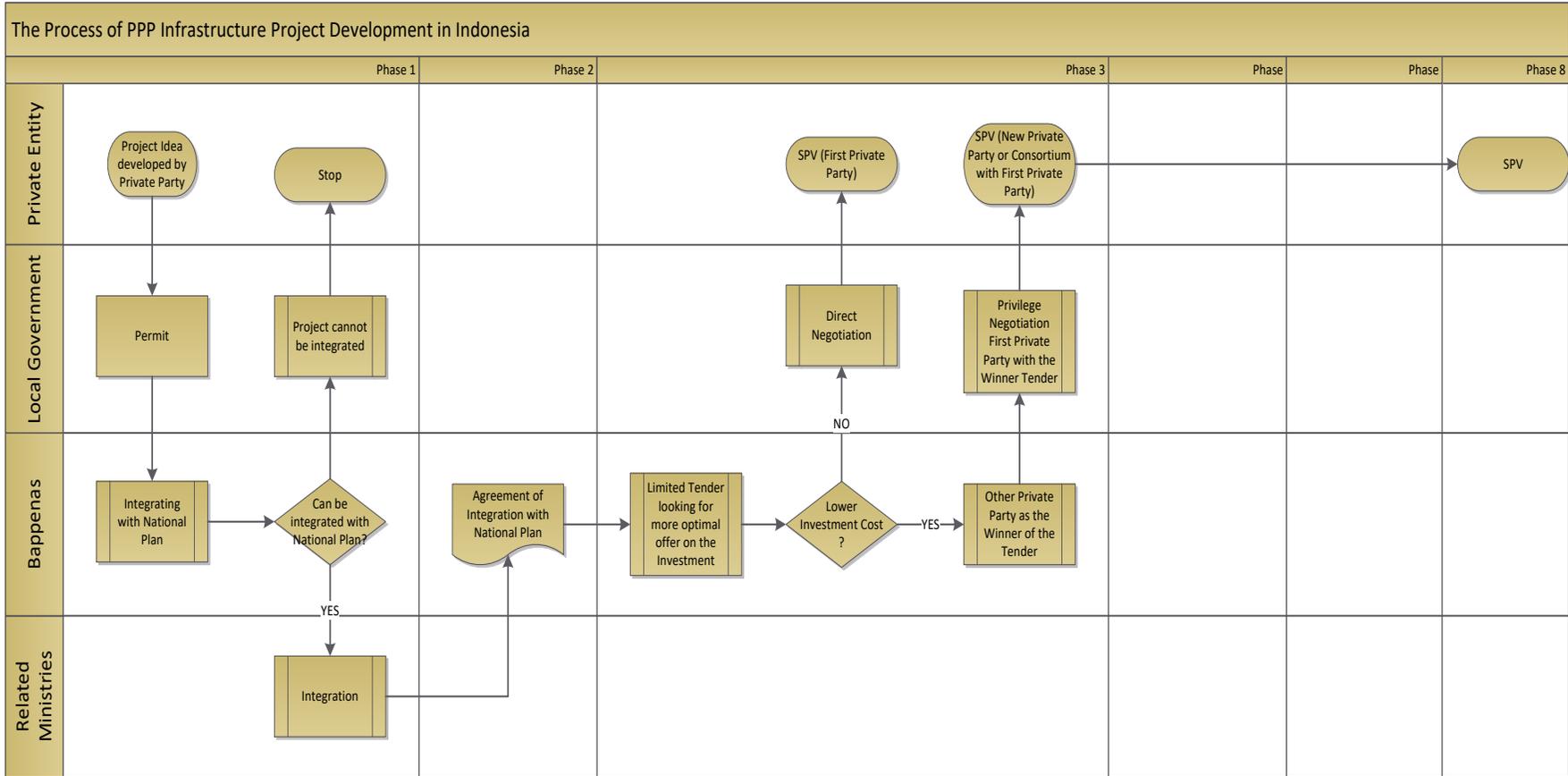
Appendix 1 Flow Chart of Solicited PPP Indonesia Infrastructure Project Development base on Government Policies up to 2015



It will be printed out from Ms.Visio.

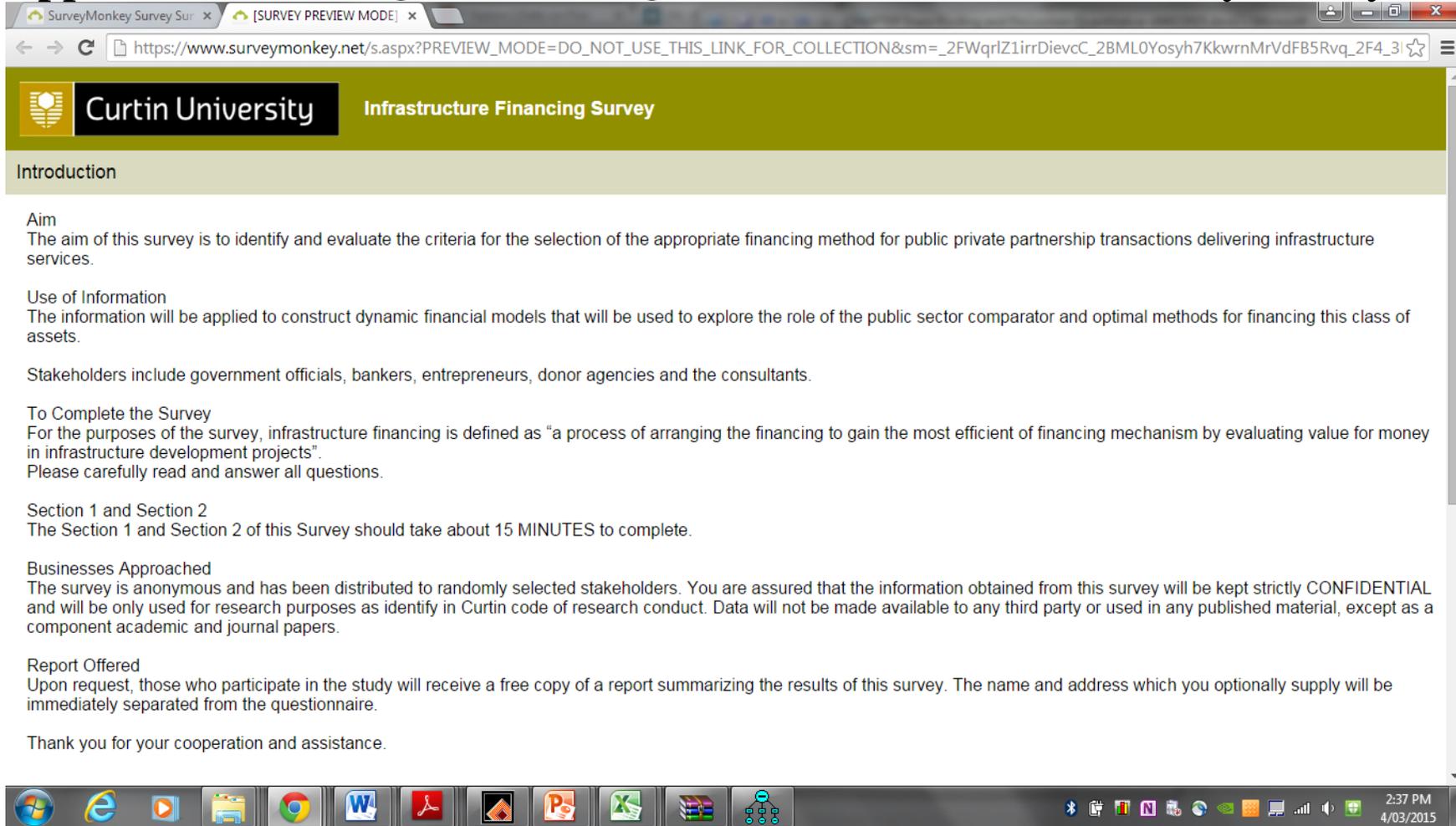


Appendix 2 Flow Chart of Unsolicited PPP Indonesia Infrastructure Project Development base on Government Policies before 2015



It will be printed out from Ms.Visio.

Appendix 3 Online Quantitative QUESTIONNAIRES in Monkey Survey Format



The screenshot shows a web browser window displaying a survey page. The browser's address bar shows the URL: https://www.surveymonkey.net/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COLLECTION&sm=_2FWqrlZ1irrDievcC_2BML0Yosyh7KkwrnMrVdFB5Rvq_2F4_3. The page header features the Curtin University logo and the title "Infrastructure Financing Survey". The main content area is titled "Introduction" and contains the following text:

Aim
The aim of this survey is to identify and evaluate the criteria for the selection of the appropriate financing method for public private partnership transactions delivering infrastructure services.

Use of Information
The information will be applied to construct dynamic financial models that will be used to explore the role of the public sector comparator and optimal methods for financing this class of assets.

Stakeholders include government officials, bankers, entrepreneurs, donor agencies and the consultants.

To Complete the Survey
For the purposes of the survey, infrastructure financing is defined as "a process of arranging the financing to gain the most efficient of financing mechanism by evaluating value for money in infrastructure development projects".
Please carefully read and answer all questions.

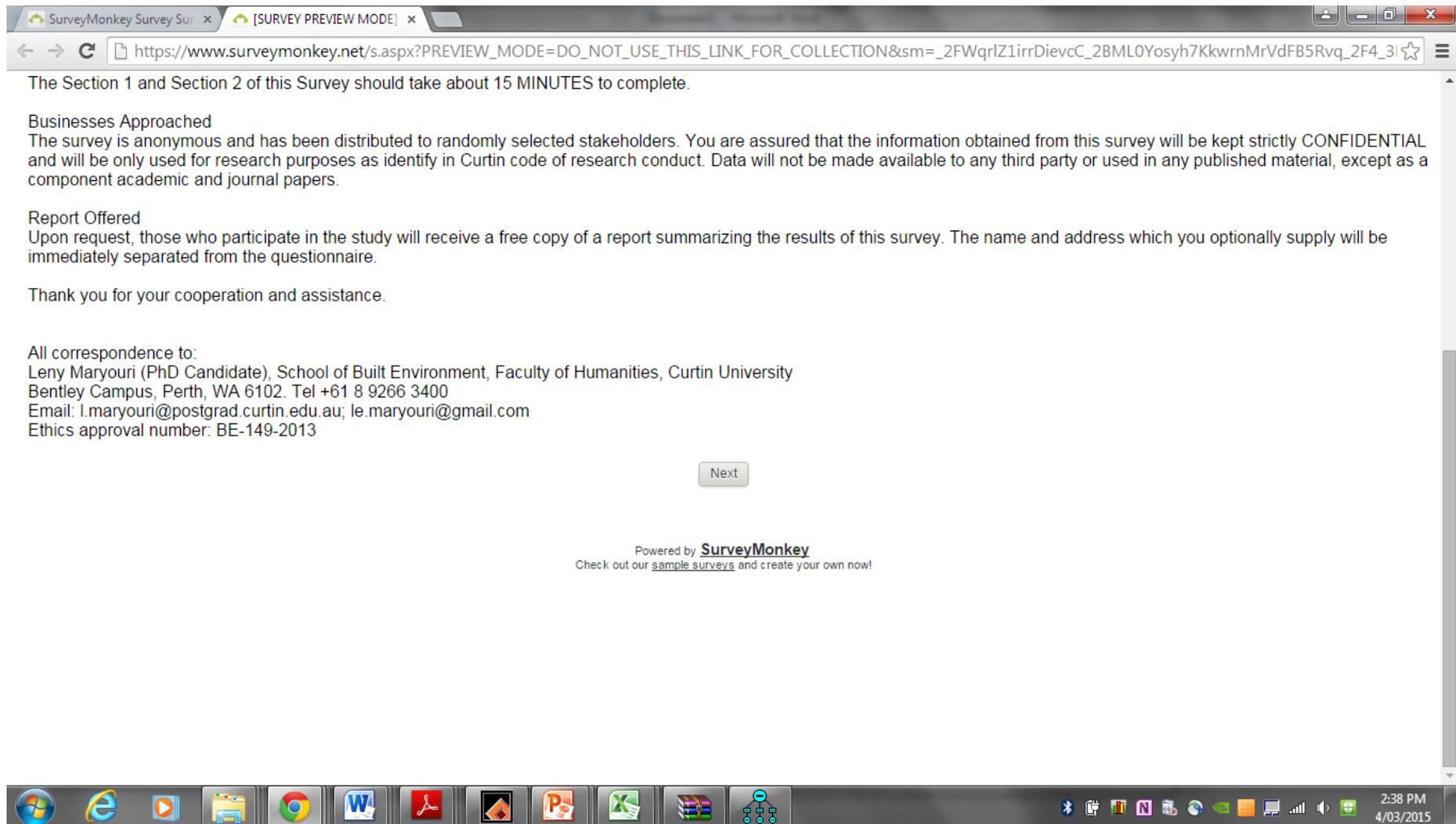
Section 1 and Section 2
The Section 1 and Section 2 of this Survey should take about 15 MINUTES to complete.

Businesses Approached
The survey is anonymous and has been distributed to randomly selected stakeholders. You are assured that the information obtained from this survey will be kept strictly CONFIDENTIAL and will be only used for research purposes as identify in Curtin code of research conduct. Data will not be made available to any third party or used in any published material, except as a component academic and journal papers.

Report Offered
Upon request, those who participate in the study will receive a free copy of a report summarizing the results of this survey. The name and address which you optionally supply will be immediately separated from the questionnaire.

Thank you for your cooperation and assistance.

The bottom of the screenshot shows a Windows taskbar with various application icons and a system tray displaying the time as 2:37 PM on 4/03/2015.



The Section 1 and Section 2 of this Survey should take about 15 MINUTES to complete.

Businesses Approached
The survey is anonymous and has been distributed to randomly selected stakeholders. You are assured that the information obtained from this survey will be kept strictly CONFIDENTIAL and will be only used for research purposes as identify in Curtin code of research conduct. Data will not be made available to any third party or used in any published material, except as a component academic and journal papers.

Report Offered
Upon request, those who participate in the study will receive a free copy of a report summarizing the results of this survey. The name and address which you optionally supply will be immediately separated from the questionnaire.

Thank you for your cooperation and assistance.

All correspondence to:
Leny Maryouri (PhD Candidate), School of Built Environment, Faculty of Humanities, Curtin University
Bentley Campus, Perth, WA 6102. Tel +61 8 9266 3400
Email: l.maryouri@postgrad.curtin.edu.au; le.maryouri@gmail.com
Ethics approval number: BE-149-2013

Next

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4/03/2015



Section 1: General Profile

The following questions are designed to obtain a background of the respondents, the organisations and the selected PPP Infrastructure Projects.

To make it easier to answer the questions in this survey, the respondent is expected to determine the PPP Infrastructure Project which has been successfully done as a basis for answering each question.

Please tick one option for each question.

Prev Next

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1. Please specify the type of organization where you are employed?

Governments	<input type="text"/>
Banks/ Financial Institutions	<input type="text"/>
Entrepreneurs/ Private Sectors	<input type="text"/>
Consultants	<input type="text"/>
Donor Agencies	<input type="text"/>

2. How long you have been involved in delivering PPP Infrastructure Projects?

< 10 years

11-15 years

16-20 years

21-25 years

> 26 years

3. What is your role in the project selected? Please specify?

Role of responsibility? Role

Please specify?

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4. For the project you have been selected, what type of infrastructure?

ECONOMIC INFRASTRUCTURE SOCIAL INFRASTRUCTURE

Type of Infrastructure?

Please specify the Infrastructure type?

5. In which country was the selected PPP Infrastructure project is located?

Country specific

Location of project?

6. How big is the PPP infrastructure project (contract value) in scale in USD that you currently have finished?

< 100 millions

101-500 millions

501-1000 millions

1001-2000 millions

> 2001 millions

7. What is the currency of the investment in selected project?

Currency specific

Project currency?

8. In what year was the contract awarded?

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9. How is the PPP Infrastructure project has been procured?

- Competitive bid process
- Unsolicited bid
- By negotiation with government

Other (please specify)

10. How was the selected PPP project financed?

- Traditional project finance (> 8 years)
- Term finance (> 8 years)
- Term finance (< 8 years)
- Bond issue
- Government finance (Supported debt/credit guarantee finance)

Other (please specify)

11. For the selected project what was the Project Leverage calculated by dividing project debt by investor's equity?

- < 1
- 1.1-2
- 2.1-3
- 3.1-4
- >4.1

Other (please specify)

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12. Related to the selected project what type of supported finance was obtained from the Government?

- Subsidy
- Guarantee
- Land/asset contribution
- Working capital/ State financial contribution
- Stimulus policy
- Credit wrap/insurance
- Borrower guarantees
- Independent credit rating

Other (please specify)

13. For the selected project what was the Internal Rate Return (IRR)?

- < 6%
- 7-10 %
- 11-15%
- 16-20 %
- > 21 %

14. For the selected project how long was the Break Even Point (BEP)?

- < 5 years
- 6-10 years
- 11-15 years
- 16-20 years

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- < 5 years
- 6-10 years
- 11-15 years
- 16-20 years
- > 21 years

15. For the selected project how long was the Concession Period?

- < 10 years
- 11-20 years
- 21-30 years
- 31-40 years
- > 41 years

Prev Next

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Section 2: Professional Justifications

The following questions are designed to determine the professional justification from the respondents regarding to selected parameters which involve to the performance of financial models related to infrastructure financing.

Please tick one option for each question.

Prev Next

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Policy and Micro & Macro Economic

* 16. To what extent do you think the following key parameters influenced the decision?

	Not at all	Less extent	Moderate extent	Very extent	Very large extent
Supported Government Policy	<input type="radio"/>				
Lengthy bidding preparation	<input type="radio"/>				
Defining inflation assumption	<input type="radio"/>				
Defining interest rate in monetary policy	<input type="radio"/>				
Defining taxes policy	<input type="radio"/>				
Defining social discount rate	<input type="radio"/>				
Lengthy bidding evaluation	<input type="radio"/>				
Lengthy contract negotiation	<input type="radio"/>				
Lengthy delay due of political involvement	<input type="radio"/>				
Foreign exchange fluctuation	<input type="radio"/>				
Land acquisition process	<input type="radio"/>				

Prev Next

Project Management

* 17. To what extent do you think the following key parameters influenced the decision?

	Not at all	Less extent	Moderate extent	Very extent	Very large extent
Organization human resources during construction	<input type="radio"/>				
Material availability during construction	<input type="radio"/>				
Labor availability during construction	<input type="radio"/>				
Organization human resources during operation and maintenance	<input type="radio"/>				

Prev Next

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Project Financing Mechanism

*** 18. To what extent do you think the following key parameters influenced the decision?**

	Not at all	Less extent	Moderate extent	Very extent	Very large extent
Private equity capital	<input type="radio"/>				
Government equity	<input type="radio"/>				
Amount of bank loan	<input type="radio"/>				
Bank loan period	<input type="radio"/>				
Additional working capital loan	<input type="radio"/>				
Mezzanine loan for additional capital	<input type="radio"/>				
Debt refinancing	<input type="radio"/>				
Lengthy of Grade Period	<input type="radio"/>				
Value of Interest During Construction (IDC)	<input type="radio"/>				
IDC payment method	<input type="radio"/>				
IDC payment period	<input type="radio"/>				
Financing risk and costs	<input type="radio"/>				
Quality of Feasibility Study (FS)	<input type="radio"/>				
Cost of construction the FS	<input type="radio"/>				

SurveyMonkey Survey Sur x [SURVEY PREVIEW MODE] x

https://www.surveymonkey.net/s.aspx?PREVIEW_MODE=DO_NOT_USE_THIS_LINK_FOR_COLLECTION&sm=%2fWqrlZ1irrDievcC%2bML0Yosyh7KkwrnMrVdFB5Rvq%2f49

Lengthy of Grade Period	<input type="radio"/>				
Value of Interest During Construction (IDC)	<input type="radio"/>				
IDC payment method	<input type="radio"/>				
IDC payment period	<input type="radio"/>				
Financing risk and costs	<input type="radio"/>				
Quality of Feasibility Study (FS)	<input type="radio"/>				
Cost of construction the FS	<input type="radio"/>				
FS due diligence	<input type="radio"/>				
Donor Funding (International Financing Institutions) contribution	<input type="radio"/>				

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4/03/2015

Revenue Streams

* 19. To what extent do you think the following key parameters influenced the decision?

	Not at all	Less extent	Moderate extent	Very extent	Very large extent
Marketing (wiliness & ability survey) and competition study	<input type="radio"/>				
Tariff or fee approved by government	<input type="radio"/>				
Tariff or fee growth	<input type="radio"/>				
Demand volume	<input type="radio"/>				
Demand growth	<input type="radio"/>				
Additional incomes	<input type="radio"/>				

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Potential Costs

***20. To what extent do you think the following key parameters influenced the decision?**

	Not at all	Less extent	Moderate extent	Very extent	Very large extent
Construction costs & investment	<input type="radio"/>				
Technology investment	<input type="radio"/>				
Overrun during construction	<input type="radio"/>				
Bank guarantee for construction	<input type="radio"/>				
Regular operation costs	<input type="radio"/>				
Regular maintenance costs	<input type="radio"/>				
Insurance / risk transfer expenses	<input type="radio"/>				
Operational cost overrun	<input type="radio"/>				

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Interview

21. If you are willing to be involved in In-Depth Semi-Structure Interview, please provide your contact details to schedule time for interview?

Name:

Company:

Address 1:

Address 2:

City/Town:

Country:

Email Address:

Phone Number:

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 **Curtin University** **Infrastructure Financing Survey**

THANK YOU.....

Thank you for your cooperation and assistance.

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Appendix 4 SPSS Output from Quantitative Analysis Process

Factor Analysis

Communalities		
	Initial	Extraction
SupportedGovernmentPolicy	1.000	.465
LengthyBiddingPreparation	1.000	.621
DefiningInflationAssumption	1.000	.811
DefiningInterestRateinMonetaryPolicy	1.000	.740
DefiningTaxesPolicy	1.000	.613
DefiningSocialDiscountRate	1.000	.618
LengthyBiddingEvaluation	1.000	.743
LengthyContractNegotiation	1.000	.662
LengthyDelayDueofPoliticalInvolvement	1.000	.593
ForeignExchangeFluctuation	1.000	.614
LandAcquisitionProcess	1.000	.832
OrganizationHumanResourcesDuringConstruction	1.000	.714
MaterialAvailabilityDuringConstruction	1.000	.872
LaborAvailabilityDuringConstruction	1.000	.704
OrganizationHumanResourcesDuringOperationandMaintenance	1.000	.671
PrivateEquityCapital	1.000	.391
GovernmentEquity	1.000	.767
AmountofBankLoan	1.000	.818
BankLoanPeriod	1.000	.847
AdditionalWorkingCapitalLoan	1.000	.593
MezzanineLoanforAdditionalCapital	1.000	.729
DebtRefinancing	1.000	.540
LengthyofGradePeriod	1.000	.673
ValueofInterestDuringConstruction	1.000	.772
IDCpaymentMethod	1.000	.792
IDCpaymentPeriod	1.000	.783
FinancingRiskandCosts	1.000	.715
QualityofFeasibilityStudy	1.000	.718
CostofConstructionTheFS	1.000	.791
FSdueDiligence	1.000	.618
DonorFunding	1.000	.632
MarketingandCompetitionStudy	1.000	.854
TarifforFeeApprovedbyGovernment	1.000	.766

Communalities

	Initial	Extraction
Tariff for Fee Growth	1.000	.661
Demand Volume	1.000	.818
Demand Growth	1.000	.793
Additional Incomes	1.000	.684
Construction Costs and Investment	1.000	.591
Technology Investment	1.000	.659
Overrun During Construction	1.000	.891
Bank Guarantee for Construction	1.000	.628
Regular Operation Costs	1.000	.717
Regular Maintenance Costs	1.000	.805
Insurance or Risk Transfer Expenses	1.000	.669
Operational Cost Overrun	1.000	.710
Project Leverage Debt by Equity	1.000	.364
The Internal Rate Return	1.000	.498
The Break Even Point	1.000	.060
The Concession Period	1.000	.173
Organization	1.000	.359

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
1	18.960	37.921	37.921	18.960	37.921	37.921	12.798
2	4.612	9.225	47.146	4.612	9.225	47.146	11.561
3	3.571	7.141	54.287	3.571	7.141	54.287	9.381
4	3.352	6.704	60.991	3.352	6.704	60.991	5.228
5	2.660	5.320	66.311	2.660	5.320	66.311	4.834
6	2.433	4.866	71.177				
7	1.930	3.860	75.038				
8	1.822	3.645	78.682				
9	1.496	2.991	81.674				
10	1.440	2.879	84.553				
11	1.137	2.274	86.827				
12	1.071	2.141	88.968				
13	.956	1.913	90.880				
14	.762	1.523	92.404				

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total
15	.673	1.347	93.750				
16	.594	1.188	94.938				
17	.536	1.072	96.011				
18	.464	.928	96.938				
19	.407	.815	97.753				
20	.256	.511	98.265				
21	.230	.460	98.725				
22	.173	.345	99.070				
23	.164	.329	99.399				
24	.132	.264	99.663				
25	.088	.175	99.838				
26	.058	.117	99.955				
27	.023	.045	100.000				
28	1.232E-15	2.464E-15	100.000				
29	8.964E-16	1.793E-15	100.000				
30	8.099E-16	1.620E-15	100.000				
31	7.351E-16	1.470E-15	100.000				
32	6.550E-16	1.310E-15	100.000				
33	5.372E-16	1.074E-15	100.000				
34	4.643E-16	9.286E-16	100.000				
35	4.556E-16	9.112E-16	100.000				
36	2.819E-16	5.637E-16	100.000				
37	1.696E-16	3.393E-16	100.000				
38	8.605E-17	1.721E-16	100.000				
39	3.760E-17	7.520E-17	100.000				
40	-9.807E-17	-1.961E-16	100.000				
41	-1.578E-16	-3.155E-16	100.000				
42	-1.905E-16	-3.811E-16	100.000				
43	-2.436E-16	-4.873E-16	100.000				
44	-3.702E-16	-7.404E-16	100.000				
45	-4.880E-16	-9.760E-16	100.000				
46	-5.906E-16	-1.181E-15	100.000				
47	-6.712E-16	-1.342E-15	100.000				
48	-8.693E-16	-1.739E-15	100.000				
49	-1.055E-15	-2.110E-15	100.000				
50	-2.239E-15	-4.479E-15	100.000				

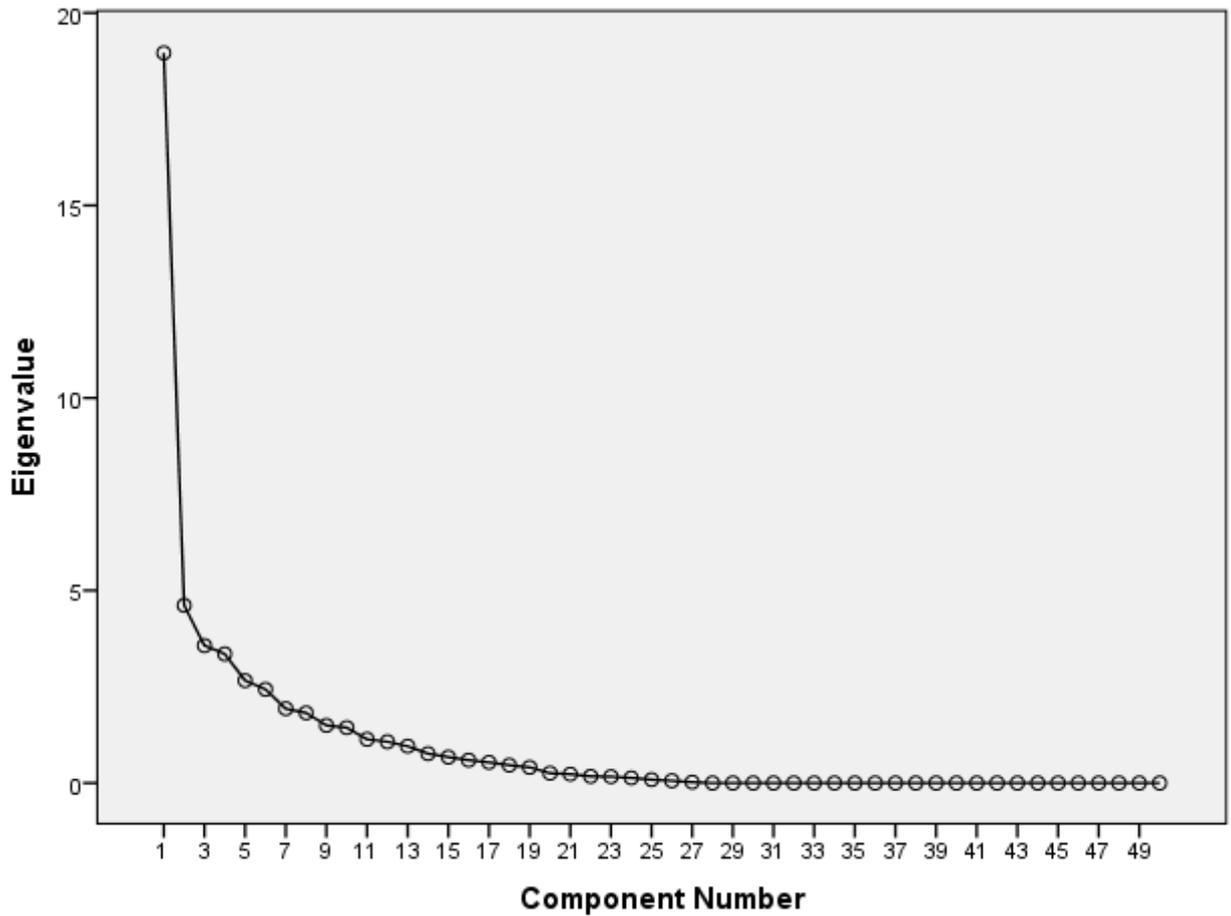
Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings ^a
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total

a. When components are correlated, sums of squared loadings cannot be added to obtain a total variance.

Scree Plot



Component Matrix^a

	Component				
	1	2	3	4	5
MarketingandCompetitionStudy	.856				
OverrunDuringConstruction	.843	-.346			
IDCpaymentMethod	.830				
IDCpaymentPeriod	.823				
OrganizationHumanResourcesDuringOperationandMaintenance	.797				

Component Matrix^a

	Component				
	1	2	3	4	5
ValueofInterestDuringConstruction	.797				
CostofConstructionTheFS	.777	.407			
LengthyofGradePeriod	.767				
DefiningInterestRateinMonetaryPolicy	.754	-.360			
BankLoanPeriod	.751		.445		
RegularMaintenanceCosts	.745			.439	
DefiningInflationAssumption	.732	-.345			
OrganizationHumanResourcesDuringConstruction	.729				
BankGuaranteeforConstruction	.726				
AmountofBankLoan	.717		.531		
MaterialAvailabilityDuringConstruction	.713		-.422		-.379
MezzanineLoanforAdditionalCapital	.702			.471	
LengthyContractNegotiation	.688		-.337		
LengthyBiddingEvaluation	.680	.324	-.399		
FinancingRiskandCosts	.665		.417		
FSdueDiligence	.657		.335		
LaborAvailabilityDuringConstruction	.654	.301			-.321
DefiningTaxesPolicy	.644			-.314	
AdditionalWorkingCapitalLoan	.643			.335	
TarifforFeeGrowth	.640		.406		
QualityofFeasibilityStudy	.626			-.409	
RegularOperationCosts	.606			.534	
InsuranceorRiskTransferExpenses	.591		.404	.379	
DemandVolume	.591	.577	.341		
AdditionalIncomes	.585	.407	-.361		
DefiningSocialDiscountRate	.570	-.307		-.386	
ConstructionCostsandInvestment	.570				-.446
PrivateEquityCapital	.560				
ForeignExchangeFluctuation	.541		-.383	-.412	
OperationalCostOverrun	.535	-.515			-.327
TarifforFeeApprovedbyGovernment	.515	-.341	.401		-.398
DonorFunding		.670		.423	
DemandGrowth	.536	.623	.309		
LengthyBiddingPreparation	.551	.556			
LengthyDelayDueofPoliticalInvolvement	.344	.527		-.351	
TheInternalRateReturn			.564	.322	
ProjectLeverageDebtbyEquity		-.366	.378		
TheConcessionPeriod					
TheBreakEvenPoint					
LandAcquisitionProcess	.601			-.627	

Component Matrix^a

	Component				
	1	2	3	4	5
DebtRefinancing	.365	-.306		.465	
SupportedGovernmentPolicy	.381	-.333		-.426	
GovernmentEquity	.314	.492			.643
TechnologyInvestment	.501				-.569
Organization		.319			.334

Extraction Method: Principal Component Analysis.

a. 5 components extracted.

Pattern Matrix^a

	Component				
	1	2	3	4	5
RegularOperationCosts	.856				
RegularMaintenanceCosts	.840				
DebtRefinancing	.786				
AdditionalWorkingCapitalLoan	.725				
MezzanineLoanforAdditionalCapital	.723	.323			
IDCpaymentMethod	.655				
IDCpaymentPeriod	.654				
LengthyofGradePeriod	.620				
ValueofInterestDuringConstruction	.616			-.335	
InsuranceorRiskTransferExpenses	.589		.425	.307	
FinancingRiskandCosts	.558		.515		
OverrunDuringConstruction	.538	.361			
PrivateEquityCapital	.367				
MaterialAvailabilityDuringConstruction		.807		-.361	
LaborAvailabilityDuringConstruction		.801			
AdditionalIncomes		.701			
OrganizationHumanResourcesDuringConstruction		.695			
LengthyBiddingEvaluation	.359	.647			
LengthyContractNegotiation	.354	.644			
TechnologyInvestment		.607			-.486
MarketingandCompetitionStudy		.603			
QualityofFeasibilityStudy		.542	.519		
DemandGrowth		.508	.367	.414	.355
LengthyBiddingPreparation		.500			.448
DemandVolume		.489	.428	.382	.351
ConstructionCostsandInvestment		.472	.410		
OrganizationHumanResourcesDuringOperationandMaintenance	.340	.471			

Pattern Matrix^a

	Component				
	1	2	3	4	5
CostofConstructionTheFS		.470			.335
ProjectLeverageDebtbyEquity		-.463	.400		
TarifforFeeApprovedbyGovernment			.784		-.352
AmountofBankLoan	.313		.724		
BankLoanPeriod	.364		.716		
TarifforFeeGrowth			.708		
LandAcquisitionProcess			.612	-.424	.405
SupportedGovernmentPolicy			.521	-.426	
BankGuaranteeforConstruction	.449		.480		
FSdueDiligence	.303		.449		.377
TheBreakEvenPoint					
TheInternalRateReturn			.320	.654	
DonorFunding				.637	
DefiningSocialDiscountRate				-.625	
DefiningInflationAssumption	.424			-.612	
ForeignExchangeFluctuation		.464		-.535	
DefiningTaxesPolicy				-.467	.301
DefiningInterestRateinMonetaryPolicy	.351		.303	-.444	
TheConcessionPeriod				.391	
GovernmentEquity	.314				.814
LengthyDelayDueofPoliticalInvolvement		.385			.607
Organization					.554
OperationalCostOverrun	.322	.309		-.367	-.522

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.^a

a. Rotation converged in 48 iterations.

Structure Matrix

	Component				
	1	2	3	4	5
RegularMaintenanceCosts	.886	.387	.313		
RegularOperationCosts	.823	.312			
IDCpaymentMethod	.800	.412	.470	-.369	
IDCpaymentPeriod	.795	.394	.483	-.351	
MezzanineLoanforAdditionalCapital	.788	.527			
ValueofInterestDuringConstruction	.768	.503	.309	-.460	
AdditionalWorkingCapitalLoan	.759	.340			
LengthyofGradePeriod	.753	.472	.334	-.333	
OverrunDuringConstruction	.752	.566	.511	-.379	

Structure Matrix

	Component				
	1	2	3	4	5
DebtRefinancing	.676				
FinancingRiskandCosts	.656		.651		
InsuranceorRiskTransferExpenses	.651		.552		
DefiningInterestRateinMonetaryPolicy	.587	.474	.490	-.553	
OperationalCostOverrun	.484	.382		-.464	-.422
PrivateEquityCapital	.483		.395		.325
MaterialAvailabilityDuringConstruction	.377	.831		-.448	
LaborAvailabilityDuringConstruction		.829			
MarketingandCompetitionStudy	.560	.794	.384		.450
OrganizationHumanResourcesDuringConstruction	.351	.791	.385		.317
LengthyBiddingEvaluation	.535	.759			.327
AdditionalIncomes	.435	.758			
LengthyContractNegotiation	.546	.740			
CostofConstructionTheFS	.527	.679	.491		.483
OrganizationHumanResourcesDuringOperationandMaintenance	.590	.647	.431	-.339	
QualityofFeasibilityStudy		.635	.608		.363
LengthyBiddingPreparation	.318	.622			.560
DemandVolume		.616	.537	.303	.494
DemandGrowth		.611	.469	.344	.493
TechnologyInvestment	.406	.601			-.335
ConstructionCostsandInvestment	.376	.545	.511		
AmountofBankLoan	.521		.826		.311
BankLoanPeriod	.586	.364	.825		
TarifforFeeApprovedbyGovernment			.785		
TarifforFeeGrowth	.412		.778		
LandAcquisitionProcess		.346	.680	-.465	.481
BankGuaranteeforConstruction	.619	.365	.634		
FSdueDiligence	.479	.358	.587		.468
SupportedGovernmentPolicy			.535	-.463	
ProjectLeverageDebtbyEquity			.388		
TheBreakEvenPoint					
DefiningInflationAssumption	.616	.407	.338	-.705	
DefiningSocialDiscountRate	.352	.326	.370	-.681	
TheInternalRateReturn				.623	
DonorFunding				.613	.332
ForeignExchangeFluctuation		.545		-.571	
DefiningTaxesPolicy	.438	.327	.440	-.535	.363
TheConcessionPeriod				.385	
GovernmentEquity	.308				.812
LengthyDelayDueofPoliticalInvolvement		.454			.665

Structure Matrix

	Component				
	1	2	3	4	5
	Organization				

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Component Correlation Matrix

Component	1	2	3	4	5
1	1.000	.331	.284	-.157	.082
2	.331	1.000	.222	-.089	.195
3	.284	.222	1.000	-.092	.105
4	-.157	-.089	-.092	1.000	.008
5	.082	.195	.105	.008	1.000

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization.

Factor Analysis

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.736
Bartlett's Test of Sphericity	Approx. Chi-Square	1351.321
	df	378
	Sig.	.000

Communalities

	Initial	Extraction
CostofConstructionTheFS	1.000	.800
SupportedGovernmentPolicy	1.000	.808
TarifforFeeApprovedbyGovernment	1.000	.763
DemandVolume	1.000	.805
AmountofBankLoan	1.000	.805
LandAcquisitionProcess	1.000	.802
FinancingRiskandCosts	1.000	.706
DemandGrowth	1.000	.807
QualityofFeasibilityStudy	1.000	.772
TarifforFeeGrowth	1.000	.815
LengthyDelayDueofPoliticalInvolvement	1.000	.769
BankLoanPeriod	1.000	.869

OverrunDuringConstruction	1.000	.909
OperationalCostOverrun	1.000	.842
InsuranceorRiskTransferExpenses	1.000	.650
DefiningInflationAssumption	1.000	.731
DefiningInterestRateinMonetaryPolicy	1.000	.823
LengthyBiddingPreparation	1.000	.725
TechnologyInvestment	1.000	.707
DefiningTaxesPolicy	1.000	.619
PrivateEquityCapital	1.000	.708
MarketingandCompetitionStudy	1.000	.779
LengthyBiddingEvaluation	1.000	.789
AdditionalIncomes	1.000	.880
IDCpaymentPeriod	1.000	.786
RegularOperationCosts	1.000	.746
FSdueDiligence	1.000	.747
AdditionalWorkingCapitalLoan	1.000	.754

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	16.762	59.866	59.866	16.762	59.866	59.866
2	2.287	8.168	68.033	2.287	8.168	68.033
3	1.528	5.457	73.490	1.528	5.457	73.490
4	1.138	4.064	77.554	1.138	4.064	77.554
5	.992	3.544	81.099			
6	.805	2.875	83.974			
7	.735	2.623	86.597			
8	.585	2.089	88.686			
9	.467	1.667	90.353			
10	.428	1.528	91.882			
11	.365	1.302	93.184			
12	.337	1.204	94.388			
13	.268	.955	95.344			
14	.235	.840	96.184			
15	.212	.756	96.940			
16	.179	.638	97.578			
17	.145	.517	98.096			
18	.124	.444	98.540			
19	.106	.378	98.918			
20	.088	.313	99.231			
21	.064	.228	99.459			

22	.046	.166	99.625			
23	.031	.110	99.735			
24	.027	.096	99.831			
25	.019	.067	99.898			
26	.014	.051	99.949			
27	.012	.042	99.991			
28	.003	.009	100.000			

Extraction Method: Principal Component Analysis.

One-Way ANOVA

		Descriptives								
		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component Variance
						Lower Bound	Upper Bound			
ProjectLeverageDebt byEquity	Governments	8	2.6250	1.40789	.49776	1.4480	3.8020	1.00	5.00	
	Banks/Financial Institutions	6	3.0000	.63246	.25820	2.3363	3.6637	2.00	4.00	
	Entrepreneurs/Private Sectors	3	4.0000	1.00000	.57735	1.5159	6.4841	3.00	5.00	
	Consultants	9	2.6667	.70711	.23570	2.1231	3.2102	2.00	4.00	
	Donor Agencies	2	1.5000	.70711	.50000	-4.8531	7.8531	1.00	2.00	
	Total	28	2.7857	1.06657	.20156	2.3721	3.1993	1.00	5.00	
Model	Fixed Effects			.98632	.18640	2.4001	3.1713			
	Random Effects				.29492	1.9669	3.6045			.21109

Descriptives

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component
						Lower Bound	Upper Bound			
TheInternalRateReturn	Governments	8	2.2500	.70711	.25000	1.6588	2.8412	1.00	3.00	
	Banks/Financial Institutions	6	2.6667	.81650	.33333	1.8098	3.5235	1.00	3.00	
	Entrepreneurs/Private Sectors	7	2.8571	1.21499	.45922	1.7335	3.9808	1.00	5.00	
	Consultants	11	3.1818	.87386	.26348	2.5947	3.7689	2.00	4.00	
	Donor Agencies	2	2.0000	1.41421	1.00000	-10.7062	14.7062	1.00	3.00	
	Total	34	2.7353	.96323	.16519	2.3992	3.0714	1.00	5.00	
	Model Fixed Effects Random Effects			.93453	.16027	2.4075	3.0631			.06929
TheBreakEvenPoint	Governments	8	2.3750	1.50594	.53243	1.1160	3.6340	1.00	5.00	
	Banks/Financial Institutions	6	2.6667	.81650	.33333	1.8098	3.5235	2.00	4.00	
	Entrepreneurs/Private Sectors	7	1.8571	.89974	.34007	1.0250	2.6893	1.00	3.00	
	Consultants	11	2.5455	.68755	.20730	2.0836	3.0074	2.00	4.00	
	Donor Agencies	2	1.5000	.70711	.50000	-4.8531	7.8531	1.00	2.00	
	Total	34	2.3235	1.00666	.17264	1.9723	2.6748	1.00	5.00	
	Model Fixed Effects Random Effects			1.00503	.17236	1.9710	2.6760			.00417
TheConcessionPeriod	Governments	9	2.6667	.70711	.23570	2.1231	3.2102	1.00	3.00	

Descriptives

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum	Between-Component
					Lower Bound	Upper Bound			
Banks/Financial Institutions	6	2.8333	.40825	.16667	2.4049	3.2618	2.00	3.00	
Entrepreneurs/Private Sectors	7	2.7143	.95119	.35952	1.8346	3.5940	1.00	4.00	
Consultants	11	2.9091	.53936	.16262	2.5467	3.2714	2.00	4.00	
Donor Agencies	2	2.5000	2.12132	1.50000	-16.5593	21.5593	1.00	4.00	
Total	35	2.7714	.73106	.12357	2.5203	3.0226	1.00	4.00	
Model			.76748	.12973	2.5065	3.0364			
Fixed Effects				.12973 ^a	2.4112 ^a	3.1316 ^a			
Random Effects									-.06954

a. Warning: Between-component variance is negative. It was replaced by 0.0 in computing this random effects measure.

Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
ProjectLeverageDebtbyEquity	2.126	4	23	.110
TheInternalRateReturn	.431	4	29	.785
TheBreakEvenPoint	2.388	4	29	.074
TheConcessionPeriod	3.773	4	30	.013

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
ProjectLeverageDebtbyEquity	Between Groups	8.339	4	2.085	2.143	.108
	Within Groups	22.375	23	.973		
	Total	30.714	27			
TheInternalRateReturn	Between Groups	5.291	4	1.323	1.515	.224
	Within Groups	25.327	29	.873		
	Total	30.618	33			
TheBreakEvenPoint	Between Groups	4.148	4	1.037	1.027	.410
	Within Groups	29.293	29	1.010		
	Total	33.441	33			

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
TheConcessionPeriod	Between Groups	.500	4	.125	.212	.930
	Within Groups	17.671	30	.589		
	Total	18.171	34			

The Mann-Whitney U-Test

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Parameter2	225	23.00	13.016	1	45	12.00	23.00	34.00
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	Organization2	N	Mean Rank	Sum of Ranks
Mean	Governments	45	34.87	1569.00
	Banks/Financial Institutions	45	56.13	2526.00
	Total	90		
Parameter2	Governments	45	45.50	2047.50
	Banks/Financial Institutions	45	45.50	2047.50
	Total	90		

Test Statistics^a

	Mean	Parameter2
Mann-Whitney U	534.000	1012.500
Wilcoxon W	1569.000	2047.500
Z	-3.873	.000
Asymp. Sig. (2-tailed)	.000	1.000
Exact Sig. (2-tailed)	.000	1.000
Exact Sig. (1-tailed)	.000	.503
Point Probability	.000	.006

a. Grouping Variable: Organization2

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Parameter2	225	23.00	13.016	1	45	12.00	23.00	34.00
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	Organization2	N	Mean Rank	Sum of Ranks
Mean	Governments	45	27.53	1239.00
	Entrepreneurs/PrivateSectors	45	63.47	2856.00
	Total	90		
Parameter2	Governments	45	45.50	2047.50
	Entrepreneurs/PrivateSectors	45	45.50	2047.50
	Total	90		

Test Statistics^a

	Mean	Parameter2
Mann-Whitney U	204.000	1012.500
Wilcoxon W	1239.000	2047.500
Z	-6.543	.000
Asymp. Sig. (2-tailed)	.000	1.000
Exact Sig. (2-tailed)	.000	1.000
Exact Sig. (1-tailed)	.000	.503
Point Probability	.000	.006

a. Grouping Variable: Organization2

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Parameter2	225	23.00	13.016	1	45	12.00	23.00	34.00
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	Organization2	N	Mean Rank	Sum of Ranks
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Mean	Governments	45	34.24	1541.00
	Consultants	45	56.76	2554.00
	Total	90		
Parameter2	Governments	45	45.50	2047.50
	Consultants	45	45.50	2047.50
	Total	90		

Test Statistics^a

	Mean	Parameter2
Mann-Whitney U	506.000	1012.500
Wilcoxon W	1541.000	2047.500
Z	-4.093	.000
Asymp. Sig. (2-tailed)	.000	1.000
Exact Sig. (2-tailed)	.000	1.000
Exact Sig. (1-tailed)	.000	.503
Point Probability	.000	.006

a. Grouping Variable: Organization2

NPar Tests
Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Parameter2	225	23.00	13.016	1	45	12.00	23.00	34.00
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test
Ranks

	Organization2	N	Mean Rank	Sum of Ranks
Mean	Governments	45	43.09	1939.00
	Donor Agencies	45	47.91	2156.00
	Total	90		
Parameter2	Governments	45	45.50	2047.50
	Donor Agencies	45	45.50	2047.50
	Total	90		

Test Statistics^a

	Mean	Parameter2
Mann-Whitney U	904.000	1012.500

Wilcoxon W	1939.000	2047.500
Z	-.905	.000
Asymp. Sig. (2-tailed)	.365	1.000
Exact Sig. (2-tailed)	.368	1.000
Exact Sig. (1-tailed)	.184	.503
Point Probability	.001	.006

a. Grouping Variable: Organization2

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Parameter2	225	23.00	13.016	1	45	12.00	23.00	34.00
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	Organization2	N	Mean Rank	Sum of Ranks
Mean	Banks/Financial Institutions	45	40.36	1816.00
	Entrepreneurs/PrivateSectors	45	50.64	2279.00
	Total	90		
Parameter2	Banks/Financial Institutions	45	45.50	2047.50
	Entrepreneurs/PrivateSectors	45	45.50	2047.50
	Total	90		

Test Statistics^a

	Mean	Parameter2
Mann-Whitney U	781.000	1012.500
Wilcoxon W	1816.000	2047.500
Z	-1.875	.000
Asymp. Sig. (2-tailed)	.061	1.000
Exact Sig. (2-tailed)	.061	1.000
Exact Sig. (1-tailed)	.030	.503
Point Probability	.000	.006

a. Grouping Variable: Organization2

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Parameter2	225	23.00	13.016	1	45	12.00	23.00	34.00
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	Organization2	N	Mean Rank	Sum of Ranks
Mean	Banks/Financial Institutions	45	46.50	2092.50
	Consultants	45	44.50	2002.50
	Total	90		
Parameter2	Banks/Financial Institutions	45	45.50	2047.50
	Consultants	45	45.50	2047.50
	Total	90		

Test Statistics^a

	Mean	Parameter2
Mann-Whitney U	967.500	1012.500
Wilcoxon W	2002.500	2047.500
Z	-.364	.000
Asymp. Sig. (2-tailed)	.716	1.000
Exact Sig. (2-tailed)	.719	1.000
Exact Sig. (1-tailed)	.359	.503
Point Probability	.002	.006

a. Grouping Variable: Organization2

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Parameter2	225	23.00	13.016	1	45	12.00	23.00	34.00
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	Organization2	N	Mean Rank	Sum of Ranks
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Ranks

	Organization2	N	Mean Rank	Sum of Ranks
Mean	Banks/Financial Institutions	45	56.72	2552.50
	Donor Agencies	45	34.28	1542.50
	Total	90		
Parameter2	Banks/Financial Institutions	45	45.50	2047.50
	Donor Agencies	45	45.50	2047.50
	Total	90		

Test Statistics^a

	Mean	Parameter2
Mann-Whitney U	507.500	1012.500
Wilcoxon W	1542.500	2047.500
Z	-4.204	.000
Asymp. Sig. (2-tailed)	.000	1.000
Exact Sig. (2-tailed)	.000	1.000
Exact Sig. (1-tailed)	.000	.503
Point Probability	.000	.006

a. Grouping Variable: Organization2

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Parameter2	225	23.00	13.016	1	45	12.00	23.00	34.00
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	Organization2	N	Mean Rank	Sum of Ranks
Mean	Entrepreneurs/PrivateSectors	45	53.39	2402.50
	Consultants	45	37.61	1692.50
	Total	90		
Parameter2	Entrepreneurs/PrivateSectors	45	45.50	2047.50
	Consultants	45	45.50	2047.50
	Total	90		

Test Statistics^a

	Mean	Parameter2
Mann-Whitney U	657.500	1012.500
Wilcoxon W	1692.500	2047.500
Z	-2.872	.000
Asymp. Sig. (2-tailed)	.004	1.000
Exact Sig. (2-tailed)	.004	1.000
Exact Sig. (1-tailed)	.002	.503
Point Probability	.000	.006

a. Grouping Variable: Organization2

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Parameter2	225	23.00	13.016	1	45	12.00	23.00	34.00
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	Organization2	N	Mean Rank	Sum of Ranks
Mean	Entrepreneurs/PrivateSectors	45	64.23	2890.50
	Donor Agencies	45	26.77	1204.50
	Total	90		
Parameter2	Entrepreneurs/PrivateSectors	45	45.50	2047.50
	Donor Agencies	45	45.50	2047.50
	Total	90		

Test Statistics^a

	Mean	Parameter2
Mann-Whitney U	169.500	1012.500
Wilcoxon W	1204.500	2047.500
Z	-6.964	.000
Asymp. Sig. (2-tailed)	.000	1.000
Exact Sig. (2-tailed)	.000	1.000
Exact Sig. (1-tailed)	.000	.503
Point Probability	.000	.006

a. Grouping Variable: Organization2

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Parameter2	225	23.00	13.016	1	45	12.00	23.00	34.00
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	Organization2	N	Mean Rank	Sum of Ranks
Mean	Consultants	45	56.96	2563.00
	Donor Agencies	45	34.04	1532.00
	Total	90		
Parameter2	Consultants	45	45.50	2047.50
	Donor Agencies	45	45.50	2047.50
	Total	90		

Test Statistics^a

	Mean	Parameter2
Mann-Whitney U	497.000	1012.500
Wilcoxon W	1532.000	2047.500
Z	-4.269	.000
Asymp. Sig. (2-tailed)	.000	1.000
Exact Sig. (2-tailed)	.000	1.000
Exact Sig. (1-tailed)	.000	.503
Point Probability	.000	.006

a. Grouping Variable: Organization2

NPar Tests

Descriptive Statistics

	N	Mean	Std. Deviation	Minimum	Maximum	Percentiles		
						25th	50th (Median)	75th
Mean	225	3.451919	.4595048	2.3333	4.6667	3.000000	3.454500	3.720800
Organization2	225	3.00	1.417	1	5	2.00	3.00	4.00

Mann-Whitney Test

Ranks

	Organization2	N	Mean Rank	Sum of Ranks
Mean	Governments	45	34.87	1569.00
	Banks/Financial Institutions	45	56.13	2526.00
	Total	90		

Test Statistics^a

	Mean
Mann-Whitney U	534.000
Wilcoxon W	1569.000
Z	-3.873
Asymp. Sig. (2-tailed)	.000
Exact Sig. (2-tailed)	.000
Exact Sig. (1-tailed)	.000
Point Probability	.000

a. Grouping Variable: Organization2

Appendix 5 Selected Transcript Interview from Qualitative Survey

Semi-structured Interview

1. In which company/institution you are working now?
2. What is your current position?
3. Please kindly explain your main duties/responsibilities?
4. How many PPP projects you have involve in your career so far?
5. Which one are the largest PPP projects you have involved? How large was the estimation of the project value (in USD)?
6. Please elaborate further about these projects?
7. What about the investment and financing of that project? How is the mechanism of the project financing? Is there any specific method of financing mechanism?
8. What would be the bigger/more significant source of finance?
9. How is the funding structure? Equity, Bank Loan, Mezzanine, Bonds other?
10. Which one is the most common financing mechanism you have implemented so far? Are there any specific reasons?
11. Are you familiar with Project Financing, PFI, Forfeiting Financing, Debt Guarantee Fund, Supporting Debt Model, Bonds, State Guarantee etc.?
12. How was the procurement process?
13. How was the project settle, by open bidding or direct appointment?
14. Is there any specific case in the procurement process?
15. What is the biggest consideration to decide to proceed with the project? Is it the RoI, RoE, IRR, NPV or other parameter? Please provide explanation?
16. What is the most significant risk you have considered before decided to execute the project? Please provide explanation?
17. Before you execute the PPP project, did you hire specific consultant to construct the Feasibility Study? Or do you do in-house in your company? What would be the reasons?

18. Are there any differences the Level of Feasibility from the FS and the project feasibility executed? How big are the differences? In which particular part of the differences? What is the reason of differences?
19. Do you have any suggestion to improve the projects?
20. Do you have any suggestion to improve this study?

Public Private Partnership Procurement

Respondent 1

Goldcoast

Person (@time)	Discussions
Respondent 1	oh yeah, to get up and go by the chance
Ph.D Candidate, (Male voice)	uh yeah, Is it Ju Marang today?
Respondent 1	i think he should be, i hadn't heard him, but he got to say hello
Ph.D Candidate, (Male voice)	i had to say hello to Mr. Ju
Respondent 1	yeah, supposed,yeah, oh welcome
Respondent 1	Who you have spoken to in Brisbane? Paul Calson, he is very good, isn't he? very knowledgeable
Respondent 1	I have work with Paul in infrastructure Queensland which is a revisory just government, work with him for tee long long time so he is very full knowledgeable formal government minister, so he is very knowledgeable about what happening in government and how government does things. It is very important
Ph.D Candidate, (Male voice)	You want to confirm interview with Roger, but he said he may be away from Brisbane, in this week, so
Respondent 1	What you was very hard that had been done as a chairman of EIQ Infrastructure, he saying part time, so he is very hard to been done, Paul was full time, he was set that's role put Paul's took down never go
Respondent 1	again, that was shame because with me absolutely benefit fit the last probably this year so this end world, not in last year was about the same, which is so much work of the seize much to work , so much work in Asian and Africa
Ph.D Candidate, (Leny)	Africa
Respondent 1	so it's coming to all direction, but.. so, we have never get time to sit down, Do anything qualitatively, you know some measure quality performance in, so away of opportunity, i will keep today this morning clearance, so we can do things and talk about things what are you doing so far?

Person (@time)	Discussions
Ph.D Candidate, (Male voice)	interview first, intern intensively and case study
Respondent 1	how's Peter ?
Ph.D Candidate, (Male voice)	Peter is good, but he is very busy, He is now in China, yeah in WU Han
Respondent 1	very busy man
Respondent 1	I think they make you work hard academy, you can staying in academia? uh huh, hard laugh..., i can tell you in private sake, should be easy, but it's not, it's another
Respondent 1	what about you Leny, what you can do with your career ?
Ph.D Candidate, (Leny)	i will put my career in Indonesian need PPP and infrastructure, very meet helpful that one, right now every thing is still not really fixed, even procedure sometimes mixed up with other among the ministry, so right now i would try to frame, the PPP in Indonesia actually, from the planning until later on financial closing, right now until procurement it is still okay, but for financial closing there are a bit gap over there
Respondent 1	We publish what we called public infrastructure pollutant, which I think i have mentioned you, i dont know if you did , but i 'd be sure, i will get a copy before the day finished, and we publish articles, and current issue is being publish full article, it is very comprehensive article on PPP in Indonesia have raw model have been reform and have continuing opportunity for changes
Ph.D Candidate, (Leny)	I will check the continues one
Respondent 1	Oh great, it's working progress, i will get you a copy before publish article,
Ph.D Candidate, (Leny)	because so many issue, there, even the planning is not really welform, the Planning System in The Bappenas, not really good there, but the procurement still okay, the team in procurement preparation there are team, may be like 20 peoples there work very intense to prepare The project, but because of the project too many and somehow also need more people actually, so there's not really mature in every step
Respondent 1	Oh okay just all she says, he is pull all about, he looks put a bag and says still need a lot work to do
Ph.D Candidate, (Leny)	coordination, among the minister sometimes they try to, like keep on their authorities, and a little bit worry if sharing authority to other ministry something like that

Person (@time)	Discussions
Respondent 1 Ph.D Candidate, (Leny)	i understand i demanding a lot with them actually , because i know the theory and they know the practise and in practical is not that easy even to discuss, something like that, right?
Respondent 1 Ph.D Candidate, (Leny) Ph.D Candidate, (Male voice)	accommodate he said this more to do one, because another accountable i will give that politically but not accountable for the budget, for performance in sake, so i mean i just keep doing what have to be done but they do not like evaluation at all, even there was student come to ask for thanks to them, c'mon you ask too much that why we people keep research
Respondent 1 Ph.D Candidate, (Leny)	No, exactly, and you keep on researching, because to you.. but this is report, it is a final graph stages and informed by Japanese, right?
Respondent 1 Respondent 1 Ph.D Candidate, (Leny)	for Asian but there huge section in here , i am doing this zen For asian area, but there are huge section here in Indonesia but soonest it's ready, as soonest it's signed off, submitted, and formulise , i will get you a copy it is very good I do internship now in Bappenas
Respondent 1 Ph.D Candidate, (Leny) Respondent 1 Ph.D Candidate, (Leny)	Where are you time all the time? Okay, all yours Okay, my research is not focusing in the financing itself, right?, the point is how to make the project more interesting, for the investors, i mean how to elevate the value for money or the level of feasibilities of the projects, right? so far, as far as I understand the government can keep the contributions to elevate the level of feasibility, something like that right ? In Indonesia, we know the VGF and the guarantees a part of government contribution, right now we try to implement taxes incentive and subsidiaries but there still quite far from that one may be start to have a moody bonds or whatever bonds, infrastructure bonds to gain some finance for PPP project, but right now, I try to study how actually the government of Queensland or Australia to manage the structure financing system for the PPP project
Respondent 1 Ph.D Candidate, (Leny)	financing system for government or for private perspective? could be both, the point is how to make project more interested, we know more feasibles, and then be a good to offer, some thing like that, how

Person (@time)	Discussions
Respondent 1	government improve or how the private also secured
7:53	i will put the Econom, this a bit a little warm, this is above your head, there is a little button top hand right hand side
8:08	this is a sustainable building, so you know it's mean every thing, it should be going turn off, and switch on
Ph.D Candidate, (Leny)	oh it's plenty, but will get too hard in other wise kept
Ph.D Candidate, (Male voice)	23
Respondent 1	nothing show
Respondent 1	just pressed top button , is it ?
Respondent 1	alright.. uhm, this yeah.. uhm.. i would twitting before you go, the bulletin and also paper is going to a piece in what about? financing in Australian project , okay?
Respondent 1	it s going to have 6 (six) of them, of the financing even costings so what should i do
Ph.D Candidate, (Leny)	Okay, what you are going like to do first
Respondent 1	May be the general terms of the government, or may be private, then later on to contribute to elevate the level of feasibility, or do i need to
Ph.D Candidate, (Leny)	because i have semi structural question, but
Respondent 1	sure you are in charge, you are the first
Respondent 1	i will very through it, from the first question is that in which company or is it from your working now? or
Respondent 1	what in university, to do learn robust work outside of the organisation, okay?
Respondent 1	so i advise all everything from government through the private funds
Ph.D Candidate, (Leny)	that was keep me busy with my academic work
Respondent 1	what is your current profession?
Ph.D Candidate, (Leny)	here? Professor
Respondent 1	yeah.. that's easy
Ph.D Candidate, (Leny)	okay, if you dont mind to explain your duties
Respondent 1	about 50:50 research in academic teaching, all my stall in procurement infrastructure, that sort of thing
Ph.D Candidate,	how long you have experience to involved in the PPP project

Person (@time)	Discussions
(Leny)	
Respondent 1	PPP ? probably about 15 years, probably any came in about 15 years, talking about The BOTs and The BOTs become more formalise this PPP about 2001
Ph.D Candidate, (Leny)	on BOT study in 2001 ?
Respondent 1	firm amazing director , we actually did BOTs, we actually bid for them, put them finance, put them together next we did them, also such thing CAPAC, hospitals, student accomodation complexes, all such a things
10:39	no motor ways, whole infrastructures and building
10:43	
Ph.D Candidate, (Leny)	among of your projects, which one is the biggest of PPP project so far and how big is in the projects amount in value in USD or something?
Respondent 1	sure, typically in size they, you have got two levels , the market size of they make the project which is you know anything from 500 milyar put, 500 billion australian and that's probably a pipeline of two or three you are going through on the bases, and then you hv got small project like the badges of schools , they put through, small hospitals, CapAC, small bridges, motor ways - not a big once, a little once - just the way we do a connection road, and they tend to be generally speaking up to about 100 mile, this not a lot at the moment in 100 to 500 that many social infrastructure like hospital improvement things like that, but most of my experiences's in based on first second tee so upto about 100 mill put after you putting coordinate probably up to 100 miles for my initial project and after that about probably 500 with some advise done. Okay?
Ph.D Candidate, (Leny)	could you please just elaborate one the biggest one
Respondent 1	biggest project? big was I did as student multi stage student accomodation project in Victoria, it was a 38,600 unit student complexes build to three levels over looking like had place we call it Lily Dorm, in west melbourne that was in Swinburne University
Ph.D Candidate, (Leny)	are there social infrastructure in economic?
Respondent 1	good question, i think it is social, and that's on there way I called it that
Ph.D Candidate, (Leny)	What about investment, or financing in that project?
Respondent 1	there's equity put in, the equity range about 25% , roughly

Person (@time) Discussions

25% put in private equity partners, private equity, i understood and they did was limited recourse finance for terms of 7 years it wasn't project finance in bank limited, recourse but 7 years and total project size? like 100 milion, or how?

Ph.D Candidate, (Leny)
Respondent 1 No, the project probably just done for over 100 , it's interest stages, but that very mileage stage

Ph.D Candidate, (Leny) how long is that construction?

Respondent 1 construction took every stage about twelve months, twelve months and 2-3 years

Ph.D Candidate, (Leny)
Respondent 1 can bigger source of finance is from The Bank right?

Respondent 1 yeah limited recourse

Ph.D Candidate, (Leny) 25 Equity from

25 from bank

Respondent 1 no , is no limit, you can get 100%, you can get up to 200, but they dont have strict loan strict security ratios for Project FInance, what I tend to do is look at underline economic of the project the robustness of the income strain, and if strong enough and all supported 100%, but they like to see some hard money so i called up some equity only because if things go wrong, the first person to loose, would be The equity investors, but it is more psychological i think then will because we are talking 15% any away

Ph.D Candidate, (Leny) little

how is finance structure, is there any Mezanine bonds equity

Respondent 1 same you did

Ph.D Candidate, (Leny) is there any specific reason on that one or project secure?

Respondent 1 No, we did all the project secure

Respondent 1 7 years financing every 7 years

Ph.D Candidate, (Leny) normal ?

but 7 years as long as you can go in Australia for domestic

Person (@time)	Discussions
	banks
Ph.D Candidate, (Leny)	how is the big interest rate ?
Respondent 1	<p>The interest rate about 160 basis points but 250 basis point was spread there is 250 cost of fund, it was bank build swap rate, plus 250 basis point, as i have a memory, it's just going back for couple years, this is important comes get with article i will give you you have get bank swap rate, bank bill swap rate. it's about 20 days full construction, this is full investment 7 years, and the spread was 160 basis points, okay ? so the interest rate 6% then 1.6% bank margin 7.6%</p>
Respondent 1	<p>Now, for The Construction the spread is 260 basis point construction will be very different Bank Bill swap rate is 90 days, because short of time line we talk one, but when we did talk one</p>
Ph.D Candidate, (Leny)	is this financial closing process?
Respondent 1	i will come to that.
Respondent 1	<p>spread 250 basis points, okay when you do financial close, you got two loans, that loan come first, you dont ord that one down i just draw that one , you build the thing, and there on commissioning, you pay that loan with this one that standard practise this sort of senior and this is junior loan or not really?</p>
Respondent 1	that comes number one, number two and that one disappear, and replaced by investment funds
Ph.D Candidate, (Leny)	This is 7.6% , and how about construction higher or lower?
Respondent 1	higher, 250 basis point

Ph.D Candidate, (Leny)	what in percentage to show
Respondent 1	<p>important thing to pick up what you have is, you have a reference rate, if you borrowing offshore, that would be liable London Standard or this Euro Bond that different right?</p>

Person (@time)	Discussions
	<p>you are currency only for this can be US dollar or in Australia here we will tend to use bonds, right? as i do in US rate or bill rate</p>
Ph.D Candidate, (Leny)	<p>what is bonds rate here?</p>
Respondent 1	<p>bank dollar bill swap rate, PPP study, okay now, that a wave front, right?, that goes into your cost of capital, and your very first entry, on top of that the bank has to charge you, money they will to borrow money to put into your project so, I will charge you basis point basis point is 8% of one, so 1% equals 100 basis point in finance, lenders only if talk basis points 2% ever talk basis point</p> <p>first capital, yet What we called bank lending margin that's very that small, i think you find, first capital depend.. some quite where day and you may have bank margin usually about 30 basis point, so you might have basis rate 6%, let say then you have The bank spread</p> <p>The Bank spread is that perception of your risk,</p>
Ph.D Candidate, (Leny)	<p>that the one that need expertise to do</p>
Respondent 1	<p>your project might get 200 basis point, might mark it 300 put spread as 300 basis point let say total basis point 6 point, oops sorry 9.3</p>
Ph.D Candidate, (Leny)	<p>so if 9,3 is little bit similar with Indonesia</p>
Respondent 1	<p>that's small more for structure, of this</p>

Respondent 1	<p>normally that is not a problem, which is not a catch when become terms structure interest rate, terms structure?</p>
Respondent 1	<p>if it.. and it is important, because if you borrowing 7 years, you are going to capital market today, The trend of interest rate would be a bit like that if you borrow for a year, you will probably get charge 4%, let say</p>

Person (@time) Discussions

if you borrow for 4 years, you will probably get charge 5%,
so , why the gap?
it is important because if you are going to have 7 year loan, you
are paying 7 year money
in positive year curve that's going to cost you more

Ph.D Candidate, is that effect of inflation, monetary system something like that?
(Leny)

Respondent 1 No, it institutional perception on the economic capital
it is a market value
market saying very strong but always saying about risk
be worry about russian to some ,
lots of thing to be worry about
so that your course important because they traits, down here we
use business here like in australia,
short term light, so tend to be cheaper
but if you went to US to borrow, you were going to borrowing
long term, right?
20 year bond ,
if you had 20 year bond you will be borrowing lot more, you
will be
more in spread, spread will be more, okay?
all right, that basically turn out your question
every
you said, how is proceed , if you asked, what is your question?

Ph.D Candidate, what the reason The financing and choosing financing
(Leny)

interest rate as swap,
actually there are some familiar financing that we understand,
the project financing, PFI , profiting model, the debt guarantee,
the supporting debt model, bonds and
also state guarantee, which one is to familiar to be implement in
Australia

Respondent 1 none ,
22:19

Ph.D Candidate, even in PFI, project finance?
(Leny)

Respondent 1 no one, government does do not support project in Australia,
Ph.D Candidate, direct investment within government
(Leny)

Respondent 1 private firm and lenders
and now government support PPP in Australia and very few in

Person (@time)	Discussions
	England
Ph.D Candidate, (Leny)	what about collateral when private sector to get finance backup from the bankers is there any guarantee, you know like asset, being guaranteed?
Respondent 1	no
Ph.D Candidate, (Leny)	is just a trusted?
Respondent 1	No, is not trusted
Ph.D Candidate, (Leny)	how is that one?
Respondent 1	private sector, do feasibility study that service coverage ratios all that stuff. and take it to bank and bank really put in terms goodney
Ph.D Candidate, (Leny)	due dilligent
Respondent 1	i will see they are like it or not, now i will do stress testing , and then now prove it market, they might put some condition on that, they might be more equity, more that, but that is it, all over. and then lender there is a limited recourse
Ph.D Candidate, (Leny)	is that part of project financing collateral for the lender
Respondent 1	that's a normal project finance that one i am describing first.
Respondent 1	government support coming in to Asia, but very rare here very rare in US, britain, and commonwealth countries
Ph.D Candidate, (Leny)	what about consortium among another banker segment is risk internally, they do both on syndication so other things in terms of guarantee by the government, really rare done in australia
Ph.D Candidate, (Leny)	guarantee from the government is very rare, but right now is very familiar in Indonesia, demand risk etc
Respondent 1	you get all fundings, all like stuff
Ph.D Candidate,	is not really good

Person (@time)	Discussions
(Leny)	
Respondent 1	long term you should need it.
Ph.D Candidate,	the mature of the investor of the private is the one that we have
(Leny)	to
Respondent 1	eventually more move toward, we talking decades, okay?
	we are talking maturity in market, so lot to do with bank
	regulation, political risk and other things
Ph.D Candidate,	because of monetary system to involve. right?
(Leny)	
Respondent 1	government , physical policy, monetary policy
	they can't do strange thing overnight, and they can't jeopardise
	your project, so The lender want a bit insurance from the
	government that won't happened.
Ph.D Candidate,	political risk also none?
(Leny)	
Respondent 1	No, political zero
Ph.D Candidate,	other one, that we practise are quite difference, so many risk
(Leny)	over there
Ph.D Candidate,	and mostly generate by the government
(Leny)	
Respondent 1	if you can back 10 years, Indonesia was lot worse than this
	now,
	I remember we couldn't get any money from the project
	because of government souverign risk was so low, stand
	you look at progress
	viable, more robust banking system better now, better
	regulation, so more maturing process
Ph.D Candidate,	what do you think about financial service authority, OJK -
(Leny)	Otoritas Jasa Keuangan -
	financial service authority, right now they try regulate the
	monetary and banking system
	is that a good way, or not really?
	because they try to adapt from UK, some other country, Japan
	or something but actually is not familiar to other country
	just established in 2011
Respondent 1	if you in very advance country then you are very lucky, because
	you can have reserve banking, independent treasury
Ph.D Candidate,	
(Leny)	
Respondent 1	if you don't trust treasury , you can't and let them and regulate
	the bank , cause i will do it from the political perspective
	So, you can't of just getting the institution right over time
	not an easy task, i dont know if it one agency better than any
	other
	I mean in malaysian system, doesn't work anymore effectively

Person (@time)	Discussions
	<p>in your task, it is just trying different thing, just trying to get problem fixed. just stick with what you got and just gradually work hard and prove it give them more power but you do not too much power but, because in treasury start dominate them, and treasury does that then treasury will use monetary policy trait, and then or fiscal policy for same uses.</p>
Ph.D Candidate, (Leny)	<p>but right now actually, OJK itself some banking small banks they fine, is not really good, because they will be another charge, something like that because would be threat for small bank, to pay again another charge for OJK</p>
Respondent 1 Ph.D Candidate, (Leny)	<p>they don't like regulation in anyway bank actually not really good</p>
Respondent 1	<p>i think it is, bank will be more twisted, main intervention is not a main total this question</p>
Ph.D Candidate, (Leny)	<p>because there are all risk too in Indonesia or banking</p>
Respondent 1	<p>happened but also small financial crisis in your government , not wait not strong government, in last crisis Asian do you have Asian financial crisis? what you had was a weak government you had finance bank quite strong and had lend the money and property, when property market stop of course they will be a court, and there under neath will be new five bank over night</p> <p>what to happened now? we were bought one government had depend</p>
Respondent 1 Ph.D Candidate, (Leny)	<p>you are trying to avoid that sometimes in future</p>
Respondent 1	<p>in future we will get just improve and above</p>
Ph.D Candidate, (Leny)	<p>do we need or no need happened to OJK or we just continuing</p>
Respondent 1	<p>first thing first, getting finance to this project is very important, public start a way back Bank regulation as an institution, development life that every country faces that</p>

Person (@time)	Discussions
	Philippines very good on PPP, they have got strong institution, you are an economist?
Respondent 1	look at, just spend an hour looking institution economics, i will see you can learn about banking sector within that, very important
Ph.D Candidate, (Leny)	involve future financing, we know that in Indonesia not optimum yet about for infrastructure so we need to build again and again spread all the countries, need more money from private or the government
Respondent 1	look regulation one more thing, call global The World banks come together if we so many years, set a new banking regulations for the world, does regulation most effective when comes to project finance, they limit lending for long term, they limit lending on limit recourse basis and they limit large loans
Ph.D Candidate, (Leny)	bonds could be an answer for limiting
Respondent 1	funds as well, and as short term bonds long term bond, they called i have about BISL3 check out regulation, because they make it different BISEL3 it is only in internet and you only get information, thats for free
Ph.D Candidate, (Leny)	what about the procurement process , for example project that you have mention the matter
Respondent 1	very well define, they do market briefing, express interest, pre qualificaton tender, very define a process if there got weakness hold up the liaise
Ph.D Candidate, (Leny)	how long the process of procurement here?
Respondent 1	i can tell you exactly look survey the prefound run for 9 months probably 9 months until 2 years
Ph.D Candidate, (Leny)	it's quite a long then?
Respondent 1	it can be, but not all the time, i have got charge look at look up in britain it will take up to 4 years to put project away
Ph.D Candidate,	until in Indonesia, yearly only in bidding

Person (@time)	Discussions
(Leny) Respondent 1	too fast but it's restricted process that protocol put couple months on each stage hold up liaise here or somewhere it one of the big risk we face, and i am sure
Ph.D Candidate, (Leny)	in preparation of procurement process
Respondent 1	because have big cost exponentially I have big team, standing by in anything awaiting something about to happened average 9 months
Ph.D Candidate, (Leny)	is there any other process, i mean is there any other method of The procurement open bidding, another direct appointment or may be by invitation by the interest letter so it is open bidding
Respondent 1	no, always competitive biding
Ph.D Candidate, (Leny)	specific case in the procurement, is there any?
Respondent 1	not really specific case, you mean specific requirement? not usely if you have unlisted bid, very rarely is look at government stand like unlisted bid , in Queensland you could put a map, but the govenment will probably not go back, but the initiation stage does acceptance, so and quite often people bid, they don't put in comforming bid, they put in non comforming bid as well so, that innovation comes out with uncomforming bid, innovation and new technology and stuff
Respondent 1	if you saying expense in street, railways station open, coast have you seen the picture of it
Ph.D Candidate, (Male voice)	welknown PPP
Respondent 1	have you seen it? it's one the biggest railway station in the world
Ph.D Candidate, (Leny)	biggest, how big is that one>

Person (@time)	Discussions
Respondent 1	on in Sydney Australia, massive complex 3 three generator for 400
Ph.D Candidate, (Male voice) Respondent 1	it hasn't problem in the procurement cost over run, but the contractor had to pay for that, they make a big mistakes in their costings, yeah.
Ph.D Candidate, (Leny) Respondent 1	what happened if there is a risk cost over run contractor risk, every time see you got really right
Ph.D Candidate, (Leny) Respondent 1 Respondent 1	wrong estimation, then contractor will be big trouble the risk it is going entirely carried by SBV
Ph.D Candidate, (Leny) Ph.D Candidate, (Leny)	sort of a little bit general question what is the big consideration to decide to proceed with the project, is that RoI, RoE, RoA, or other parameters
Respondent 1	interesting, cause it depends on different perspective, if it an equity investor, it's going to two thing short term investor a worry about RoA RoI McQuarry bank, it's going to 5 years underwriter risk, when cash flow stabilises, also talk to super fund , but super fund they dont worry about RoA they just put maturity they want is RoE, RoA, to set measure and differences may have end up queuing, so leverage come first so member of superfund RoA RoE the entrepreneur, the investor funds, ROI builder just want get paid only stakeholder want get paid from the government point of view they use
Ph.D Candidate, (Leny) Respondent 1	public services, be as see, do exactly for ROA as well
Ph.D Candidate, (Leny)	significant risk that need to be consider, in the beginning from your the point of view
Respondent 1	life cycle cost risk, market risk, income strain to pay with the interest

Person (@time)	Discussions
	<p>then i can get refinancing risk 7 years or up, when i am doing does operation that what i am doing construction, site conditon when i am doing robust construction contract, very effective risk allocation</p>
<p>Ph.D Candidate, (Leny) Respondent 1 Ph.D Candidate, (Leny)</p>	<p>central government , eventually every 5 year, we change the government process, even the municipal, counchellors sometime changing the situation, the side become risk because of local political leaders, some thing like here not good</p>
<p>Respondent 1</p>	<p>make it easy Jim say, if you go up to stairs, he is right end up walk of the office you will see his name will be there far a day, unlikely</p>
<p>Ph.D Candidate, (Leny)</p>	<p>and then the other one, just a few more question before executing PPP project, did you hire specific consultant to construct the feasibilities study or is there any like certain team, that like already appointed to prepare the project, something like that</p>
<p>Respondent 1</p>	<p>good question, sure answer, yes, we always did in house feasibilities but once completed them, i 'm happy with them, we gave 2 professional advisors to confirm always go for second opinion and before form project team day one, have a project manager , financial advisor general manager, who has main job business and contract officer . Then we use quantity surveyor part time to give certainties and cost that's all have team</p>
<p>Ph.D Candidate, (Leny)</p>	<p>how long usually take time of how long second opinion feasibility in house and have second opinion</p>
<p>Respondent 1</p>	<p>generally speaking you have got site test done due dilligence, get some people to test soil, and see if any roughly</p>

Person (@time)	Discussions
	such stuff probably took about 3 months
Ph.D Candidate, (Leny)	usually in bidding process like 3 months become duration for bidders to construct for quite reasonable time
Ph.D Candidate, (Leny)	are they any differences the level of feasibility from the construction feasibility study until the feasibility that had being executed how big is differences and in which particular part of differences, and why? on books and also
Respondent 1	Yeah, it's always changed, and the reason for that, we start of feasibility, and then we getting always feed back from quantity surveyors, builders, contractors, sub contractors, and lenders. And you have to take all their advises back into your assumptions and we do feasibilities again. So goes on for 3 month, constantly, then you go to your specific interest, and then when you go exactly put your bid together you probably go revisit to make in. So you do it 3 times, initially when you get feedback part of RoI, and just before recourse for tender or once you have the processed.
Ph.D Candidate, (Leny)	
Respondent 1	never stop
Ph.D Candidate, (Leny)	you just keep
Respondent 1	feeding in it, and because, when you bid, you bidding a big very viable like toll road tolls, so then you have to think what if i put about toll up 10 cents ? how it is going to fixed my economics? Suddenly it does this net, there is a model simply you can use does it for you. the model actually you gaining higher RoE or lower RoE
42:10:00	
Ph.D Candidate, (Leny)	actually to learn to you
Ph.D Candidate, (Leny)	i would like learn to in my research as a may products too result of my research some times
Respondent 1	it doesn't always

Person (@time)	Discussions
Ph.D Candidate, (Leny) Respondent 1	sensitivity level of risk and anything the assumption too it doesn't always show up, it's sect divided by we are going to program project finance and we got put , what we got, is all bunch of assumption what we do is ? works put assumption, then you ask always pages on pages all the stuff so you put in all the assumption for your future forecast
43;14 Ph.D Candidate, (Leny) Respondent 1	is that general project it does by a computer program, provided by World Bank there is a result of project then graphically then give you feed back to assumptions oh now, not good, look that repayment if you could look at the schedule it very hard in beginning comes down over time what might say
Ph.D Candidate, (Leny)	alright, what if i outstanding it what if i pay of most slowly, there will be coming down what will be impact for my return so, you do all stuff like that. okay? and you will get funding construction balance sheet P/I Profit Loss account that's a lot
Respondent 1	not bad is it?, i think it's available, it best of all hope can do the right thing this one could be very difficult cash flow
Ph.D Candidate, (Leny) Respondent 1	it shows your equitiy, credit , subsidiaries from government, share holders, dividend , principal interesting taxes, operating cost, plan 20 years

Person (@time) Discussions

project
told you RoR project, return on equity
you learn coverage ratio, debt service coverage
present value of all taxes subsidiaries
and all you do is, say traffic were there
try say you look at difference
it's funny
get temporare
go to this one
construction cost
them up
it is adjustable from your assumption sheet, any way
the only one
so you can make fit feasibility, there always a parameter

when like that, you know mind doing that do you?
i am change bit sheet, you change that

Ph.D Candidate,
(Leny)
Respondent 1 we can develop this for certain project,
in fact that would be great by product review you research
do more financing model

Respondent 1

46:04:00
Ph.D Candidate,
(Leny)
Respondent 1 this one actually i plan to do because of several case study in
Indonesia
good, it's called infer risk, i will send Paul by email
i dont to show
crystall ball run give simplicist, this would be actual
later on learn from this one

Ph.D Candidate,
(Leny)
Respondent 1 are you doing Monte Carlo , good fun ?

Ph.D Candidate,
(Leny) take a lot time, to build formula, inside first, you got logic of
project itself, because parameter will be different.

Respondent 1 are you doing Monte Carlo?

Ph.D Candidate,
(Male voice)
Respondent 1 lucky you

Ph.D Candidate,
(Leny) The last two question, just overview about my research anyway,
do you have any suggestion to improve the project or PPP itself
in over all

Person (@time)	Discussions
	<p>later on any suggestion to improve my studies, something like that?</p> <p>so in PPP itself, do you find something for QUEENSLAND what thing will do in the future to improve PPP or may be you understand ASEAN too</p>
Respondent 1	<p>there is interesting lesson, we had thing in UK called credit guarantee finance, we had another version, it call debt model SDM, in</p> <p>in journal, some comprehensive paper that told those method of finance do not work</p>
Ph.D Candidate, (Leny)	<p>why? do not work?</p>
Respondent 1	<p>there part of story loan 70% of government equity this project down britainity 15-20 , so you could put mezzanine</p>
Respondent 1	<p>equity much cost mezzanine, about the same so what you funding, primarily bit cost come down a bit quiet expensive when you look every cost come down, as well not come down at all</p>
Ph.D Candidate, (Leny)	<p>reduce</p>
Respondent 1	<p>it's now better, some usually work, even worst, dying in 70% lend you for 20 years, now we borrow for 7 years, normally here</p> <p>reason is and we finance, and we value the asset and able realise make equity gain</p> <p>if you have bank, you dont have opportunity through have the government, lending money, lack of feasibilty, KPI</p> <p>i come and sit and can do training, and lending to private sector lend to government</p> <p>we dont want to do this, we do not set up like a bank, we dont have lend discipline or government structure</p> <p>it's never gonna work</p>
49:48:00	
Ph.D Candidate, (Leny)	<p>SMRI, sarana multi infrastructure, just establish 5 years ago</p> <p>the way run the businesses , some how, they become lender for the mezzanine, they take part of mezanine loan to the bidder winner, winner of bidding, and before get real funds from the commercial bank</p>

Person (@time)	Discussions
50:15:00 Ph.D Candidate, (Leny)	here those practise, there no good, lack of feasibility, and but in Indonesia we just start to do that one
Respondent 1 Ph.D Candidate, (Leny)	could be native, because firstly finance, different situation
50:50:00	very expensive 30% sometimes you have been payment, similar programme very effective, got flexibilities, mezzanine fund, it s guarantee fund, can do bonds, do money directly and private sector provide same you did same you did, some one stand mean between equity, it AAA protection , because it's government some time work can quite with government very very high just complexed
50 39 Ph.D Candidate, (Leny)	always triple B even B minus indonesia, too far i will study from here and then talk with people make a lot of adjustments
Respondent 1	un finance, very good book, by yescomba yescombe probably the best book project finance, you will find that very helpful yescombe probably the best book for project finance book, you not go finance, but probably great book
52:33:00	Remember this terms structure, because it is important how we structure cost of capital, spread i will give you three things, article on support of debt credit guarantee, article on the contracting, which is done for australia from last year POP 987 and get model. okay, good! great you came, good to cover this stuff, hopefully it was not too boring
Respondent 1 Ph.D Candidate, (Male voice)	your turn? my turn
53:25:00	you know my research because, will progress in ACA soon
Respondent 1	weldone with your paper, it's very important you get paper up early isn't it?

Person (@time)	Discussions
Respondent 1	<p>give you i dont know have confident, with what you do moving ahead</p> <p>you do same of course, hope you doing carried this paper early</p>
Ph.D Candidate, (Leny)	<p>still process</p>
Ph.D Candidate, (Male voice)	<p>so this interview, i just want to identify the further the insisting problem, in the PPP evaluation, so in PPP you have be in more can you think of any specific problem in PPP evaluation?</p>
Respondent 1	<p>for bid?</p> <p>we do public sector comparable here, very central, value for money is big driver, now project its successful on this has better upcome in BSC</p> <p>considered in more expensive,</p> <p>sometimes you get a lot of bit, BSC, and the government, would may say back rebid, some specification go back, generally speaking they have take bid, and have</p> <p>qualitative and quantitative criteria</p> <p>BSC quantitative, qualitative is really, what is, project being forward track records, debt financing, over all risk co allocation accepted then i know look at thing</p> <p>such innovation, technology, improve service delivery, increase utilisation</p> <p>there about stuff like that.</p>
55;18 Ph.D Candidate, (Male voice) Respondent 1	<p>how important and effective evaluation as do as success of PPP project</p> <p>In Australia it's number one, but is not in Asian, because they just got money for project using it private money as substitute, is not the case here,</p> <p>BSC</p> <p>most be value of money but didn't aint not look innovation for value of contractor</p> <p>construction innovation, design innovation, operation innovation , but e-tolling was introduce in Australia and use very internationally, but now of course is very common and put in to save chairman private motorways, and technology was develop, innovation speak camera centralise booking and tolling system charging per km for road covered</p> <p>not in open close different in tolling</p> <p>in hospital, improve medical stuff productivity because of utilisation</p> <p>put all operation component in hospital, once above</p>

Person (@time)	Discussions
	i will give you lot of example but, i think take seriously on qualitative side.
56:43:00	
57:18:00	big team we had seven people, who actually do bid evaluation, multi disciplinary treasury, operation land, govenment property people go through the evaluation get see criteria
Ph.D Candidate, (Male voice) Respondent 1	so, in Australia, How are big the performance of PPP project are evaluate ? once in commission
Ph.D Candidate, (Male voice) Respondent 1	in Australia, How are the performance of PPP evaluate? the whole you mean doing the construction
Ph.D Candidate, (Male voice)	operation performance is subject to two things, - KPIs, - delivery of service per specification, they end to two things, so if you run tram service, for example for government , punctually, liability, cleanliness, KPIs and benneath that you have 90% retain operation in any one day, if you have anything less than you bid a contract, and then you will be fine to liquidate penalty
58:32:00	
Ph.D Candidate, (Male voice) Respondent 1	so, can you identify what the problem in this evaluation No, it's not too many, because a lot of people say the government should go back and recheck the RoR, may be private sector making to much money, well if how deal cheap of the govenmet on BSC that irrelevant, so you don't need financial evaluation The most important thing for govenmet is strong contractual relationship management. So, some government like Victoria have very good relationship manages they trained them for long time before they are commissioning other government lucky in Queensland dont do any thing so you got operational problem because the bereaucrates become think they regulate, they are not relationship managers, no independent regulation of PPP in Australia,

Person (@time)	Discussions
	it's regulation by contract, okay?
59:28:00 Ph.D Candidate, (Male voice) Respondent 1	according to your experience is it necessary to develop a new evaluation for PPP in this moment Australia? i dont think so, since we were working okay. what is govenment want? certainly PPP outsourcing, If Goverment service getting this service is painful, happy to set price, giving service on the base specification, i dont think else its matters.
Ph.D Candidate, (Male voice) Respondent 1	what do you think about life cycle of evaluation , PPP it has to be life cycle costed, BSC life cycle costed, and all bid has to do it same so because they are carrying same life cycle cost risk,
Ph.D Candidate, (Male voice)	the problem in PPP evaluation, non return before the project it is called XNT evaluation , and then it will be done in operation, x whole operation so, there is a gap between the XNT and x whole operation ; because no one knows what happened in process between the imitation and operation
1:00:48 Respondent 1	ow, I should SBV operating all the way through, SBV built it, and SBV has start operate it. Because of PPP, you get ACOR already contract involvement, so what happened, all of the operational asset manager, you have crew coming way up front. The relationship manager, even sitting in on design process, so there's good understanding to format life cycle cost, doing construction, so they are not separate base evaluate , same as SBV going forward as was SBV build it, they know they build cheap asset poor quality, life cycle cost could be high they also known if they build good quality asset, life cycle cost could be low so the incentive in PPP to build good quality asset, if they keep cost down, if they get cost wrong because of they miscalculated them, that's their risk
1:02:00 Ph.D Candidate, (Male voice)	do you think if it necessary to as some KPI for the project decide, pre planning, even the procurement process
Respondent 1	KPI in procurement process, not really, it's all do risk to contractor, as you transfer construction risk, completion risk, commissioning risk,

Person (@time) Discussions

finance risk, you are carrying a lot of, site risk so they have to delivered

if you trying overview KPI on top what is going to do, then what you really doing

What to do is, you impose, that imply in Australia government system, we buy this information, going back to government progress , if project put behind schedule, because there are part of contractorship they have when government contract , you got financier, you got SBV, you got contractor. okay?

Now, they in this contract they are all part of the same agreement, all linked
if they contractor running late,
if contract they have to advise, the SBV, know any way they have to advise report to financier,
most financier will have QS on site anyway, so
if every body know what is going on and this guys worried about the project, and this guy worry about money at this stake, so accept completion, i just suggest to with the government arrangement in place,
i dont think, and I dont know government connect any value to that, i can't see it

Ph.D Candidate,
(Male voice)

but, in todays PPP, people more normally talk about PPP finance , and the evaluation focus more on finance, so do you think if do we need talk more about set stake holder set expression, and other process management, because PPP have long time process may be up to more than 10- 5 years so
what yours perspective about it?

1:04:08

Respondent 1

i think that happended last year now, when the process for bring PPP together,
depend each stage frame work, they can have national frame work, they have different approaches.
The best frame work we have got from Victoria, okay?
and they are approaches, they will require stake holders, to be hold up
taking up to account, way up front to the project, they must all sign off on the project, okay?
so, they have got commitment to supported and they kept going

1:04:38

if you going to flint the street, spend the street station authority which one settlement cross project, you will see that, they published a newsletter just for stake holders. And i did that for three years private project commencing

Person (@time)	Discussions
1:05:30	<p>so there are full information, transfer information, when it's a minor problem matter of the size, as we have couple thing and they hold meeting and set being stake holder and to talk about</p> <p>i dont think it's problem here,</p> <p>i dont think financier, institution of stake holder they will go tend to the meeting, it's not their interest.</p> <p>they just want to see this thing build on time on cost.</p> <p>the construction company much as same, they just to set to compact concern about stake holders.</p> <p>It will effect their operation and will effect their government relation with the community</p> <p>So, is that a problem ?</p> <p>No i don't see it's a problem. I don't see do anything it passed to change other term what they are doing</p> <p>i think they boardly met stake holder support into equation by really government</p>
Ph.D Candidate, (Male voice)	<p>how about process manager, because process of PPP project is very dynamic, so do you think if we need you apply process management into whole process of project</p> <p>focus more on face-by-face</p>
Respondent 1 Ph.D Candidate, (Male voice) Respondent 1	<p>the government?</p> <p>for private sector and government</p> <p>No, i dont think so</p> <p>if SBV signs contract to do something else in certain date, there is no matter extra government so management you can put on the up little to up front, the best</p> <p>outcome you going to get when private centralise to build good quality, time and cost, okay?</p>
01:05;56	<p>So, I dont see the government full use any role, in private sector in addition to that it's far go down and fear, you can prescribe all KPI in the world, but already</p> <p>did by law, occupational hold of safety, all the stuff of these, research governing, all form of procurement performance and also procurement policy on all state,</p> <p>anyway</p> <p>from private sector point of view, their KPI every one is on the loop</p> <p>they all have got contract, if they get into financial trouble, this guy step in and point keep going</p> <p>so stage is not court by any problem here, i dont know put anything extra can not make any more efficient.</p> <p>i am aware your interested in that area, and i would saying in developing countries, could be different,</p> <p>i dont think it's a case with canada, australia, britain, france and</p>

Person (@time)	Discussions
	a way of stage step
Ph.D Candidate, (Male voice) Respondent 1	if we need to improve for product evaluation, do you have any new idea for future evaluation? for government or private sector? is that different No, i dont think so, I think private sector take the risk they have got due dilligent
Ph.D Candidate, (Male voice) Respondent 1	how about government, do you think they need to perform more actively in The PPP project no, they want service, remember, one service for fee to standard, okay? as long as it delivered, it doesn't matter. There is nothing else to became from government involvement in project, they also run terrible risk of course, if they do involvement so over size management, even some influence role in government some management, they could be legally liable for cost over run on such a thing and a moment you get involvement you got a contracted law, you got A Worst produce issue relationship that you can connect that.
Ph.D Candidate, (Male voice) Respondent 1	alright, because i talk to director of the Milan campus before, he said for Milan campus, they just have KPI they for all operation/ They dont have KPI any relation process for process, planning and design, and he said it may be necessary, to as more evaluation before all the operation phases. what do you think of this idea? No, i would ask question to him why?, what do you seek to achieve?. i can't see there is add any value, No, i just can't say it.
Ph.D Candidate, (Male voice) Respondent 1	but, problem came from design phase? how can private sector overcome where is the problem, coming from?
Ph.D Candidate, (Male voice) Respondent 1	problem come from design phase, because they no evaluation they do that for big project, they have to. do the contract, did n 't get trouble for the evaluation, the any trouble would have in Australia project is patronised risk forecasting era, in Britain, the problem here held being assumption on engineering, i think London under ground contract in London, very few others under United Kingdom evaluate for about 8% traditional procurement is anyway 50 to 70% late on over budget,

Person (@time)

Discussions

we haven't got problem with PPP in sense of requiring extra governance,
if got problem to fixed licensing from traditional procurement that's to account of 90% traditional procurement, so i suggest PPP, is not problem than other risk got a problem.

I don't answer your question, but i can't see any way organisation that sort of things government getting service certain quality for certain price, and that's it.

As long as you getting that, there is nothing you have to worry about.

Sustainability of the contract that 's another matter, but that's operational not construction.

I think you know put quality graduate relationship management

.
good example that viola in europe, there is another company pre-empted them, there is awarded company and they want to view contract when viola took over this company, the problem, was they are going to change the way thing what had been done, would had contract main in government to run over, api with all over work well they immediate want to refinance the contract, well that create problem, because they didn't have government approve because government reluctant to give it so you get those expose matter as our concern, but go negotiate and sort it out, and let life goes on.

Ph.D Candidate,
(Male voice)
Respondent 1

alright, okay

i wouldn't impose anymore, i don't see the point imposing increase government on the construction processes of commencing project

9% going to pretty full percent going to pretty good trying to think what you study I can give you too little

I will give help you with that

we don't have see difficulties traditional procurement isn't confit data, we do PPP, as you know it's pretty comprehensive we don't have much which line as either

we can't actually honestly line three up

one we do, there is one table, have to look at

one of this procurement methods and this done by in Helsinki we did some collaborative work in university Aldre University in Finland, and what we did was?

we did different procurement method

Person (@time)	Discussions
1:12:51	here, long to put all student stuff you give any course
Ph.D Candidate, (Leny) 1:13:07	i am really do, last semester
Ph.D Candidate, (Male voice) Respondent 1	hard for me, tutorial that's good great keep finger in
Ph.D Candidate, (Leny) 1:13:23	did last semeseter
Respondent 1	you also got idea, articulate student, because they just, what we did was we notice very small scale and the test, all of criteria, and we got hold all the data another place, we rate it by criteria, what we said was, center of criteria value for money, on time, on cost scope innovation, specification, all criteria we look different form of procurement this line up value for money, that i must admit PPP, BOOT, lines contract all come in half traditional procurement is down here, and construction in has all demonstrate, criteria,important procurement big project, and we come talk down if it doesnt work narrow adapting programme fix we face all generation, must try to fix this one 90% procurement contract, all risk every government absolute missed i suggest, just play any more, i think it works well, success rate are there, i think just if you get relationship management sort out, get people train to do with other people
Ph.D Candidate, (Male voice)	do think the performance measurement concept can help to improve PPP
Respondent 1	just another question, use satisfaction no question, can i suggest have you look national office going to 2005 in UK, i just study in 2005, it's called improving government services for better procurement, have a look large college, and have a look Kingsmaid, Kingswood just and what they show, some schools, and some education

Person (@time)	<p>Discussions</p> <p>buildings actually get better education that comes and the question the answer PPP or advise contract, it was fact teachers motivated, new building much better stake holder, all taking into account you have maintenance over night, not a week times, you have no budget, CAPEX, what they having happy stages, mean happy student</p> <p>it's called, Ashfield it study bus circle, as used as intention center and I have put in smart relationship manager, she actually,</p> <p>we put defenses, reduced by CAP management, diet excercise, we never been done worry about diet some where else, rubbish, switch to vegetable, food, gymnasium and also get occasional training , instead never had attend speak north england talk about question about performance, can do talk business in UK</p>
<p>Ph.D Candidate, (Male voice) Respondent 1 1:18:10</p>	<p>do you have any idea how to introduce the performance measurement method i dont think you can usely, because not easy to do that if you benchmark COMEs qualitative and come to motivate people in prison management you can wont do it, should be basis payment average performance</p>
<p>Ph.D Candidate, (Male voice) Respondent 1</p>	<p>mortal, introduce performance measurement into PPP maximum, to do PPP whole life cycle, do you have any general common form</p> <p>two word, it is very difficult, i dont know, it's may task, i would be very worried you got specify things in future, about people's conduct, they are motivation, relationship, making any money on contract, people most motivated, not making any money , take back full step, i dont know how you would do that, incentive in lot of suggest,</p>

Person (@time)	Discussions
Ph.D Candidate, (Male voice)	i think feel radical contribution, different practical application
Respondent 1	in theory you are, i dont know; how you do it UK hospital over there, called gallant valley, understanding commissioning three years down, the road, average Why? and they put down, they had changes management attitude, they stop being pinalise kept down, they waiting times, emergency service times, number of inpatient, something like that if you could predict in advance
Ph.D Candidate, (Male voice)	holders, turn , it only direction, not it is very contribution, i agree it's difficult to lend what we need to solve next
Respondent 1 Respondent 1	Yes, d to solve next you got two things going through, theory, people make positive step incentive frame work have look to incentive theory work risk strong here not only one it also i think qualitative risk management, dont forget risk same with you every thing related to risk so you get pin back , what we talked. that help? I dont particular task, but should be done can't be done it distract me, alright, i get piece later, what do you want?
1:22:56	have time, flight go
Ph.D Candidate, (Leny)	back later on sunday, back to brisbane, i will stay here
Ph.D Candidate, (Male voice)	get taxi, i got funding, local
Respondent 1	i hope
Ph.D Candidate, (Leny)	we need you to sign something for research, ethics, recording surfing on the beach, missing here they are going down surfing

Respondent 2
Brisbane

Person (@ time)

Respondent 2

Discussion

that's alright i am see duty old guy to do this thing, you know?

Ph.D Candidate, (Henry)

Michael , can contact Paul
he is Senior in PPP industry So, i said
Oh is good

Respondent 2

well as i say thing been quite in public partnership area for some time very quite
it's not a lot of money around or, any thing way like that super annuation funds rolling staff, but the temps to get them to loosen up, and throw a bit money around,
quite what would like to say fulling on devious because no
one quite prepare to understand, where the risk lays anymore
we havehad spied building tunnel in Australia, traffic tunnel
most of the project and sort of been succesful, and the product end of this has in general term, being good accept few, one key one like in Sydney construction was, the return to investor it's been very poor

Ph.D Candidate, (Leny)

right now most project become finance by fiscal or how because you said ..

Respondent 2

what happened was, the model that i used, intend to do McQuarry module
and what happened was basically you had an over confident destination traffic to the tunnel by traffic engineers, that was never fulfilled once the project was completed. It's too far too optimistic, and then what happened was, McQuarry model of course,
all the money where borrow up front McQuarry bank then took profit area ahead all the time
Jump ships all down it share, took away the profit for themselves .. you know.. they..

Ph.D Candidate, (Leny)

they share their project, in first place after commerce

Respondent 2

goes to investor, and cause what happened with traffic flow being so unrealistic it never made to propose to

Person (@ time)

Discussion

return
and it goes never receive the ship
The claim 7 tunnel here, is in current situation now
and any good thing about was that you did get all this
project done, but on some one else's expense, you see?

Because what it mean is, the small investors and the
institution investors they put money into this thing, they
end up having no share price road by the fact doesn't
make
big expectation traffic, fly was

So, as background for that,
that coloured a lot of the potential opportunity with bit a
doubt, and now financiers and investors now looking for
other
source of PPP that will give them a better return with
more
with a lower risk profile, you see?

so, that's one of a problem generally speaking i think it's
happened in Australia
and that also excess about the fact that we have
small population, generally speaking twenty two million
people, make , you know, very big project and not enough
individual support for them.

So, you know, just don't work that way

4:21 break ---
4:26

So, you know, That one being a big bug base and
I must say one of the big bug base with the city has ability
criteria effect overall on the concept Public Private
partnership
what coming to for thing such as present now,
and you know some of bigger operative like circlo
and those guys are starting to get in to that

Ph.D Candidate, (Leny)

using PFI how to get return, from the private for busines
state quite difficult to

Respondent 2

money quite privatisation running in
the servicing of the facilities, they have been
in Melbourne, i think they doing a new present prisoner
called raidens wood, that's under in my under way now,
and
I am not sure what of structure, it is PPP it might be PPP

Person (@ time)

Discussion

file , but
it certainly some Private and government fund
organisation

The other area that we have got here in Queensland,
where we got private sector, in government working
together
is in schooling area
You got a consortium of big companies a financiers

6:12

what happened is with the economist
what they do is about, i will put in expression interest to
do
this one that's a spy school project here, i can't remember
that pre finance that ..
reluctant and I think McQuarry get

06:51

Ph.D Candidate, (Leny)

McQuarry have a good track record
actually around the world to finance , swap what the
selling
share

Respondent 2

Ph.D Candidate, (Leny)

you know, every body got a good gun shoot
to just read from any structure,
McQuarry always every where

Respondent 2

sure, i mean that's right
what this is called the spy schools project
and that seems to be working at very very well
That was a great i think The Seven schools, the
consortium
build schools, the government provide the land,
consortium
build schools, the consortium will basically own the
schools.

7:20

They will conduct all of the maintenance and up keep and
every thing,
From grounds to broken window, to the plumbing getting
fixed and all of stuff all of that, but
the state will still do the education site sort of the thing

they still do control teachers and all about those stuff, but
the differences in this one unlike a state own school, all
the cleaning staff and academic staff and every thing all
will be hired by the owner consortium

7:54

so that's quite difference, that's one of a big area of the

Person (@ time)**Discussion**

problem government because all of that, cleaning staff ground staff, all of these people role involved in public service union representing that all low paid area within the system, the cleaning and all of the people, and is in terribly unionised, and inflexible

8:30

so that's why the government it's very keen to shift away from owning things, and actually having the private sector build them and the government become a tenant, you know, but after say 30-40 year the facilities of the governance wishes to it will built to government still need forward, this is no need forward, and the owner can do whatever they like to the site,

8:52

there is another example i have been William street, the C-bus, one of the industry union, C-Bus

9:12

well, they've back actually one contract to build the new administration block for the Queensland government i have been William street near parliament house it's under construction now, you can see it, from the freeway, it's just need a pile in the head of opposite corner, and what they doing there, they are building they up the building government to occupy and all ministerial office area in that building now, but that purpose building to house all of head officer minister and all government department center main here in Brisbane,

so from that perspective with say i guess sort of PPP thing, they building under guarantee, they gain ahead permanent tenancy there for next 3 9 years or there it might bethey got guarantee RoI,

so they know the government will be permanent occupant the

Person (@ time)

Discussion

so, there 's a lot of interesting that sort of thing
some of the ports, for example at the rabbit point, a lot of
expansion area were being paid for by the carl main, the
government in fact i have meeting yesterday with
northern
queensland, port corporation what they doing
is they facilitating, the are going to expand up to the point

so then they will get a big capacity of
push it a call across the board,

so what they are doing there is
they are having the mine will be paying for all the work,
so
as big, but the government is facilitating getting all the
bridging permit stuff to upgrade debt and dumping and
spoil
all the stuff
So, they doing then facilitating that site of thing you see

11:15

So, in that particular area they are scared to do that
but general shy, why from area where you got, what you
called
i guess, you use, capacity risk for example toll ways, and
tunnel and all lot of stuff, there are some work really well
just need, government to do unfortunately sold
down all the time
see queensland motor-ways, the government build up
until all
free ways

11:52

and lot toll ways around Southern Queensland
that's a government own body for example motorways
what happened was the government then shut down to
QIC,
interestingly, sold it down to QIC which is Queensland
Investment Corporation
which is looks at

Ph.D Candidate, (Leny)
Respondent 2

it's independent company
it's an independent company, but the main share holder
only
share holder it's queensland government, so in sense of
what

Person (@ time)**Discussion**

i did the government sold profitable design by the department of mainland transport to QIC which look after all the state own super annuation fund and they make whole investment on behalf of the government to

feed they fund, to feed the public service

12:54

Ph.D Candidate, (Leny)

QIC these under whose the policy how he can win it the fund itself, i mean under policy of federal

Respondent 2

Ph.D Candidate, (Leny)

Respondent 2

A state government organisation

because in independent organisation which state own organisation you see, So, what happened is quaint go it's register under corporation law, law and stuff

Ph.D Candidate, (Leny)

practise in Indonesia, go to center government for policy for body could win

13:27

Respondent 2

the any relationship here between government in regard under state and federal financial arrangement, with state of side of or the local authority on state government because local authority creature state it's quiet interesting, but as I say there is not all type for something new happening, but

14:09

so you know, part of flag my hand switch ability -- so here we go

the issues as i see a lot of money around People are aware where they put the money,

Person (@ time)	Discussion
Ph.D Candidate, (Leny) Respondent 2	very confidence this is very dedicately western
Ph.D Candidate, (Henry) Respondent 2	what do you think current in Industry evaluation interesting ly it's question pay you do, sustainability what model supposed that you are asking, isn't it probably 100 different ways very different, you are talking about public perception
Ph.D Candidate, (Henry)	performance
Respondent 2	had process get
Ph.D Candidate, (Henry)	how to project can meet schedule, stake holder, asset end user satisfaction
Respondent 2	said in beginning big issues, tunnel There are few corner, from construction point of view how ever in general terms the project in Queensland economic, they all run effectively, efficiently and pretty well on time at the end of day we got an excellent product claim financially at the end of the day after this completed, and also airport, nightmare for investor industry as well But point of view amenity it's been fantastic
Ph.D Candidate, (Leny)	So investor itself for example, in first place finance by McQuarry Group, and McQuarry sell the project groups, retaylor of other
Respondent 2	shut down
Ph.D Candidate, (Leny) Ph.D Candidate, (Leny)	get profit, and they go, later on who is the one get bigger risk, you said who is co

Person (@ time)

Respondent 2

Discussion

it's company receiver, the company
receive ship
they goes bankrupt

Ph.D Candidate, (Leny)

any guarantee from the government, as policy of
reschedule, it's
Independently completely arrangement
no there is,

Ph.D Candidate, (Leny)

is it possible to issuing bond

Respondent 2

don;t know, they worry about to much about it
what about commercial
And reality you got tunnel, you got facility
now i can tell
people still paying toll to get through it
at the end of the day
big resort, build project
another buyer comes in, he doesnt go broke quickly
just go broke
reduced price, it's still great asset
realistic
Make money
You see it's commerce
if you optimistic
You are always fail.

Ph.D Candidate, (Leny)

recover by themself, being collateral
do something big things again somewhere

Respondent 2

what happenes

Ph.D Candidate, (Leny)

run business

Respondent 2

They build by premises, traffic modelling particularly
number vehicles,
if it doesn't great strike, and that's what happened in
tunnel

Ph.D Candidate, (Leny)

What is contract

Respondent 2

government, give corridor

Person (@ time)

Ph.D Candidate, (Leny)

Discussion

not really PPP partnership

Respondent 2

No give mandate to built government corridor,
government

facilitate, doesn't matter

Ph.D Candidate, (Leny)

quiet different PPP concept

Respondent 2

got deal

see, the government doesn't take any risk, issue in the
past

pass, government, always take major risk, unless we got
classic case

now,

It's another tunnel, it's going to come up, meet up in city
Houston, over that way link

go connect airport, so that 't tunnel, doing

in just you know, design built will running tough
situation, okay?

public work in behalf

What may happened is?

up and running, traffic running

coming

they might, infact and sell of operation., okay? But

That's right

private will not coming,

that's criticise, claim seven issues,

Where Investor lost money

brisbane city council

just put to tender sell it down, have it built, operated,
option

Just australia public sector, have design, put it up to
tender

Ph.D Candidate, (Leny)

how long

Respondent 2

probably could be 2-3 km long, not big,

airport city link it's quite long tunnel, I really don't know

Ph.D Candidate, (Leny)

in Jakarta we plan t

Person (@ time)	Discussion
	in 20 km sometimes we will try to find similar project around the world But so far we didn't find it most of tunnel for traffic or reservoir
Respondent 2	hope we run multi purpose cargo
Ph.D Candidate, (Henry)	is it necessary project evaluation in Australia
Respondent 2	in fact twelve month, IEQ and QiT and whole houseto treasury from the state and the Fed will funding research project, to QIT here to look at developing sustainable procurement model for PPP I just try to remember who is fellow who driving it, ridiculous,
25:49:00	Martin might is there, he was around it, but the fellow who driving it
Ph.D Candidate, (Henry) Respondent 2 Ph.D Candidate, (Henry)	QIT, so academic , andrew bridge academic there, yeah adrian bridge, that's fellow In Curtin last year, and I also met him and ask me to send some working paper to him, because our project also endorse, resting exchange senior government funding, so has some similar point, became, work together, so that's why
Respondent 2	also the way i see project
Respondent 2	But unfortunately, i dont know where is that i haven't heard, so but there is concern about try to find a sustainable procurement model as you say, because this i think it's been driven by number of failures of this thing for the reason out there going to? why they sorted of seeking this? the only issues that i see with always affected
27:41	There so many different style of PPP How do you categorise? , the more together it's so hard, isnt' it? you know Case specification you heard design courses for courses, some courses like weight track some like light track others, like in between medium track
Ph.D Candidate, (Leny)	For some point may be like defining the market is some

Person (@ time)

Respondent 2

Discussion

how, i mean market ability to pay up the market something like that we can check whether this project .. that the other thing, absolutely you see

The free market is interesting thing, because what happened

To all of this thing government comes up this idea, we need to facilitate flow of traffic so through to the heart of brisbane, right ? and let's go out and see what private sector can do, when you do that , this is where the risk profile start to become debateable

Government does has reluctant which one is with get private sector to look at

And then, Oh, I will take all the risk

Oh No, they dont want to take all the risk

because, you know government, forget what important aspect to what they trying to do with free market concept people gain built road, bridges, tunnels for charitable purpose they need to get Return on Investment if you right

i see this is why super fund being so rates to commit to other these thing

They look at the return, and reluctant of government to support their return, because you know, i mean goodness me

you can going get 11 % return on investment in shares, You don't haveto take any huge gas and drift for risk, do you?

So, if you going to build massive infrastructure project And get negative return, why would you try naked on the block why to be extra full, it doesn't make sense, that's it Mean part and still part of the issue involving government and private sector, government doesn't understand, who has difficulty is still understanding why it's going to take, some of pain in this excercises

and then of course, if you try to convince them, that they say, a benefit to much issues, you can get mult the project

best way to do, is why PPP, because you get it up sooner You probably get up, on time, you will get up on budget

And if you are in partnership, with some body who have interest in same you have in making sure what happened

In comes to part to it government has to understand known circumstance and it wants to get benefit

it's got to paid something for it, and you often you got met argument from QTC which is Queensland Treasury Corporation which borrows the money on behalf of the government from the overseas

Person (@ time)

Ph.D Candidate, (Leny)
Respondent 2
31:23

Ph.D Candidate, (Leny)
Respondent 2

Ph.D Candidate, (Leny)
Respondent 2

Discussion

This also under state, very good
it's a like merchant bank, signed by the government,
and, of course they like to protect their on territory
Here we have QTC and also have QIC,
QIC is big investment, for super fund
QTC borrows money for the state government, and local
authorities to their project
That's good also consider issueing bond, or not?
No they don't issueing bond, just more like merchant
bank, so they raise fund overseas for government building
project in infrastructure project road, like building goald
coast high way
they do all government borrowing for, they like internal
merchant Bank in south australia the local authority have
one there called South australian local authority in
Brisbane corporation or something
And What it does? It's same as QTC
It raises money for local counsel in southern australia to
get money to build their project
It's smaller scale about peer, and but
this one does it for stake government and the local
authority, best interest because they turn in simply say,
well we can do better because we can borrow money
cheaper,
because the bank in the state, you see, so they might be
able to get 1, 5% which is lower, but
the problem with they got, is then they have to then let
that money after the line department, maybe raise for
example
Queensland road or what ever, And then the line
department,
So became responsible for using that money to build
project, and that's where the inefficiency start to crack in
because what happened is that line department not
become less less competent, and Managing their own
contract
and say end up, into unsatisfactory range booth contractor
end up in dispute, and end up having extension in the
contract and that cost more, so end up with these big blow
at a dull state death.
So, it's very hard for them to see the arguement on time,
on budget , and when you need it, timely ness yes about
to same
if you look at those project around by line department
they taking feet, i will takefor years like doing up gold
coast highway down past to the back to service paradise
through gave and those areas may be messing around for
years down in bound university bond uni, i have been

Person (@ time)

Discussion

messing around there for years and year and years, and mucher about

Traffic always Chaotic, the road is always half open, still working still popping around, where do you have toll road, In matter of traffic on that, if they put up that to private sector PPP upgrade, probably when over down, sure you say pay for dollar for toll, or something other assume at the end of the day you would not messing around caught in traffic, creeping along for 40 km and that all stuf.

Ph.D Candidate, (Henry)

Michael Jennings even called PPP evaluation concentrate to much on financial issues anything between schedule always talk about how to meet project budget, how to meet the schedule but let's care about some key stake holders satisfaction, at end user satisfaction, and some times let's care about the process, because I talk to every director of PPP project in AA before, and he said, we only have evaluation before project suggest economic assessment or some, why man thought in assessment, and we dont have any KPI for the project spending , and we don't have the KPI for project design and even the procurement procedure and KPI only for the operation phases

Respondent 2

So, there is no assessment of the processes that is in train
So, they look at basically what they want
And they look at what they got
And they look how the procurement process were end
And they look how end product do this operating
no one care about to process through the middle, i think

Ph.D Candidate, (Henry)

How to achieve the result

Respondent 2

i think that probably absolutely correct

Ph.D Candidate, (Henry)

What do you think about this problem?

Respondent 2

Look, i can't see how difficulty it could be to monitored, seriously i mean you must be able if you have confident firm who has the ability to set stage assessment, of each point and that should be stage assessment of which point of that **Because from this point to get that point, that's gotta be a project plan**

Ph.D Candidate, (Henry)

Sometimes three year or four year

Respondent 2

And I know company do those plan, like ACP , they are client of mine, they'll set a template of you what you have gotto do from this point to get to that point,
So if you got template of you what you have gotto do to get that point to get that point, surely **you can assess that the stage made along that template from every point** that doesn't seems to be done properly, but
That's not to say that once you get this point of the PPP

Person (@ time)	Discussion
Ph.D Candidate, (Henry)	<p>of that talk about has been successful, you can assessed it here , but you need to assess the process, so, i guess that's right</p> <p>And that probably should be all part of the model</p> <p>Almost PPP in UK Australia and some of Europe, because we don't know how the project treat such assess may be common this assess because they meet the budget, they meet the schedule, may be end-user and other you dont think so, and government doesn't know, why the project is success</p>
Respondent 2	<p>that's right</p> <p>why this project work look better than that project because something happened along here, there might be influence the outcome here</p>
Ph.D Candidate, (Henry)	<p>I am quite confusing , i know may be the common knows this problem why all the price set they know this problem why they dont do anything to improve this situation</p> <p>I am quite confusing</p>
Respondent 2	<p>I think there is magic word you just used , government</p>
Ph.D Candidate, (Leny)	<p>Government , they have different interest</p>
Respondent 2	<p>if you expect the government to do something logical and sensible i think you are being able to be optimistic, i think government can be describe best doing it some i think government does it competent best most of all time</p> <p>sort of like being the victim of made of the crash and having</p> <p>A truck driver tend you on the side of the road</p> <p>You greatfully is there, but you are not sure whether is doing what really best for you at the time, but you think it is</p>
Ph.D Candidate, (Leny)	<p>I still interest</p> <p>to institution also report to NOF, or how is to connect between all state how same central government managing the funds investment</p>
Respondent 2	<p>QIC ?</p>
Ph.D Candidate, (Leny)	<p>And QTC</p>
Respondent 2	<p>Very different operation</p> <p>They have to report to parliament, so what they do</p>
Ph.D Candidate, (Leny)	<p>Parliament in Queensland, also totally</p>
Respondent 2	<p>It's in Queensland . now federal government, because we have federal system, and what the concept of federal system is before Australia was Australia as central government each of the state was a separate country effectively and in 1901 they form the constitution and they also might gain all of them and their still own retain independent sovereignty under the crown</p>

Person (@ time)

Discussion

So they all got their own government, they all got their own taxes there's between arrangement whether shift taxation arrangement from the stage to the fit we surrender income tax, for example and the fed get all the nightmare, but anyway all of days sort of aspect back frame Australian why doing government business If you want to call of that sovereign government

Ph.D Candidate, (Leny)
Ph.D Candidate, (Henry)

Rather strong than et cetera before formation of Australian commonwealth if you telephone korea to new south wales, you need to trade in the border, because of the size Slight complete different

Respondent 2

three across the border new south wales and half better than half

Ph.D Candidate, (Leny)
Respondent 2

long time ago of different tracking Because part of protection of arrangement, Like putting up trade barrier for example you could have train running Queensland through Indonesia and wales you can have New South Wales with train running to Queenslan, You have to make it hard, to protect your industry and their Industry and one of the key close Australian constitution Key to federation concept cause that trade commerce Inter course between states must be absolutely free

Ph.D Candidate, (Leny)

Monetary system

Respondent 2

They are all lies on English pound back in old days british currency

Ph.D Candidate, (Henry)

in UK, when i was in UK for my first master, we need for the local because there's part of problem In the UK education system, and i first master university south wales, wales said no you dont do that independent from UK central government, so many student England come to wales for lower than other

Respondent 2

that's part of delution so

Ph.D Candidate, (Leny)

something that i need more

Respondent 2

part of interest thing

Person (@ time)	Discussion
Ph.D Candidate, (Leny)	Policy part of the risk in PPP project, different policy
Respondent 2	<p>of course, happened last few years</p> <p>I am a lawyer, but practise in new south wales read all jumping</p> <p>meet new south wales, because i live tweet part i can go with new south wales part of tweet it</p> <p>Unless they are made, it is absurd, it is ridiculous, silly stuff</p> <p>protectionist, Queensland</p> <p>All barrist practice in hard court credit to do so but back then</p> <p>bar couldn practise between states, because silly admission role, have supreme court,</p> <p>Quite ridiculous, had still have admit, Queensland down there</p> <p>new south wales UK</p> <p>it's quite shock</p> <p>no you threatening me, you are taking work from me</p>
Ph.D Candidate, (Leny)	what about socialise, you know in China
Ph.D Candidate, (Henry)	Is control by centralise
Ph.D Candidate, (Leny)	<p>Also credit presidential actually, try to adapt in center point, little bit confuse</p> <p>With government take control for monetary investment in banking system</p> <p>they are own population, they are own ability to pay every thing from other cities to other cities</p> <p>we can not take thing from the central and implement to different state, actually federal could be good system because people on the state the leader governor had to understand</p> <p>good system for state, for governor, right now always pushing thing from central</p>
Respondent 2	<p>gold mine for a long time</p> <p>prospect, try to every body agree to permit, all centralised</p> <p>have to go director of deputy</p>

Person (@ time)	Discussion
Ph.D Candidate, (Henry)	in China, if you deal business in China you need organise thousand permits only two years view you plan to open up business in 2005 you have to pay 2003 one year, of course one or two for the permit very silly
Respondent 2	foreign investor, just for any body funny isn't it we want foreign investment, but every country stand foreign investment all stuff they can make it, just same to me in China get through this, really quiet funny
Ph.D Candidate, (Henry)	how do you organise the permit in China, nobody tell you business commit okay you go they may you how can i get it, I don't know is there Some information not open you need to ask some guys they have relationship with government
Ph.D Candidate, (Leny)	become business, because need specialise
Ph.D Candidate, (Henry)	really
Respondent 2	
Ph.D Candidate, (Henry)	it has to be
Respondent 2	is that part of short coming public administration, close get really process, coordinate it
Ph.D Candidate, (Henry)	that ' s a problem
Respondent 2	often London got business, every thing made in factory
Ph.D Candidate, (Henry)	every public servant, we need to know

Person (@ time)	Discussion
Respondent 2	doesn t matter
Ph.D Candidate, (Henry)	not my business, you can contact some guys you know that's a problem
Ph.D Candidate, (Leny)	analise friend, parent high position in 30 business very fast, connected, whenever foreign investor come to do business the government have relative person as a joint partner, then
Respondent 2	shounky
Ph.D Candidate, (Leny)	right now young in this generation suddenly for big investment
Respondent 2	happened to themselves network control viral very strange very understandable greed
Ph.D Candidate, (Leny)	PPP in australia, mostly something how to consider indicator related to finance return on concession
Respondent 2	speak bit quickly for me how you try how is it sort of
Ph.D Candidate, (Leny)	pPPP indicate interest for finance interest, something
Respondent 2	take analyse it, you heart Paul upon arrange gateway to western queensland major region city main city in darling gateway

Person (@ time)**Discussion**

heavy traffic have to go,
train need work
to improve
the federal government, always been keen
crossing road,
rain crossing road
but woomba city go to traffic light highway
coming, all the truck must
it s very very inefficient
high gradient, very difficult and dangerous for big truck

break quite logging
because of the gradient
wear and tear
for example
top of the range
woomba truck 40-50 dollar worth of
in that strait
in easieer gradient, quite happy to go from
western, through the city

so every one
brain
have to do this, because project
i dont know it could be
3 billiion dollar
gold both you make it

you make it purpose

1.8 t billion dollars

Respondent 2

so what federal government done?
document to general
for consortium or consortia to put project
specific interest
what happended here
consortia finance
and may be engineering design
and perhaps constructor in the team
how ever
they you may get
consortia unti
sometime you find
one company couple deals,

Person (@ time)**Discussion**

hedging a bit
it's not necessary exclusive, but giving that
structuring
sometime
way up front.
because sometime you find one you get
empire and
to build control the whole thing
because partner
run project if you win the deal
you got
can
all
take all money
you got back
so tendency people in Australia
if you gain interest
construction issues
financier, design

your project manager, always people
when you go put a tender to constructor
you got a control
they
because they are working
there is a view, just probably
gaining
sometimes constructor, doing deal
not to yours as a partner
i am always research company
gold coast city council

Ph.D Candidate, (Leny)

quite difficult

Respondent 2

ocean treat we will down talk
got to do something
big trouble
crack
leaking
i said to consortium
why go to constructor
put a proposition
yes that 's a good idea

Person (@ time)	Discussion
	think same to do use your own contract in the room end to
Ph.D Candidate, (Leny)	about dealing, financial closing arrange by investor it self or government once the private sector contract before the money used for investment, usually the bank need before financial closing we can take investment process of financial close is it that appointed by
Respondent 2	no see
Ph.D Candidate, (Leny)	transaction course
Respondent 2	what happened, one project big nation dissemination freeway recently in victoria what they did 15 bank, so finance consortium, they spread risk big project, but eventually slice to the action government, it was a consortium of bank
Ph.D Candidate, (Leny)	to no in
Respondent 2	no government
Ph.D Candidate, (Leny)	quite tricky, they
Respondent 2	see what happened, QTC they have own by government own

Person (@ time)	Discussion
	financing investment bank but, they i dont know by law they never take role with private sector banking group
Ph.D Candidate, (Leny)	they
Respondent 2	PPP QTC financier government, finance government, look for them direct consortium to financier.
Ph.D Candidate, (Henry)	that what do you think common very in PPP
Ph.D Candidate, (Leny)	
Ph.D Candidate, (Henry)	life cycle
Respondent 2	use of money proposition, it is interesting
Ph.D Candidate, (Henry)	v
Respondent 2	value of money for purchaser getting value they can afford it some may be like who doctro from grain i dont see value of the money area where you say very subjective industry money proposition government, for QTC we can borrow money cheaper line department handling you should where as we say PPP you will borrow money we got scheme interest good project, build quickly ahead of time

Person (@ time)

Discussion

	<p>in government service to general public driven by insake for they got fixed up at the time on that value money proposition is not just it's all whole thing combine before time you dont have risk associated line department so i think value of money top of mind every body deal</p>
1:09:27	<p>okay? so how to counter fei</p>
Ph.D Candidate, (Leny) Ph.D Candidate, (Henry) Ph.D Candidate, (Leny) Respondent 2	<p>public sector compare because warming model</p>
Ph.D Candidate, (Henry)	<p>doesnt make sense at all</p>
ORespondent 2	<p>sort of official beareaucratice so exercise</p>
Ph.D Candidate, (Leny)	<p>national developing agency the planning, very strong person decide PSC line ministry give it to fiscal because they are understanding i mean not really important not really strong, what they do it just estimating very rough for me i dont really get pick up strong team, for the moment, less</p>
Respondent 2	<p>back to envelop</p>
Ph.D Candidate, (Leny)	<p>how come only few people</p>
Respondent 2	<p>an day honestly to protect their own</p>

Person (@ time)	Discussion
territory	
Ph.D Candidate, (Henry) Respondent 2 1:12:31	look certainly interview,
Respondent 2 Ph.D Candidate, (Henry) discussion	investigat investigator
Respondent 2	all over those, quite accurate you have rain
Ph.D Candidate, (Henry) Ph.D Candidate, (Leny)	in sydney storm and rainy in Perth very hot
Respondent 2	good rain in night we need it so what are you doing? tomorrow today
Ph.D Candidate, (Henry)	like compact city
Respondent 2	you should go two million three million
Ph.D Candidate, (Leny) Ph.D Candidate, (Henry)	perth 1 million, too small better than Perth
Respondent 2	but have you ever can we do no we can do that, i tell you what to do here,
1:16:22 1:18	television channel outside brisbane top restaurant, right city bus service you m please have a look take a camera,
Ph.D Candidate, (Leny)	can

Person (@ time)	Discussion
Respondent 2	that's alright i am see duty old guy to do this thing, you know?
Ph.D Candidate, (Henry)	Michael , can contact Paul he is Senior in PPP industry So, i said Oh is good
Respondent 2	well as i say thing been quite in public partnership area for some time very quite it's not a lot of money around or, any thing way like that super annuation funds rolling staff, but the temps to get them to loosen up, and throw a bit money around, quite what would like to say fulling on devious because no one quite prepare to understand, where the risk lays anymore we havehad spied building tunnel in Australia, traffic tunnel most of the project and sort of been succesful, and the product end of this has in general term, being good accept few, one key one like in Sydney construction was, the return to investor it's been very poor
Ph.D Candidate, (Leny)	right now most project become finance by fiscal or how because you said ..
Respondent 2	what happened was, the model that i used, intend to do Macquarie module and what happened was basically you had an over confident destination traffic to the tunnel by traffic engineers, that was never fulfilled once the project was completed. It's too far too optimistic, and then what happened was, Macquarie model of course, all the money where borrow up front Macquarie bank then took profit area ahead all the time Jump ships all down it share, took away the profit for themselves .. you know.. they..
Ph.D Candidate, (Leny)	they share their project, in first place after commerce
Respondent 2	goes to investor, and cause what happened with traffic flow being so unrealistic it never made to propose to return and it goes never receive the ship The claim 7 tunnel here, is in current situation now

Person (@ time)

Discussion

and any good thing about was that you did get all this project done, but on some one else's expense, you see?

Because what it mean is, the small investors and the institution investors they put money into this thing, they end up having no share price road by the fact doesn't make big expectation traffic, fly was

So, as background for that, that coloured a lot of the potential opportunity with bit a doubt, and now financiers and investors now looking for other source of PPP that will give them a better return with more with a lower risk profile, you see?

so, that's one of a problem generally speaking i think it's happened in Australia and that also excess about the fact that we have small population, generally speaking twenty two million people, make , you know, very big project and not enough individual support for them.

So, you know, just don't work that way

4:21 break ---

4:26

So, you know, That one being a big bug base and I must say one of the big bug base with the city has ability criteria effect overall on the concept Public Private partnership what coming to for thing such as prison now, and you know some of bigger operative like circolo and those guys are starting to get in to that

Ph.D Candidate, (Leny)

using PFI how to get return, from the private for business state quite difficult to

Respondent 2

money quite privatisation running in the servicing of the facilities, they have been in Melbourne, i think they doing a new present prisoner called raidens wood, that's under in my under way now, and I am not sure what of structure, it is PPP it might be PPP file , but it certainly some Private, PFI and government fund organisation

Person (@ time)

Discussion

	<p>The other area that we have got here in Queensland, where we got private sector, in government working together is in schooling area You got a consortium of big companies a financiers</p>
6:12	<p>what happened is with the economist what they do is about, i will put in expression interest to do this one that's a spy school project here, i can't remember that pre finance that .. reluctant and I think Macquarie get</p>
06:51 Ph.D Candidate, (Leny)	<p>Macquarie have a good track record actually around the world to finance , swap what the selling share</p>
Respondent 2 Ph.D Candidate, (Leny)	<p>you know, every body got a good gun shoot to just read from any structure, Macquarie always every where</p>
Respondent 2	<p>sure, i mean that's right what this is called the spy schools project and that seems to be working at very very well That was a great i think The Seven schools, the consortium build schools, the government provide the land, consortium build schools, the consortium will basically own the schools.</p>
7:20	<p>They will conduct all of the maintenance and up keep and every thing, From grounds to broken window, to the plumbing getting fixed and all of stuff all of that, but the state will still do the education site sort of the thing</p> <p>they still do control teachers and all about those stuff, but the differences in this one unlike a state own school, all the cleaning staff and academic staff and every thing all will be hired by the owner consortium</p>
7:54	<p>so that's quite difference, that's one of a big area of the problem government because all of that, cleaning staff ground staff, all of these people role involved in public service union representing that all low paid area within</p>

Person (@ time)**Discussion**

the
system, the cleaning and all of the people, and is in
terribly unionised, and inflexible

8:30

so that's why the government it's very keen to shift away
from owning things, and actually having the private
sector
build them and the government become a tenant, you
know, but
after say 30-40 year the facilities of the governance
wishes
to it will built to government still need forward, this is no
need forward, and the owner can do whatever they like to
the
site,

8:52

there is another example i have been William street,
the C-bus, one of the industry union, C-Bus

9:12

well, they've back actually one contract to build the new
administration block for the Queensland government
i have been William street near parliament house
it's under construction now,
you can see it, from the freeway, it's just need a pile in
the head of opposite corner, and what they doing there,
they
are building they up the building government to occupy
and all administrative office area in that building now, but
that
purpose building to house all of head officer
minister and all government department center main here
in
Brisbane,

so from that perspective with say i guess sort of PPP
thing,
they building under guarantee, they gain ahead permanent
tenancy there for next 39 years or there it might be they
got
guarantee RoI,

so they know the government will be permanent occupant
the

so, there 's a lot of interesting that sort of thing
some of the ports, for example at the rabbit point, a lot of
expansion area were being paid for by the carl main, the

Person (@ time)

Discussion

government in fact i have meeting yesterday with northern queensland, port corporation what they doing is they facilitating, the are going to expand up to the point

so then they will get a big capacity of push it a call across the board,

so what they are doing there is they are having the mine will be paying for all the work, so as big, but the government is facilitating getting all the bridging permit stuff to upgrade debt and dumping and spoil all the stuff So, they doing then facilitating that site of thing you see

11:15

So, in that particular area they are scared to do that but general shy, why from area where you got, what you called i guess, you use, capacity risk for example toll ways, and tunnel and all lot of stuff, there are some work really well just need, government to do unfortunately sold down all the time see queensland motor-ways, the government build up until all free ways

11:52

and lot toll ways around Southern Queensland that's a government own body for example motorways what happened was the government then shut down to QIC, interestingly, sold it down to QIC which is Queensland Investment Corporation which is looks at

Ph.D Candidate, (Leny)
Respondent 2

it's independent company
it's an independent company, but the main share holder only share holder it's queensland government, so in sense of what i did the government sold profitable design by the department of mainland transport to QIC which look after all the state

Person (@ time)

Discussion

own super annuation fund
and they make whole investment on behalf of the
government to

feed they fund, to feed the public service

12:54

Ph.D Candidate, (Leny)

QIC these under whose the policy how
he can win it the fund itself, i mean under policy of
federal

Respondent 2

A state government organisation

Ph.D Candidate, (Leny)

Respondent 2

because in independent organisation which
state own organisation you see,
So, what happened is quaint go
it's register under corporation law, law and stuff

Ph.D Candidate, (Leny)

practise in Indonesia, go to center
government for policy for body could win

13:27

Respondent 2

the any relationship here between
government in regard under state and federal financial
arrangement, with state of side of or the local authority on
state government because local authority creature state
it's quiet interesting, but as I say there is not all type
for
something new happening, but

14:09

so you know, part of
flag my hand switch ability

--

so here we go

Ph.D Candidate, (Leny)

Respondent 2

Ph.D Candidate, (Henry)

the issues as i see a lot of money around
People are aware where they put the money,
very confidence with risks
this is very dedicately western
what do you think current in Industry evaluation

Person (@ time)

Discussion

Respondent 2	interesting ly it's question pay you do, sustainability what model supposed that you are asking, isn't it probably 100 different ways very different, you are talking about public perception
Ph.D Candidate, (Henry)	performance
Respondent 2	had process get
Ph.D Candidate, (Henry)	how to project can meet schedule, stake holder, asset end user satisfaction
Respondent 2	said in beginning big issues, tunnel There are few corner, from construction point of view how ever in general terms the project in Queensland economic, they all run effectively, efficiently and pretty well on time at the end of day we got an excellent product claim financially at the end of the day after this completed, and also airport, nightmare for investor industry as well But point of view Amenity, efficiency it's been fantastic
Ph.D Candidate, (Leny)	So investor itself for example, in first place finance by Macquarie Group, and Macquarie sell the project groups, Who is the biggest hold the risk ?
Respondent 2	shut down
Ph.D Candidate, (Leny)	get profit, and they go,
Ph.D Candidate, (Leny)	later on who is the one get bigger risk, you said who is co
Respondent 2	it's company receiver, the company receive ship, private companies the last receiver share they goes bankrupt

Person (@ time)	Discussion
Ph.D Candidate, (Leny)	any guarantee from the government, as policy of reschedule, it's Independently completely arrangement no there is,
Ph.D Candidate, (Leny)	is it possible to issuing bond
Respondent 2	don;t know, they worry about to much about it what about commercial arrangement look after themselves And reality you got tunnel, you got facility now i can tell people still paying toll to get through it at the end of the day big resort, build project another buyer comes in, he doesnt go broke quickly just go broke The third company buy in reduced price, it's still great asset realistic price Make money You see it's commerce if you optimistic You are always fail.
Ph.D Candidate, (Leny)	recover by themself, being collateral do something big things again somewhere
Respondent 2	what happenes
Ph.D Candidate, (Leny)	run business
Respondent 2	They build by premises, traffic modelling particularly number vehicles, if it doesn't great strike, and that's what happened in tunnel
Ph.D Candidate, (Leny)	What is PPP contract
Respondent 2	Government as facilitator, give corridor
Ph.D Candidate, (Leny)	not really PPP partnership

Person (@ time)	Discussion
Respondent 2	<p>No give mandate to built government corridor, government</p> <p>facilitate, doesn't matter</p>
Ph.D Candidate, (Leny)	quiet different PPP concept
Respondent 2	<p>got deal see, the government doesn't take any risk, issue in the past</p> <p>pass, government, always take major risk, unless we got classic case</p> <p>now, It's another tunnel, it's going to come up by Brisbane council, meet up in city bypass Houston, over that way link go connect airport, so that 't tunnel, doing in just you know, design built will running tough situation, okay?</p> <p>public work in behalf What may happened is? Once the tunnel built n up and running, traffic running coming they might, infact and sell of operation., okay? But That's right private will not coming, that's criticise, claim seven issues,</p> <p>Where Investor lost money brisbane city council taking entire risk just put to tender sell it down, have it built, operated, option Just australia public sector, have design, put it up to tender</p>
Ph.D Candidate, (Leny) Respondent 2	<p>how long probably could be 2-3 km long, not big, airport city link it's quite long tunnel, I really don't know</p>
Ph.D Candidate, (Leny)	in Jakarta we plan the multipurpose deep tunnel

Person (@ time)	Discussion
	in 20 km sometimes we will try to find similar project around the world But so far we didn't find it most of tunnel for traffic or reservoir
Respondent 2	hope we run multi purpose cargo
Ph.D Candidate, (Henry)	is it necessary project evaluation in Australia
Respondent 2	in fact twelve month, IEQ and QiT and whole houseto treasury from the state and the Fed will funding research project, to QIT here to look at developing sustainable procurement model for PPP I just try to remember who is fellow who driving it, ridiculous,
25:49:00	Martin might is there, he was around it, but the fellow who driving it
Ph.D Candidate, (Henry) Respondent 2 Ph.D Candidate, (Henry)	QIT, so academic , andrew bridge academic there, yeah adrian bridge, that's fellow In Curtin last year, and I also met him and ask me to send some working paper to him, because our project also endorse, resting exchange senior government funding, so has some similar point, became, work together, so that's why
Respondent 2	also the way i see project
Respondent 2	But unfortunately, i dont know where is that i haven't heard, so but there is concern about try to find a sustainable procurement model as you say, because this i think it's been driven by number of failures of this thing for the reason out there going to? why they sorted of seeking this? the only issues that i see with always affected
27:41	There so many different style of PPP How do you categorise? , the more together it's so hard, isnt' it? you know Case specification you heard design courses for courses, some courses like weight track some like light track others, like in between medium track
Ph.D Candidate, (Leny)	For some point may be like defining the market is some

Person (@ time)

Respondent 2

Discussion

how, i mean market ability to pay up the market something like that we can check whether this project .. that the other thing, absolutely you see

The free market is interesting thing, because what happened

To all of this thing government comes up this idea, we need to facilitate flow of traffic so through to the heart of brisbane, right ? and let's go out and see what private sector can do, when you do that , this is where the risk profile start to become debateable

Government does has reluctant which one is with get private sector to look at

And then, Oh, I will take all the risk

Oh No, they dont want to take all the risk

because, you know government, forget what important aspect to what they trying to do with **free market concept**

people gain built road, bridges, tunnels for not charitable purpose they need to get Return on Investment if you right

i see this is why super fund being so rates to commit to other these thing

They look at the return, and reluctant of government to support their return, because you know, i mean goodness me

you can going get 11 % return on investment in shares, You don't haveto take any huge gas and drift for risk, do you?

So, if you going to build massive infrastructure project

And get negative return, why would you try naked on the block why to be extra full, it doesn't make sense, that's it Mean part and still part of the issue involving government and private sector, government doesn't understand, who has difficulty is still understanding why it's going to take, some of pain in this excercises

and then of course, if you try to convince them, that they say, a benefit to much issues, you can get mult the project best way to do, is why PPP, because you get it up sooner You probably get up, on time, you will get up on budget

And if you are in partnership, with some body who have interest in same you have in making sure what happened In comes to part to it government has to understand known circumstance and it wants to get benefit

it's got to paid something for it, and you often you got met argument from QTC which is Queensland Treasury Corporation which borrows the money on behalf of the

Person (@ time)

Ph.D Candidate, (Leny)
Respondent 2
31:23

Ph.D Candidate, (Leny)
Respondent 2

Ph.D Candidate, (Leny)
Respondent 2

Discussion

government from the overseas

This also under state, very good

it's a like merchant bank, signed by the government, and, of course they like to protect their on territory

Here we have QTC and also have QIC,

QIC is big investment, for super fund

QTC borrows money for the state government, and local authorities to their project

That's good also consider issueing bond, or not?

No they don't issueing bond, just more like merchant bank, so they raise fund overseas for government building project in infrastructure project road, like building goald coast high way

they do all government borrowing for, they like internal merchant Bank in south australia the local authority have one there called South australian local authority in Brisbane corporation or something

And What it does? It's same as QTC

It raises money for local counsel in southern australia to get money to build their project

It's smaller scale about peer, and but

this one does it for stake government and the local authority, best interest because they turn in simply say, well we can do better because we can borrow money cheaper,

because the bank in the state, you see, so they might be able to get 1, 5% which is lower, but

the problem with they got, is then they have to then let that money after the line department, maybe raise for example

Queensland road or what ever, And then the line department,

So became responsible for using that money to build project, and that's where the inefficiency start to crack in because what happened is that line department not become less less competent, and Managing their own contract

and say end up, into unsatisfactory range booth contractor end up in dispute, and end up having extension in the contract and that cost more, so end up with these big blow at a dull state death.

So, it's very hard for them to see the arguement on time, on budget , and when you need it, timely ness yes about to same

if you look at those project around by line department they taking feet, i will takefor years like doing up gold coast highway down past to the back to service paradise through gave and those areas may be messing around for

Person (@ time)

Discussion

- years down in bound university bond uni, i have been messing around there for years and year and years, and mucher about
Traffic always Chaotic, the road is always half open, still working still popping around, where do you have toll road, In matter of traffic on that, if they put up that to private sector PPP upgrade, probably when over down, sure you say pay for dollar for toll, or something other assume at the end of the day you would not messing around caught in traffic, creeping along for 40 km and that all stuf.
- Ph.D Candidate, (Henry) Michael Jennings even called PPP evaluation concentrate to much on financial issues anything between schedule always talk about how to meet project budget, how to meet the schedule but let's care about some key stake holders satisfaction, at end user satisfaction, and some times let's care about the process, because I talk to every director of PPP project in WA before, and he said, we only have evaluation before project suggest economic assessment or some, why man thought in assessment, and we dont have any KPI for the project spending , and we don't have the KPI for project design and even the procurement procedure and KPI only for the operation phases
- Respondent 2 So, there is no assessment of the processes that is in train So, they look at basically what they want And they look at what they got And they look how the procurement process were end And they look how end product do this operating no one care about to process through the middle, i think
- Ph.D Candidate, (Henry) How to achieve the result
- Respondent 2 i think that probably absolutely correct
- Ph.D Candidate, (Henry) What do you think about this problem?
- Respondent 2 Look, i can't see how difficulty it could be to monitored, seriously i mean you must be able if you have confident firm who has the ability to set stage assessment, of each point and that should be stage assessment of which point of that **Because from this point to get that point, that's gotta be a project plan**
- Ph.D Candidate, (Henry) Sometimes three year or four year
- Respondent 2 And I know company do those plan, like ACP , they are client of mine, they'll set a template of you what you have gotto do from this point to get to that point, So if you got template of you what you have gotto do to get that point to get that point, surely **you can assess that the stage made along that template from every point** that doesn't seems to be done properly, but

Person (@ time)	Discussion
Ph.D Candidate, (Henry)	<p>That's not to say that once you get this point of the PPP of that talk about has been successful, you can assessed it here , but you need to assess the process, so, i guess that's right</p> <p>And that probably should be all part of the model</p> <p>Almost PPP in UK Australia and some of Europe, because we don't know how the project treat such assess may be common this assess because they meet the budget, they meet the schedule, may be end-user and other you dont think so, and government doesn't know, why the project is success</p>
Respondent 2	<p>that's right</p> <p>why this project work look better than that project because something happened along here, there might be influence the outcome here</p>
Ph.D Candidate, (Henry)	<p>I am quite confusing , i know may be the common knows this problem why all the price set they know this problem why they dont do anything to improve this situation</p> <p>I am quite confusing</p>
<p>Respondent 2</p> <p>Ph.D Candidate, (Leny)</p> <p>Respondent 2</p>	<p>I think there is magic word you just used , government Government , they have different interest</p> <p>if you expect the government to do something logical and sensible i think you are being able to be optimistic, i think government can be describe best doing it some i think government does it competent best most of all time</p> <p>sort of like being the victim of made of the crash and having</p> <p>A truck driver tend you on the side of the road</p> <p>You greatfully is there, but you are not sure whether is doing what really best for you at the time, but you think it is</p>
Ph.D Candidate, (Leny)	<p>I still interest to QIC n QTC</p> <p>This two institutions also report to MOF, or how is to connect between all state how same central government managing the funds investment</p>
<p>Respondent 2</p> <p>Ph.D Candidate, (Leny)</p> <p>Respondent 2</p>	<p>QIC ?</p> <p>And QTC</p> <p>Very different operation</p> <p>They have to report to parliament, so what they do</p>
<p>Ph.D Candidate, (Leny)</p> <p>Respondent 2</p>	<p>Parliament in Queensland, also totally in federal system</p> <p>It's in Queensland . now federal government, because we have federal system, and what the concept of federal system is before Australia was Australia as central government each of the state was a separate country effectively and in 1901 they form the constitution and then they amalgamate also might gain all of them and</p>

Person (@ time)

Discussion

their still own retain independent sovereignty under the crown

So they all got their own government, they all got their own taxes there's between arrangement whether shift taxation arrangement from the stage to the fit

we surrender income tax, for example and the fed get all the

nightmare, but anyway all of days sort of aspect back frame Australian why doing government business If you want to call of that sovereign government

Ph.D Candidate, (Leny)
Ph.D Candidate, (Henry)

State is rather strong than the central before formation of Australian commonwealth if you telephone korea to new south wales, you need to trade in the border, because of the size Slight complete different

Respondent 2

three across the border new south wales and half better than half

Ph.D Candidate, (Leny)
Respondent 2

long time ago of different tracking Because part of protection of arrangement, Like putting up trade barrier for example you could have train running Queensland through Indonesia and wales you can have New South Wales with train running to Queenslan, You have to make it hard, to protect your industry and their Industry and one of the key close Australian constitution Key to federation concept cause that trade commerce Inter course between states must be absolutely free

Ph.D Candidate, (Leny)

Monetary system

Respondent 2

They are all lies on English pound back in old days british currency

Ph.D Candidate, (Henry)

in UK, when i was in UK for my first master, we need for the local because there's part of problem In the UK education system, and i first master university south wales, wales said no you dont do that independent from UK central government, so many student England come to wales for underground programs

Respondent 2

lower than other that's part of delution so

Person (@ time)	Discussion
Ph.D Candidate, (Leny)	something that i need more
Respondent 2	part of interest thing
Ph.D Candidate, (Leny)	Policy part of the risk in PPP project, different policy
Respondent 2	of course, happened last few years
46.03	<p>I am a lawyer, but practise in new south wales read all jumping</p> <p>meet new south wales, because i live tweet part i can go with new south wales part of tweet it</p> <p>Unless they are made, it is absurd, it is ridiculous, silly stuff</p> <p>protectionist, Queensland</p> <p>All barrist practice in hard court credit to do so but back then</p> <p>bar couldn practise between states, because silly admission role, have supreme court,</p> <p>Quite ridiculous, had still have admit, Queensland down there</p> <p>new south wales UK</p> <p>it's quite shock</p> <p>no you threatening me, you are taking work from me</p>
Ph.D Candidate, (Leny)	what about socialise, you know in Chine
Ph.D Candidate, (Henry)	Is control by centralise
Ph.D Candidate, (Leny)	Also credit presidential actually, try to adapt in center point, little bit confuse
47.50	<p>With government take control for monetary investment in banking system</p>
48.07	<p>they are own population, they are own ability to pay every thing from other cities to other cities</p> <p>we can not take thing from the central and implement to different state, actually federal could be good system because people on the state the leader governor had to understand</p> <p>good system for state, for governor, right now always pushing thing from central</p>
Respondent 2	<p>gold mine for a long time</p> <p>prospect, try to every body agree to permit,</p>

Person (@ time)	Discussion
	all centralised have to go director of deputy
Ph.D Candidate, (Henry)	in China, if you deal business in China you need organise thousand permits only two years view you plan to open up business in 2005 you have to pay 2003 one year, of course one or two for the permit very silly foreign investor, just for any body
Respondent 2	funny isn't it we want foreign investment, but every country stand foreign investment all stuff they can make it, just same to me in China get through this, really quiet funny
Ph.D Candidate, (Henry)	how do you organise the permit in China, nobody tell you business commit okay you go they may you how can i get it, I don't know is there Some information not open you need to ask some guys they have relationship with government
Ph.D Candidate, (Leny)	Is there any consultant for permits, become business, because need specialise
Ph.D Candidate, (Henry)	really
Respondent 2	
Ph.D Candidate, (Henry)	it has to be improved
Respondent 2	is that part of short coming public administration, try to change from close economy to open get really process, coordinate it
Ph.D Candidate, (Henry)	that ' s a problem
Respondent 2	often London got business, every is defferent

Person (@ time)	Discussion
	thing made in factory
Ph.D Candidate, (Henry)	every public servant, we need to know
Respondent 2	doesn t matter
Ph.D Candidate, (Henry)	not my business, you can contact some guys you know that's a problem
Ph.D Candidate, (Leny)	analise friend, parent high position in 30 business very fast, connected, whenever foreign investor come to do business the government appoint have relative person as a joint partner, then
Respondent 2	shocking
Ph.D Candidate, (Leny)	right now young in this generation suddenly become big directors for big companies for big investment
Respondent 2	happened to themselves network control viral very strange very understandable greed
Ph.D Candidate, (Leny)	PPP in australia, mostly something how to consider the payback period, IRR indicator related to finance return on concession
Respondent 2	speak bit quickly for me how you try how is it sort of
Ph.D Candidate, (Leny)	pPPP indicate interest for financiers to invest interest, something

Person (@ time)

Respondent 2

Discussion

take analyse it, you heart Paul
upon arrange gateway to western queensland
major region city
main city in darling down
Gateway to western Queensland

heavy traffic have to go,
train need work
to improve
the federal government, always been keen
crossing road,
train crossing road
but woomba city go to traffic light highway
coming, all the truck must go to city
it s very very inefficient
high gradient, very difficult and dangerous for big truck

56.29

break quite logging
because of the gradient
wear and tear
for example for toll
top of the range
woomba truck 40-50 dollar worth of fuel
in that strait
in easieer gradient, quite happy to pay 25 dollar toll go
from
western, through the city

so every one
brain
have to do this, because project
i dont know it could be big project
3 billions dollar
gold both you make it

you make it purpose

1.8 - 3 billion dollars

Respondent 2

58.16

so what federal government done?
document to general
for consortium or consortia to put project
specific interest
what happened here
Those consortia finance

Person (@ time)**Discussion**

and may be engineering design
and perhaps constructor in the team
how ever
they you may get 4-5 consortia
consortia unti
sometime you find
one company couple deals, depending they do
hedging a bit
it's not necessary exclusive, but giving that
constructuring
sometime
way up front.

59.48

because sometime you find one you get
empire and
to build control the whole thing
because partner no need to control everything
run project if you win the deal
you got
can
all
take all money
you got back
so tendency people in Australia
if you gain interest
construction issues
financier, design

your project manager, always people
when you go put a tender to constructor
you got a control the contractor
they
because they are working for you
there is a view, just probably
gaining
sometimes constructor, doing deal
not to yours as a partner
i am always research company
gold coast city council
Sewage development

Ph.D Candidate, (Leny)

quite difficult

Respondent 2

ocean treat we will down talk
got to do something
big trouble

Person (@ time)**Discussion**

System crack
Leaking
i said to consortium
why go to constructor
put a proposition
yes that 's a good idea

think
same to do
use your own contract in the room
end to

Ph.D Candidate, (Leny)

about dealing, financial closing
arrange by investor it self
or government involve in financial clsing
once the private sector
contract before the money
used for investment, usually the bank need

before financial closing
we can take investment
process of financial close
is it done that
appointed by

Respondent 2

No involve by government, only don't by the consusium
see

Ph.D Candidate, (Leny)

transaction course

Respondent 2

what happened, one project
big nation
dissemination
freeway recently in victoria
what they did
15 bank, so finance
Consortium of 15vbank which inside the consurtium,
they spread risk
big project, but eventually
slice to the action
government, it was a consortium of bank

Ph.D Candidate, (Leny)

Tno government involve, only the consurtium

Person (@ time)	Discussion
	no in
Respondent 2	no government, only the consortium, of bank n investors
Ph.D Candidate, (Leny)	quite tricky, they
Respondent 2	see what happened, QTC they have own by government own financing investment bank but, they i dont know by law
	they never take role with private sector banking group in any government
Ph.D Candidate, (Leny)	they
Respondent 2	PPP QTC financier, only if the government as the shareholders government, finance government, look for them direct consortium to financier.
Ph.D Candidate, (Henry)	that what do you think value of money important in PPP common very in PPP
Ph.D Candidate, (Leny)	
Ph.D Candidate, (Henry)	life cycle
Respondent 2	use value of money proposition, it is interesting concept
Ph.D Candidate, (Henry)	v
Respondent 2 01.07.12	value of money for purchaser getting value they can afford it some may be like who doctro from grain i dont see value of the money area where you say

Person (@ time)	Discussion
01.07.50	<p>very subjective industry money proposition government, for QTC we can borrow money cheaper line department handling you should where as we say PPP you will borrow money we got scheme interest good project, build quickly ahead of time in government preventive keep assets service to general public driven by basic needs insake for they got fixed up at the time, value for money provision on that value money provision is not just it's all whole thing combine before time you dont have risk associated with borrowing line department so i think value of money proposition top of mind every body Dealeverybody havediffeent</p>
1:09:27	<p>okay? so how to counter fei</p>
Ph.D Candidate, (Leny) Ph.D Candidate, (Henry) Ph.D Candidate, (Leny) Respondent 2	<p>public sector comparator because Similar to global warming model</p>
Ph.D Candidate, (Henry)	<p>doesnt make sense at all</p>
ORespondent 2	<p>It is sort of artivicial, official beareaucratice so exercise</p>
Ph.D Candidate, (Leny)	<p>national developing agency the planning devision, very strong person decide PSC line ministry give it to fiscal because they are</p>

Person (@ time)

Discussion

	understanding i mean not really important not really strong, what they do it just estimating very rough for me i dont really get Prudent, pick up strong team, for the moment, less
Respondent 2	back to envelop
Ph.D Candidate, (Leny)	how come only few people in important process
Respondent 2	an day honestly to protect their own territory
territory	
Ph.D Candidate, (Henry) Respondent 2 1:12:31	look certainly interview,
Respondent 2 Ph.D Candidate, (Henry) discussion	investigat investigator
Respondent 2	all over those, quite accurate you have rain
Ph.D Candidate, (Henry) Ph.D Candidate, (Leny)	in sydney storm and rainy in Perth very hot
Respondent 2	good rain in night we need it so what are you doing? tomorrow today
Ph.D Candidate, (Henry)	like
Respondent 2	compact city you should go two million three million
Ph.D Candidate, (Leny) Ph.D Candidate, (Henry)	perth 1 million, too small better than Perth
Respondent 2	but have you ever can we do no we can do that, i tell you what to do here,
1:16:22	

Person (@ time)

1:18

Discussion

television channel outside brisbane
 top restaurant, right city
 bus service
 you m
 please have a look
 take a camera,

Ph.D Candidate, (Leny)

can

Respondent 11

SMI Commissioner

Leny : Di Contruction Management tapi riset saya mengenai infrastructure financing dengan PPP financing mekanism gitu ya jadi saat ini kan saya mendapat beberapa study case di sini di jakarta di Indonesia termasuknya Monorail di Palembang waste semarang Watersubway gitu sama ada Lamongan juga ada Watersubway ada solidwaste management di Batam sama kalo di jakarta multipurpose deeptunel karena riset saya mengenai terutama untuk financingnya mekanismnya itu bagaimana, karena kan kalau di luar perkembangan pola pendanaan PPP itu kan sangat banyak, kalo disini itu rupanya lebih banyak prakteknya masih menggunakan Project Financing gitu kan, masih maksudnya atau paling tidak malah menggunakan privat iniquity gitukan privat investment gitukan semacam itu, sebenarnya masih banyak pola pendanaan yang lain kalo di German kita kenal Forfeiting model kalo di inggris di UK dan sekitarnya dan eropa sekitarnya di kenal dengan PFI, dananya terus kalo di Australi kita sudah mengenal apa namanya guarantee CTGF, Creadit guarantee fund, Supporting fund semacam itu macem2, dari segi PPP financingnya di bidang PPP itunya sendiri sudah mengenal Bond, Bondnya pun ada yang Money Bond , yang paling umumkan sekarang di Indo kan corporate bond belum banyak berkembang, infrastruktur pun baru mau akan dikembangkan juga kan segi pendanaanya, saya private Cuma ada kesempatan saja untuk PHD international world juga jadi bukan G to G, di singapore dulu, double dlu di NTU tapi sempat membantu consultant juga tapi bidangnya juga sama konsultasi untuk infrastructure financing juga dan saat itu kita juga advising untuk fully found the investor juga kadang kita perbantu dari segi governmentnya , S1 nya teknik sipil, S2 nya Urban Management , di UGM, kalo Pak Respondent 11 sendiri disini sudahlah lama di SMI

Respondent 11 : baru 5 tahun, saya bergabung tahun 2012 awal , jadi baru awal2 konsep pendirian ini saya salah satu kontributor

Leny : dari awal sudah terlibat ya, boleh di terangkan SMInya sendiri bagaimana ""

Respondent 11: inisiatif kenapa Indonesia membentuk SMI atau mungkin, SMI sendiri sebetulnya adalah institusi BUMN kepemilikan sahamnya 100% oleh pemerintah Indonesia dalam konteks ini Kementerian Keuangan , kita bukan BUMN yang di kelola oleh kementerian BUMN tapi lebih langsung di kementerian keuangan, tapi sebetulnya BUMN BUMN lain sepertinya

tetap saja kepemilikan sahamnya di kementerian keuangan , Cuma saja kementerian Keuangan melakukan perwakilan dari pemilik saham untuk melakukan operasional, jadi kita masih langsung dibawah kementerian keuangan mengapa karena di satu sisi kita dianggap sebagai fiskal instrument pemerintah , untuk melevverage infrastructure investment khususnya dari pihak2 swasta ataupun mengisi gap dari pembiayaan saat ini yang mungkin ada di market which is conventional financing, dalam konteks ini Perbankan , Equity Product hanya itu saja sih. Nah kenapa dulu pemerintah membentuk SMI alasannya awalnya adalah pertama karena jelas kekurangan stock infrastruktur , kekurangan infrastruktur salah satu issue yang diangkat waktu itu adalah pembiayaannya , dalam konteks pembiayaan apa waktu itu tidak ada, artinya pada saat itu likuiditas dari Bank cukup tinggi tapi problemnya adalah beberapa produk Bank itu tidak matching dengan kebutuhan infrastruktur kita , Ibu leny kalo mungkin mau mengetahui mengenai sumber dana dll , disisi equity nya tidak banyak developer yang mempunyai likuid yang memadai untuk masuk ke bisnis infrastruktur , lalu terpikir seperti apa sebetulnya yang menjembatani hal itu, atau mungkin terpikir waktu itu kita bikin semacam infrastruktur fund , tapi untuk konsep fund di indonesia tidak dikenal, jadi dibentuklah semacam lembaga pembiayaan lembaga keuangan infrastruktur , nah untuk membentuk lembaga keuangan infrastruktur apa sih yang sebetulnya yang jadi titik penting dari lembaga keuangan infrastruktur itu salah satu hal yang bisa diidentifikasi adalah perlunya ada satu produk yang flexible , dimana produk ini menjembatani kebutuhan pembiayaan yang ada, ada di domestik sekarang dari Banking dari equity owners atau shareholders dan produk2 yang baru. Yang kedua, model2 pembiayaan infrastruktur rata2 kan dia bukan berbasis pada perharga koleteral dari kooperasi mostly dari financing which is basicly yang jaminan adalah cash flow.itu sendiri, cash flow dari proyek itu sendiri kan, umumnya Lembaga2 Perbankan kan tidak mengenal konsep2 itu , mereka lebih mengenal suatu colleteralship dari satu fasilitas yang mereka berikan

Leny :project financing perbankan masih belum terima? Denganrevenue streams masih sulit ya, even yang saya baca seringnya itu. Saya kan bacanya berdasarkan dari news , arahnya project financing, ngak juga ternyata, tetep colleteral fisik yang ditetapkan

Respondent 11: bukan koleteral fisik juga, tapi ada jaminan dari si korporasi , bukan dari projectnya atau bukan dari SPV tapi dari si project sponsor

Leny : oh makanya sekarang banyak sekali dari guarantee goverment di minta mungkin arahnya kesana

Respondent 11: nanti saya cerita structure sebetulnya apa yang di structure guarantee, awalnya mungkin begitu terus lalu bagaimana menjembatannya , disatu sisi kita perlu memberikan edukasi kepada temen2 di domestic market dari segi financingnya dan juga sekaligus memberikan edukasi kepada si project developernya dan juga mengedukasi kepada pemerintah yang memberikan konsekunsinya , itu perannya cenderung kita disebutkan menjadi katalis, jadi peran kita disebutkan katalis dan kemudian kita hadir disiplin kita ke dalam proyek infrastruktur, proyek infrastruktur adalah proyek financial tapi kemudian perkembangan berikutnya kan sesuai dengan base 03 terbaru, bahwa tetap harus ada jaminan kepada lembaga keuangan khususnya Perbankan manakala terjadi cash devisiency dari project. Nah itu

kadang2 kita jadinya blending tidak pure di project finance yang which is nilai pure terhadap cash flow tapi juga akan relay kepada sponsor untuk menutupi bilamana terjadi cash difisiency atas kewajiban dia membayar semua fasilitas , jadi mungkin ada beberapa tahun yang kita lock in sampai mereka bisa.....itu dari satu sisi, jadi disiplin kita project finance sebetulnya, jadi introduce project finance dan kita involve kepada beberapa project , kemudian dari segi pembiayaan dan investasinya ada beberapa produk yang coba kita sesuaikan dengan kebutuhan di market. Pertama yang di sebut dengan senior Loan, sama itu dengan Perbankan Cuma mungkin kelebihan kita adalah kita punya tenor yang relatif lebih panjang, kalo perbankan konvensional kan paling produknya tenor 5 tahun maksimum.

Leny : kalo disini berapa?

Respondent 11: kalo disaya terakhir di SMI kemarin sudah ekspose sampai 15 tahun, satu dari sisi tenor lalu dari segi fleksibilitas produk tadi senior loan, kemudian abis senior loan ada mezzanine loan, sorry jangan ke mezzanine loan dulu harusnya ke junior loan or sub ordinate loan artinya dia tidak seprioritas senior tetapi dia bisa di 2nd dikeduakan tapi tentunya lebih riski dari senior loan, karena tidak ada jaminan Bank apapun, bukan tidak ada jaminan tapi ada jaminan sisa istilahnya, makanya kadang2 product juniorloan ini memiliki pricing yang relatif lebih tinggi yang di banding senior, tapi ternyata product ini justru yang paling di butuhkan khususnya untuk player infrastruktur, kenapa karena mempunyai keterbatasan likuiditas untuk meleverage keterbatasan ekuitas itu terbatas karena kebutuhan proyek Capex satu trilyun equity mereka Cuma 20% kadang bahkan 5% dan si banking atau lembaga keuangan meminta itu delivery sampai 30% katakanlah, maka product yang seharusnya junior loan dan sub ordinate masuk diantara itu, itu sangat membantu buat mereka , jadi itulah yang coba kita masuki.

Leny : nah sekarang itu malah banyak permintaan ya

Respondent 11: nah itu tren nya lompatannya ke arah situ dari sisi katalis, nanti saya cerita peran katalis kita seperti apa sih sebetulnya, mungkin dari segi product bisa kita isi kebutuhan , kelompok product yang berikutnya adalah kita bahkan bisa jadi equity investor, punya direct share di dalam perusahaan SPV infrastruktur artinya kan project masih greenfield berbentuk SPV atau project sponsor kita participating sebagai salah satu shareholders mungkin sbg passive shareholder , Nah lalu bagaimana peran katalis kita, pertama katalis dari sisi product yang tadi kita jelasin, kita isi dari product2 yang tidak di isi badan keuangan, kedua dari product yang memiliki tenor jangka panjang, itu memberi kenyamanan kepada developer dan juga bagi lembaga keuangan lainnya untuk jadi co-financial kadang yang jadi kunci disini adalah construction periods ada IDC dan macem2, kadang Facility kita mengamankan agar si proyek itu bisa conclude di construction kemudian operation, satu dua tahun baru terbentuk revenue stream kemudian balance sheet nya sudah mulai terlihat tuh di cash flow, pada saat itulah bisa dilihat mungkin bisa jadi teman2 dari perbankan menggantikan replace facility kita, refinancing itulah peran kita dari segi katalis.

Leny : Bagus seperti itu..

Respondent 11: Karena mandat kita sebetulnya kalo kita di hitung, mandat kita apakah dari besarnya segi proper investasi ya memang betul tapi yang paling penting adalah peran kita untuk masa critical.

Leny : Kalo yang sempet saya ikutin ya dari produk mezzanine loan dan subordinate loan memang saya baru denger dari bapak, sebelumnya itu malah saya sempat dengarnya sebagai equity tadi equity investor, nah kalo untuk equity investor itu kalo menurut saya sih itu sangat bagus apabila di prioritaskan pada project or project let's say mungkin ya yang bankability. Agak lebih rendah atau level flexibilitynya lebih rendah, disitu diharuskan juga government takes rules dan mungkin juga dari segi kalo kita menggunakan VGF. atau semacamnya yang lain, yang langsung dari government yang berupa grant akan cukup susah dalam segi manajemen pengaturan sebelumnya preparation projectnya mungkin SMI ini bisa mengarah ke yang tadi ke equity investor tetapi tentu saja dengan project2 infrastructure yang less demand seperti itu ya. Saya arahnya dulu suka kearah sana, apakah memungkinkan atau any project.

Respondent 11: mungkin clear dulu ya, ketika project di di-macth, project commercial dan non commercial, which is non commercial masuknya ke dalam category nonrevenue generated. Ataupun non recovery, cost recovery itu basicly itu pemerintah lah ya sepenuhnya, tapi kemudian dari sisi commercial masuk ke yang commercial ada yang tadi disampaikan Bankable atau non Bankable. Bankable atau nonBankable. kan penyebabnya bisa macem2 karena ada resiko macem2, klo dia Bankable otomatis market sudah bisa langsung absorbe, baik dari sisi dia naruh equitiesnya ataupun yang memberikan facility pinjaman. Tapi yang commercial tapi nonBankable memang harus ada enhancement nah yang menjadi kunci disini apakah yang noncommercial ini punya prioritas di sisi pemerintah (satu) apakah yang noncommercial ini dari sisi scheme structurenya, terkait dengan risk alokasinya sudah cukup optimal. Nah biasanya kalo dua hal itu sudah terlihat baru kemudian basicly enhancement baru bisa dilakukan dengan cara pemerintah dlu memberikan subsidi, skemanya bias VGF bisa Subsidi COPEX. Atau mungkin bisa dengan skema lain seperti di tempat lain annuity payment, performance base annuity payment bisa seperti itu, which is disitu resiko dimana tadi bu leny bilang, demand relatively di transfer ke pemerintah, atau mungkin SMI bisa menjadi equity tapi isunya juga harus dilihat dulu apakah ini isunya karena memang tidak ada equity dan projectnya cukup Bankable ataukah project itu memang tidak Bankable, nah kalopun SMI masuk sebagai equity kedalam project nonbankable sama saja toh karena yang disebut Bankable harus leverage financing jadi isunya seperti itu. Kalo di SMI suruh masuk equity terus terang sampai saat ini kita belum exercise,

Leny : kalo muncul PIP atau IIF, ada dua subsidiary companies. Dari SMI itu sendiri bagaimana.

Respondent 11: Cuma satu bu, sebetulnya idenya dlu seperti ini, pemerintah chip-in ulang ke infrastructure fund tersebut kemudian lembaga2 donor ikutan kontribusi, trus ada lembaga2 keuangan, investor2 lain juga, jadi porsi infrastructure fund membesar tapi dimiliki beberapa pihak. Tapi berdasarkan ketentuan kita sendiri tidak bisa langsung memerintah chip-in langsung ke satu entities yang dimiliki oleh berbagai macam stakeholder ini dia harus lewat satu lembaga dlu yang berakting sebagai holding. Awalnya SMI di perlakukan sebagai holding, masuklah dana itu dan pembentukan SMI. SMI perannya adalah melakukan leveraging. Dari dana pemerintah tersebut bagaimana meng invite, makanya kita bikin subsidiary yang di sebut

Indonesian Infrastructure finance , disinilah di IIF masuk dari IMC, masuk dari ADB,

Leny : Oh jadi yang dari multilateral tidak masuk ke SMI tapi dibawahnya ke IIF

Respondent 11: Jadi kepemilikan dari IIF itu multiparties multistakeholder termasuk juga dari jepang ICBC bank Jepang disitu semua

Leny : tapi secara function mandatnya sama dengan SMI?

Respondent 11: Kurang lebih sama, Cuma yang jadi membedakan karena struktur kepemilikan berbeda tentunya appetizer nya menjadi lain , karena kita dimiliki 100% kadang kadang kita diminta semacam fungsi fungsi penugasan, jadi kita ditugaskan pemerintah, jadi kearah fungsi fungsi kalau pemerintah melihat harus sudah development mission yang harus dijalankan. Kalau IIF kan enggak, kalau IIF kan karena ada ADB ada IFC mereka kan punya say masing masing belum tentu IIF punya apa namanya, seperti yang saya bilang bisa langsung ditugaskan pemerintah karena mereka pemilikan , memang basicly disatu sisi SMI perannya komersial tapi ada juga sebagian fungsi pemerintah, kalau IIF memang di design nya untuk truly commercial

Leny : Kalau so far, mohon maaf nih cerita, 5 tahun ini yang sukses story nya apa saja? Menjadi equity mungkin belum atau mungkin IIF malahan mungkin sudah

Respondent 11: IIF sudah equity?

Leny : saya juga tidak tahu, Saya mohon diceritakan selang 5 tahun ini, kan tadi mandatnya ada beberapa, let say equity investor, misalnya mandat yang pertama misalnya yang kedua untuk produk berikutnya lagi memberikan loans yang kira tidak ada di commercial loans , termasuk tadi yang general loans dan lain lain. So far ini ada berapa sukses nya ada berapa projek, ini ada listed nya sih ada beberapa, ada unggulan sukarno hatta airport railways sama batam musiple solid malah yang saya tahu batam Ini yang ditugaskan kesaya juga, study case saya juga , dari Bappenas untuk case study saya

Respondent 11: Jadi gini bu, dalam perkembangannya SMI Itu kita mengembangkan tiga pilar bisnis yaitu pemberian investasi, kemudian ada yang disebut penyiapan proyek atau project preparation dan advisory service yang menjadi core business dari SMI saat ini. Bicara mengenai pembiayaan dan ivestasi....produknya lebih ke pembiayaan dan penyiapan kebetulan kalau di pembelian investasi portofolio kita sudah lumayan.... ada lebih 40 project yang kita fasilitasi dari segi pembiayaan dan investasi. mostly project ini memang dibangun oleh BUMN atau swasta. Dan kita tidak memberikan pinjaman ke pemerintah....pembiayaan kita berikan kepada operating entity fasilitas berupa ada loan, ada senior loan, junior loan, ada semua.

Leny : Kadang kadang Commercial bank juga bisa?

Respondent 11:Ya tetapi commercial bank dengan produk yang beragam iu tadi. Kita bukan commercial bank ya.. kita lembaga keuangan. Kita nggak patuh sama ketentuan Bank Indonesia. Kita kan di establish sama peraturan Menteri Keuangan. Lebih flexible.

Leny :Dari 40 project ini.. Ok saya sebenarnya ingin tahu juga bagaimana pengambilan keputusan dalam berinvestasi di 40 project.... fasilitasi termasuk loan juga... disitu pasti ada risknya... salah satunya indikator risknya dll semacam itu... itu prosedurnya apakah yang dianggap sebagai project preparation sama advisoryservice beda lagi... kan ada preparation dulu sebelum mengambil keputusan

Respondent 11: bisnis pilar yang kita offer, service kita yang kita offer ke klien... mungkin saya lanjutkan dulu cerita saya.... mungkin sedikit pilar bisnis... project preparation adalah salah satu services kita, dimana karena kita ada so far ada unsur fungsi supported pemerintah pusat maka kita memberikan semacam bantuan atau dukungan ke pemerintah. Baik pemerintah pusat maupun pemerintah daerah bilamana mereka punya inisiatif dengan proyek KPS. Kita sadar bahwa sekarang issuenya kenapa nggak banyak proyek infrastructure yang capture market kan, karena issuenya masalah persiapannya nggak bagus,.implementasinya nggak lengkap, nggak memenuhi ketentuan international practice. maupun ketentuan banking practises gitu kan. Nah makanya salah satu issue yg kita bantu address project preparation, Apa perannya project preparation ini? Perannya lebih cenderung di memfasilitasi si pemerintah daerah dalam mempersiapkan proyeknya mulai dari identifikasi, menyusun pra-FS, menyusun business case nya, sampai nanti melakukan transaksi PPP Itu artinya di sisi publik membantu transaksi itu Nah yang kita lakukan adalah, biasanya kita hiring beberapa consultant yang kita manage, dimana dengan consultant ini bisa memberikan input dan advice ke si pemerintah itu tadi.

Leny : under budgetnya itu di?

Respondent 11: budgetnya itu saat ini konteksnya adalah yang kita miliki dalam konteks penugasan dari menteri keuangan memberikan tugas ke kami, kami utilize cash balance itu sendiri dimana dari balance itu , most spending kita lalu kita reimburse ke kementrian keuangan. itu satu model. Model kedua adalah kita kerjasama dengan multilateral seperti ADB. Dimana ADB nyiapin grant, dan grant itu digunakan untuk meutilisasi mengadakan konsultan, diperbantukan SMI dalam rangka SMI memfasilitasi, menyiapkan satu proyek dalam kasus ini proyek Batamsolid waste, itu tadi, itu contohnya. Dua model inilah yang ada dalam konsep bisnis project preparation. Pilar bisnis ketiga : advisory , itu lebih ke arah financial advisory services. Yang dimaksud Financial advisory services adalah ketika project sudah masuk fase itu, dia masuk ke tahapan berikutnya which is yaitu tahapan financing , biasanya ada require baik dari sisi dokumentasi maupun dari sisi assesment. Di financial advisory services kita bisa represent dari sisi project developer maupun dari sisi penyedia fasilitas baik itu equity investor maupun debt provider itu kan seperti banking ataupun lembaga keuangan, dimana peran kita adalah mempackaging dari semua dokumen tersebut menjadi satu dokumen yang mengaddress issues terhadap pembiayaan. Artinya fund raising, finance structuring....

Leny :Ini setelah misalnya, ada SPV yang menang tender mau mengarah ke financial closing itu ada banyak pekerjaan, yang transaction dan macem-macamnya itu. Kalau seperti itu... mohon maaf perlu ditanya lagi, dari segi bisnis ... yang akan membayar siapa? SPV itu nya sendiri atau ...

Respondent 11:Jelas SPV.... karena kita kan nanti menjadi lead arranger, sindikasi dan macem-macamnya itu di situ peran kita

Leny : Dan bisa juga hasil dari itu nanti di financing oleh SMI itu sendiri atau ... bisa. Selama ini yang 40 project tadi, rata-rata dari assesment dari preparation sampai advisorynya itu oleh SMI sendiri atau... oo .. nggak selalu jadi mix juga.. tiap berapa persen dari awal...

Respondent 11:Hampir 90% saat ini kan project preparation baru 2 project, 3 project sama Batam, itu kan masih jauh tuh ke financing, yg umbulan, yang

advisory kita baru ngerjain financing advisory untuk beberapa project tapi belum begitu financing, baru tahun ini ada beberapa, jadi mostly dari 40 project itu semuanya memang temen temen di FI yang financing investment yang memang sudah slack dari market... jadi kita langsung mandat jadi lead underwriter

Leny : jadi yang 40 itu bisa dianggap 90% preparation dari sebelumnya. Seperti jump in lah..... untuk langsung ditugaskan untuk tadi..... jadi berdasarkan assesment orang lain untuk mengambil keputusan ...

Respondent 11:O, kalo assesment orang lain enggak... kita tetep.... jadi ketika si project developer atau project sponsor atau SPV datang ke kita, dia membawa satu set dokumen, sebagai proposal untuk pembiayaan, tentunya proposal ini akan kita terima.. kita akan analisis.. kemudian akan kita masukkan .. saya cerita prosedurnya sedikit saja.. Jadi awalnya project developer datang ke kita.. mereka bawa sejumlah dokumen..... bawa izin.... yang sudah punya project konsesi, mereka bawa.. kita lihat. Pertama masuk ke temen temen FI Finance Investment. untuk dikaji seperti apa structurenya , rencana pembiayaannya seperti apa, terus kira kira dari sisi profisi fasilitasnya berapa, seperti apa... nah dari sini temen temen menganjurkan ... mendority, artinya mereka meminta ke temen temen dari risk manajemen RM untuk menimbang Apakah project ini credit worthy atau tidak. Melihat semua aspek contractual kontraktornya siapa, SPV seperti apa, developer, barangnya dari mana pembayarannya gimana menjdi off taker kemudian balance sheetnya gimana , projectnya seperti apa. Itu ada temen temen risk management . Dari RM sudah lolos.. ada yang disebut dengan komite investasi yaitu yang memutuskan apakah project ini akan kita berikan fasilitas atau tidak. Kalaupun diberikan fasilitas berapa pricingnya... productnya dulu kemudian pricingnya, durasinya, some said pre conditionnya

Leny : Pre conditionnya ada ya. Apa itu?

Respondent 11:Macam macam. Dari kondisi projectnya juga. Nanti dari komite investasi ditetapkan itu, nanti kita berikan semacam offering ke supplynya. Biasanya ada negosiasi dan macam macam... ya udah terus negosiasi n closing.

Leny :Itu berapa lama prosesnya pak ?

Respondent 11:Itu tergantung dari size projectnya, tapi rata rata... tergantung dari size facilitynya.. size facility kita kan rata rata paling maksimum kan 600 milyar. Itu mungkin bisa 6 bulan. Kalau yang kurang dari itu sekitar 2-3 bulan.

Leny :Jadi maksimal sampai saat ini fasilitas yang sudah disampaikan sekitar 600 Milyar.

Respondent 11:Man Plafon single credit sekitar enam ratusan milyar

Leny : Jadi single man itu satu project itu bisa offer yang lain lagi....

Respondent 11:Jadi gini kita kan punya capital back up sekitar 4 trilyun, asset kita hampir 4,6 trilyun . Dari 4 trilyun itu kita sudah committed sekitar 4,2. ... paling tinggal tiga setengah gitu ya..... Kita harus mulai fund raising..... Capital back up kita kan masih dari pemerintah. Nah mulai tahun ini kita mulai masuk ke market. Issuing bonds

Leny :Jadi next step kita ke arah infrastructure bond ataupun..... corporate bond

Respondent 11:Fungsi SMI berikutnya adalah sebetulnya selain dari menyediakan katalis itu juga menjadi katalis untuk menjembatani lembaga lembaga keuangan ataupun individu lain yang punya long term asset atau long term

fund seperti dana pensiun dan asuransi itu bisa masuk ke infrastructure financing, caranya adalah mungkin kita tertibin semi corporate bond dulu. Dimana dana dana dari long term itu bisa masuk dan matching dng kebutuhan, itu salah satu fungsi katalisnya. Saat ini memang masih disiplinnnya di market kita untuk penerbitan obligasi kan masih corporate type belum clear ke project bond. Cuma kita coba clearing ... itu nanti ujung ujungnya setiap project ketika mereka sudah generate income..... cash flownya udah keliatan kita udah relay ke satu project yah bertahap... Indonesia masih perlu proses untuk diajari juga marketnya...

Leny :Kemarin saya sempat diskusi sama temen di OJK ... emang sementara ini kalo mau fast track untuk bond tap in ke corporate bond, karena money bond..... udah siap kan belum ada ceritanya kan... belum ada satupun dari municipal kita ataupun pemda ...yang mengisi bond kan. Belum pernah sama sekali. Even yang baru mengajukan yang keliatan baru Jakarta cancel off ada Bandung danbeberapa itu juga sebatas baru ngobrol. Jadi belum ada storynya sama sekali. Jadi ... dan untuk infrastructure bond itupun masih under discussion juga... kalopun ada kebijakan.. saya belum baca banyak tapi sudah dapat dokumennya itu intinya sih masih memungkinkan dilakukan dengan kebijakan even yang ada sekarang, even tidak disebut sebagai infrastructure bond tapi menciptakan bond tapi tidak harus dilisted. Dengan LB yang cukup satu atau dua tahun. Kalo corporate bond kan harus menunjukkan lima tahun atau berapa tahun profit ataupun equity... yyang bisa mengissue sebanyak yang kita punya . kalo kita gali kebijakan kita itu sebenarnya ada juga yang ini sifatnya seperti infrastructure bond special purpose bonds dengan LB yang Cuma satu tahun bisa Cuma guarantee utk mengissue bonds krn investor blm mau beli krn blm ada bukti atas performance project tsb, dimulai dr bookbuild, market/ investor spt apa ada brp yg bisa diserap dll kalau missal nya kalo securitas nya sanggup melihat markets , OJK masih mempelajari kebijakan infrastructure bonds lebih lanjut... krn OJK masih instansi baru... kalau BLIK kemaren khusus utk issueing bonds yg listed di bursa efek ... jadi SMI utk mengarah ke sana sdh sangat cocok..

Respondent 11:Jujur aja sih kalo dengan kapasitas OJK kita sekarang, mereka belum menangkap visi kita ke depan... Kita sering diminta sharing temen temen OJK, gimana sih viewnya SMI terkait dengan pembiayaan pembiayaan infrastructure mandat khusus untuk mengajukan gimana mengajak market sebagai kelas bertahap sih... mungkin project bond sudah ada dalam konteks kita....kita educate market dengan corporate bond, SMI buat bonds ke insurance market.. later on kita mulai spin ,, dimana aset aset kita ya kita sekuritisasi ujung ujungnya memberikan produk produk baru di capital market dan marketnya juga booming. Basicly dari OJK mereka sangat supported spy praktek dan kebijakan sanat mach, Apapun yang kita temukan di market langsung kita share ke temen temen di OJK. Minta bantuan mereka bagaimana... issue kebijakannya ... capital market masih industry baru, sehingga SMI jg minta masukan OJK

Leny :Satu lagi pak. Sebenarnya saya agak tertarik dengan project preparation tadi. Karena saat ini saya lagi intensif di Bappenas untuk riset saya ini. Otomatis setahu saya project preparation ada di sana, di Bapenas . Itu bagaimana cara mengintegratekan. kalo di sana kan kalo kita baca dari permennya rata rata juga dari pihak PJPk, yang masih di demand driven.. belum mengarah ke planning driven . Planning driven kan sekarang kayak MP3I, itu tiba tiba ada

project besar dari pusat beberapa langsung masuk ke KL , terus ada yang masuk ke tim Bappenas. Semacam itu kan .. tadi bapak sekilas menjelaskan ada project developer arah advisory dan financing.... tapi kalo arah preparation kan juga akan ada semacam pemda ataupun apa datang ke sini untuk diminta dibantu ke arah project preparationnya sama sistem keuangannya, pendanaannya juga akan reimbursing ke MOF. Kalo di Bappenas kan sistem pendanaannya dengan loan ataupun dengan ya sama juga dengan pendanaan budgeting dari Bappenas . Yang ingin saya tanyakan. Kan sekarang kita kan lagi sama sama wilayahnya tetap Indonesia . Apakah memungkinkanmisalnya lima pemda masuk ke bappenas terus lima pemda masuk ke sini.. apakah memungkinkan atukah saling berinteraksinya bagaimana atukah mendouble , ada satu pemda yang agak membandel satu ke bappenas satu ke SMI, mana yang dapat tanggapan duluan.. kan kadang kadang ada yang saing menchallenge seperti itu dari pihak Pemdanya/ Kalo selama ini bagaimana yang sudah berjalan?

Respondent 11:Jadi begini... mungkin dari sisi konsep project preparation intinya seperti ini, sampai saat ini kan banyak sekali isu isu permasalahan itu bukan isu pembiayaan tapi dari kualitas dokumen proyek, kan boleh dibilang inisiatif luar biasa banyak dari daerah maupun dari kementerian atau lembaga yang ingin melambungkan percepatan proses pembangunan infrastructure yaitu dengan cara KPS. Untuk memenuhi KPS ini kebetulan Bappenas dalam konteks ini dialah yang menyusun kebijakannya mulai dari kebijakan KPS itu seperti apa sampai memberikan panduan manual untuk apa yang harus dilakukan penyiapan. Jadi dari sisi itu sih saya melihatnya adalah temen temen Bappenas adalah , tanggung jawabnya adalah responsible terkait dengan pembinaan , bagaimana temen temen di KL maupun di pemerintahan daerah bisa mempersiapkan project secara proper yang siap ditawarkan ke swasta dengan skema PPP. Itu mandat utamanya yang saya bisa liat . Nah berikutnya, isu berikutnya adalah siapa yang harus menyiapkan penyiapan proyek . terus terang yang harus menyiapkan harusnya melekat kepada pemilik proyek, dalam konteks ini bisa pemerintah daerah Tetapi dari pemerintah daerah, dari KL kan (kadang kadang tidak punya kepedulian untuk itu). Konsep KPS ini relatif baru, mereka tidak punya kapasitas yang memadai, akhirnya apa yang mereka lakukan hanya meminta pandangan dan support dari pusat. Kemudian pada saat ini Bappenas punya kapasitas karena ada support dari lembaga lembaga donor untuk membantu pemerintahan daerah menyiapkan proyek proyek dengan skema loan tadi. Jadi loan itu diperuntukkan untuk mengadakan konsultan, konsultan itu di assign Bappenas untuk membantu beberapa pemerintah daerah. Tapi kan kalo kita bicara jumlah proyek kan luar biasa mbak. Dan dari sisi lain kita melihat di dalam Perpres 67 itu kan ada klausul yang disebut dengan Succes fee untuk menyiapkan proyek, nah itu kan ada beberapa entitas, mungkin tidak kami ya , mungkin temen temen seperti IIF, Penyiapan infrastructure itu mungkin merupakan suatu klausul yang cukup menarik dimana mereka bisa participate langsung mempersiapkan proyek. Karena dengan mereka terlibat, harapan mereka adalah deal flow menjadi banyak gitu, which is nanti financing investment facility kita kan bisa ter exercise, harapannya begitu. Apa yang sekarang dilakukan Bappenas pun juga, mereka kan harus handle sekian banyak project kan, which is kapasitas mereka kan juga terbatas . dalam konteksnya SMI sendiri , kita

kebetulan ada dua proyek yang memang proyek ini sudah ditetapkan oleh pemerintah sebagai satu proyek prioritas. Show case model project. Air minum di Surabaya Unggulan dan kereta api Bandara Sukarno Hatta. Itu adalah dua show case project dimana dalam konteks ini ketika diserahkan ke Bappenas eligibility dari sisi loan facilitynya tu tidak memungkinkan karena kan loan itu diperuntukkan untuk membantu pemerintah daerah. Mungkin unggulan iya, tapi mungkin karena melihat kompleksitasnya bisa saja mungkin bisa mengabsorb begitu banyak resources temen temen Bappenas, sementara temen temen Bappenas juga harus memenuhi semua require dan itu berapa daerah kan. akhirnya kementerian keuangan berkomitmen untuk menyiapkan satu fasilitas, untuk melaksanakan satu penyiapan proyek. Fasilitas itu kemudian ditugaskan ke SMI.

Leny : Sementara ini masih ke SMI atau nanti sampai seterusnya?

Respondent 11:Yah saat ini begitulah posisinya, polanya. Ke depan terus terang saya gak tahu. Tapi saya ada beberapa gambaran yang melangkah yang disepakati oleh temen temen di keuangan atau Bappenas, saya belum tahu. Tapi sekarang posisinya seperti itu, Jadi Unggulan itu ditugaskan untuk kita menyiapkan semua proyek sampai dengan..... Bappenas sendiri berproses, ada beberapa project juga termasuk proyek Lamongan yang ibu terlibat, saya gak tahu yang monorel Palembang kan..... Terus itu kan ditangkep sama temen temen Bappenas. Cuma kan dengan kapasitas temen temen yang saat ini.seperti itu fully occupied itu seberapa jauh mereka bisa mempersiapkan project tersebut sesuai dengan kepentingan dari nanti para investor maupun pemberi yang memberikan fasilitas, itu yang menjadi hal juga yang harus kita Jadi gitu posisi konstelasinya bu. Nanti ke depan saya dengar Bappenas dan Kementerian Keuangan membentuk satu unit yang disebut PPP unit. Dimana salah satu fungsi PPP unit itu memberikan fasilitas dukungan dalam rangka penyiapan proyek. Ada budget yang dialokasikan dan diperuntukkan memilih proyek proyek mana yang prioritas dari sekian banyak usulan yang akan dibantu. Nanti terintegrasi.

Leny : Jadi nanti kedepan terintegrasinya di PPP unit itu ya, arahnya ya. Tapi kalau sementara waktu ini sudah berapa project pak yang disiapkan oleh pihak SMI?

Respondent 11:Itu tadi dua, sama satu lagi proyek Batam. Ya itu kebetulan melalui skema kolaborasi kita, antara kita, Bappenas dan ADB. Itu salah satu contoh saja. Yang batam itu kan karena temen temen Bappenas ini sudah fully occupied. Jadi Batam ini disharing. Saya ga tahu kedepan apakah Bappenas akan mengcapture itu semua, sementara yang harus menjadi concern adalah quality dari dokumen itu tadi. Jadi OK memfasilitasi tapi seberapa.robust?..... dokumen itu bisa(diterima, terakhir nanti kan pasti pihak financernya) seberapa.robust itu yang menjadi isu. Ke depan yang perlu dilakukan adalah prioritisasi project mana dan project ini yang diseleksi itu yang akan mendapat dukungan. Sehingga mulai terstruktur. Dan satu lagi mungkin salah satu peran Bappenas yang sangat diharapkan oleh pemerintah daerah itu adalah sebaiknya mungkin disiapkan semacam kayak guide line bikin FS itu gimana sih? Bikin pre FS itu gimana sih? Kalau bisa outlinenya apa aja. Ya seperti cara ngitungnya gimana, bahkan kalau boleh ada contoh contoh template template kontrak. Apa namanya.. kontrak perjanjian kerja sama, kontrak konstruksi, itu memudahkan temen temen di daerah, untuk at least dengan kapasitas mereka bisa mempersiapkan dahulu, yang dilakukan

berikutnya kan tidak resources yang ada di pusat tidak.... yang mereka lakukan cukup enhancement. Capacity building, dibantukan beberapa konsultan yang tidak perlu waktu panjang. Itu yang sebetulnya diharapkan dari pemerintah. supaya ada kesinkronisasi dan keseragaman dari dokumentasi dokumen itu. Itu sebenarnya yang menjadi Kalau dari kami melihatnya kosepnya seperti itu.

Leny :Arahan di PPP unit juga nanti seperti itu. Kalau sementara ini di levelnya Bappenas itu kadang kadang saya melihatnya kadang kadang terlalu detail juga.

Leny : nah memang yang saya sempet agak kritik itu PPP unit tidak perlu dibentuk sampai level provinsi , karena itu tadi mengambil kewenangan PJPk kalo dulu kan contracting agency istilahnya entah itu proyek miliknya Bappeda , proyek itu punyanya Dishub, punyanya Dinas Kebersihan dan lain lain itu tidak harus seperti itu. Kemarin itu saya pikir mungkin kalo terjadi tidak terbentuk mungkin karena ya itu tadi mencoba menciptakan PPP unit level provinsi yang pengen mengambil kewenangan. Itu kan cukup susah. Terlihat juga buktinya sekarang. Apabila ada lintas sektoral ada sebuah proyek yang dilakukan oleh yang seharusnya adalah kewenangan sektor tertentu tetapi Bappenas berusaha menge-leadnya, nanti kan yang tetep berkontrak si PJPk nya atau sektoralnya itu sendiri kan itu juga kadang kadang terjadi sedikit dispute atau pun unhappy condition lah. Seperti itu. Jadi itu aja baru contoh . Apalagi kalo nanti PPP unit dikasih kewenangan untuk mengambil proyek proyek itu pasti akan semakin tidak mungkin lagi. Dulu yang sempet saya kritik itu.

Respondent 11:Kitapun sampai sekarang dengan project PPP dengan konsep PPP yang di model Perpres 67 itu gak ada project yang kita bantu financing.Terus terang debt flownya memang belum ada dan terlalu kompleks.kalo memang model PPPnya seperti itu.

Leny :Maksudnya gimana?

Respondent 11:Kompleks. Jadi isunya adalah ada beberapa hal yang kita belum address di pusat. Yang kita coba forward di daerah. Orang orang daerah itu juga bingung. Ditambah bingung lagi ketika pusatnya gak kompak. Betul.

Leny :Dan sementara waktu ini saya lihat memang belum kompak pak. Saya coba ngobrol sana sini.

Respondent 11:Saya kira yang paling penting adalah kita sinkronizing kebijakan pusat terkait dengan PPP seperti apa. sektor sendiri sekarang kayak sektor air minum, mereka sudah mulai agak sedikit kecewa dengan PPP. Mereka lari dengan ... aturannya B to B ... Jadi memang apa sih isunya di PPP ini yang musti kita lihat. Baru gitu siapa yang berperan yang berikutnya, terserahlah itu, kalo kami sih dari sisi operator ataupun praktisi melihatnya aspek kebijakan adalah satu hal domain pemerintah dimana sampai dengan saat ini kita melihat itu ga efektif. Belum efektif, Jadi kita mungkin bisa memberikan masukan input dari disiplin market aja. Market penyesuaiannya begini kita bilanganya begitu.

Leny :Mungkin juga konsepnya dengan OJK yang saling mutualisme maksudnya praktek plus ini dimasukkan bisa juga prakteknya SMI juga bisa dimasukkan perbaikan Perpres 67 itu sendiri. Karena kan ada rencana pengen dinaikkan entah jadi Undang undang atau tetap Perpres tapi Perpres yang harus accomodate semua, tetapi Perpres menurut aku kerendahan kalo Perpres

karena kan PP 6 tentang aset aja ada di PP, jadi dia harusnya lebih tinggi dari PP menurut saya.

Respondent 11: Kita sih memberikan feed back terus itu dari market ke teman-teman yang memang deal di ... pemerintah yang deal dengan PPP nya, kita memberikan feed back beberapa yang ... seperti bagaimana meng address issue structure, kan ada kementerian dalam negeri punya aturan sendiri. Dan daerah lebih cenderung mengikuti kementerian Dalam Negeri . Commercially itu sih nggak practical gitu. Kita lihatnya dari segi commercial. Gimana nih kembali ke arah kebijakannya. Jadi artinya daerah tuh pada prinsipnya mereka manut aja. Dan mereka intinya kapasitas tolong dibantu tapi yang paling penting tolong dipesenin juga.. solid dulu.... Baik di keuangan , di Bappenas, di Depdagri, semua institusilah , kementerian, sektor juga begitu . yah memang itu juga salah satu penyebab kenapa kita akhirnya gak banyak juga project PPP yang masuk ke kita. Padahal mandat kita adalah untuk supporting PPP project.

Leny :kalo menurut saya sebenarnya misalnya ni ya saat ini kan capacity ... saya tahu banyak sekali project di Bappenas , capacity Bappenas kan hanya sampai procurement saja, ya kan. Saat procurement selesai menurut mereka tugas mereka selesai yang seharusnya kan PPP itu kan selesai kalo ... infrastructure service langsung sampai ke masyarakat. Ternyata kan enggak. Nah mungkin lebih baik karena SMI kan terutamanya di advisory servicenya ke arah sampai financial closing, itu sebaiknya langsung tap in juga ke beberapa project yang sudah di assest Bappenas... sudah di advice Bappenas sampai level ... ke ini, karena itu ada banyak gitu lho, daripada nanti pihak SPV nya itu mencari cari kemana ataupun apa .. ataupun tetap menggunakan grupnya.

Respondent 11:Kalo dalam konteks itu sih sebetulnya teman-teman Bappenas sudah cukup banyak ini ya.. cukup berupaya untuk beri sebanyak mungkin flow ke market gitu kan. Tapi yang dari market sendiri saya gak tahu ada beberapa project yang apakah transaksinya itu memang sudah concluded artinya sudah di appoint, siapa yang menjadi winnernya dan dari winnernya itu kita mungkin bisa partisipasi dari sisi pemegang konsesinya itu yang di appoint. Yang mendapatkan kontraknya itu. ... Kalo kita terlibat di sisi Bappenasnya, unsur ... procurementnya, itu bukan.....

Leny :Bukan itu maksudnya, gak sampai ke situ maksudnya..... Ada sebuah prosedur atau bagaimana caranya apabila project ini sudah mendekati kontrak itu pada saat itu SMI sudah mulai

Respondent 11:Kalo dari situ prosesnya kan privat semua kan..

Leny :Maksud saya untuk meng-enhance... apalagi ini sama sama government gitu lho.

Respondent 11:maksud saya gini. Ketika deliverynya selesai di pra contract, dari kontrak kesannya domainnya milik si investor, dia mau appoint si financial advisornya, itu terserah mereka.

Leny :Yah benar. Maksud aku Bappenas bisa merekomendasikan SMI untuk memfollow up sampai financial closing sampai transaksinya sampai selesai. Kan sama sama government agency.

Respondent 11:Justru itu, Seperti itu yang tadi saya kemukakan, di kitanya sendiri musti solid dulu. Cara memandangnya suksesnya satu project seperti apa, set document pun apa, karena kementerian keuangan ngeliat kebutuhan kalo mereka nanti VGF itu dokumennya pun kebutuhannya lain dengan struktur

yang mungkin dibuat di bawahnya, belum penjaminan, dia minta suatu requirement dokumen lain lagi . Makanya harus nyatu cara pikirnya dulu. Kalo dari sisi kita sih untuk yang terkait dengan transactional commercial sih itu straight forward kalo financial advisor memperlakukan risk arranger atau underwriter , prosesnya mungkin kurang lebihnya ya begitu.

Leny :Sekarang kan saya baru tahu kalo ini sebagai advisory, sebelumnya tahunya tuh ke arah investory equity. Kalo itu memang ada ya udah harusnya Bappenas sama pada title tertentu sebuah project, itu Bappenas bisa closely work with SMI. Tinggal kayak semacam transferring dokumentasi sama kewenangan gitu. Saya baru bisa melihatnya ke sana. Karena kan saat ini kan Bappenas seperti tidak peduli mau sampai financial closing yang kadang sampai dua tahun tiga tahun dia gak peduli karena dia kan punya..... ke arah sana kan. Level dia cuma sampai kontrak selesai tu dia sukses. Nah, menurut saya juga gak salah gitu kan, karena memang kalo dia sampai ke sini kan ternyata pekerjaan profesional yang sangat berat. Dan agen yang mengadvice ini orang yang sangat dekat dengan lembaga keuangan. Apalagi SMI sendiri sebuah lembaga keuangan yang kemungkinan besar juga bisa mengambil alih beberapa entah nanti memberi seniornya ato nanti saat mezzanine ato apa. Tergantung dari kemampuan SPV nya tadi kan dengan equitynya dia kan.

Respondent 11:View itu sebenarnya ada di temen temen kementerian keuangan. Jadi mungkin karena.. terus terang kita kan bukan public kan ya bu ya. Sedikit di atas kita masih ada Kementerian Keuangan. Nanti mungkin dari sisi sinkronisasi kebijakan harus dilakukan oleh Kementerian Keuangan dan Bappenas. Kita sih sangat willing dengan support seperti itu ya. Sangat ingin banget. Kita bisa rekomen dimana nanti ketika project sudah ... tahapan kontraknya hampir selesai. Kita dari sisi pemerintah merekomendasikan agar kita yang di engage.... untuk at least menjadiarranger ato apa ato underwriter kalo kita komitmen ... Nah view ini sebenarnya temen temen kementerian keuangan sudah sampai di situ, cuman tinggal bagaimana mensinkronisasikan proses ini ke dalam kebijakan baik di level Bappenas maupun di level kementerian keuangan. Menurut saya sih harusnya kementerian Keuangan dan Bappenas membicarakan hal itu. Saya gak tahu kementerian keuangan bagaimana membicarakan sama Bappenas karena konsep papernya sudah ada ... kalo kita kan dari sisi operator aja sih, ... kita paling cuma bisa merekomendasikan kebijakan.

Leny :Kalo yang tadi yang preparation emang sebaiknya jangan di sini karena terlalu sibuk...

Respondent 11:Nah kalo preparation sih saya kira harus kembali ke CA nya jadi nanti PPP unit mengawal special preparation.

Leny :..... Sudah lima tahun dan sudah banyak project yang ni ya.. yang berjalan kan. Dan dari produknya sudah bagus lebih dari Saya kemarin sempat kepikir tadi hanya sekedar equity investment , ternyata dan saya takutnya juga masuk ke arah commercial bank, yang saya kuatirkan. Karena kan saya sempet denger ada temen yang dapet loan.. tapi saat itu saya kurang tahu dapet loannya dari SMI tapi agak sekilas... kok SMI memberi loan,..... benak saya saat itu kan..... karena ketemunya meeting kan tidak bisa intens seperti kita kan. Benak saya lho kok SMI akan menjadi seperti commercial bank, tidak akan berani dong mereka full fight dengan Bank Mandiri dan lain lain.....

Respondent 11: Kita gak dalam posisi untuk nge- fight big name kayak Mandiri

Leny : saya sempat kepikir seperti itu, tapi kalo mengarahnya ke junior sama mezzanine itu lebih tepat, lebih arahnya ke sana.

Respondent 11: Itu isunya... terkait dengan loan itu sebetulnya isunya, satu sisi tenor.... bisa membantu teman-teman banking itu sendiri.... yang kedua size dari pembiayaan itu sendiri kan luar biasa. Katakanlah kemarin jalan tol Cikampek Palimanan kebutuhannya sampai 8 triliun. Gak akan ada satu single project yang dibiayai satu bank kan. Biasanya untuk sindikasi/konsorsium membantu misalnya kita satu kontributor untuk 100 Milyar, lebihnya dibagi bagi dengan bank-bank yang lain. dengan kita provide ... longer term itu memacu teman-teman banking utk masuk lebih dalam lagi. Melihat kita bukan sebagai kompetitor. Memang kita harus komplemen ke teman-teman di banking, Kalo kita harus menyiapkan senior loan katakanlah, kita siapin senior single loan, karena mungkin projectnya dilihat butuh requirement untuk jangka panjang . Project financing which is si banking kan buka di situ. Itu pun kita akan exit manakala projectnya sudah so far stabil. Teman-teman banking nanti ambil alih peran kita kalo projectnya sudah cooperated , sudah generate cash flow, kita kan keluar aja.....

Leny : Tapi kalo boleh tahu, level ratenya sampai saat ini berapa...

Respondent 11: Tergantung dari product senior loan ataupun juga tergantung dari sisi risk appeti. Kalo kita nentuin pricing sih ada beberapa faktor, yang pertama faktor dari market seperti apa, ... rate market.... yang kedua dari cost of equity, cost of fund internal, operation juga terkait dengan money market juga, yang ketiga terkait dari risk dari project itu sendiri, dan yang keempat itu terkait dengan masalah subjectif itu artinya gimana entertainment kita untuk masuk di sektor itu..... tergantung kadang kita pakai US maka memacu pada LIBOR, kalo dRupiah dnng standar SBI dari BI..... kalo dari senior loan kompetitif. Kalo junior loan kan the only one who take the best lah, pricenya lebih tinggi.....

Leny : Kalo untuk risk pak. Saya ingin tahu, saat ini kan IIGF mengemban tugas yang sangat besar untuk guaranteesnya, IIGF menanggung political risk

Respondent 11: Teman-teman PII itu mengemban tugas mulia untuk promoting PPP project.... Jadi artinya proyek yang dilakukan melalui pelelangan PPP, dimana resikonya dibagi antara swasta dan pemerintah, nah sebagian resiko pemerintah itu akan dijamin melalui PII.

Leny : Di sini juga projectnya yang ada di SMI...

Respondent 11: Nggak. Itu proyek PPP kan. Sementara ini belum ada proyek PPP, ya kita akan sangat senenglah kalo proyek PPP dijamin PII. Ya kita ... fasilitas bisa

Leny : Jadi selama ini projectnya masih corporate.....

Respondent 11: Nggak, kan PII ini adalah instrumen yang hanya terjadi di Indonesia. Hanya untuk proyek PPP kan, sementara mostly dari proyek kita kan bukan proyek PPP. ada yang B to B, ada yang PPP model lama,.... dimana belum eligible untuk PII untuk menjamin. ... Tapi memang ke depan kalo PII terlibat di dalam proyek PPP membuat proyek itu lebih bankable gitu sih. Jujur, cuman bagaimana menstructure produknya itu yang menjadi tantangan buat teman-teman PII ... kan mereka hanya menjamin dari segi publik aja

Leny : Kalo yang selama ini sudah dilakukan risknya itu apa, bagaimana konsep transferring risknya disini

Respondent 11: Mostly kan kalo kami kan memang melihat bagaimana picture dari risknya itu sendiri, di share oleh temen temen di SPVnya, distribusi risk Apa project sponsor ambil, apa yang dishare ke si contractor sampai yang dia share ke si supplier, ... kalopun ada pun juga nanti konteks dengan local government ya risk managementnya seperti apa seperti izin kehutanan dan macam macam. Itu bagaimana diadain, contoh misalnya kalo izin kehutanan ga muncul, facility udah terlalu down, pricingnya pasti tinggi ..seperti apa. Tapi kalo izin kehutanan ga terbit facility sih pasti ga akan dikasih. Ada certain requirement yang kita minta dan itu kembali lagi ke SPV ya SPV itulah tugasnya men-share

Leny :Jadi penanganan risknya lebihcenderung ke pendistribusian risk ke any stakeholders yang terkait di sana ya. Terus satu lagi apakah ada menggunakan risk transfer juga sebagian?

Respondent 11:Ada

Leny :Menggunakan commercial insurance ato..

Respondent 11:Kadang ada beberapa. Seperti CGIF ya, di Singapur ada tuh, guarantee infrastructure facility. Kayak gitu ada beberapa yang pake itu. Ada juga.....

Leny :Kalo di Australia CGF credit Guarantee Fund itu konsorsium antar perbankan sendiri yang melakukan guarantee terhadap risk investasi yang ingin mereka tangani.Itu disini udah mulai terlibat ke arah sana.

Respondent 11:Yah mereka sama sama

Leny :Tapi masih sifatnya pendistribusian risk?

Respondent 11:Saya ga tahu ya konsep..... temen temen . tapi kalo ga salah pokoknya dari sisi kita sebagai financial at least risk itu teriditify termitigate..... secara mitigasinya ya bisa terdistribusikan yang tereflek dari kontraknya, which is nanti kontraknya dilihat qualitynya kalo memang bisa dienforce apakah enforce itu juga enforcement juga practical capability sesuai kondisi kita kalo tidak ya bagaimana. Yang kedua apakah itu nanti bisa ditransfer, misalkan lewat insurance ato apa itu bisa aja. Kita akan minta ke mereka , Ok proven bahwa itu di insurance mana. Seperti itulah kurang lebihnya.

Leny :.....kan standardnya kalo kita mau mengambil sebuah project itu kan kita lihat dari yang standard ya, misalnya NPV, IRR, ROE, ROI, semacam itu. Terus payback period dan lain lain. Tapi karena memang di SMI berbagai produk yang akan dijalankan tadi

Respondent 11:Saat ini kita memang lebih ke arah debt facility ya. Pasti itu kita lihat ... utamanya dari sisi economicsnya pasti kita lihat karena itu reflect structurenya nanti , seberapa prosen dari debt, seberapa prosen dari itu pasti akan lihat, pastilah itu. Mau dilihat dari financial.... return term , stock capital, itu semua kita lihat, sampai nanti payback period itu sebenarnya ga terlalu reflect, Cuma payback period akan menentukan seberapa muat ni tenornya. Tapi justru yang kita lihat paling penting adalah servicing dari sub facilitynya itu. Apakah cashnya itu memadai untuk servicing facility kita for certain period, debt coverage service ratio itu kan, itu kita lihat. Bilamana ada satu waktu insufficient, gitu kan bagaimana mitigasinya. Seperti yang tadi saya bilang ada informan dari si project sponsor untuk top up agar cash flow itu bisa men-service kewajiban jatuh tempo.

Leny :Jadi ada kesiapanjuga dari pihak equity.. ekuitor.

Respondent 11: Makanya ga akan bisa murni project finance saat ini. Kita selalu juga melihat dari sisi si project sponsornya. Seperti apa mereka mampu.

Leny : Lumayan kompleks juga. Tapi kalo dilihat umumnya gitu ya pak, minimum requirements itu berapa? Misalnya.. IRR minimum yang bisa kita pertimbangkan ada di angka 8% ada nggak?

Respondent 11: Kita gak bisa bilang begitu. ... Itu sebetulnya appetite dari si investor. Cuma kita lihat dari structure. Kembali kita lihatnya dari struktur dan dari sisi market. Keumuman di market cost equity sekarang berapa, cost equity sekarang kan rata-rata mungkin kalo kita itung pricing, kita transfer, risk dan macam macam cost equity paling sekarang kan bisa jadi 22... 23 persenan. Untuk Indonesia ya. Kan kita selalu update....., bloomberg, dilihat dari capital market dan dari macam macam ya. Dari...of asset kan kita tahu cost of equity berapa Indonesia high risk.... Kita juga ga akan melupakan return pada investornya, mereka harus cukup minat margin kan untuk mereka mendapatkan benefiting, jadi incentifying ... memberikan insentif ke mereka... untuk keeping this assets alive. Untuk membuat asetnya itu tetap hidup, tetap berjalan. Kalopun juga returnnya terlalu minimal buat mereka ya apa insentif mereka.... seolah olah asetnya hanya sekedar..... Kita jadi... serius gak...

Leny : next step dari saya mendvelop model juga untuk financingnya. Jadi tadi modalities dan yang lain lainnya kan. Yang sebenarnya lebih curious ke arah sana juga misalnya requirement dari financing saya itu mana sih yang pengen aku lihat indikatornya Kalo kita ikutin Bappenas kan project itu dianggap commercially financially viable kan apabila IRRnya sekitar 16%, itu kan tinggi sekali menurut saya. Misalnya terus BEPnya berapa..... kirakira..... saya pernah membaca..... Sayajadi lebih ingin tahu juga target kalo kita mau mendvelop project itu financial performancenya itu mengikuti yang mana, karena kan kalo kita sudah tahu indikatornya ... IRR nya sekian, NPVnya sekian.....

Respondent 11: Kita melihat dari market dan proyeksi market . Kan awalnya kalo kita melihat semua ditarik ke depan, present value..... Kalo di present value kan kita lihat present yang seperti apa sekarang, pergerakan dari return equity, kita bisa banding bandingkan di market seperti apa sih, return equity ya walopun dari cost of fund kita bisa itung..... jadi acuan. Ya mungkin 16% tuh kan kita bisa lihat dari market , ekspektasi market return berapa sih kita bisa baca oh saat ini berapa kalo kita tarik. OK, kalo misalkan dia masuk lebih dari market berarti proyek ini cukup ini... tapi kita juga lihat proyeksi .. ya biasa kan kita main statistik juga, return itu gimana sih profile-nya dalam jangka waktu project, nanti kita lihat averagenya... nah kita lihat historical dari project ini dengan proyeksi yang mereka susun, wajar nggak lalu kita bikin..... kan, seberapa kirakira masih mid di proyeksi kita di market atau nggak. Kalo masih mid ya sensitifiti masih layak. Jadi kita nggak stick dengan satu angka, karena kan kita bicara kayak gini kan ... di commercial kan liatnya dari satu trend, liat proyeksi....

Leny : Kalo untuk applied langsung trend ya, tapi kalo untuk kebijakan ternyata kan ditekan..

Respondent 11: Nggak boleh.. sebetulnya. Menurut saya mereka harusnya merefer ke satu parameter. Bukan angka. Yang harus mereka acu adalah parameter, parameternya apa model diliat, dibandingkan dengan present valuenya, .. OK mungkin barometer kedua adalah parameter , proyeksi , kalo proyeksi

gimana, itu, parameternya di proyeksi apa.. itu sih.. kalo saya. Jadi jangan ketentuan terus 16%. Tapi itu keliatannya hanya untuk memudahkan...

Leny :Untuk memudahkan, bisa jadi.. saya cuma ikut... seminar aja sih...

Respondent 11:Tapi kita kan bisa ngasih..... prinsip ... kalo itungan saya return di equity itu 22 %. Tapi untuk project diblending gitu kan, dimana dia kan gak cuman jadi taruh uang tapi dia juga main dari sisi vendor dan macem macem, 14..15%..16% mungkin bisa acceptable,

Leny :Berarti distribusi risknya tadi akhirnya ada yang ngambil risk... ya,

Respondent 11 :Bagus... itupun saya ga believe kalo local companies bisa ngasih angka segitu. Kecuali local companies yang udah well known yah. Mereka sangat oportunistis soalnya.....

Leny :.....

Respondent 4
Private Investor

Leny thank you for your kind, Respondent 4 and some point i feel like it's kind of blessings

because in Indonesia, we plan to develop 2 or 3 cities, but not a new city ;
just like this one Dar es Salaam, but have another expansion, something like that.

The Government quite difficult because in some point they understand The PPP, but PPP we usually arrange based on 1 per 1 project
and usually the infrastructure for project would be like less feasible, in some point like that, is not right
for the urban development, for commercial area would be easy to find some one to do investment, but to develop the infrastructure more difficult
just wait and see, so then the city will be develop not really in well planned, as it should be

I think solution supposed must have integrated master plan, like you have in Kigamboni ..
in matter of government doing the staging of the investment planning and
some point, may be, they do some combination between the low infrastructure project with the high feasibility, the level one then can be swap or something like that, is that right? or
how we can learn from you

Respondent 4 I think, when you looking for outside sources to funding to develop a new city,
what comes first, the chicken or the egg?

so, when i looked to it, they wanted me to become their financial

advisor for the whole city

so we looked to their area of development, where they wanted to get plans. The first thing we notice was, where was the electricity?

Leny
Respondent 4

become the biggest point from the beginning
R so you think, okay, what's next? or
what should be first?
You think it should be electricity

RQ you can't have facilities,
you can't have production facilities,
you can't have houses,
without electricity

RQ : where do you put the electricity?

RA : so you need, the road

RQ : so, what do you need to develop first, the electricity or the roads?

because if you dont have the road you can't get electricity put in,
to be build

So if you working stages of,
what is it important? what can we do? doesn't need this?
what can we do ? doesn't need this?

because the idea one time was, we were going to build 5000 houses.

RC so you think, where is the electricity?

it's a new city
you dont want , the new city having no electricity? how?

so what you do

Do you have gas, you have high drone

do you have car?

R what was viable in that area

coal fire, may be gas, because now i have gas
so it is original concept, they found oil and gas
so right now, my team , i am working with

we put in twin power plant in Zanzibar

R there's gonna be gas pipe, we've got to run underground pipe for
gas, from the main land, even now they found gas in Zanzibar

so the group will build, constructs

and the government will buy the electricity
so that would be viable

so does the fundamental ,
people can not live , without electricity
we can not build houses, without electricity
you can not build skyscrapers, offices
even car parks

so when you structure The City, and this one was stunning hilarious

if you notice it was The residential area, there was finance area,

Leny LC i am still studying
Respondent 4 RC the thing was, Where do you look for private founding, where?

Because, What are private founding looking for?
The big think people look for was The return on investment

There's no return on invesment if you build the house

where?

where?

Leny L which project will give viability gap or bonus gap

Respondent 4 RC So, who do you have humanitarian project with did it, people
will build for free or for no value ? or
where people will build at cost, without making a huge profit,
because ..?

Leny L for some one we can call it social infrastructure, social residential
etc. economic commercial, economic infrastructure

Respondent 4 R most big financial investors, are looking for in big returns on their
money,

now, I just put 7 structure 750 millions dollar, for this power plant
only.

one project,

now we have, i think there's 6 more power project ranging up to 4.5
billion dollars in Tanzania

RA 750 millions dollar only for Zanzibar
RC huge money

Leny LQ So right now you do almost whole project for whole country not

- only for Kigamboni
- Respondent 4 RA i am bringing money from several groups to build roads, we have just been talking about Swahili coast road army hospital in zanzibar
- I am working with The big boss of health service for Tango and Congo to build hospital, 5 healths centers, some expense
- i told her to go away, say does this one need cooling down, rebuilding
- does this one need reinvented? so ...
- Leny LC we call it ground field, green field
- Respondent 4 R where do we need them
- where do we need this new hospital,
- they got 500 acres, for this new hospital for the site...
- so i said,
- but okay, we have hospitals, but here we have unit for training doctors,
- here we have unit .. this is my idea, at first for training doctors for training nurses, hospital for nurses, for doctor we have optician, optical one man for doctor we have dentist repart, every one flood it into hospital for the same thing, we have different unit within the ground with so much ground, So, we can keep spread people all coming in to main registration area develop big for optics you can go there gaenologyc paediatric center in we can have maternity section
- Leny LC so every hospital have their own specialised, something like that, right? LC How is the source of the funds, mostly from the private
- Respondent 4 R She said to me
- Leny LC as long as there is return right? for the private, or security of the investment,

- Respondent 4 R exactly, that what i am looking for
- Leny LQ policy guarantee like that?
because
no , the government won't guarantee every thing
Q how the government?
- Respondent 4 R you can not have souverign guarantee here
- Leny LQ may be not guarantee so whatever

what about policy guarantee like that?

LQ how's the government rules
- Respondent 4 RA .. mostly The government are only looking for private
investment for this things

outside investment , all the time

R The government don't have money here
- Leny LC even from the Kigamboni?
- Respondent 4 R they don't have the money
R The President discounted several countries trying to raise funds..
private funds
- Leny L private equity, mostly?
- Respondent 4 R yeah, private equity all the time

R you build the road, so you can make it toll road

the new bridge their going to be to put it in

will have to be a toll

because how people put get money back from building a bridge,

building the road ?
you can not just spend 6 (six) billion dollars ..
- Leny LQ what about bonds that had been issue by the government to build
, let say the roads
- Respondent 4 RC there is issue, in nothing, about that, for this

they're looking purely private investment

- as a way of helping this country, this country is broked.
- Leny Respondent 4 LC okay but, at least they have natural resources to pay back
R absolutely
- Leny LQ about 0.1 % of the natural resources are being used , .. neutralise this bound
L private but show them the natural resources
- Respondent 4 R absolutely
Leny LQ and make contract
Respondent 4 RA basically you off set this for something else
so you give them finance, you give another, so if you say
if you put extra some billion to help build the city
you can then have The Rights, to mine concession etc
R for this site construction
- Leny LC I am still thinking about the level of cooperation
mining industry could be different with the urban developers management, right? or they could develop into like big consortium or something then they can do swap or whatever
- Respondent 4 RA: yeah, of course absolutely
- Leny LC on this thing could be very difficult, in term of sort of agreements
- Respondent 4 RA : there's going to be hundreds of agreements because
you can have 10 different companies working on the Finance matter {?}
you can have 3,4,5,6,7 companies building roads not just well, 6-7 companies building houses
whether they are specialty is no other t doing power, other doing ligthing, other doing water
it is tremendous
- Leny LQ something again, i would like to understand about, indigineous LQ original local people who stay over there ,
- Respondent 4 R local population,
- Leny L we talk about in Kigamboni here if i am not mistaken the area

- would be like 1500 hectares
- LC acre actually is not totally empty area, we still found many houses around here
- Respondent 4 RC people could be move away
- Leny LC i try to understand, people will move away , i can see this is like a weaken area that plan to be a resettlement plan for the local people,
- Respondent 4 RC basically the government are
- buying their properties , and their lands
- moving them somewhere else
same way they did in Andalusia, in West Indies,
they redevelop area in West Indies, they all get people all the land ,
move them somewhere, night out
- so you get people living in thin cheque, okay?
- they certainly will get apartment and houses
- Leny LC in apartment or else
- Respondent 4 R now one of my friend , is a Vice President of The World Trade Center here
- he has a big house in Kigamboni and keep him warming
- now i got
- R have you been in Kigamboni ?
- Leny LC south beach,
- Respondent 4 R a friend of mine, Erick, own's it
- look
- RC well, i don't know if you notice, on the houses some of get BOMBA, written on the side, in red means they're going
- Leny LC i still did not look at pay attention to on signing
- Respondent 4 rc in red Bomba means God, houses will come down
- Leny LC i still found so many new houses being build of there
- Respondent 4 RC being build,
they're being build without the knowledge where the road where gonna go

- Leny LC they new building belong to a personal, they will also come down
and they value for the money for the asset
- Respondent 4 RC they will be given, i am sure they want get 100% of value of the house

because my friend , Messangi , he has a big house
he said, "Where the new city now, Rob?
he said, The new road?

he said, where do you put plan this ? which is only a tiny bit of his front garden

about they get back 10 cars park, the other side to where is gate
he said, all that? will be gone
he said, "This house? 6 bed room house,
i am turning into supermarket and move somewhere else,
he said, i can't live here, with the road there

this is very influencer man, he is president best friend
- Leny L even The president best friend also follow all the plan

L something that very difficult for Indonesian in some point, I mean sometimes people who close to politician high level politician they want to get the higher like return for the asset as a replacement, for here so the one who do job or clean the area is government

even use money from private or money from government

how to do with the first clearance
- Respondent 4 R clearance is down to The Government, so they clear The people out

private sector can not do that, they don't have the power
It only can be done by The Government

The Government own the lands

if you buy a plot, here. Yes, you buy a plot

same as in UK, The Government want to put a new road in, they buy your place, you have no say i dont know about, but you are, now country

R if you are in farm, i want to put a road through it, it's called compulsory purchase. It's a lot. compulsory purchase lot means

- come along they say
- we value this property, examine million schillinggs
- R but all they may said
- Leny L market value
- based on place of the legal,
- Respondent 4 R based on
- there is difference, there is always be disputes, they always want more money
- the government side; this is what you get, and no negotiation or more bulldozer will come in,
- Leny LQ just like in China
- Respondent 4 RA the thing one of this is start it,
- still on master plan
and you can talk about the bridge, linking issues
for 4 years 5 years now, they're keep saying, next year we build make sure you build it
it still not lot, because i was in south beach 4 weeks ago.
It took me 3 hours, to get back accross the ferry
- Leny L because of queuing, of the ferry
- Respondent 4 RA arrgh, it's a chaos
R where do this people come from, where do they go?
- there is no industry in Kigamboni
- R thousands of thousands of people every day
where the houses , i have been there hundreds of times
you dont see many houses
where do is the people live? jot down backaliways
- there will have to be house some where
which is they want to move far from Kigamboni because where they life is
where they friend are?
- R when do you do resettlement plan, what you do?
you are trying keep to make it close it possible to where there are

- because
- Leny L resettlement still in same area in Kigamboni
more concentrate, beautiful sort of planning, landscape
- Respondent 4 R exactly you get the mean to the environment, other wise they feel
they people and now
- Leny LC some point in socialise like people aware about the plan
set up by the government
- Respondent 4 RA Yes, absolutely
- Leny LC right now as you do now, you are sort of to organise the
consortium
for you, you are preparing for the finance, parallelise with the
government socialise the master plan
and what is it? doing on the land acquisition? or how
- Respondent 4 R No, basically they need to know
whereas the finance is available, otherwise they can not move,
- Leny L chicken and egg
- Respondent 4 R what come first ?

they need to know, where the capital investment is available
I have to show these bank to people, to have billions of billions
dollar available, trillion are coming
some one say you want to get involved on this
and they go Where is guarantee are go?
I just don't know, no guarantee
I have one a Suisse group, I work with
first, you may ask for souverign guarantee back to the president.
The government they want to it
- Leny LC the souverign guarantee is it possible to implement here?
Respondent 4 R it's impossible, because i have got money to repay, how can i
guarantee if they don't have for refunds?
- Leny LQ so far what about the bond? right now the potential to issue bond
- Respondent 4 R Yeah, even if you issue the bond
what if you have cash bounding if there is no money in the bank?
- Leny LQ right now, you one the on who make possible which one is
become chicken and which one is become egg
- Respondent 4 R yeah exactly i work with big financial houses around the world, try
to convince him

this is a viable project

i have this, i have The power plant. i have 6 (six) more power plants
i also sub project, people wanted to funding for and
new hospitals, i have been tender
all the house centre in rural area only rigid

people are coming to me saying, "Bob, could you please raising fund
for us

and i am saying

Q what funds do you have now?, and

they'll go, "none"

I said, " Okay so, you are asking for 900 million dollars ?

what might goes getting for The 900 million?, what do I get back?
cause they're not just going to give you 900 million
they going to want 1.5 billion back! Investment return
yes, they want something back

So, it's very hard and this is been down in the ruin way,

in the beginning, it s been done in wrong way

you bring in the investment people.
you sit them down in the room, you do the presentation
and you know, who is interested?
you sale the concept first
you don't sale the concept second
you selling the concept last
before you do this,

you have to get an outline

then you can have some one like me,
and you say, " Bob, you are going to go to America

You are going to go to china,
You are going to go to russia,
You are going to go to UK

we're gonna invite, all you guys
we gotta put on a big presentation, one cheese some busy business
we are going to sale them this idea,
instead of telling everyone in Kigamboni, their going to loose their
house
and then stop saying, where is the money?, too late !

what happened now? they all get design, written into all over the houses
 what happened if they got aint finance

this plan just sit down on the desk
 so i will do advise you always, to tell you The Government get investment line up first, then sale the concept

Leny LC from beginning conceptual first, to grab the investment, then the investor will get the government
 now, it's back to front now

LQ some how, if can understand in some point there are many rich institutions with huge money
 but need place to put it, they are eager in finding potency of for certain cities
 they try to stimulate how would investment returned by exploring natural resources, something like that
 after that, teaching the governments and some the professional try

Respondent 4 RA I would work investment company in USA, washington DC, taking guard 1 trillion dollar for one project, but money is in different places

let say from America, it's in Dubai, it's from Africa
 RA big money, they have private investors

Leny L even not multi lateral, something like that, it is very rare information to have

Respondent 4 R so, every one says, The Economy like this, but people with big big pockets still want to invest , but
 their company will only do equity financing, which means they won't a part of project, they want to own the project,
 it's not a loan, it is a buy in for 30-40 % of the actual project.

Leny LC sharia system in Islamic, Sharia it's mean not a loan, because in Islamic, interest bank, some how is haram not allowed

we use build share holding, sharia
 the person who has money become the owner of the project

Respondent 4 R the thing is they don't want to own project
 Leny L No

Respondent 4 R they want to be part of it, but never run it properly
 they always want to put in finance officer, their own

at least one or two member on the board of directors for the whole

project
 because they need to know where the money's going
 Let say, you give a small board of directors, 500 million dollars
 .. one decide, I will go buy jet, I will go buy yacht

it happened in this world, so basically that would they do
 they will say, you only get this amount of money first
 and then you have to do this, this, this, this.
 one show milestones are completed, we will release some more
 funds,

basically that money never comes in one big chunking to the bank
 and actual fact here
 you can't bring that kind of money in any one go , so has to be in
 phases.

Leny LC using local bank here, project

Respondent 4 RC basically the finance houses will say to Respondent 4
 yes you can have 500 milion, but we will put that money, may be in
 Virgin Islands
 to make profit on the money while it 's there, Okay?,

so, this is 500 million for project,
 the first release of fund, would be around 80 million
 okay, now so.. okay, you 80 million you must complete

this task, this task
 this task, this task

so they will put in someone like me, to check
 and i will go once a week and say "yes..this is has been done, tick..
 tick, email it to america

next phase, i will do the same.. i will going to tick.. tick, this is
 how.. they don't see the money
 never comes to their lead bank manager

Leny LQ how is actually?

Respondent 4 RA basically most the money will come in into main bank here
 or not get into first down into a smaller bank
 so, basically what happened is they will have to open up bank
 account with the main clearing bank here

and then i would work through them
 not their lead bank manager, not in Tango ro, wherever, okay?

so it's controlled financially, because you can not suddenly flood this
 country with 500 milion dollar

it's destabilise the country
 imagine you got 6 up project coming in and you got to trillion dollar
 coming in to this country

there are enough Sicilian
 there is another think, you have to think about.
 all this big financial institution, and money would be place here

Leny L trance bytrance, come into country
 LQ what about construction

Respondent 4 R mostly China
 R road here will build with chinese even rail way

Leny L even rail way ,

Respondent 4 R which is terrible, railway structure is absolutely ..?

there are
 by now, you should be out to go from DOha to any where, but you
 cant
 if you
 to me you should be go by train here and go to Burrundy, Rwanda,
 you can not
 you have to go by air or by truck, three days
 there are no fast train
 this country rich in mineral, but no money,
 there is no train,
 this is huge

29:53 we are talking about some one to put new system in, but
 then you have to buy a land
 and then you move it people house again

Leny LC resettlement again,

Respondent 4 R huge headaches
 why not do it, when they forming railway system in for first place
 think 50 years advanced

RC no one thought in advanced
 look at the road system here, it's terrible, you know

you get two main roads, it's too dull from any where
 you have two choices, the new back on more road, or held back on
 more road
 doost,
 and they both flood with traffic coming here just now, we have to go
 down the ocean road, because this way blocked already
 two o'clock in the afternoon, i live here in mickochangi

when I went to Zanzibar last year, I came back
it took me 5 (five) hours to get home in traffic , 5 (five) hours !

my taxi driver , its good friend of mine, he came to local bar with me
to have some beer before even he went home
because too much traffic

Leny L what happened with population is around 6 million right

Respondent 4 RA but infrastructure is not there
and when it rains, every thing floods no drainy system,
now they are busy, to get up side of the road to put drainy system
when you put the first road in, put drainy system in,
you know it's going to rain , every night, and
you know every year it comes

so much to think of

Leny L so much you think to teach the government to think 50 years
advance

Respondent 4 R you can't do it, month by month, year by year it is impossible

R and too many cars on the road, they just let more and more people
on car
you dont have to take drive in this country
you go to buy TRA buy license 40.000 schillings

i have one

Leny LC easy

Respondent 4 R i do drive

i have big jaguar 4x4, the guy ask me, he said do you drive motor
bike
you drive truck, it's okay

Leny LC easy to get driving license

Respondent 4 RC even a kid, 18 -19 you got buy driving license

without even having a driving car
so there something

causing accident lane, you go down one lane
4-5 car, all go to same way
there is no .. honk.. do this.. , all the time

- Leny L undiscipline driver
- Respondent 4 R terrible, nobody thought when the road are put in, 20 years
10-20000 car using the road every day
- Leny L kigamboni for the moment, this is also for 30, 40, or 50 year plan
i mean it could be wide of road, big lane, 2-3 lane
L even tunnel are also build over there
- Respondent 4 R every thing got be bigger and better
- Leny L suppose plan like
L unlike what we have now
- Respondent 4 R free lane for each way
R never was 2 years ago, they came to me and ask me back about
funding for 10 lane highway,
5 lane, 5 lane, nothing happened
- Leny L what about your concept, in some point is would being a toll road
LQ what about
find ability to pay, willingness to pay of the people
push
- Respondent 4 RA problem with toll roads is, would may take Kigamdoni ferry
Q how much
RA used to be think about person, used to be 100 schillings for one
person
RA 2 years ago they put it up to 200 per person
and then were riots , people riot
some one came to pay without being told
and 200 schilling is nothing, against get
for this people as a 100% increase over night
for what? same journey, so they said, "what is difference, same old
ferry, same time
what do we got extra, for a hundred schillings?
nothing
just The Government getting the way it go
so there was terrible traffic, flight, jetty also are not enough.
- Leny LC in the future build toll road concept and then the ferry as
alternative talk

people want to go faster, go by toll road.

- Respondent 4 R people with cars, get in the road, probably non stop
- R may be 2-3 hundred in and then go
people build and construct the road have the partnership with the government
and get percentage of that money, to help pay back for the road
we have project, several projects in Congo, i have been asked to work on
and some of it, there are six different part of 2000 km highway
but that money the development it's going to be backed by united nation
- Leny 35:48 LC because of it was grant
so they have UN money, but the money only come back once it's being constructed and approved
so my thought, what happened if UN dont prove it?
mean, you have already constructed it but you would not get paid
the risk on developer and the contractor money
only people can get involved , and I say to them pay back on UN
but when it s completed
and i inspect, and then i sign off, you get
L turn key project but only being paid by UN being approved, after UN approved
but i think UN fair
- Respondent 4 RR you will hope
- Leny LC at least the developer get concession
- Respondent 4 RR exactly something else
because to me the only way forward in this , to make this tolls, you have to
how can you get your money back, even in they UK now, we have many toll roads, motorways
new motor way, even 30 miles motorway instead of going up like this, they do this
and it joins furthur down a way from every where
so whose down? so around Birmingham it goes around join furthur down

but it cost a lot, but it cost 5 pound, for a car,
that would be here, 12,500 schillings, just for a car
just an army people, just be paid for a car

but you pay both ways
so 5 pound this way, when you come back 5 pound this way
so 10 pound, and you don't to the fact your paying for my car, my
jaguar, it cost me, over 100 pound to put petrol in

i have to do that twice going to see my mother
so I spend 200 just in petrol
and then 5 pound for the toll, when I coming back I pay another 200
plus 5 pound for the toll

Leny LC very expensive

i think there is no toll road

Respondent 4 R none

Leny L some point become like very new concept,

Respondent 4 R so you have to sell that to public

Leny L for indonesian, would be easier
road operate as a toll road, but here could be difficult
in Zanzibar

L you do very hard job,

Respondent 4 RQ how do you explain to people that don't have money?

the other thing is, if you going use toll road for a car,
i guess if you can afford
5-2000, i dont know with cost will be not big cost
unless 10

i dont know what cost will be?
it doesnt need big cost,
it numbers game , the more traffic you can get connect
you can have it
may be more 5 hundred schilling
if you
to put in ... off you go, gantry

or the other way, which you can use like in UK;
you have a disc in your car, prepaid disc

electronic road payment

- R so you pay for 6 month, and every time you go by pre-paid
- Leny L actually Jakarta also would like to implement this conceptual using gate
- Respondent 4 R exactly
- R because if you get money upfront, you can interest on that money s
- Leny L another financial bonus
- Respondent 4 R it's like a football club, foot ball club sell seasons ticket
- get money wont'go
so they banking that money could be more thousand pound, get the money
they put on the bank, swirl
more interest, because i have on money
every year
- Leny L formula one
arena or whatever will
- Respondent 4 R it's good idea, that to me let the way forward because if you can afford a car
toll road
- i would rather use toll road, and have no traffic
and sit for 3 hours awaiting for a ferry
and people dont care, people just break your mirror, they would through Bang!
there appear is no concept, of ownership
they dont care, if i have a nice car or no car
passenger
bang! the mirror not even just say sorry
sad true
lecture in ferry
- on ferry
in the ferry, we come in ferry
same road
- R house mirror , button other wise
just sit on it, or just lay on it
swinggs
no concept of ownership, i said get off my car, they not interested
they take, dont notice, some of . they dont speak english

so much , when you try to do a new development of houses
you construct
you construct road to begin with
like this, you know
even the President keep waiting, is going around different countries
getting around countries
trying to get investment for this

it's too late, this is end of his term
next year, election is here

Leny LC at least for the government for the president, he has place the
master plan
deliver it internationally he would be well known
in no fit as an initiator

Respondent 4 R we working team very subtle
power project
humanitarian hospitality directly from President office because his
son's area

presidential son is member of parlement of chelinggi
this is one i am run hospital

Leny L in some point, the politician also

Respondent 4 R so politics politics politics always
00:43:17 so politic risks

Leny L actually if we could to be involvement
for indonesian as developing country, we have quite a strong local
structron state own company
willing to have a international experience of doing the project,
do you think is it possible for indonesian company
involve

Respondent 4 R as contractor, yeah of course,
as investor
they want to build and get paid
R absolutely

Leny L in future talk more, let me know, when and what kind of project
had been secured in Finance, needs EPC contractor or whatever

Respondent 4 R because even every project need third party people, just like us
power plan it's a turn key project so Siemens Plant so they will bring
privilent

to build, so we need roads, we would like to look have contractors

even though fund , we then have to look for contractor, and said to him
we have examine fund available for this
are you willing to do the construction for some out
you might have to go 20 different constructing company
in different part of the world

Leny
Respondent 4

L mostly open bidding, direct appointed some point
R mostly you will get tender, open tender or close bidding

basically you will have to

10 of form to fill out

you have a date that must submitted by hand, then would be happily
an opening ceremony

when they are open where these company get together
people sit on the top table open the envelop
they look,
they look,
they look,
they go out might they come back
beauty contest , like miss world

but still is a secret
so for company they
problem is tend go to the cheapest, not necessary the best
that it mean, they are going to use the cheapest product
exactly why, because
run cut every body
ship they are cement here segmented
dont get it from here

cheap deal with local producer
ship by container into the port

then quite difficult for other company to bid them
right now, China is flooded this country
to beat them
right now
flood in this country
china
captiving every body

Leny

L how you manage the situation, Because if not you will

Respondent 4

RC road already,

R government nothing to do about it

- Leny L i mean person who give guarantee, of the investor to come in, and every thing
- Respondent 4 R i am trying to get away from cheap cheap cheap
00:47 that mean
- Leny LQ investor company
- Respondent 4 every thing to be cheap
trying away cheap
for me
- to me you should to be
end up three companies
look up three companies
- that no matter in china, sumatra, UK
- so you should say
2-3 people with Road specialist, if a road
should go see 2 or 3 development are done
inspect three company
work,
- the best
respect
48:07 this company then you check
- Leny L price technical, dont have skill to evaluate
skill
- Respondent 4 R but now it s always price
- R always be about what happened
what is the project
what is like?
what is the finish product
- Leny L some point teach them process bidding
- Respondent 4 R purchasing process, because you are doing out there
if you need my help and you get me apply
- Leny L one thing, if there is a bidding process, it is supposed to be, there is
an institution to do the bidding , is it the government do the bidding
or
consortium who like manage area know how
- Respondent 4 R basically what would happened is if less construction of houses,

okay?
now there would be purchases in local papers, big big saying, they are
looking for construction companies to tender for 5000 houses
in such pars

please register your interest by formal letter to this address, this
person address
it will go to government department
so let the department 10 document to same
to show interest in building the houses , so may be
90 -100 pages long
so then that company, they fill up the documentation, and has to be
by certain dates,
that should happened
every project will strict lighting in electricity
should be
gas all be down in tender

people in indonesia, companies from China, companies from here,
companies fro mUK
company from
mostly now, all this countries have people here
looking all the time for tenders

local offices in car
look at news paper every week, see what we can tend for this week
end.

- Leny L mostly tender by government only by department , government
still taking rules running
- Respondent 4 R still running as
- Leny L running as legalised project, problem now they not only looking
group for the cheapers not the best used
- Respondent 4 RA not always the best, if you going to build house cheapest
material, 5 years time, may be
need this doing again
so it happened
- break flow
- from 51:12
to 52:10
- Respondent 4 R if you need from me help from me I can help
Leny L for your future, would be in Indonesia would like to build the city,
I could have your advise

L of course, increase private equity to increase the investor concept share holder, is it possible to do
 What about BOT system for certain concession 20 30 50 years
 some point, for private investor,
 land has been acquired by the government as asset the government

later build on invite investor,
 whatever several urban development, but the
 government keep concession 40 years of something as long as the
 return has been estimated in certain years

Respondent 4 R absolutely, right now, working with American about owning Air
 Tanzanian
 Aero, the airlines

4.5 billion dollars
 but the private company get 80% government run 20%
 over 10-15 year, that would be reverse, the agreement get

Leny L good for governance first one own 20 % and private own 80%

Respondent 4 R is all money, from their money, 100% investment from private

Leny L after 10-15 year reverse sharing

Respondent 4 R 80% change from private to government then go back to
 government

Leny L not fully BOT transfer to government
 some
 have little

but
 what we call it

Respondent 4 R just contractual agreement put in place, not BOT, it is a business
 contract

Leny L nice one, because the government only signing paper
 Respondent 4 R exactly then they can have the national airline

R so private sector physically must employ 1000 people in 10
 years, make it profitable in return
 1.5 million dollar a year profit build and build into hub for whole Africa
 internal and external
 to east, west, to north south and also UK, China
 expand in airport, the Air Tanzania make become a big flag carrier for
 nation,
 very modern, land

get cross,
only different facilities, become viable proposition
it become worth in 10 year become 26 billion

government and thank you very much now have 36billions of
company

Leny LQ who is the private?

Respondent 4 RA Gates group doing all projects, American IT specialist, they ask
me to be the board of director
literally look after all The Gates interest in whole america,
yes we would to talk to presidents in deferent countries, yes we do
that road
yes we would do this
so on

R organise country do finance for the projects
very busy, I was here 2 (two) nights ago we have meeting 5 o'clock
not finish to 11
sleep in hall down
sit in by the waterfront
were working around the clock discussing business

Leny L one popportunity in countries keep develops

Respondent 4 my messages are not going through
993434

Respondent 4's UK number +44726930750

58:12 next 26 for one month

Leny some point bring
absolutely
in some point
absolutely
avise, secure by the finance

we come from less a lot capital
so you are studying
wack ground
this is
we are
MOU from government

Sabang, Palembang, Padang cities

area of sumatra Island, we pick choose

somehow
Sabang is near Aceh

Padang is on west coast in sumatera

near to singapore, peninsula of malaysia
Sumatra is big island with big cities

Those city have been developed traditioanlly without international
standard concept,
It is just spread, spread into urban sprawl
know city in developing country not different with Dar es Salaam but
they are cleaner
our abelity to pay is hire than here

right now amongst the city
the majors of the city we are very closed in same friendship
they like to have us as the advisor organise city
in future need more advise from you

to get advise in financing
from the planning, quite Okay
to get international standar, can get advise from Singapore
for financing

it's quite difficult,
governemt understand about PPP and government constribution
let say we know some
we know understand
land acquisition

know how to do subs
taxes
experience only project per project
whole governor and central government, non of them understand
whole concept or urban development

in some point
the policy still not define city as infarstructure
in over all infrastructure
road,

Respondent 4 R edxpertise for get more idea, big screen, give more idea

Leny L your material give permission to give convince
may be last presentation of sea part,
certain

if you dont mind, from private
in some point, talk to
put some money as private equity so I can talk
developing city
may be in future
if not you directly

Respondent 4 R i will come
local driving license 3,5 years, in different project
with Gates group
let me see

Leny L airline tanzania, would be faster
develop airlines
Malaysian airline, above the ukraine

Respondent 4 R yes, very interest time, with project going over here

we need
i am not the owner
thomas own this
water front
sometime he can be owner of tourism
i came right here
R there is not stop going

to
today is my scottish business partner birthday, but he is sick.
we ran, new chinese
see what happened
lots of

Q where do you stay
work for bank Tanzania, issuing bonds for the government

Leny L for one time

wants for government, the state
when the first thing, understand how to issue bond
rise fund for their own as capital to start up before developing others

that what Mr. William do teach the government to issue bonds
government need to do
bring money from multilateral to get grant to basic infrastructure,
road

only basic road
here now there are some hell road, bumping road basic pavement
there car can pass through

hospital for the poor
because money come from grant no need to get the return
after

government understand issuing bonds,
the private company, private investors come to build other things the
do secondary partn tertiaer

there is the one
for indonesian, we are developing country

Respondent 4 R you cant jump to high

Leny L Indonesia is good mature markets, we have many people have
good incomes

some point the government has lack of concept of developing cities,
they know to develop but not in international standard
and now I know how to develop a city in a country with only have
basic need, and Indonesai in the middle, and international need who
have monet to keep money flows in Euro, USA can have stagnage

Respondent 4 R same

Leny L some kind, basic needs, people and international needs who has
money, absolutely,

could be stagnant
average but wealthy average
group of money
there

Respondent 4 R money never sleeps, always

Leny L money will flowing to place which give higher return

Respondent 4 R my frien presiden his company follow the sun with the money

people working when the sun rise
money follow the sun
he works 11 o'clock until moring again
looking
even though in washington DC, when the sun up
cash never sleeps

i can be in
afternoon in america, because they expect me to working
money will sleep

this skype

went put on assignment

at least sleep
you can not work well, without sleep
so you
mistake will cost you millions

Respondent 3
PTA

Government's PPP version

Ph.D Candidate, (male voice) Research lifecycle module, PPP evaluation module for PPP
project evaluation normally undertaken at the end of construction, is called evaluation
so in PPP project you have been involved what expossibility
focus on such as financial performance, quality or any thing

Respondent 3 (Govt- PPP Stadium) only true PPP, sort of i have involved in stadium, i mainly
in that one DPFM Design Finance Management i have been write
updesign i didn't i dont know hold to do, I three component
where feeding
right at initial stages, different of
at front of it, which lot to do with
the financial arrangement management back ground, i didnt
have anything to do with thats probably
i do know the guy with lot do to with that you, i think he is
on what you called the prison project, we did as well, not
quite sure, commerce something background, so it probably
good for you to have chat with him
free at all, you heading

Ph.D Candidate, (Leny) i am the one who leading overseas, may be i can discuss
through email, through skype or whatever

Respondent 3 (Govt- PPP) i have to see this, i think him study research, he may

Stadium)

be
lot valueable to you, than i would be

2:18

Ph.D Candidate, (Andi
male voice)

so according to your experience, do you know any
current
problem in PPP evaluation, now?

2:20

Respondent 3 (Govt- PPP
Stadium)

we are stage we were gonna out for proposal, so there
where
any problem we probe up yet
i think whole theory for us behind what value brings
to the
project with that one there 's one whole of
that one much finance component, but the
maintenance, is
where there we gonna make normally
in theory to make the money is there as motivation,
so kind
of okay, you get,
i don't know how end it up with value for the buy it,
It dependent how you structure how much the
finance really
keep in, just really DPM so you structure they set to
do
whole maintenance whole lot of money out of that
you got
extra thing on finance it's a different whole game,
on that one there is a small percentage than i would
thought
gives for real good value of money for client
perspective,
you see more leverage some stuff you already know ,
so I dont
know there is a true opinion, that's it.

Ph.D Candidate, (Andi
male voice)

what do you think of the feasibility of a life cycle
evaluation, for PPP;
for example you have a design phases, and
construction,
operation maintenance and evaluation normally
between the
construction and operation
do you think is it quick feasible to evaluate the
project
face by face?

4:07
Respondent 3 (Govt- PPP
Stadium)

i think it is, but for me
it's ridicule you got front studying incorrect,
you need to really clearly articulate your expectation,
cause if you don't they can't interpret it anyway,
which by you want, sorry
i mean it's putting thing like you will be design
you must. and
it's all in the wording as well, i mean legally,
it's getting that
getting right we had lawyer got over it million times,
crazy..., but
it's getting that wording in you must, for example;
you must design life for x number,
you got to be very specific about your expectation,
you must do this or in pre valent,
you must provide this piece of equipment or pre
valent
setting that best line standard,
minimum requirement of what you want,
how long it's gonna last,
outcome performance, but what need to achieves,
or the outcome or the deliverables,
breaking down at this phase we expect to see this,
really spelling as much as you can, or
you can saying get other extremely saying to say,
keeping it
as very high level, saying we don't care how you get
there?
but we want to see this at the end of the day
sorry, but it's yes.

5:20
Ph.D Candidate, (Andi
male voice)

what is major difficulty in application face by face
evaluation

Respondent 3 (Govt- PPP
Stadium)

difficulty if you do not spell what you want correctly
you
if you dont ask the right thing
you have to know and understand what you asking
for, that's
good one like during information model, at once
i do it, but it necessary , do it well properly,
what exactly what do you mean about this, and you
have to
really we want to module achieve A, B, C,

you have to keep us this
 it is really articulating exactly what you want , if you
 dont ask what you want , you dont get it, unless you
 dont
 care how do you want to get there.

Ph.D Candidate, (Andi
 male voice)

it is necessary, include stake holder issues in
 evaluation, such stake holder satisfaction stake holder
 contribution

Respondent 3 (Govt- PPP
 Stadium)

stake holder might be involve at day one, define
 input what
 you have, and your authorities having opinion, you
 see idea
 directly want to hear, what i am going to do with
 opinion,
 expect opinion, what opinion gonna be,
 kind of preemptive task,
 tricky hard to know

Ph.D Candidate, (Leny)

for me i will follow my question, some of them you
 have
 later on i have to transcrip this what we talk about,
 it's
 easy
 for the first one,
 PTA one

Ph.D Candidate, (Leny)
 Respondent 3 (Govt- PPP
 Stadium)

what is your current station
 major stake holder manager

Ph.D Candidate, (Leny)
 Respondent 3 (Govt- PPP
 Stadium)

please kindly explain about your responsibilities,
 at moment project i do with station building, from
 concept
 through delivery,

Ph.D Candidate, (Leny)

how many years you ahve experience involved in
 PPP project
 stadium for 6 month, loosely overseas but not for
 long,

Ph.D Candidate, (Leny)
 Respondent 3 (Govt- PPP
 Stadium)

which one for large your are involved in?
 Stadium

Ph.D Candidate, (Leny)

how much value in USD

- Respondent 3 (Govt- PPP Stadium) estimate that right, not's a billion ; 700,000 million USD
i think
if you look at website, feel you get i will check in we
- Ph.D Candidate, (Leny)
Respondent 3 (Govt- PPP Stadium) would you please elaborate about project
new build stadium, precinct PTA, transport until
under
department treasury it is value, typically project done
by
building management work BMW value , existing
project
- Ph.D Candidate, (Leny) kick project under department treasury
okay department treasury under state policy or
Ph.D Candidate, (Leny) central
policy
- Respondent 3 (Govt- PPP Stadium) state
from Indonesian,
mostly
i mean slight like, some time federal based, some
time both
state project,
- Ph.D Candidate, (Leny) what about investment, financing, project, how the
mechanism of financing, specific government
contribute land
not fully by
- Respondent 3 (Govt- PPP Stadium) not fully by, majority is government
- Ph.D Candidate, (Leny) structure
Majority is by state
- Ph.D Candidate, (Leny)
Respondent 3 (Govt- PPP Stadium) possible to mention
majoriity
- Ph.D Candidate, (Leny) this is next question, what a bigger consortium the
finance
- Ph.D Candidate, (Leny) how is funding structure
i have not involved such a thing,
- Ph.D Candidate, (Leny) which one most common mechanism you so far in

	compliment so far
Respondent 3 (Govt- PPP Stadium)	alrady talk about,
Ph.D Candidate, (Leny)	other financing, what ever finace
Ph.D Candidate, (Leny) Respondent 3 (Govt- PPP Stadium)	what ever lend from they usually team of builders, financier, designer, jump in the committe
Ph.D Candidate, (Leny) Respondent 3 (Govt- PPP Stadium)	about procurement process, how procurrent interest first, but any way, short list, another down web site, they are three under evaluation at moment
Ph.D Candidate, (Leny) Respondent 3 (Govt- PPP Stadium)	not really open letter of interest i can t remember
Ph.D Candidate, (Leny) Respondent 3 (Govt- PPP Stadium)	market government, let some private select, fully open, short listed
Ph.D Candidate, (Andi male voice) Ph.D Candidate, (Leny) Respondent 3 (Govt- PPP Stadium)	last time in Queensland specialised, how to get away, value instead of lot of thing whole policy, you have to go out, open tender opportunity
Ph.D Candidate, (Leny) Respondent 3 (Govt- PPP Stadium)	any specific case, sort of problem, something issue you want a thing, I can, probably were
Ph.D Candidate, (Leny) Respondent 3 (Govt- PPP Stadium)	in general difficulty, making structure what submitted, comparable to each other
Ph.D Candidate, (Leny) Respondent 3 (Govt- PPP Stadium)	evaluation submit to a form, compare, getting very wha to another aspect, you can not compare them

Ph.D Candidate, (Leny)	sort of
Respondent 3 (Govt- PPP Stadium)	category element have to address, criteria you are accessing
Respondent 3 (Govt- PPP Stadium)	make sure you one for stadium address, what for interface, if you got component, the only , precinct that one for it's again structureing, articulateing, otherwise
Ph.D Candidate, (Leny)	result of tender good, the winner perform very well
Respondent 3 (Govt- PPP Stadium)	i dont know
Ph.D Candidate, (Leny)	what is consideration RoE,
Respondent 3 (Govt- PPP Stadium)	what other those, i dont know
Ph.D Candidate, (Leny)	before to private, tender, sort pre FS itself, i mean, how project more appealing to people?
Respondent 3 (Govt- PPP Stadium)	gosh, finance element, make pretty exiting, high profile project, design point of value, portfolio, contractor, breaking into new sector, might do presidential work, from that persepective, market pretty quite, quite difference
Ph.D Candidate, (Leny)	in beginning already announce, yes somehow, majority share holder, it's all risk, stadium, very risky
Respondent 3 (Govt- PPP Stadium)	depend how you structure, risky risk has to be done by certain date, if you finish, thousand arena, i wasnt we hope performance, finish in time, lot of pressure, you get early to start, to practise performance, pressure
Ph.D Candidate, (Leny)	often different bidding

Respondent 3 (Govt- PPP Stadium)	operator facility to finish
Ph.D Candidate, (Leny)	oper
Respondent 3 (Govt- PPP Stadium)	one get building, win operator, they loose contract
Ph.D Candidate, (Leny)	pPP several over stage
N	
Ph.D Candidate, (Andi male voice)	PPP
Respondent 3 (Govt- PPP Stadium)	no, construction
Ph.D Candidate, (Leny)	sometime, quite different, one is offer, built until operation, professional operator
Respondent 3 (Govt- PPP Stadium)	yeah, its difficult gender, motivation, and sometimes government project critical reason, rain, doesn t really take into consideration hard when you commit, how long it will take sequence , may achieve that, negotiation, making sure you
Ph.D Candidate, (Leny)	how long
Respondent 3 (Govt- PPP Stadium)	by win out in December last year win out middle last year, period people running bid in a y people sort of working out there, absence in necessarily take a risk dont necessary, fact special, you got 3 people million
Ph.D Candidate, (Leny)	how long construction
Respondent 3 (Govt- PPP Stadium)	stadium mid 2018 still yeah, so we

Ph.D Candidate, (Leny)

Respondent 3 (Govt- PPP Stadium) full work, ground there a lot of issues, take charging like
underground push it down, lucky you or independently
separate exercise, because no time to late on board.

Ph.D Candidate, (Leny)

Ph.D Candidate, (Andi male voice) have another teleconference, thank you henry
may be asked cont
payment for search method

Ph.D Candidate, (Leny) more question, 5 five minute

Respondent 3 (Govt- PPP Stadium) okay
this is aboutu conduct any specific

Respondent 3 (Govt- PPP Stadium) depend government, usually engage some one separately,

Ph.D Candidate, (Leny) it's offer

Respondent 3 (Govt- PPP Stadium) depend on feasibility
you usually separate thing to prepare
Ph.D Candidate, (Leny) in house, by team, more effective

Respondent 3 (Govt- PPP Stadium) you might for verification of that, depend how feasibility more simple, and complex

Ph.D Candidate, (Leny) quite changing, next, are there any differences from FS
how big
once tender is offer by private, but later on c
is there any
between thing execution like cost over run,
construction,
differences following it

Respondent 3 (Govt- PPP Stadium) for more i understand you have down feasibility study
you need to know, so you can tell them

i dont think you can concept, like a return, t
achieve it wrong, do verification return
as a first

Ph.D Candidate, (Leny) not really big difference something like that

Respondent 3 (Govt- PPP
Stadium) degree what you saying, this is out come
make it simple,

Ph.D Candidate, (Leny) want to

Respondent 3 (Govt- PPP
Stadium) stake holder, stadium specific requirement, a lot of
detail because people, and how the outcome, during
if you doing tile block, office space, square meter
you know follow Australian standard PCI
level that have to make
beyond to specify

Ph.D Candidate, (Leny) every thing on table, risk of acceptance can limit that
gas station inside

Respondent 3 (Govt- PPP
Stadium) as well, if you know, contaminate it,
you can try in different
you can say, there is one
different way,
risk thing in some way,
your risk is
the more
if you go few risk
balancing,

Ph.D Candidate, (Leny) difficult

Respondent 3 (Govt- PPP
Stadium) no fifty i dont really care about how you do it?

Ph.D Candidate, (Leny) lot of things,

Respondent 3 (Govt- PPP
Stadium) less important, very hard, people, very hard to meet
their

mistake

Ph.D Candidate, (Leny) human resource

Respondent 3 (Govt- PPP Stadium)	at the end of project, negative think, sometime
Ph.D Candidate, (Leny)	if you worker, immigrant
Respondent 3 (Govt- PPP Stadium)	mix if lot of contract stuff
Ph.D Candidate, (Leny)	experience, most worker from
Respondent 3 (Govt- PPP Stadium)	guys
Ph.D Candidate, (Leny)	have pay a little bit issue
Respondent 3 (Govt- PPP Stadium)	still probably
Ph.D Candidate, (Leny)	manage worker
Respondent 3 (Govt- PPP Stadium) i dont know, we have room for mix	depends about union side or non union
Respondent 3 (Govt- PPP Stadium)	no i dont think so
Ph.D Candidate, (Leny)	
Respondent 3 (Govt- PPP Stadium)	very long hour, you know it's okay
Ph.D Candidate, (Leny)	last suggestion for me on my study study to find finance mechanism for any PPP project some other infrastructure, some economic generate revenues there is no big difficulties rather than social infrasture stadium for sport, sco
Respondent 3 (Govt- PPP Stadium)	hard to commercial
Ph.D Candidate, (Leny)	need
Respondent 3 (Govt- PPP Stadium)	stadium very commercial center, absolutely stadium do a lot

not fund private

Ph.D Candidate, (Leny) agenda for year, become big revenues
you run it

Respondent 3 (Govt- PPP Stadium) when you did commercial building, really huge from
hospital
you know what i mean

Ph.D Candidate, (Leny) call not really correct

Respondent 3 (Govt- PPP Stadium) subsidise of the government,

Ph.D Candidate, (Leny) for me to study financing, how to structure it
later on to get input for my study, sometime theory

Respondent 3 (Govt- PPP Stadium) absolutely

Ph.D Candidate, (Leny) now i can give some contribution PPP financing

Respondent 3 (Govt- PPP Stadium) you need some one very commercially this legal
people i
approach, what is right risky comm
good team, bring some the contract building bringing
their
value,

Respondent 3 (Govt- PPP Stadium) mixed of people, point of view, eve

Ph.D Candidate, (Leny) conc agree discussion, sort of permission how you
gonna be
used, for me do data
survey monkey, email later on,
to answer, for quantitative analysis, listed for
interview,
how to get explanatio
do little bit i try quantitative data, for statistical
model
find paramater from any
which one is import
different approach
from
lawyer, get answeer from super monkey
interview to adapt enlarge,

Respondent 3 (Govt- PPP Stadium)
i just quite, i dont PTA said this,
the respondnet would be, i would least, i will quote
I probably it's a little bit awkward,
will contact you again

Ph.D Candidate, (Leny) in western australi,

Respondent 3 (Govt- PPP Stadium)
i am not sure

Ph.D Candidate, (Leny) in Sydney, Queensland

Respondent 3 (Govt- PPP Stadium)
misconception, government australia, giving value of
money

Ph.D Candidate, (Leny)
for quite high, PPP is not deliverable, let say gold
coast
money for tourism, offer project pPPP pipe line,
light rail, under construction PPP scheme,
the energy the electricity because of state it self,
thinking
offer
rather

Respondent 3 (Govt- PPP Stadium)
people work it's a toll road, i think Sydney or
Victoria,
it's failure

Ph.D Candidate, (Leny)
in sydney, toll road or tunnel, make it some point,
people
tend to free highway rather than, construction good
have option for operation generate income, for
government,
so then the private how the risk,

Respondent 3 (Govt- PPP Stadium)
What date of today ? 14

Respondent 3 (Govt- PPP Stadium)
really
could you please, are you texting me?
such a good man?
do you know him from
she is fantastic
to click Super monkey
please find sometimes,

detail my contact
your phone
Curtin
construction all unit, i think might met up
Architect, quite happy to understand

Respondent 3 (Govt- PPP
Stadium)

that's why Irina Project Management, field

Thank you for your time

Appendix 6 Governor Decree on the Participant Observation



GUBERNUR SUMATERA SELATAN

KEPUTUSAN GUBERNUR SUMATERA SELATAN

NOMOR : 089 /KPTS/BKD.II/2014

TENTANG

PENUNJUKAN STAF KHUSUS GUBERNUR SUMATERA SELATAN BIDANG PEMBIAYAAN INFRASTRUKTUR

GUBERNUR SUMATERA SELATAN,

- Menimbang :
- bahwa dalam rangka membantu Gubernur Sumatera Selatan dalam melaksanakan tugas Pemerintahan khususnya dalam bidang-bidang tertentu, maka dipandang perlu mengangkat Staf Khusus Gubernur Sumatera Selatan Bidang Pembiayaan Infrastruktur;
 - bahwa Sdr. **Leny Maryouri Anna Watie** lahir pada [REDACTED] di Tawanghari Sukoharjo, dipandang mampu dan cakap untuk melaksanakan tugas sebagai Staf Khusus Gubernur Sumatera Selatan Bidang Pembiayaan Infrastruktur;
 - bahwa pengangkatan Staf Khusus Gubernur Sumatera Selatan Bidang Pembiayaan Infrastruktur tersebut di atas perlu diatur dan ditetapkan dengan Keputusan Gubernur Sumatera Selatan.
- Mengingat :
- Undang-undang Nomor 25 Tahun 1959;
 - Undang-undang Nomor 32 Tahun 2004 jo. Undang-undang Nomor 12 Tahun 2008;
 - Undang-undang Nomor 33 Tahun 2004;
 - Undang-undang Nomor 5 Tahun 2014;
 - Peraturan Pemerintah Nomor 9 Tahun 2003;
 - Peraturan Pemerintah Nomor 38 Tahun 2007;
 - Keputusan Kepala Badan Kepegawaian Negara Nomor 13 Tahun 2003;
 - Keputusan Menteri Keuangan Nomor 7/KMK.02/2003 tahun 2003.

MEMUTUSKAN :

- Menetapkan :
- PERTAMA : Mengangkat Sdr. **Leny Maryouri Anna Watie** lahir pada [REDACTED] di Tawanghari Sukoharjo sebagai Staf Khusus Gubernur Sumatera Selatan Bidang Pembiayaan Infrastruktur.
- KEDUA : Kepada Sdr. **Leny Maryouri Anna Watie** yang diangkat sebagai Staf Khusus Gubernur Sumatera Selatan Bidang Pembiayaan Infrastruktur diberikan Honorarium sebesar [REDACTED] per bulan yang dibebankan pada APBD Provinsi Sumatera Selatan DPA-SKPD Biro Umum dan Perlengkapan Setda Provinsi Sumatera Selatan tahun 2014.
- KETIGA : Keputusan ini berlaku terhitung mulai tanggal ditetapkan dengan ketentuan apabila dikemudian hari ternyata terdapat kekeliruan dalam penetapan Keputusan ini akan diadakan perbaikan sebagaimana mestinya
- ASLI Keputusan ini diberikan kepada yang bersangkutan untuk diketahui dan dipergunakan sebagaimana mestinya.

Ditetapkan di Palembang
pada tanggal 13 Mei 2014

GUBERNUR SUMATERA SELATAN,



Tembusan Keputusan ini disampaikan kepada Yth :

- Ketua BPK di Jakarta.
- Kepala Kantor Regional VII BKN di Palembang;
- Inspektur Provinsi Sumatera Selatan di Palembang;
- Kepala Dinas Perhubungan, Komunikasi dan Informatika Prov. Sumsel di Palembang;
- Kepala Badan Perencanaan Pembangunan Daerah Prov. Sumsel di Palembang;
- Kepala Badan Pengelola Keuangan dan Aset Daerah Prov. Sumsel di Palembang;
- Kepala Biro Umum dan Perlengkapan Setda Prov. Sumsel di Palembang.



The HE Governor Alex Noerdin and the CEO of Foreign Company as potential partner to invest for Palembang Monorail.

Appendix 7 List of Attendee in FGD



NO	NAMA	JABATAN & INSTANSI	TELP	EMAIL
1	Bastary P.	ASDEP 5/VI MENPOPEREK		
2	Kawik S	UGM	0811250591	kawik_s@yahoo.com
3	Beni A.	IPKC	081573760003	antobeni@gmail.com
4	Arsy A. K.	IPKC		
5	Leny Maryouri	PhD Candidat Curtin	08179849113	le.marvouri@gmail.com
6	Ridha	PT. SMI	081322259759	ridha@nismi.co.id
7	Shuhada	Tiok Aduis Org	08159282524	shuhada@tiok.sg
8	Lawa D.	TAS KPIIP	0818609573	
9	Sinthya	PT. PII	0811850055	

NO	NAMA	JABATAN & INSTANSI	TELP	EMAIL
10	Rachamat Mardiana	PTCPS-BAPPENAS	0811141870	rmardiana66@gmail.com
11	Andreas Wibowo	PU	0818129482	
12	Respondent 11 TD	PT. SMI	0812102798	Respondent_11@ptsmi.co.id
13	Lina M	ASDEP IV/VI	08777604059	
14	Suratno			
15	Kustanto		081246667173	
16	Toto Widayanto	IRSDP	0811179443	totowidyo@gmail.com
17	Dodi Mihariana		08159711725	dodimihariana@gmail.com
18	Iman Soemekra		08121800666	iman@kpcd.co.id
19	Agus Riyanto K	Bappenas Pendanaan	081328794570	agus_rivanto@bappenas.go.id
20	Moh Husin		081808045019	
21	Intan Natasha P.	Bappenas Jasa Keuangan	08121964047	intan.natasha@bappenas.go.id
22	Reba Kania	Bappenas Jasa Keuangan	08778800003	
23	Dioko Wibowo	keasdapa 3/6 Kemenkoeko	7456714	
24	Sophai Jamil	keasdapa 3/6 Kemenkoeko		
25	Mecca T. Rosari	ASDEP 5/VI		
26	Abidiv A.R. Arum	IPC		
27	Hardiyanti	Asdep Telematika		arumhar@gmail.com
28	Firman A	Asdep Telematika		
29	Hendro SP			
30	M. Saifullah	ISDP Bappenas		
31	Horman Sidaurun			
32	Novrilal Aji	Asdep Perumahan		
33	M. Insani	M. Ekon		
34	Yudhitya MR. Palupie	M. Ekon		
35	Hani C			
36	Anggun			
37	Bramatua Adi	KP3EK		
38	Masduki			
39	Slamet Setyadi	Staff		

Appendix 8 Validation Survey Responses

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : Practice Leader – Maritime – Asia Pacific and Australasia
Institution : Mott MacDonald
Experience : Engineering Consultant (17 years)

This questionnaire asks you for your opinions on three frameworks that are shown in the three diagrams below. Each framework is related to financing PPP infrastructure projects. The survey should take 15 mins. There is a short explanation of the research and the frameworks before the three questions.

This is the last stage of a PhD research project. The survey is being used to gain the opinion from the industry related to the outputs of this research. The objective of this validation is to define how these frameworks can relate to the actual PPP practices in the infrastructure industry.

The aim of this research is to develop a robust framework to assist the investment decision for infrastructure projects with PPP financing in Indonesia.

Specific objectives of the research included:

- 1) to identify and analyze the optimal infrastructure financing scheme based on analysis of best-practice PPP infrastructure financing;
- 2) to determine from different stakeholders' perspectives the critical parameters in infrastructure financing effecting PPP finance performance; and
- 3) to develop PPP frameworks for Indonesia to support the allocation and distribution of risks in decision making in order to select the most appropriate form of leverage method for PPP infrastructure projects.

Objective No. 1 has been explored in the literature review, which has been published. The publication can be accessed at: https://www.academia.edu/10273068/A_Comparative_Analysis_of_PPP_Financing_Mechanisms_for_Infrastructure_Projects.

The second and third objective were answered by developing three related frameworks. These three frameworks are expected to assist stakeholders in determining and assessing the levels of risk in the key parameters relevant to the

investment decisions they have to make for infrastructure projects with PPP financing.

Figure 1: PPP Infrastructure Life Cycle Project Framework developed from Quantitative & Qualitative Analysis. The selected critical parameters are presented in the frameworks. Some important notes including:

- The parameters are grouped into the policy and micro- & macro-economic revenue streams, the potential costs, the project financing mechanism, and the project management. The parameters in red boxes are the top five critical parameters and the yellow boxes are parameters from the quantitative analysis and the light blue color boxes are the parameters added from the interview analysis.
- Specific for the land acquisition that occurred in the quantitative analysis, it was considered as the government policy and included in the macro & micro parameters. The result from interviews with experts revealed that land acquisition and resettlement (LARAP) should be treated in the financial mechanism framework in order to better define and estimate the value and time of land acquisition, since availability of land is the most important start up foundation of the continuity of the infrastructure projects.
- The Project Delivery Partnership and Service Delivery Partnership become new idea as option to accelerate the infrastructure delivery by developing cooperation between government and consortium private entity in the early stage of lifecycle in PPP infrastructure projects.

1. Please study the Lifestyle Project framework in Figure 1 and indicate the usefulness of the Lifestyle Project Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

The structure is a little too piecemeal. The overall structure is logical however the detail attached to each arrow is not intuitive

.....

.....

.....

.....

.....

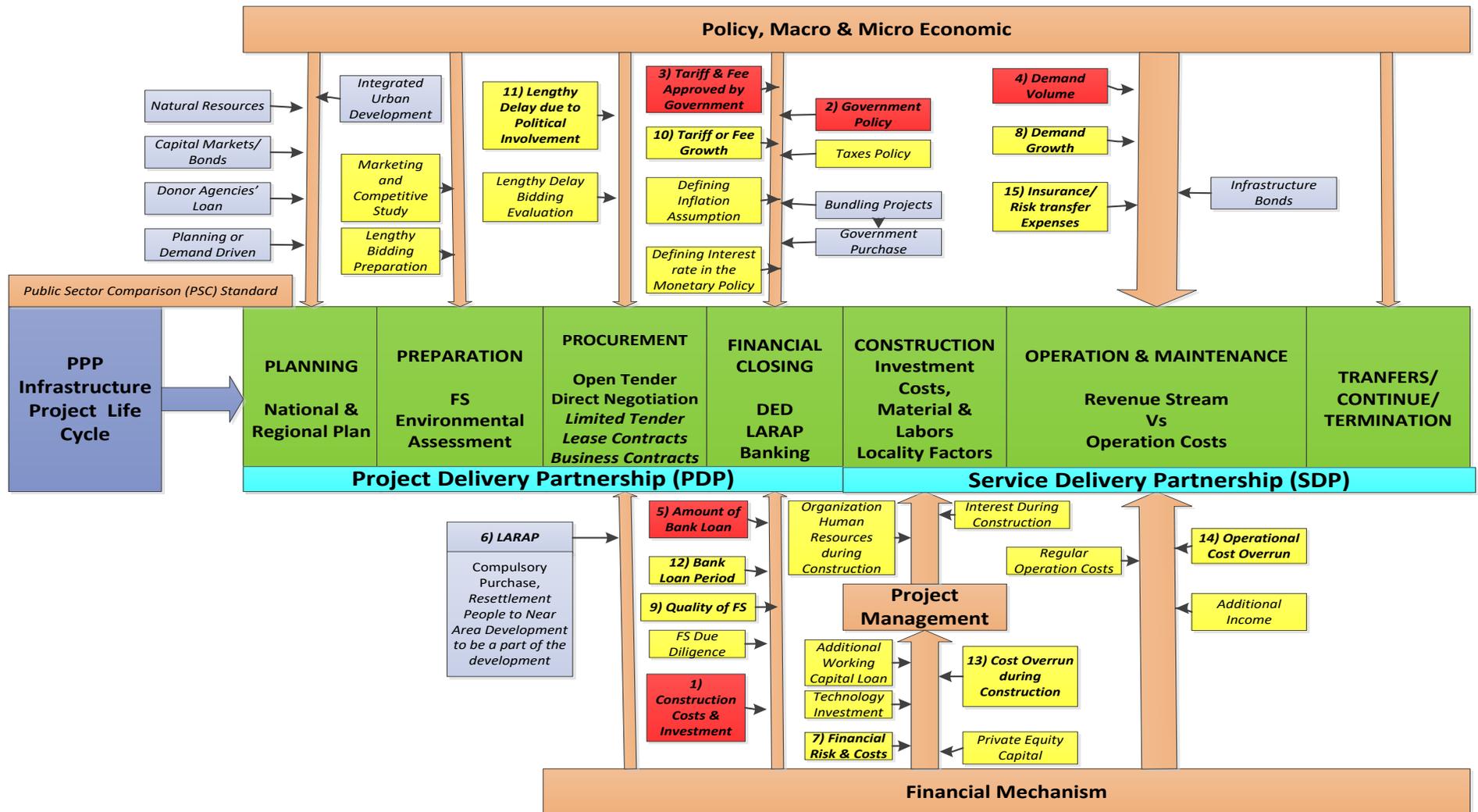


Figure 1: PPP Infrastructure Developing Life Cycle Project Framework developed from Quantitative & Qualitative Analysis

Figure 2 is the stakeholder framework that has incorporated the critical parameters resulting from quantitative data analysis. The new information that can be highlighted here is the research has found that the Risk Transfer Institution also plays an important role in PPP infrastructure project development. Therefore, ‘risk transfer institution’ is now incorporated in the key stakeholders in the PPP infrastructure delivery. The key parameters that resulted from quantitative analysis are presented in yellow and red boxes in Figure 2 have been related to the each stakeholder’s perceptions.

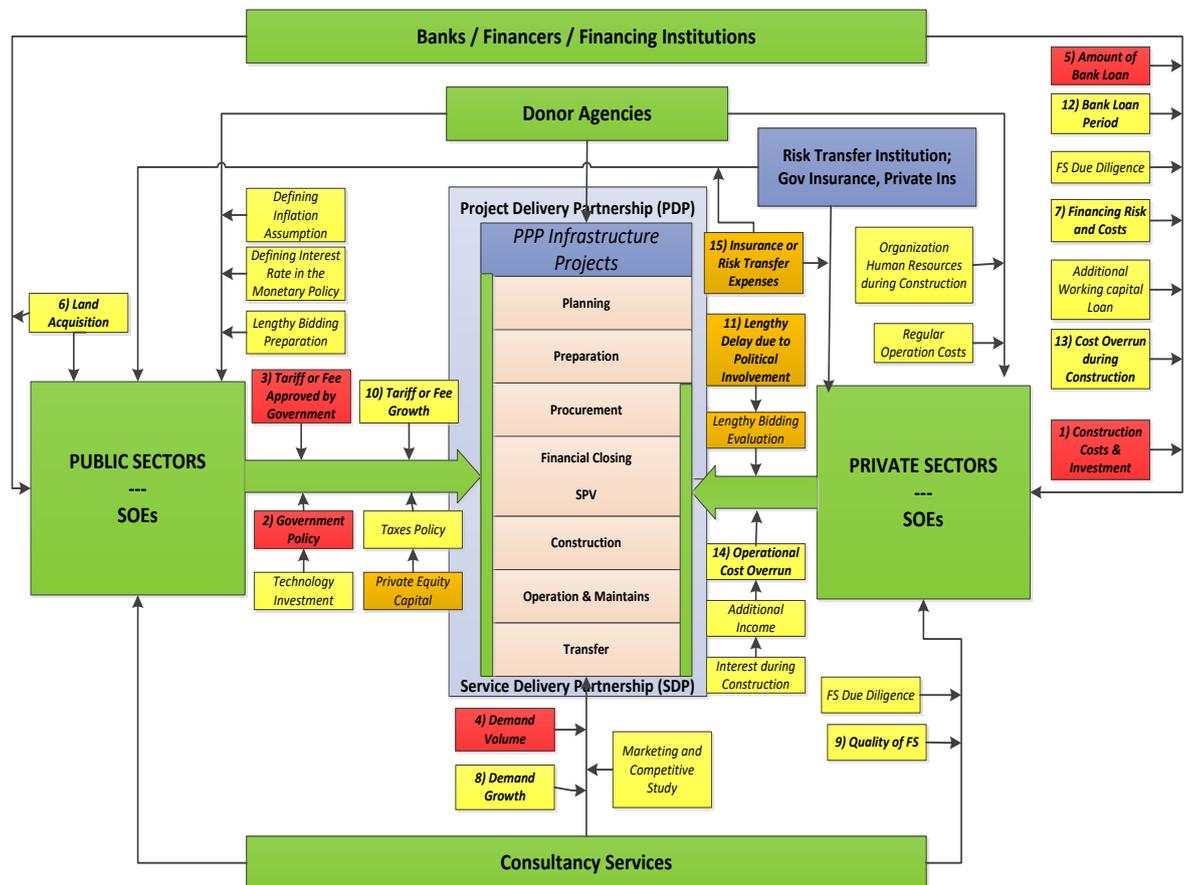


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

Ditto.....

.....

.....

.....

.....

.....

Figure 3, government contribution is an essential method in leveraging the infrastructure projects. In Indonesia, various PPP projects have implemented several of the identified government contributions.

There are 4 types of government contribution that have been implemented in Indonesia, namely:

- v) public asset contribution;
- vi) fiscal support, including government capital, Viability Gap Fund (VGF), Availability Payment Scheme (APS), subsidy and government loan;
- vii) government policy, including permits, government guarantee and taxes incentives; and
- viii) appointed state owned companies.

The finding from this research has added more methods of government contribution to leverage the modality of infrastructure projects. The additional government contributions that have been identified in this thesis are:

- v) bundling projects;
- vi) SWAP Trading;
- vii) monetizing natural resources and sovereign guarantee; and
- viii) hybrid schemes combining those government contributions and municipal bonds and infrastructure bonds.

The contribution of this thesis towards improving the existing PPP modality frameworks is through integrating the government contribution and the PPP financing mechanism in the final PPP modality framework that is shown in Figure 3.

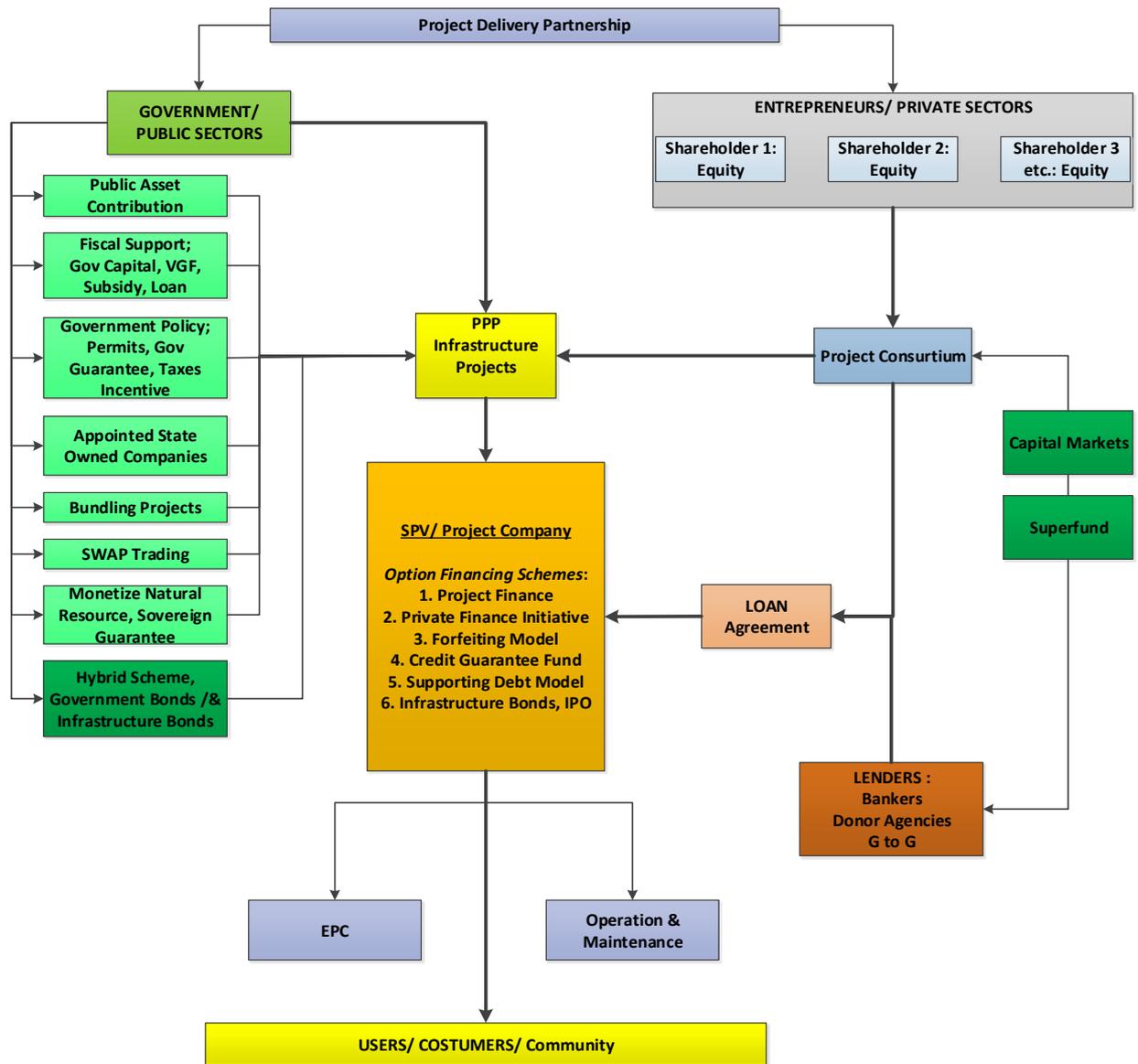


Figure 3: The Modality Framework generated from this Research for PPP Infrastructure Project Development

3. Please study the Modality Framework in Figure 3 and indicate the usefulness of the Modality Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

This more simplistically shows the interplay of the different parties.

.....

.....

.....

.....

.....

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : Group Leader of Infrastructure Advisory.....
Institution : Ernst & Young ShinNihon LLC.....
Experience : Over 16 Years of experience as a PPP Consultant
2 Years of experience as a PPP Specialist at ADB
Dh. D (Economics)

This questionnaire asks you for your opinions on three frameworks that are shown in the three diagrams below. Each framework is related to financing PPP infrastructure projects. The survey should take 15 mins. There is a short explanation of the research and the frameworks before the three questions.

This is the last stage of a PhD research project. The survey is being used to gain the opinion from the industry related to the outputs of this research. The objective of this validation is to define how these frameworks can relate to the actual PPP practices in the infrastructure industry.

The aim of this research is to develop a robust framework to assist the investment decision for infrastructure projects with PPP financing in Indonesia.

Specific objectives of the research included:

- 1) to identify and analyze the optimal infrastructure financing scheme based on analysis of best-practice PPP infrastructure financing;
- 2) to determine from different stakeholders' perspectives the critical parameters in infrastructure financing effecting PPP finance performance; and
- 3) to develop PPP frameworks for Indonesia to support the allocation and distribution of risks in decision making in order to select the most appropriate form of leverage method for PPP infrastructure projects.

Objective No. 1 has been explored in the literature review, which has been published. The publication can be accessed at: https://www.academia.edu/10273068/A_Comparative_Analysis_of_PPP_Financing_Mechanisms_for_Infrastructure_Projects.

The second and third objective were answered by developing three related frameworks. These three frameworks are expected to assist stakeholders in determining and assessing the levels of risk in the key parameters relevant to the

investment decisions they have to make for infrastructure projects with PPP financing.

Figure 1: PPP Infrastructure Life Cycle Project Framework developed from Quantitative & Qualitative Analysis. The selected critical parameters are presented in the frameworks. Some important notes including:

- The parameters are grouped into the policy and micro- & macro-economic revenue streams, the potential costs, the project financing mechanism, and the project management. The parameters in red boxes are the top five critical parameters and the yellow boxes are parameters from the quantitative analysis and the light blue color boxes are the parameters added from the interview analysis.
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- The Project Delivery Partnership and Service Delivery Partnership become new idea as option to accelerate the infrastructure delivery by developing cooperation between government and consortium private entity in the early stage of lifecycle in PPP infrastructure projects.

1. Please study the Lifestyle Project framework in Figure 1 and indicate the usefulness of the Lifestyle Project Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

- 1) User of the figure is not clear.
- 2) The figure is too complicated.
- 3) The wordings do not necessarily comply the terms used in relevant regulations in Indonesia.
- 4) There is no innovative element found.
- 5) Key financial aspects such as long-term financing and creditability of GCA are missing.

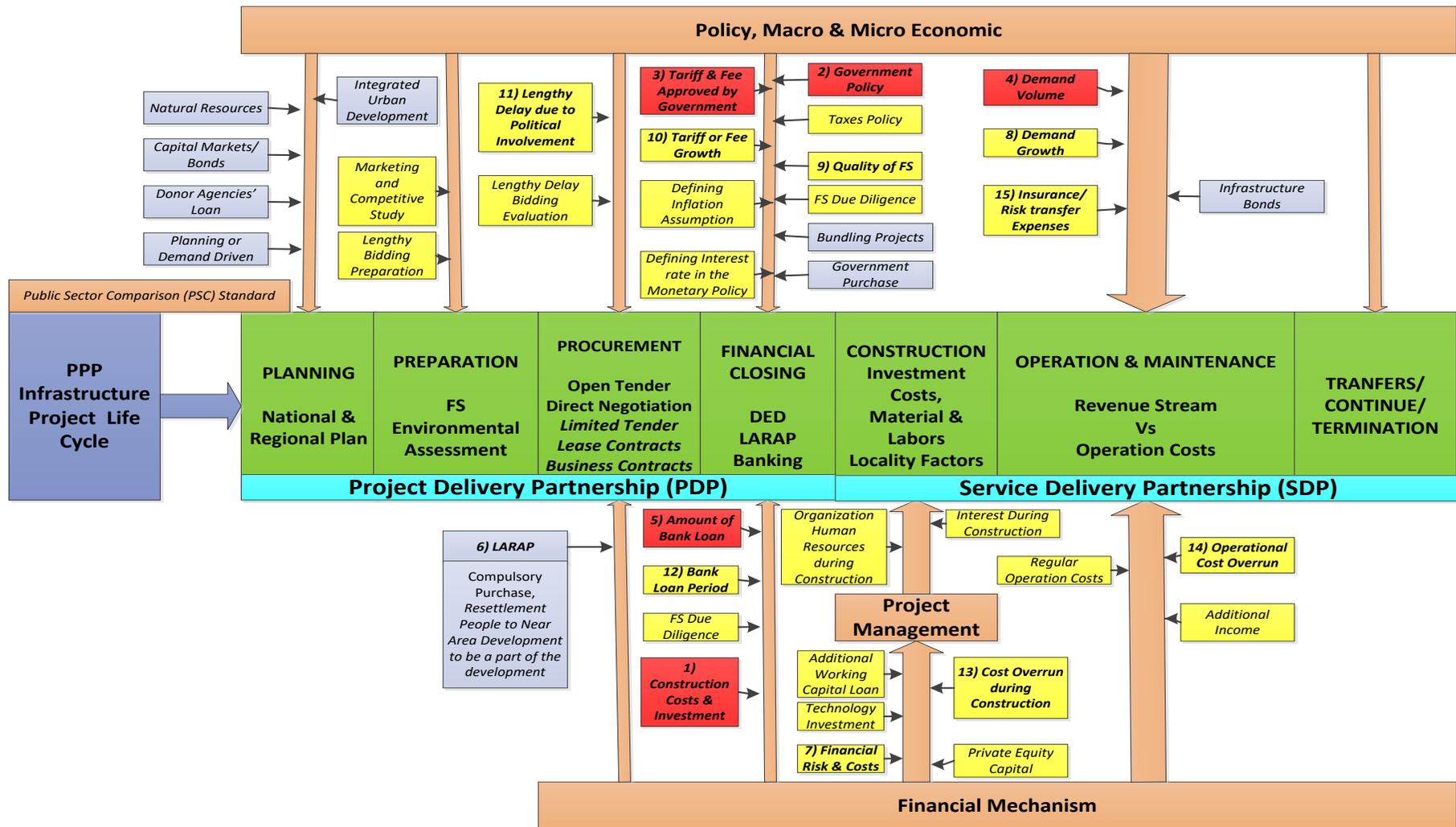


Figure 1: PPP Infrastructure Developing Life Cycle Project Framework developed from Quantitative & Qualitative Analysis

Figure 2 is the stakeholder framework that has incorporated the critical parameters resulting from quantitative data analysis. The new information that can be highlighted here is the research has found that the Risk Transfer Institution also plays an important role in PPP infrastructure project development. Therefore, ‘risk transfer institution’ is now incorporated in the key stakeholders in the PPP infrastructure delivery. The key parameters that resulted from quantitative analysis are presented in yellow and red boxes in Figure 2 have been related to the each stakeholder’s perceptions.

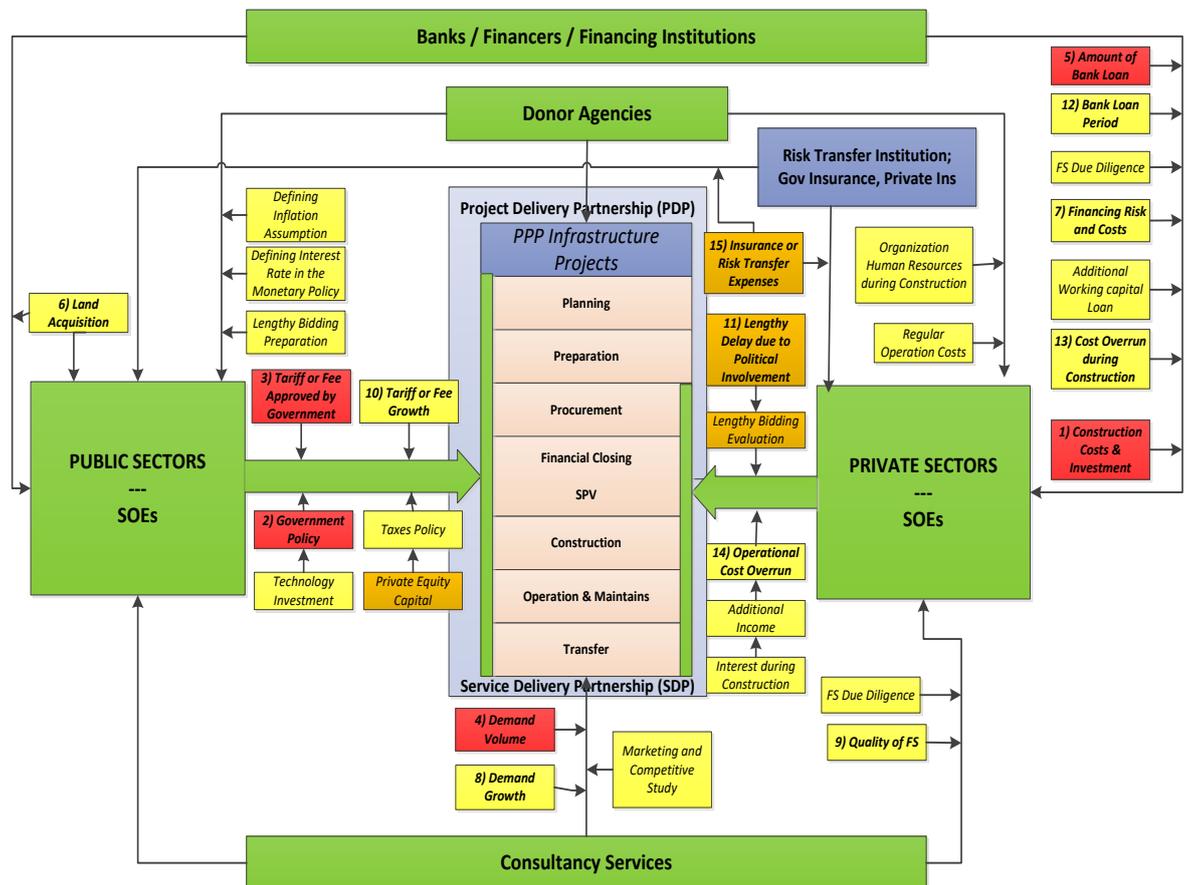


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

- 1) Stakeholders should include more entities such as subcontractors, service beneficiaries, politicians, and SOEs as potential competitors.
- 2) Positioning of SOEs is unclear in the figure.
- 3) What does it mean by “risk transfer institutions”? Do you assume organizations such as IIGT or PT SMI? If so, it is not appropriate to call them so, as I understand.

- 4) Conceptually and logically, “optimal risk allocation” should come first before “risk transfer”.
- 5) Please define banks, financiers, and financing institutions.

Figure 3, government contribution is an essential method in leveraging the infrastructure projects. In Indonesia, various PPP projects have implemented several of the identified government contributions.

There are 4 types of government contribution that have been implemented in Indonesia, namely:

- i) public asset contribution;
- ii) fiscal support, including government capital, Viability Gap Fund (VGF), Availability Payment Scheme (APS), subsidy and government loan;
- iii) government policy, including permits (*I do not consider permits as contribution) , government guarantee and taxes incentives; and
- iv) appointed state owned companies. (*What do you mean by this?)

The finding from this research has added more methods of government contribution to leverage the modality of infrastructure projects. The additional government contributions that have been identified in this thesis are:

- i) bundling projects;
- ii) SWAP Trading;
- iii) monetizing natural resources and sovereign guarantee; and
- iv) hybrid schemes combining those government contributions and municipal bonds and infrastructure bonds.

The contribution of this thesis towards improving the existing PPP modality frameworks is through integrating the government contribution and the PPP financing mechanism in the final PPP modality framework that is shown in Figure 3.

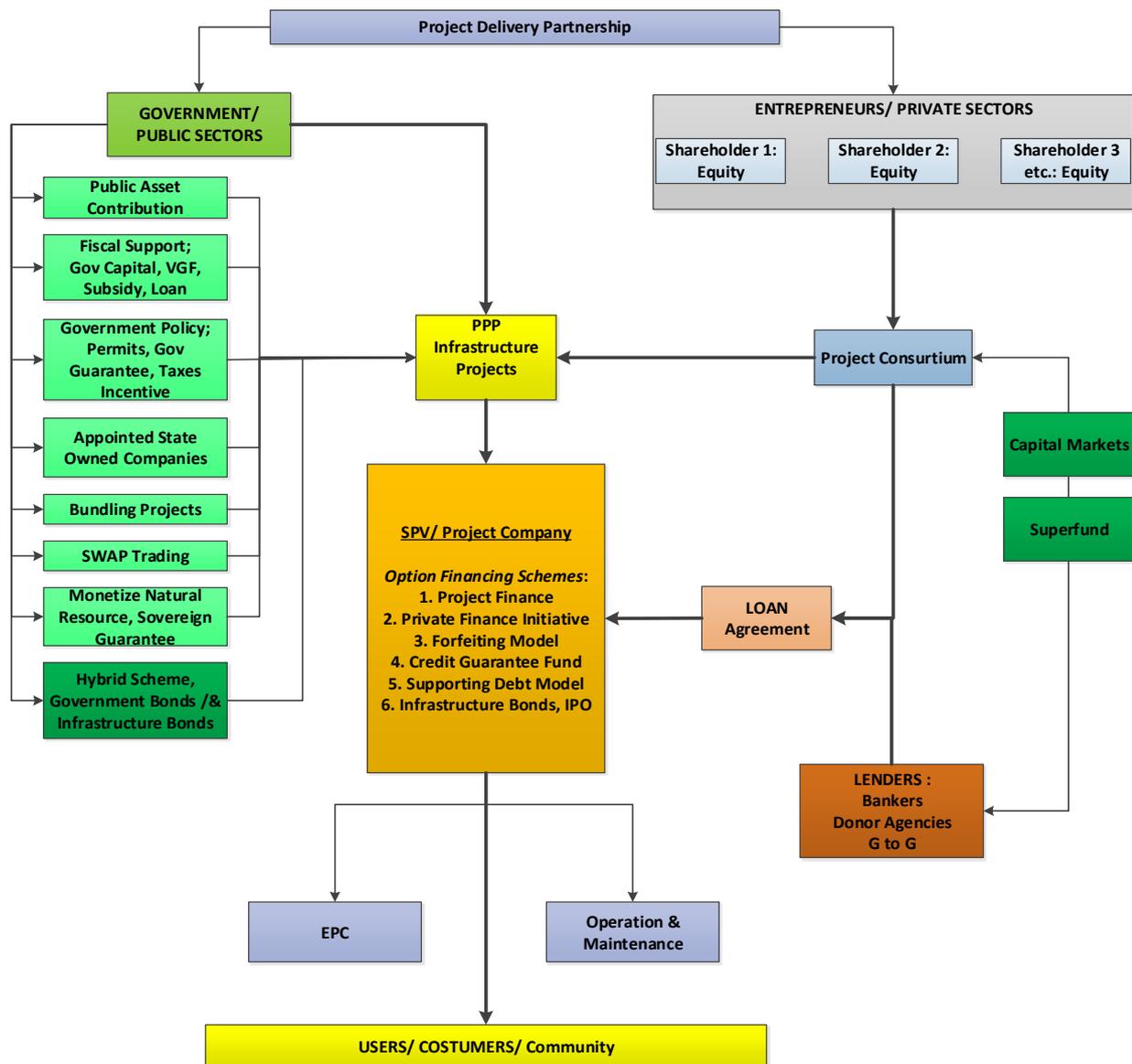


Figure 3: The Modality Framework generated from this Research for PPP Infrastructure Project Development

3. Please study the Modality Framework in Figure 3 and indicate the usefulness of the Modality Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

- 1) This figure looks most interesting among 3 figures.
- 2) Concept of integration makes a sense but the figure does not properly address integration elements and mechanism.
- 3) Available options shown in this figure is not exhaustive yet. Perhaps you can elaborate more on identification of possible government “contributions” (I would rather call them as “undertakings”) and financial mechanism.

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : COO
Institution : Oropesa Port Management
Experience : 20 years on Port Operator & Management, Maritime industry

This questionnaire asks you for your opinions on three frameworks that are shown in the three diagrams below. Each framework is related to financing PPP infrastructure projects. The survey should take 15 mins. There is a short explanation of the research and the frameworks before the three questions.

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Not Helpful 1 2 3 4 **5** Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

This process permits clarity on the expectations of any participant in the infrastructure process. Currently within Indonesia there is a great deal of speculation and uncertainty with regards the form and flow of infrastructure development with a great number of government and associated interested parties involved in the project process – from conceptual development to operation. These include various regulatory interest groups at all levels. The notion that there can be a process at all is a new concept for Indonesia that will progress the infrastructure pathway towards greater transparency and diligence. These factors are very important in invoking confidence within the private sector to permit investment from new markets. Much of the current process is challenged by uncertainty within the infrastructure development pathway and the confidence held in the level of accuracy and impartiality in the due diligence of studies underpinning the viability of the infrastructure project.

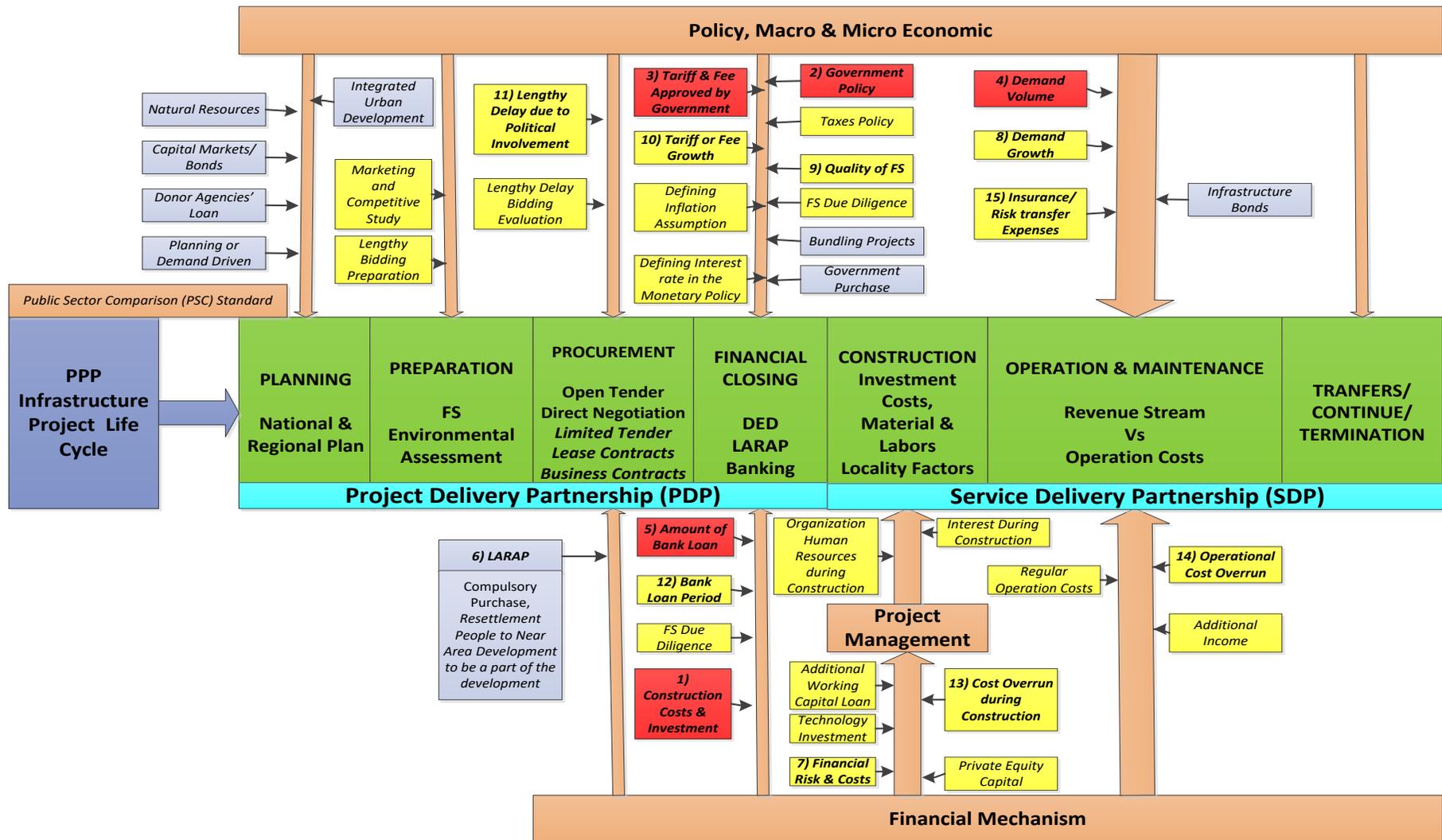


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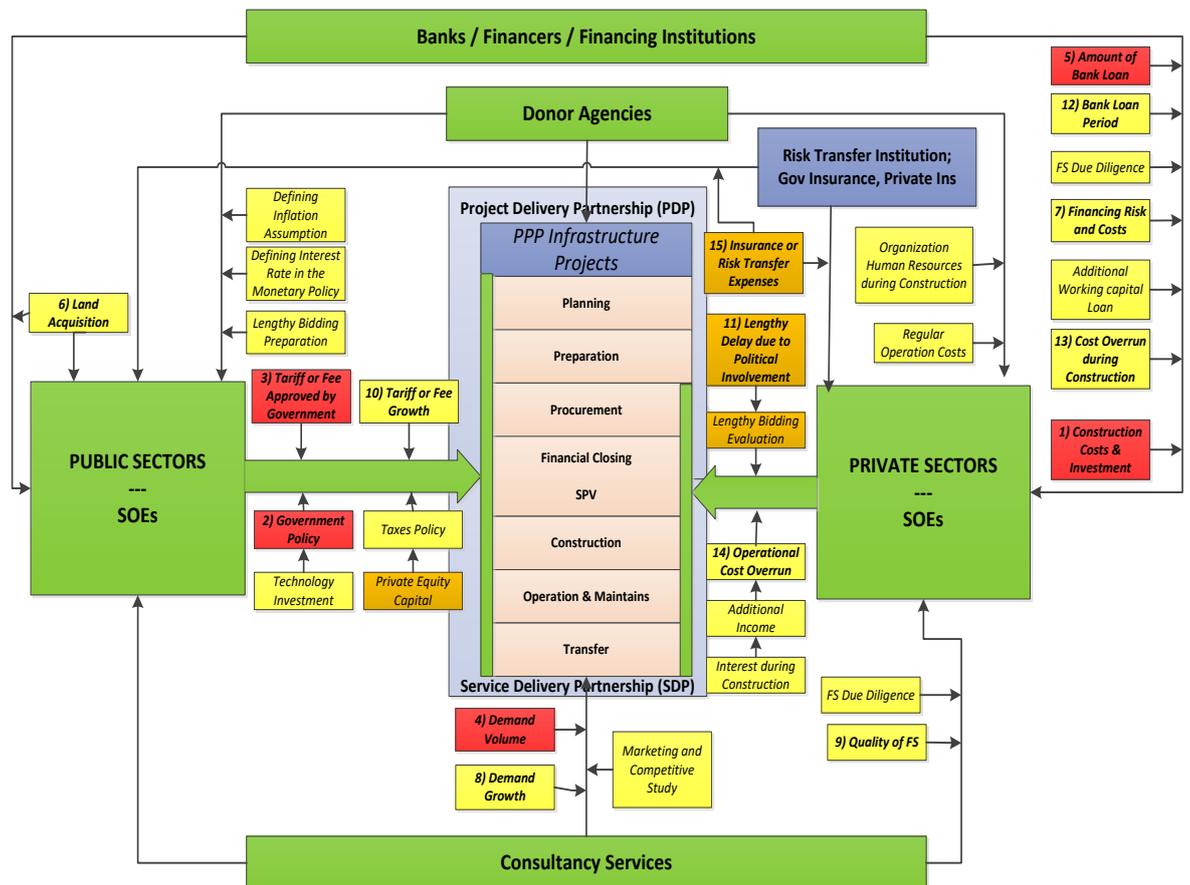


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 2 3 4 **5** Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

The framework clearly identifies the various parties to the process and permits an understanding of the pathways and elements that must be engaged in the entire process. We have seen a number of situations where the required activities have not been undertaken with clarity or impartiality and this undermines the validity of the project. Providing an understanding of the requirement and for various entities to be engaged and where they are required to support the project permits all parties to

understand their potential commitment and engagement within the overall structure of the project.

Figure 3, government contribution is an essential method in leveraging the infrastructure projects. In Indonesia, various PPP projects have implemented several of the identified government contributions.

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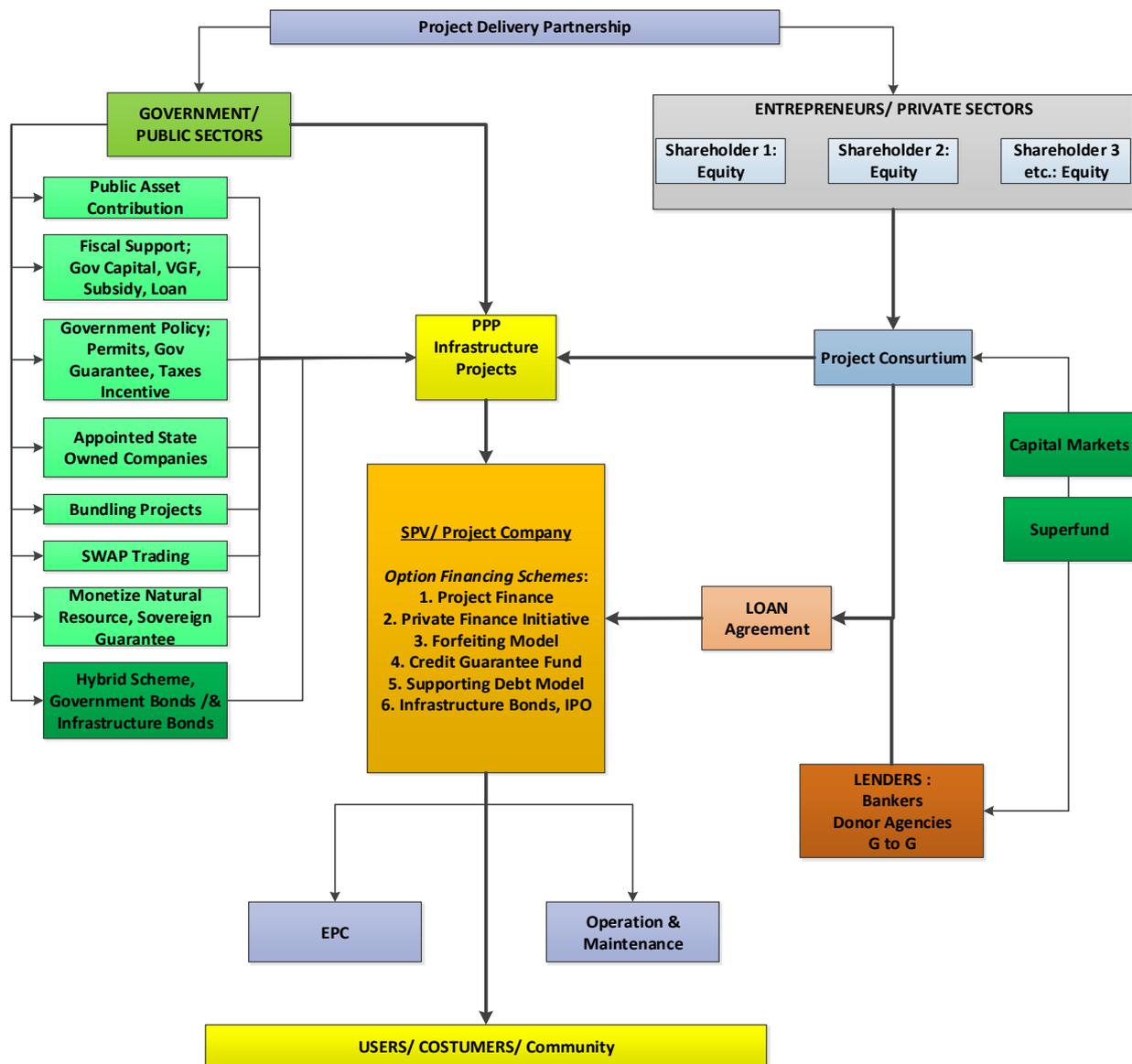


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Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

The structure of modality within the finance modeling is not my specialization. This diagram provides clarity on the various models of finance raising for the projects, however as this is not within my direct area of expertise I can only comment on the understanding of the fiscal opportunities rather than from a financial technical perspective. The framework appears sound from my limited perspective and understanding of this area and does provide clarity on the potential opportunities for leveraging the required capital to support an infrastructure project.

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : Senior Health Specialist.....
Institution : Asian Development Bank.....
Experience : 17 Years in Economic Development

This questionnaire asks you for your opinions on three frameworks that are shown in the three diagrams below. Each framework is related to financing PPP infrastructure projects. The survey should take 15 mins. There is a short explanation of the research and the frameworks before the three questions.

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1. Please study the Lifestyle Project framework in Figure 1 and indicate the usefulness of the Lifestyle Project Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

.....
 ...The Project framework is very helpful. It helps to understand the project lifestyle and makes it easier to understand as it is using graphical presentation. My grade is 5. The only comment is that as political, legal and economic situation changes in the country, the framework will need to be revised accordingly to reflect these changes.

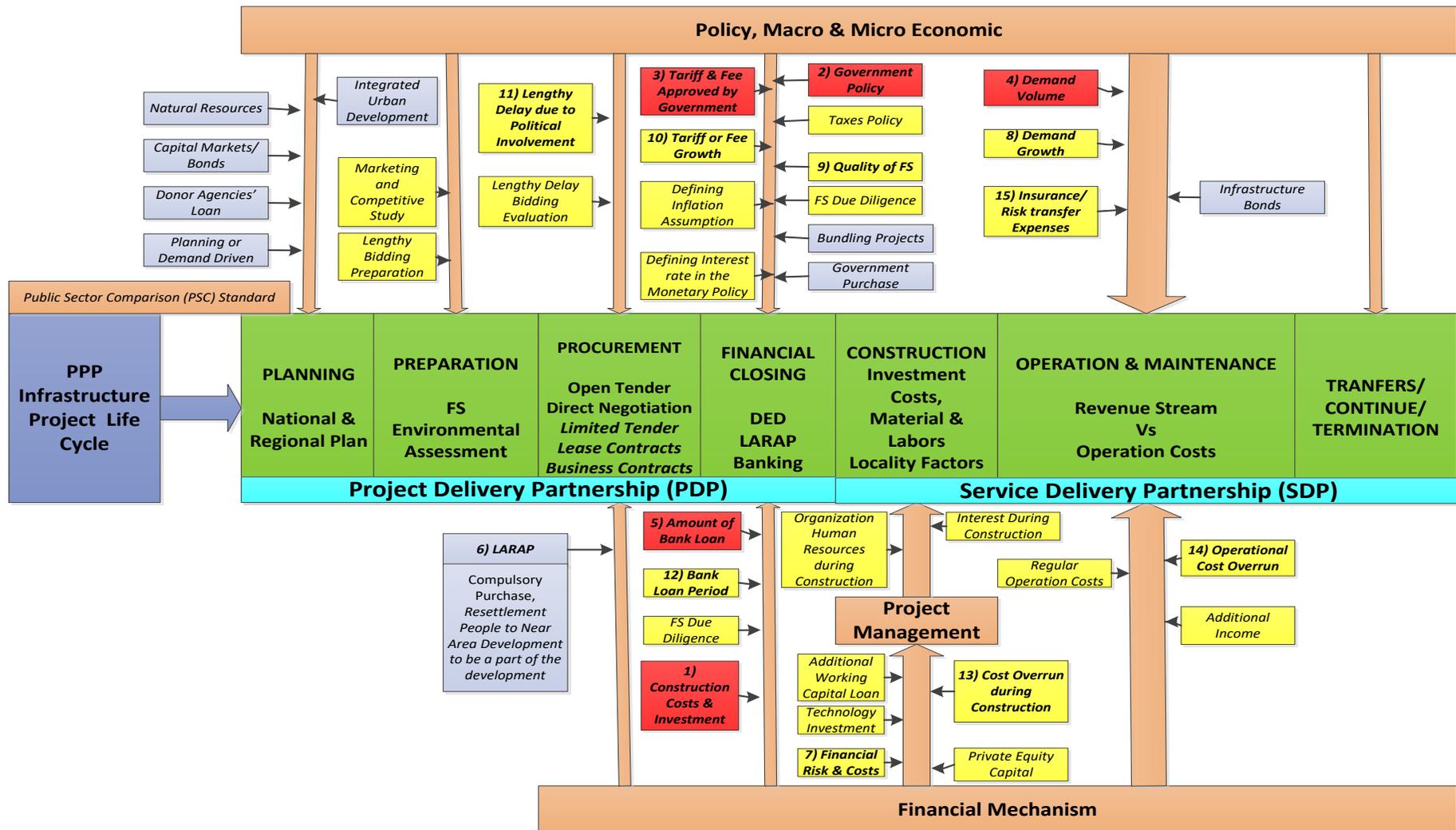


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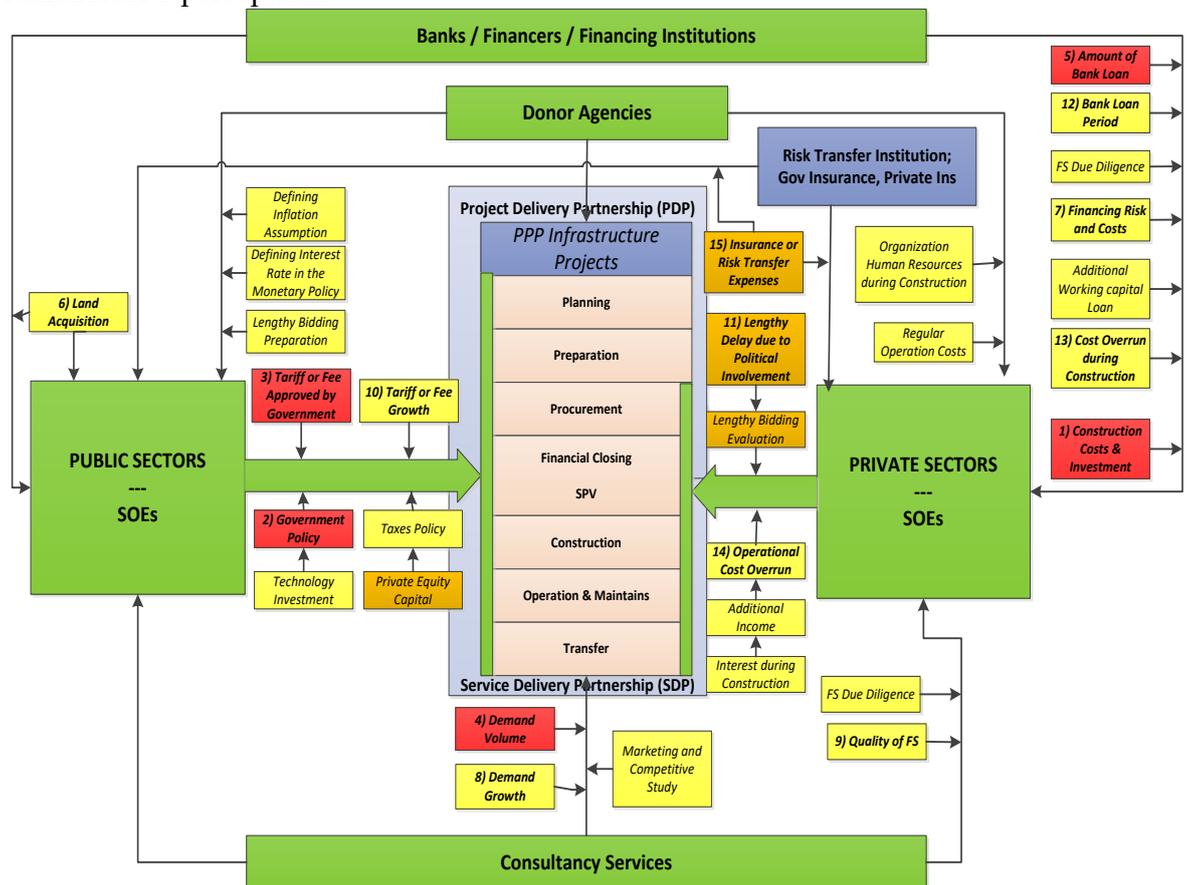


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

It is very helpful. My grade is 5. Perhaps the graph could be further improved by adding the organizations’ names and

functions.....
.....
.....

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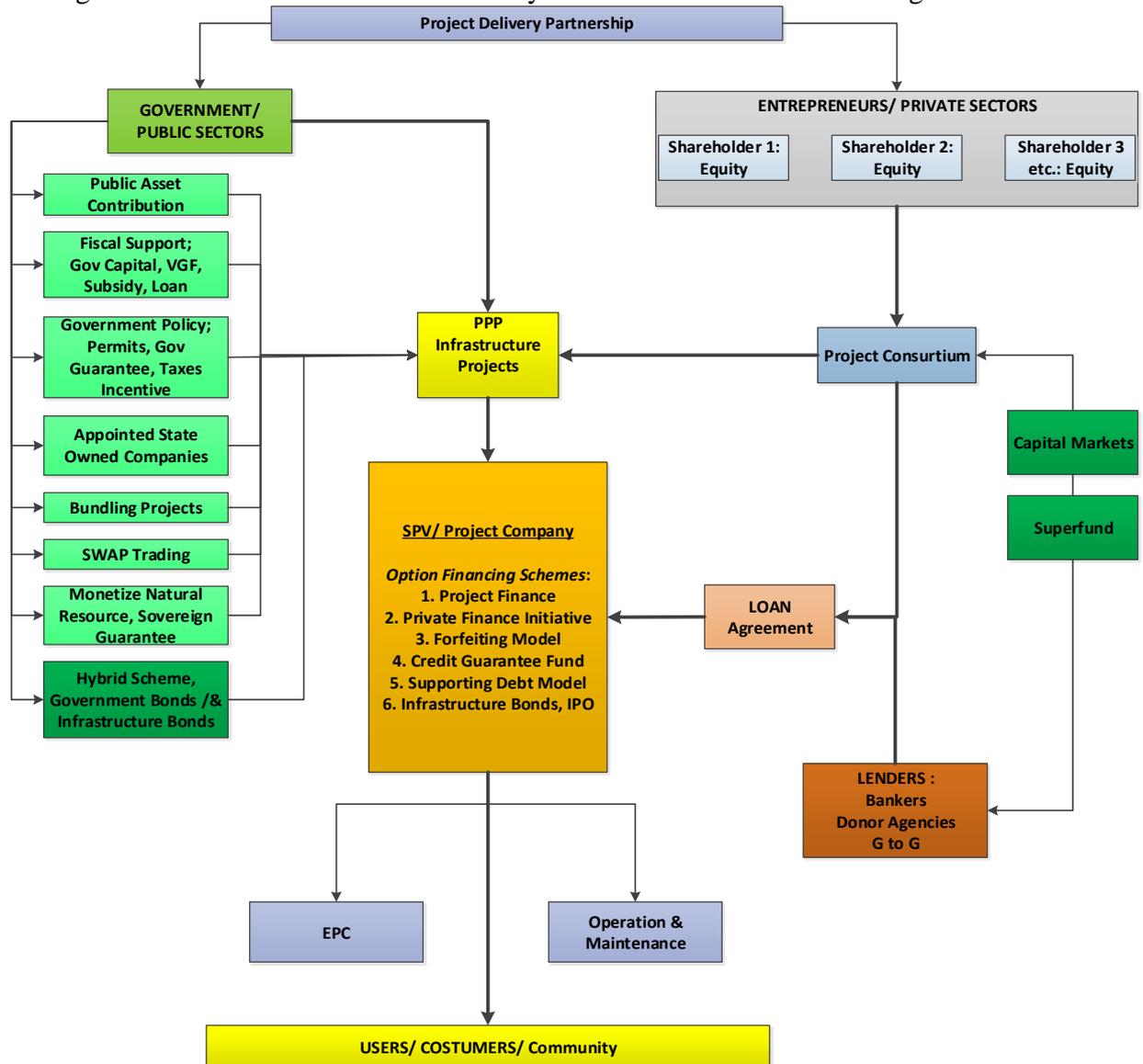


Figure 3: The Modality Framework generated from this Research for PPP Infrastructure Project Development

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Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

.....
I think to find the Modality Framework helpful. Grade 5. The graph clearly indicates financing schemes, but more details could be added to explain functions of the Superfund. Please, also check grammatical mistakes, e.g. in the yellow box – it should Consumers rather than Costumers, right?
.....

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : Board of Commissioner and Chair of the Risk Assessment Supervisory Committee

Institution : Indonesia Railway Company

Experience : More than 20 years of teaching, research and consultancy/advisory on infrastructure development (mostly in transport sector) and project financing

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1. Please study the Lifestyle Project framework in Figure 1 and indicate the usefulness of the Lifestyle Project Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

For policy makers and private sector player, the proposed frameworks looks complicated. It will be fine for the academics. The framework can be more useful if the author could breakdown the framework into main framework several sub-frameworks, and elaborate the sub framework in a greater detail. It will be important, to grasp not only the level of detail and complexity, but also the manageability of the issue to be dealt with in a certain investment project.

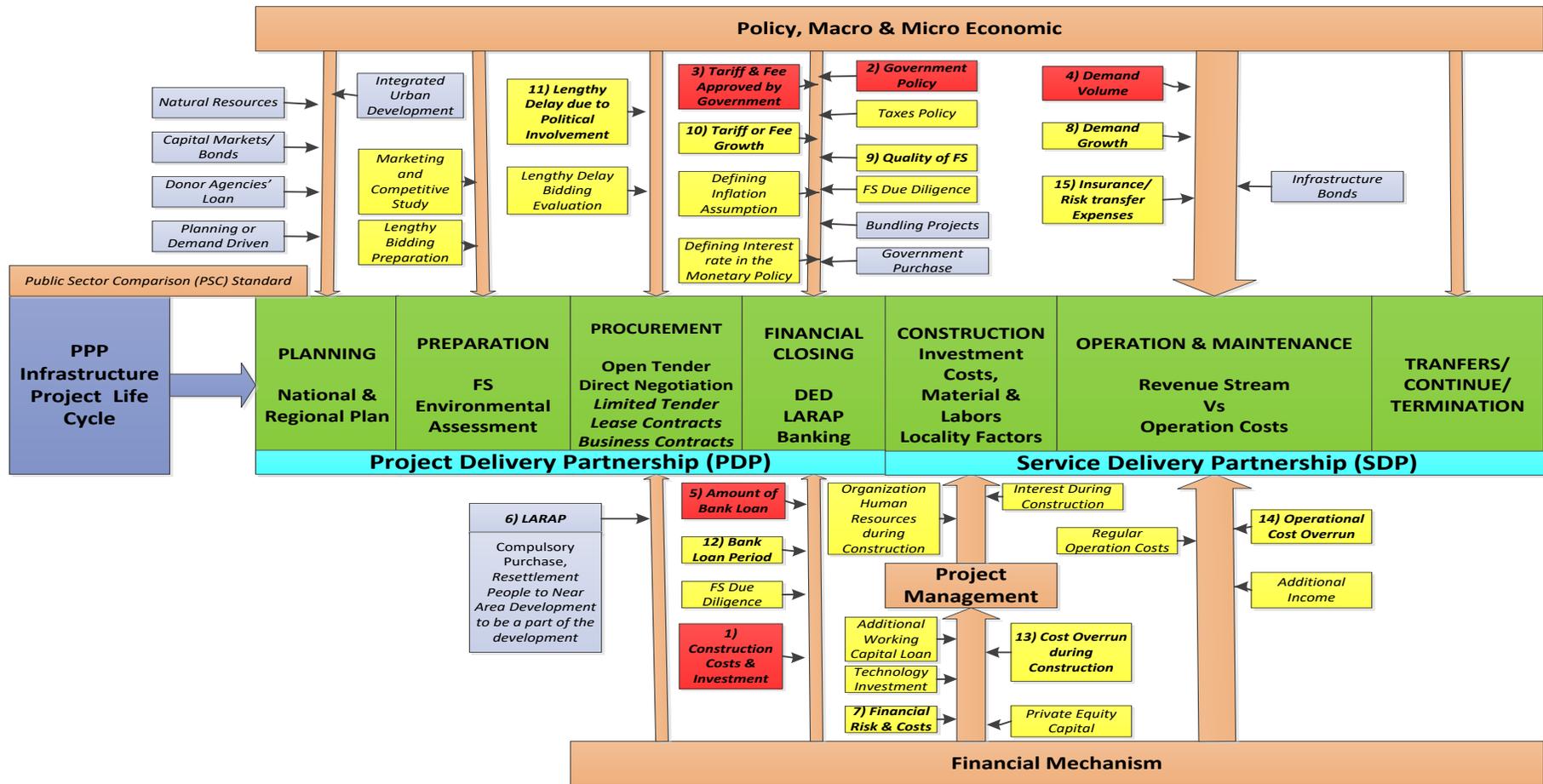


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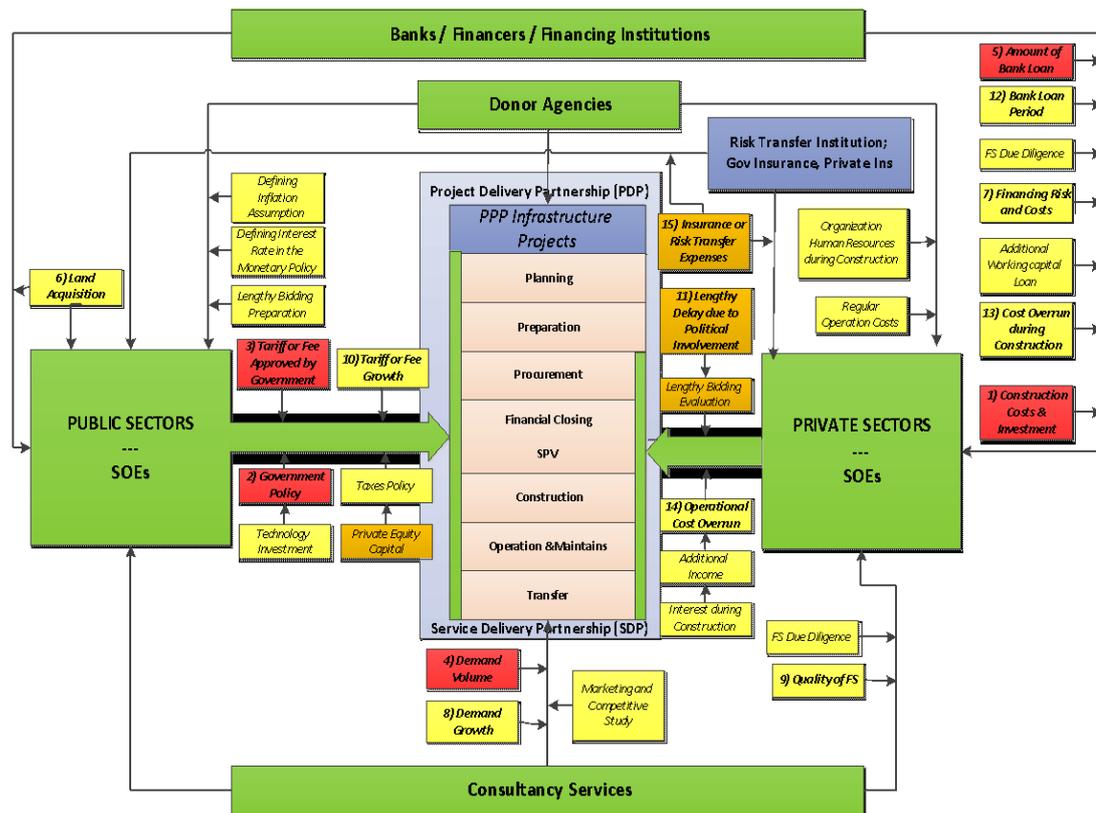


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

Risks assessment and mitigations’ strategy are relatively new for developing countries’ policy makers and GCAs. Risks allocation and risks transfer, under PPP projects should be carefully managed, both by risk institutions. Some risks are best managed by government-established risk agency, while some others could be managed using a risk institution established by private sector. Their nature and capabilities are different. I suggest the framework clearly distinguish the role of the two risk mitigation institutions, so the reader could appreciate different capabilities for both institutions.

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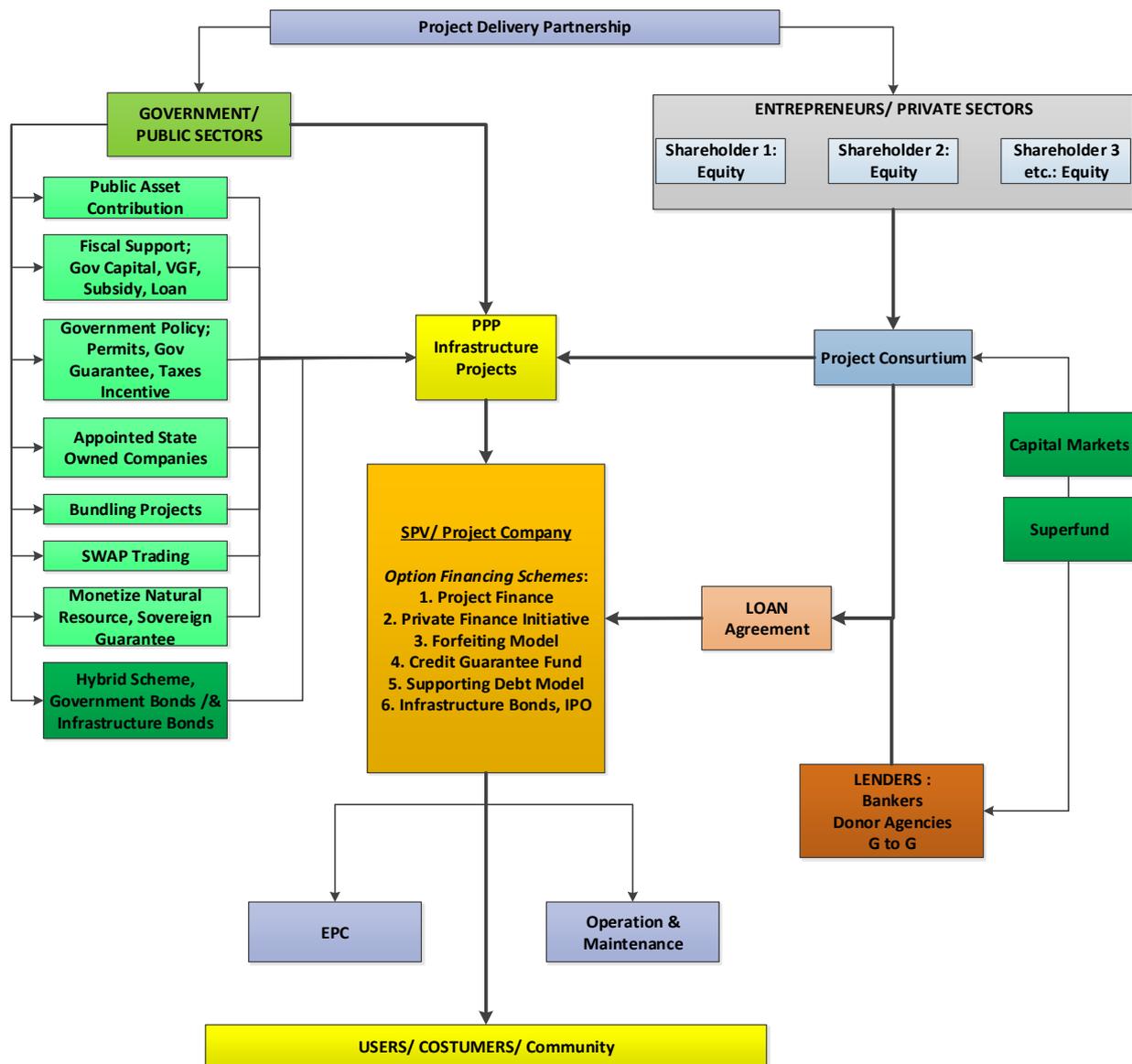


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Not Helpful 1 2 3 4 **5** Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

The proposed new modalities will be useful to expand the policy options for the government. I find it interesting to open door for creatively leveraging the involvement of a private sector. Recently, for Sumatra Toll projects, the Ministry of Public Works introduced “bundling mechanism” whereby bidders for Java toll road segments, given the fix concession and tariff, had to indicate the additional length of road on Sumatra toll roads which has less IRR than Java. The private sector

investors received this bundling policy relatively well. Other methods I believe, are worth investigated and promoted if they can provide sensible incentive for private sector investors.

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : Project Director for Energy Sector
Institution : KPPIP
Experience : 35 years in developing Energy infrastructures in Indonesia

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Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

I would categorize this as a 4(four) or somewhat helpful. There are other several major issues in delay for infrastructure projects in Indonesia, these are :

- a. Spatial planning conformity between the infrastructure plan and the existing approved spatial planning. It is commonly found that the spatial planning has not taken into consideration the new infrastructure plan. While the spatial planning plan, can only revised in 5(five) years. Revision of spatial planning is considered a crime, if not done properly
- b. Infrastructure projects are mostly hampered by conservation forest or restricted forest. Dealing with these restriction are the major setbacks in Indonesian infrastructure project
- c. Although currently there are laws that allows easire land acquisition for public infrastructure projects, (Law No:2 2012) however the steps for implementing this law requires multi-parties and sequential implementation. Various bottlenecks particularly at land certification agencies are very common. Typical challenge are the slow certification process due to the lack of land surveyors.

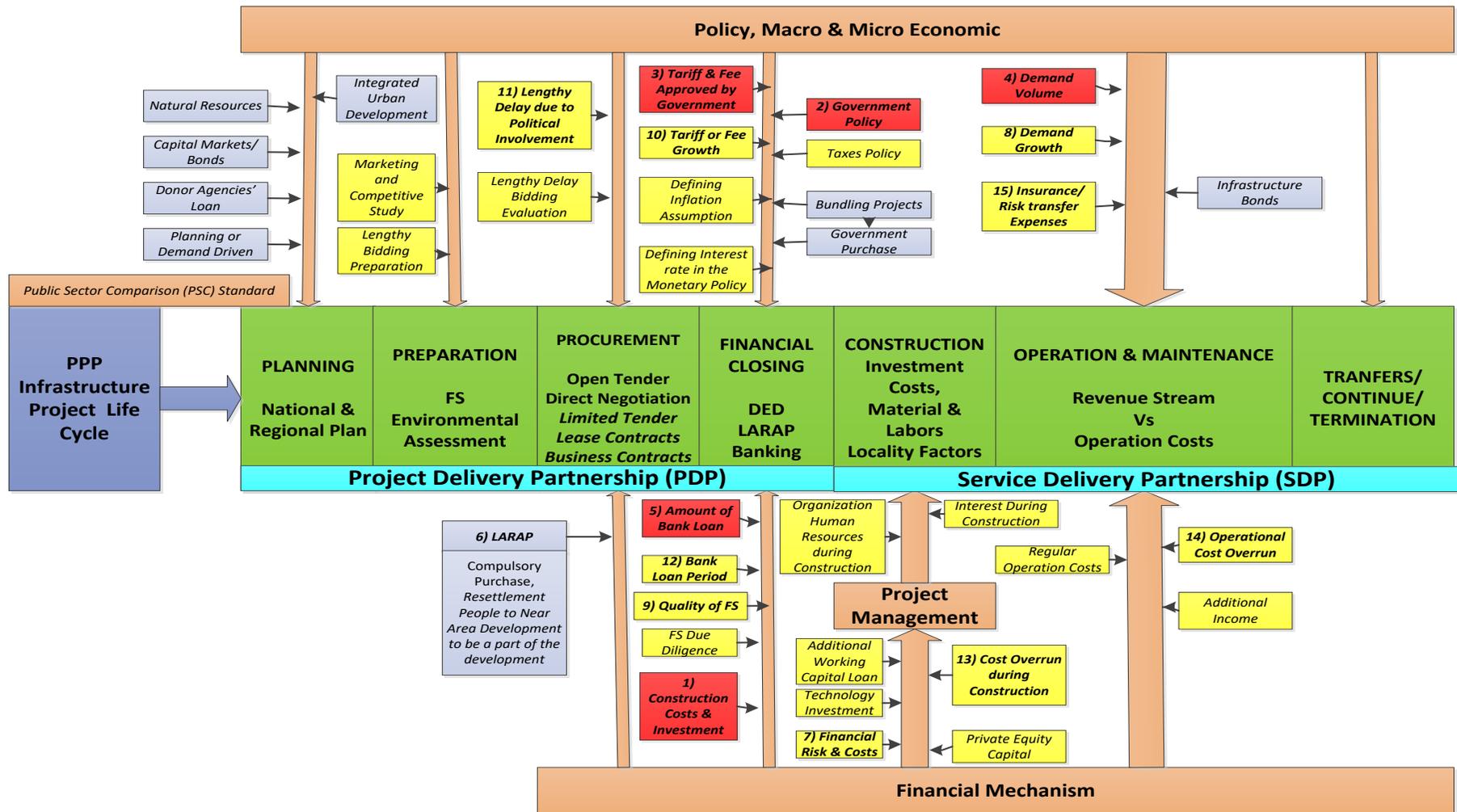


Figure 1: PPP Infrastructure Developing Life Cycle Project Framework developed from Quantitative & Qualitative Analysis

Figure 2 is the stakeholder framework that has incorporated the critical parameters resulting from quantitative data analysis. The new information that can be highlighted here is the research has found that the Risk Transfer Institution also plays an important role in PPP infrastructure project development. Therefore, ‘risk transfer institution’ is now incorporated in the key stakeholders in the PPP infrastructure delivery. The key parameters that resulted from quantitative analysis are presented in yellow and red boxes in Figure 2 have been related to the each stakeholder’s perceptions.

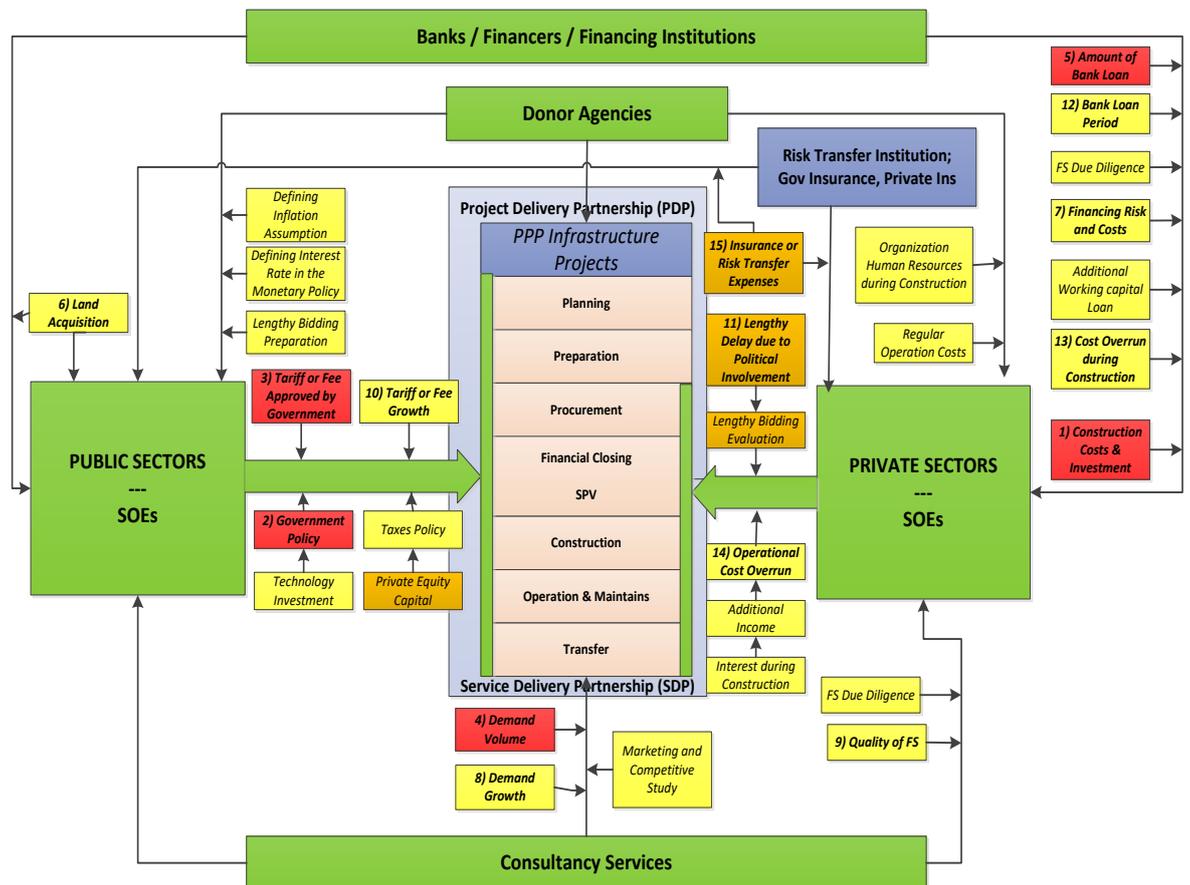


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

I would consider the above frame work as 4(four). One of the most important factor for infrastructure financing is to attain low interest rates and long tenor financing. These financing types mostly requires somekind of government guarantee. Currently Indonesia has initiated an institution such as IIGF with limited liability. However they are still in very early stage. Governement insurance scheme like NEXI needs to be expanded in the above chart.

Figure 3, government contribution is an essential method in leveraging the infrastructure projects. In Indonesia, various PPP projects have implemented several of the identified government contributions.

There are 4 types of government contribution that have been implemented in Indonesia, namely:

- i) public asset contribution;
- ii) fiscal support, including government capital, Viability Gap Fund (VGF), Availability Payment Scheme (APS), subsidy and government loan;
- iii) government policy, including permits, government guarantee and taxes incentives; and
- iv) appointed state owned companies.

The finding from this research has added more methods of government contribution to leverage the modality of infrastructure projects. The additional government contributions that have been identified in this thesis are:

- i) bundling projects;
- ii) SWAP Trading;
- iii) monetizing natural resources and sovereign guarantee; and
- iv) hybrid schemes combining those government contributions and municipal bonds and infrastructure bonds.

The contribution of this thesis towards improving the existing PPP modality frameworks is through integrating the government contribution and the PPP financing mechanism in the final PPP modality framework that is shown in Figure 3.

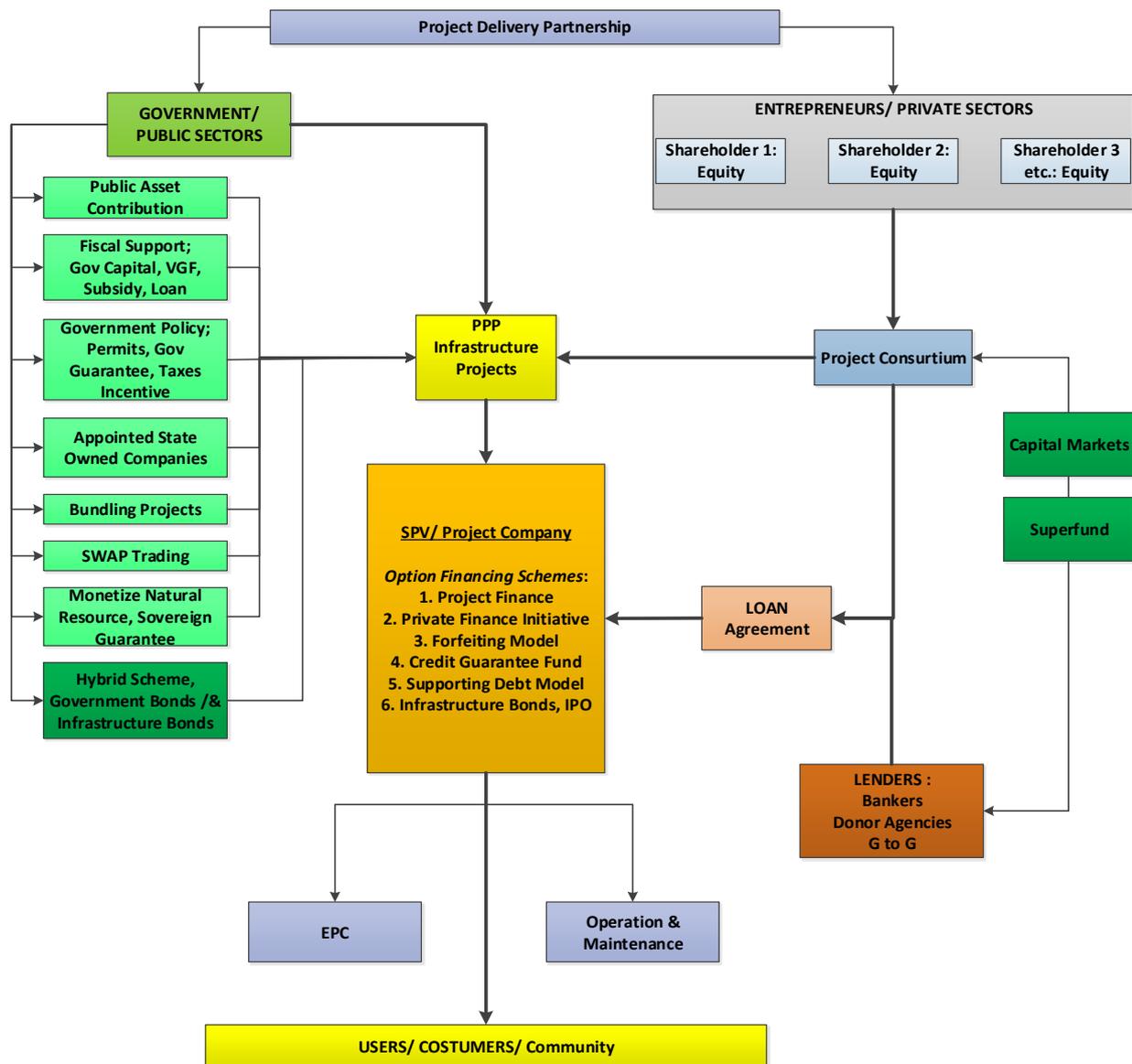


Figure 3: The Modality Framework generated from this Research for PPP Infrastructure Project Development

3. Please study the Modality Framework in Figure 3 and indicate the usefulness of the Modality Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

This is a very usefull framework visualization. I would consider this as a 5(five). SWAP trading and bundling of projects are very inovative and new ideas in Indonesian infrastrucure development.

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : Director

Institution : Tusk Advisory

Experience :

- Practice area: PPP, public policy, government relations, Program Management Office (PMO), project finance, valuation, and debottlenecking;
- Sector expertise: toll road, urban transportation, railway, renewable energy, oil and gas

This questionnaire asks you for your opinions on three frameworks that are shown in the three diagrams below. Each framework is related to financing PPP infrastructure projects. The survey should take 15 mins. There is a short explanation of the research and the frameworks before the three questions.

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Specific objectives of the research included:

- 1) to identify and analyze the optimal infrastructure financing scheme based on analysis of best-practice PPP infrastructure financing;
- 2) to determine from different stakeholders' perspectives the critical parameters in infrastructure financing effecting PPP finance performance; and
- 3) to develop PPP frameworks for Indonesia to support the allocation and distribution of risks in decision making in order to select the most appropriate form of leverage method for PPP infrastructure projects.

Objective No. 1 has been explored in the literature review, which has been published. The publication can be accessed at: https://www.academia.edu/10273068/A_Comparative_Analysis_of_PPP_Financing_Mechanisms_for_Infrastructure_Projects.

The second and third objective were answered by developing three related frameworks. These three frameworks are expected to assist stakeholders in determining and assessing the levels of risk in the key parameters relevant to the investment decisions they have to make for infrastructure projects with PPP financing.

Figure 1: PPP Infrastructure Life Cycle Project Framework developed from Quantitative & Qualitative Analysis. The selected critical parameters are presented in the frameworks. Some important notes including:

- The parameters are grouped into the policy and micro- & macro-economic revenue streams, the potential costs, the project financing mechanism, and the project management. The parameters in red boxes are the top five critical parameters and the yellow boxes are parameters from the quantitative analysis and the light blue color boxes are the parameters added from the interview analysis.
- Specific for the land acquisition that occurred in the quantitative analysis, it was considered as the government policy and included in the macro & micro parameters. The result from interviews with experts revealed that land acquisition and resettlement (LARAP) should be treated in the financial mechanism framework in order to better define and estimate the value and time of land acquisition, since availability of land is the most important start up foundation of the continuity of the infrastructure projects.
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1. Please study the Lifestyle Project framework in Figure 1 and indicate the usefulness of the Lifestyle Project Framework for you

Not Helpful 1 2 3 4 **5** Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

It is very helpful since it provides a comprehensive overview for PPP process. One area of improvement is the inclusion of stakeholders within each stage of the lifecycle to make the overall process more clear.

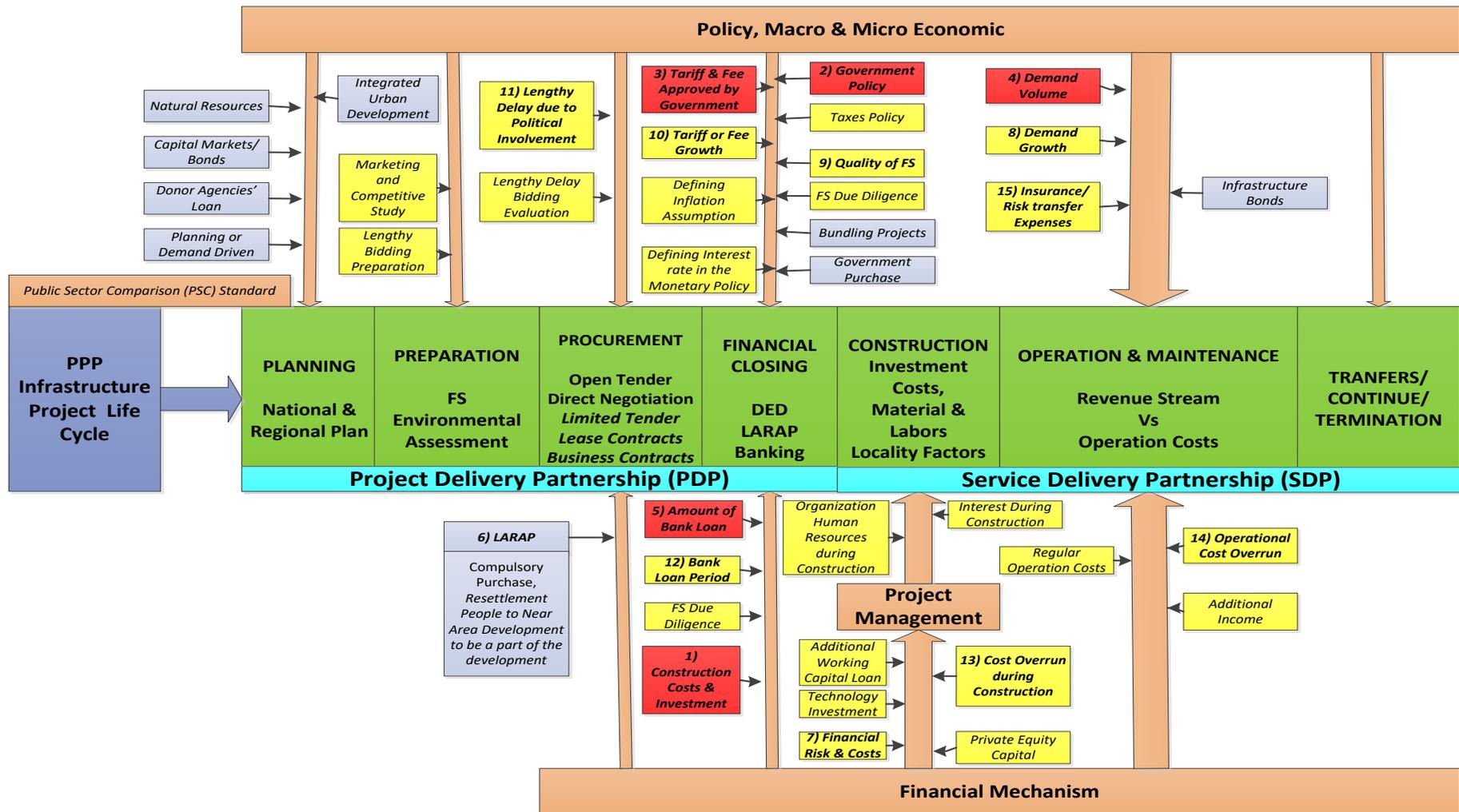


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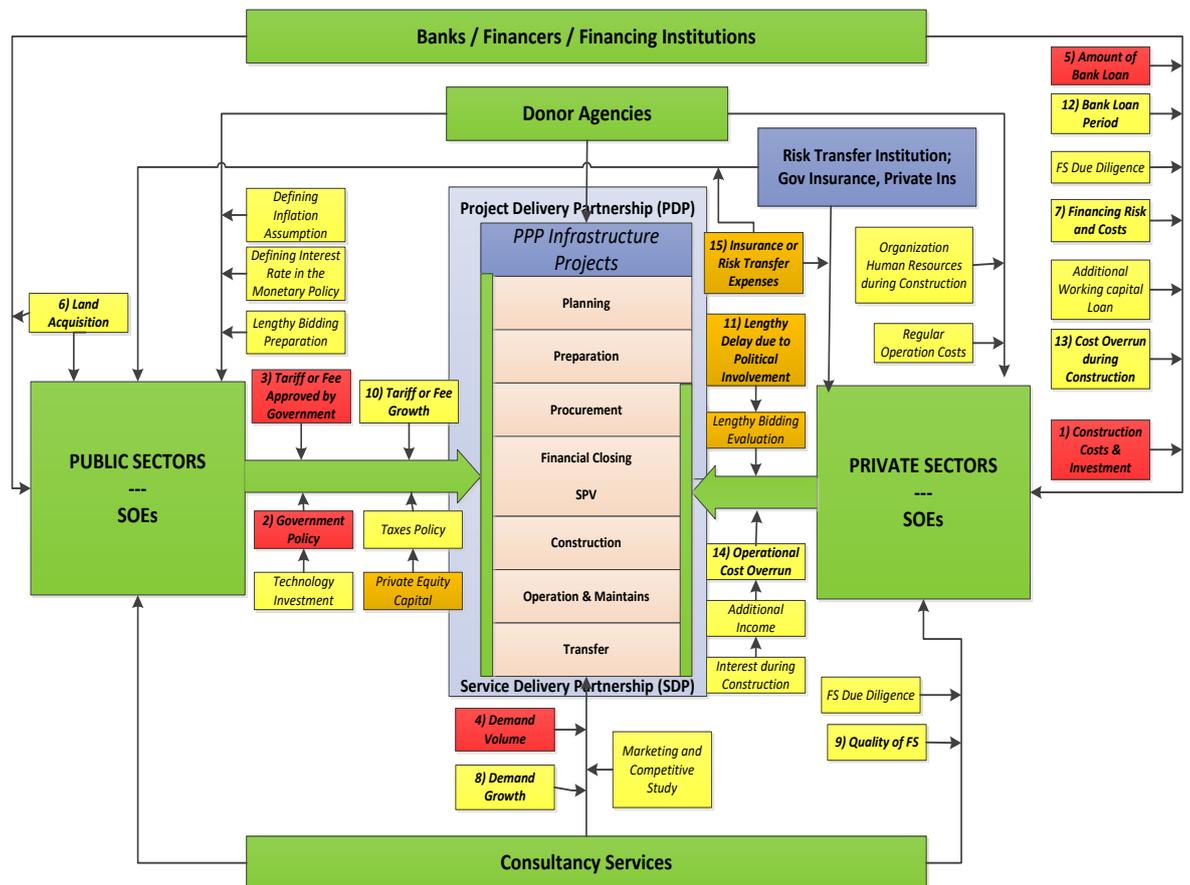


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 2 3 4 **5** Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

Very helpful framework since it captures almost all elements that are contributing to the success of PPP delivery. Two suggestions: 1) to simplify the diagram; 2) to differentiate between risk and key elements, for example lengthy delay because of political involvement can be grouped under risk category, whereas government policy can be grouped under key elements.

Figure 3, government contribution is an essential method in leveraging the infrastructure projects. In Indonesia, various PPP projects have implemented several of the identified government contributions.

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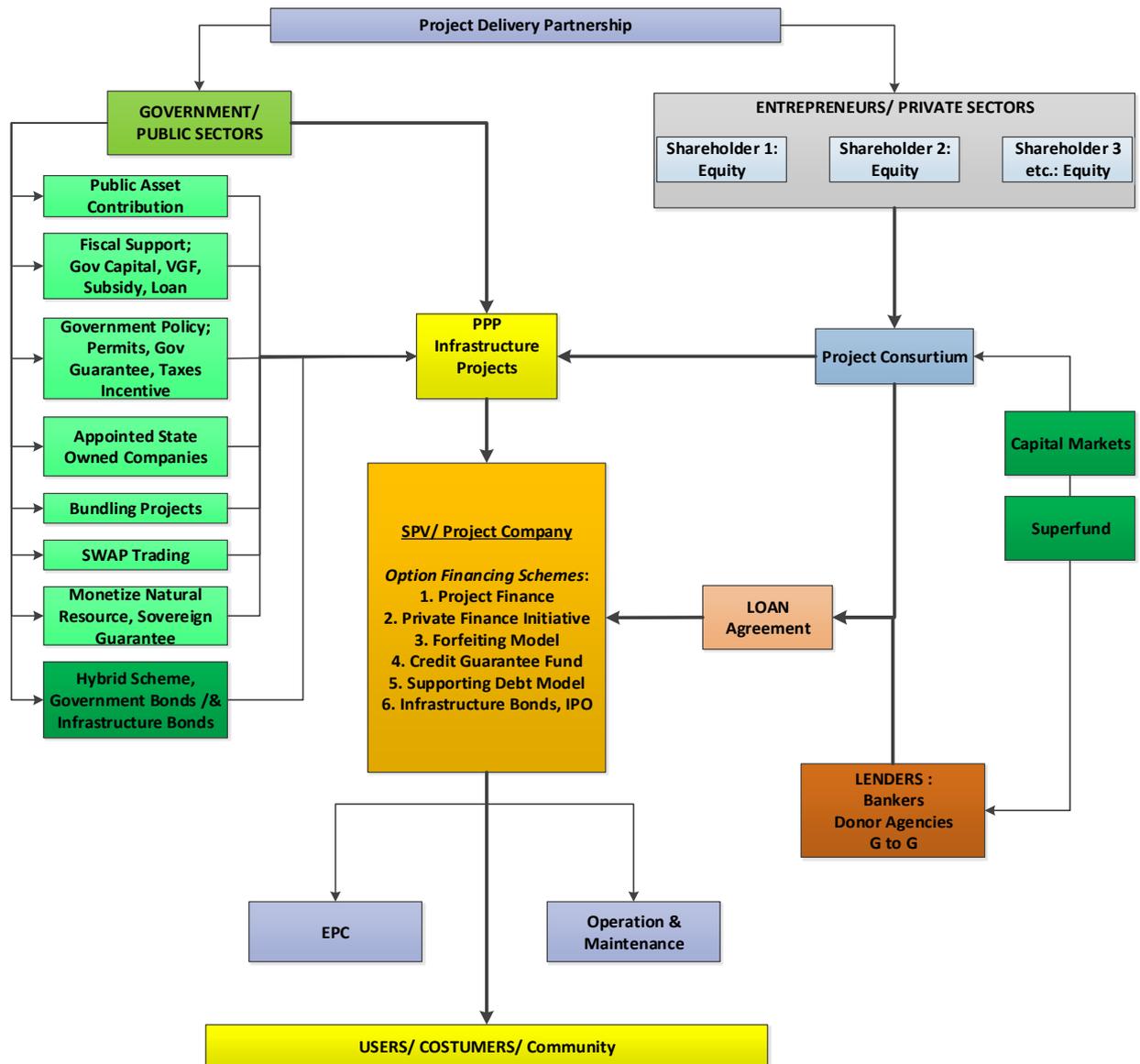


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3. Please study the Modality Framework in Figure 3 and indicate the usefulness of the Modality Framework for you

Not Helpful 1 2 3 4 **5** Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

Very helpful since it provides broader options for government support in infrastructure financing.

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : Senior Infrastructure Policy Adviser

Institution : Australia Indonesia Partnership for Economic Governance

Experience : 11 years of working in infrastructure policy, regulation, and transaction advisory; mainly in Indonesia, but also in Australia, New Zealand, the Philippines, and Timor-Leste.

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1. Please study the Lifestyle Project framework in Figure 1 and indicate the usefulness of the Lifestyle Project Framework for you

Not Helpful 1 **2** 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

Honestly, in its current form, the figure is not very clear. Just looking at the figure, and with the information provided in this survey, it is not clear who the audience is, what the purpose of the figure is, and what it is trying to achieve.

Other than the red boxes, which were explained to be high priority, it is not clear what has driven the selection of colours, and how that is meant to be of use to people trying to use this framework.

To the extent that I do understand this figure, it seems like it is trying to set out when certain parameters become critical. Although, it is not clear to me that each parameter is only relevant at one point. E.g. Lengthy delay due to political involvement, or demand volume. Both of these will be issues throughout the project life cycle.

It seems like, at least, the figure needs a lot more elucidation than has been provided in this document to be truly useful.

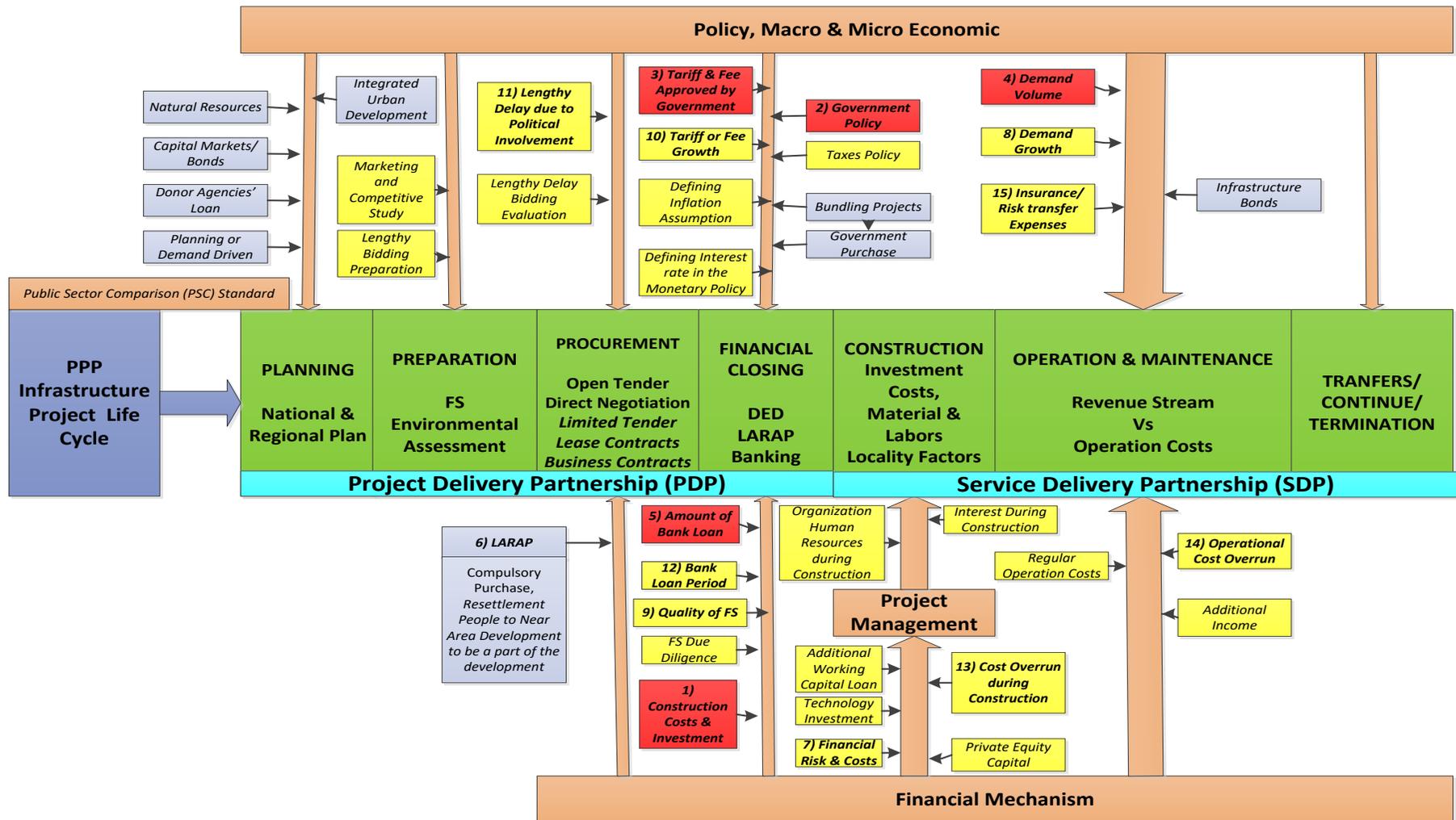


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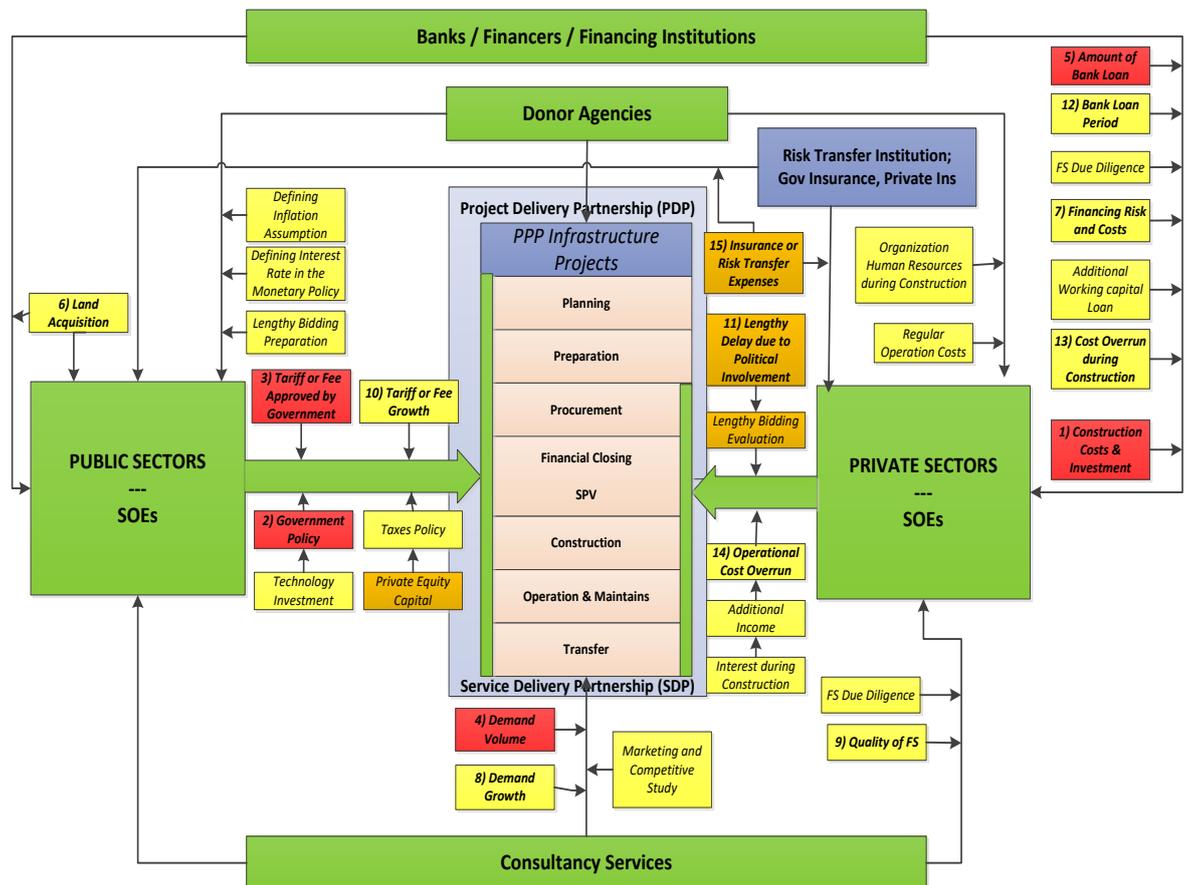


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 **2** 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

Again, it is not clear how this framework will be used, or who it is for. I am also unsure as to how or why certain parameters have been mapped to only one stakeholder, rather than all. e.g. regular operation costs are surely the concern of all stakeholders at various points in the PPP project’s lifecycle, but many others are also applicable to more than one stakeholder, if not all of them.

Perhaps the figure needs to be accompanied with a manual, showing which parameters are critical across which relationships for each stakeholder.

Figure 3, government contribution is an essential method in leveraging the infrastructure projects. In Indonesia, various PPP projects have implemented several of the identified government contributions.

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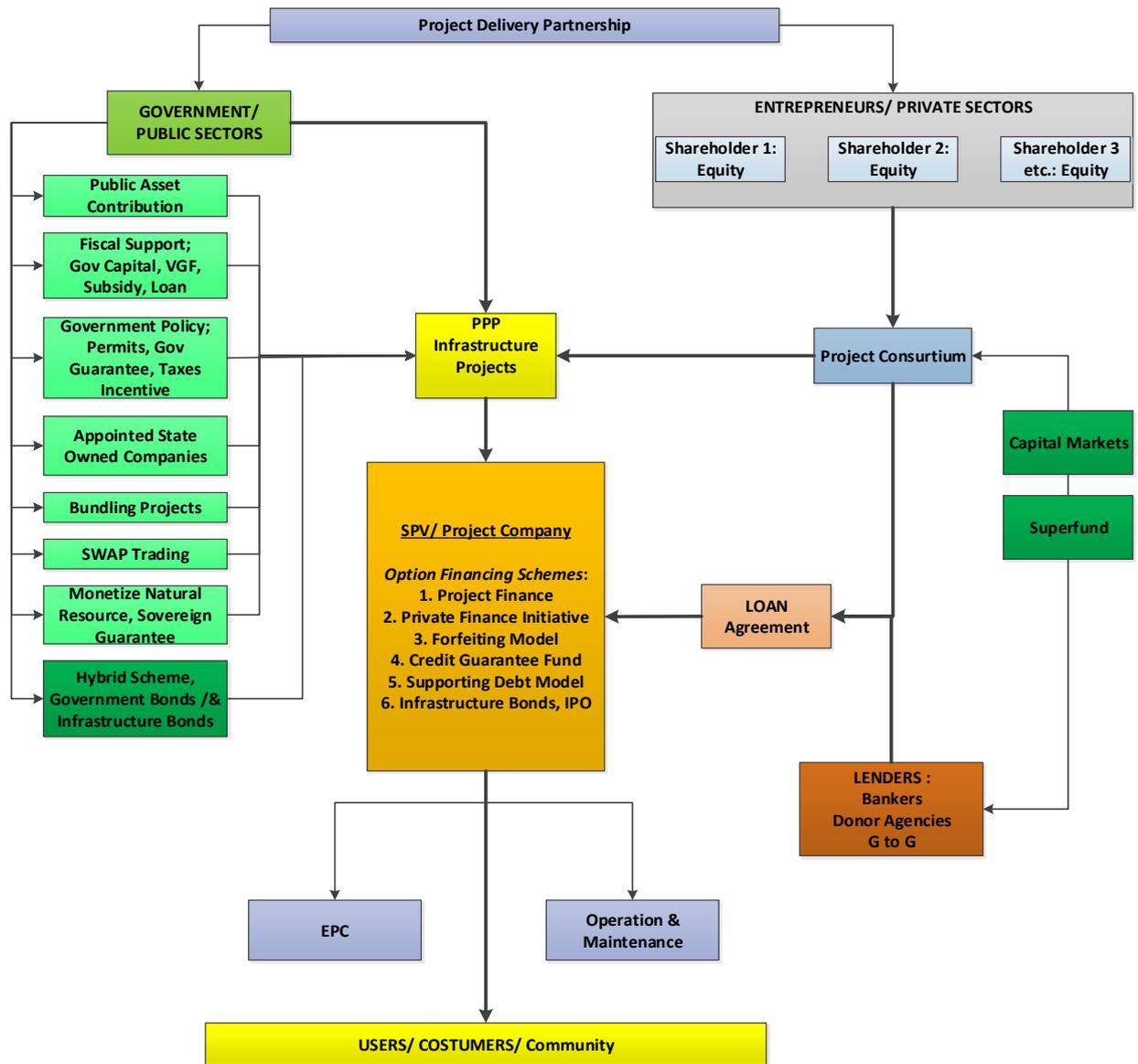


Figure 3: The Modality Framework generated from this Research for PPP Infrastructure Project Development

3. Please study the Modality Framework in Figure 3 and indicate the usefulness of the Modality Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

It is useful to see the different modalities set out, but it would be more useful to see the situations under which they are appropriate, and not appropriate. E.g. In the Indonesian context, I wouldn't call SOE appointment PPP, as in many cases these projects are loss-making, so they are being used more as a substitute for national budget rather than as a true risk transfer away from the public sector.

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : **Managing Director**
Institution : **Tusk Advisory Pte Ltd.....**
Experience : **25 Years.....**

This questionnaire asks you for your opinions on three frameworks that are shown in the three diagrams below. Each framework is related to financing PPP infrastructure projects. The survey should take 15 mins. There is a short explanation of the research and the frameworks before the three questions.

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1. Please study the Lifestyle (lifecycle?) Project framework in Figure 1 and indicate the usefulness of the Lifestyle Project Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

The Lifecycle Project Framework in Figure 1 is helpful since it identifies the many bottlenecks involved in the delivery of PPP projects. The framework clearly shows the importance of PDP – since getting the initial stages right are crucial in ensuring successful projects

delivery.....

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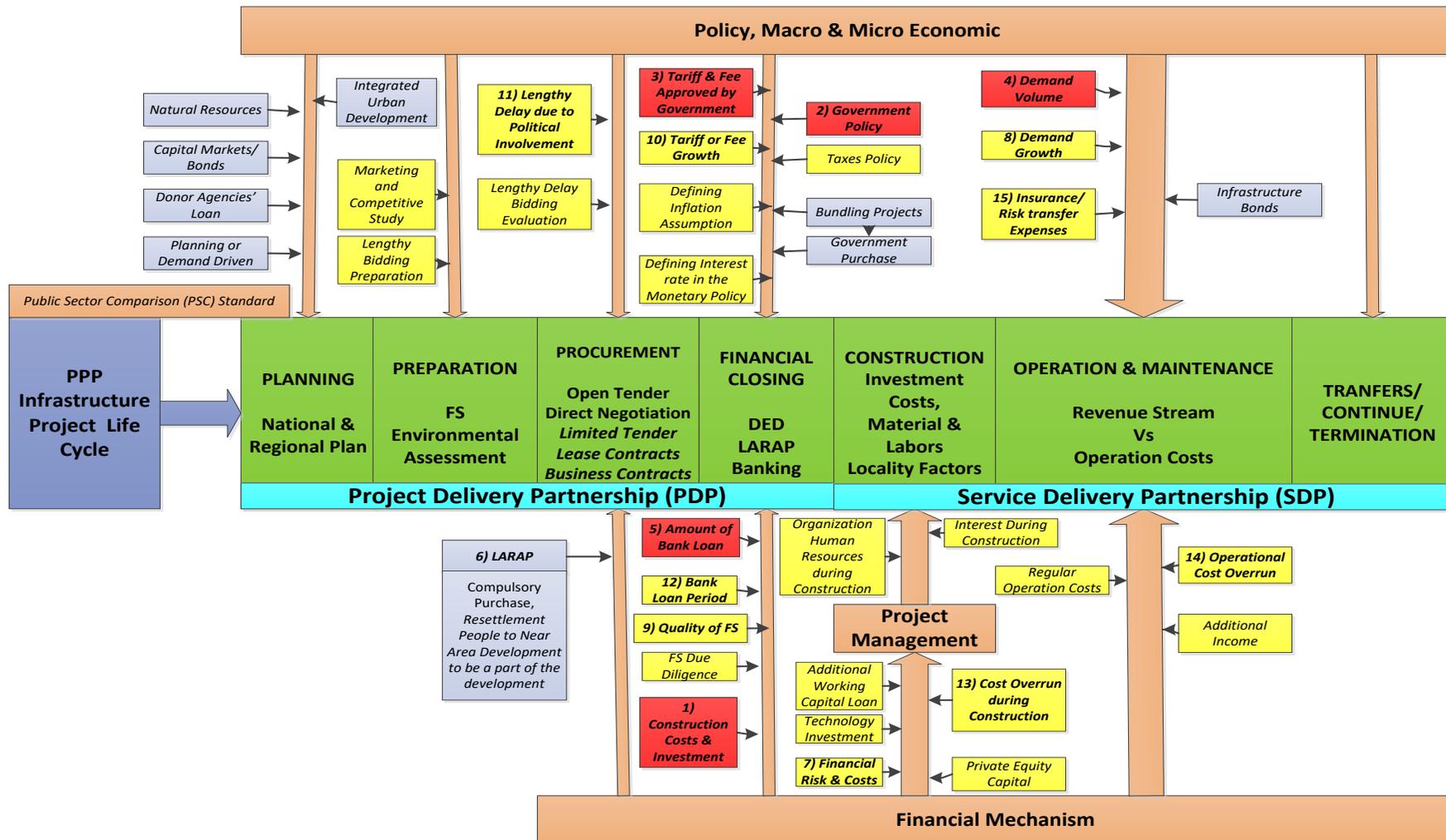


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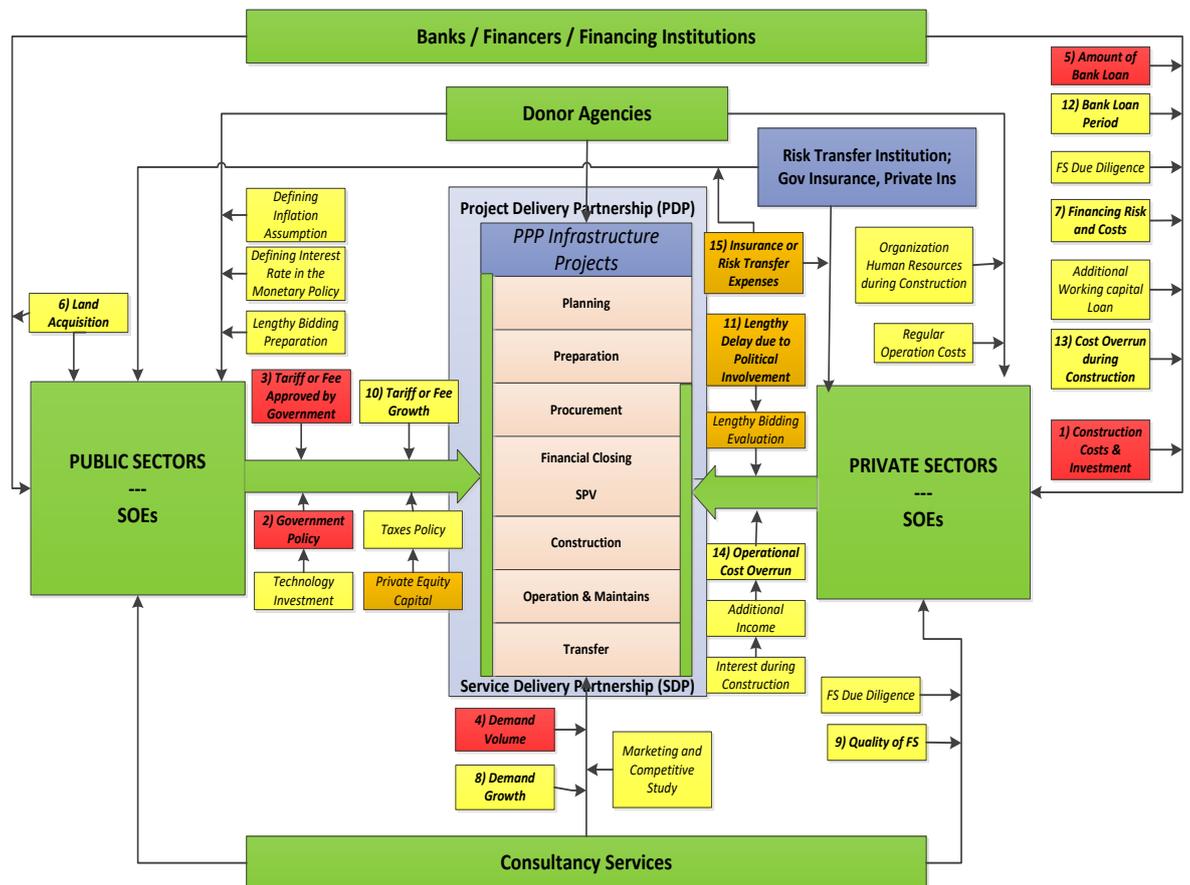


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 2 3 **4** 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

In the stakeholder framework the role of the Donor is not readily obvious. In some countries where donor agencies don't operate or in projects where donor agencies don't get involved such as coal fired IPPs, the role of donor become much less crucial to delivery of such PPPs – Perhaps a greater clarity of the role and scope of the donor will help the stakeholder framework.

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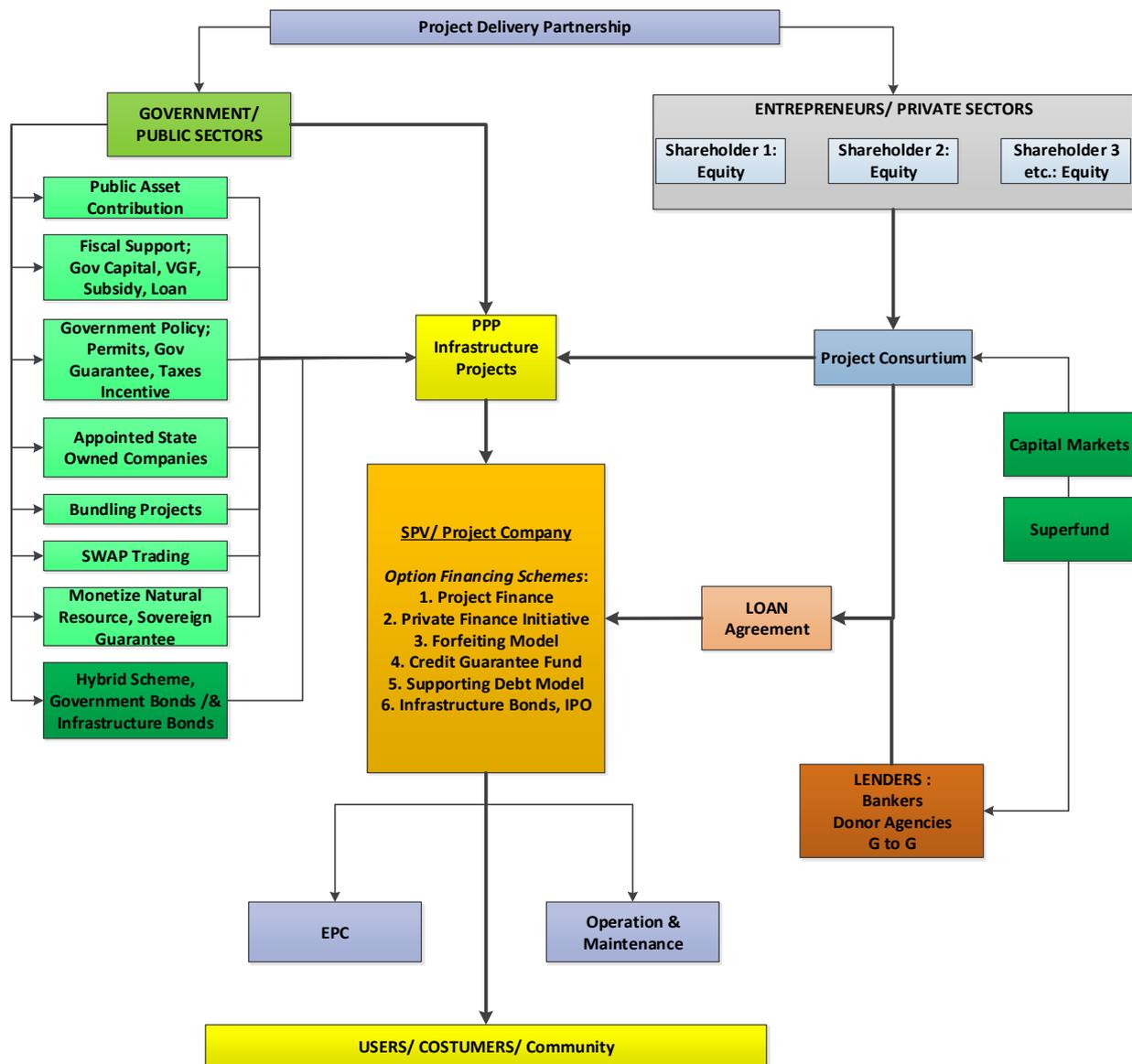


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Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

Modality Framework is succinct and it expounds on the additional credit enhancement roles that government can play in increasing the bankability of PPP projects. It maybe useful to also new explore “funding” schemes those are popular in PPPs involving urban transport projects such as Value Capture strategies. Ie differentiating financing scheme from funding schemes. Financing schemes are about raising immediate money to build the asset while funding schmes is about government raising additional tax revenue via betterment tax, land and build value

capture post delivery of the projects etc. These government funding strategies can increase the viability of such urban projects to show that overtime government will be able to “fund” such projects from increased value to the corridor, or region.....

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Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position Director:
Institution Tusk Advisory:
Experience :35+ years infrastructure development worldwide
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1. Please study the Lifecycle Project framework in Figure 1 and indicate the usefulness of the Lifecycle Project Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

Important to bring together all elements of the project, especially land acquisition, and to engage all stakeholders as early as possible. The framework helps with this objective. It provides a helpful checklist of the issues which will arise at each stage of the project lifecycle.

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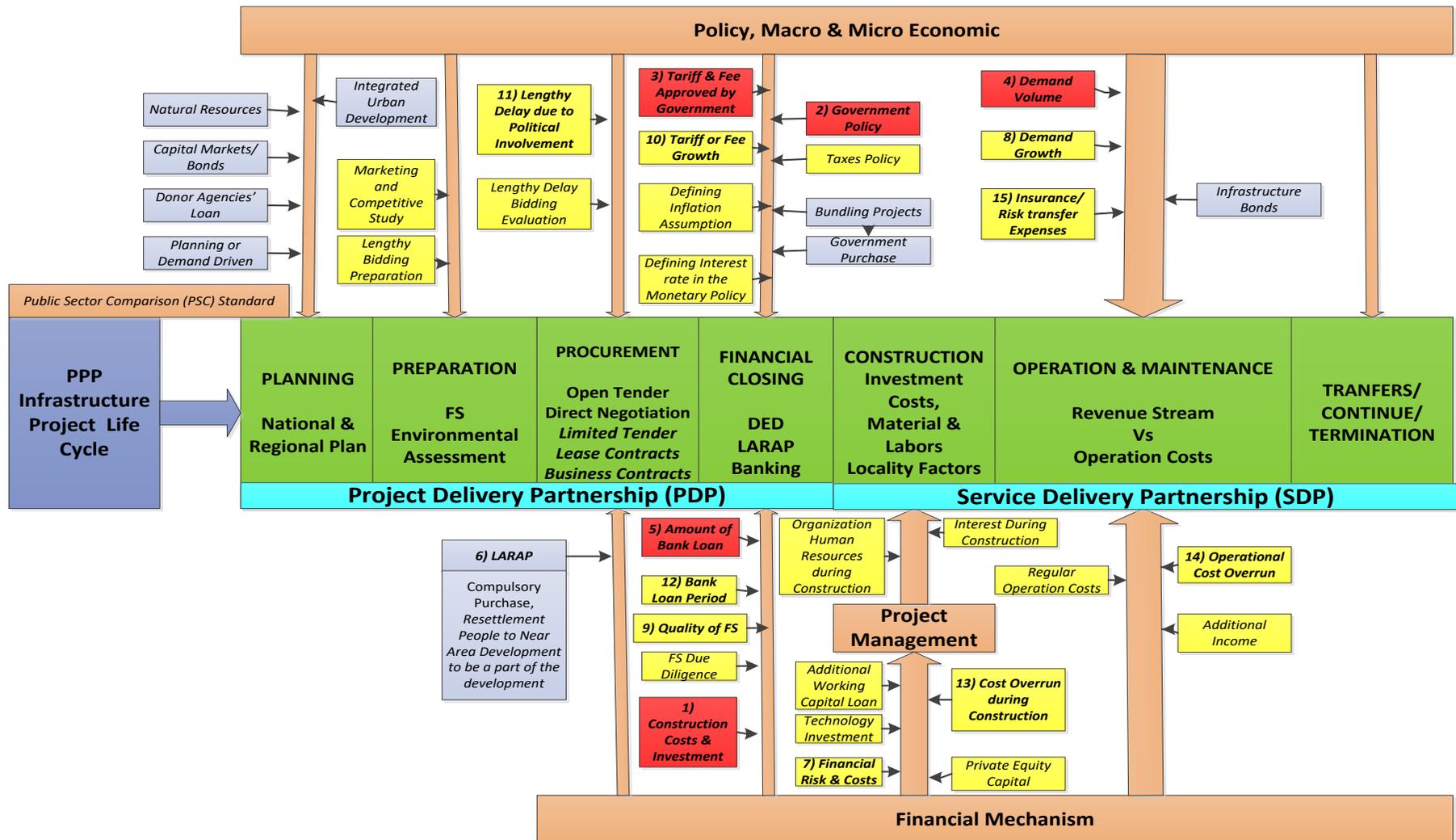


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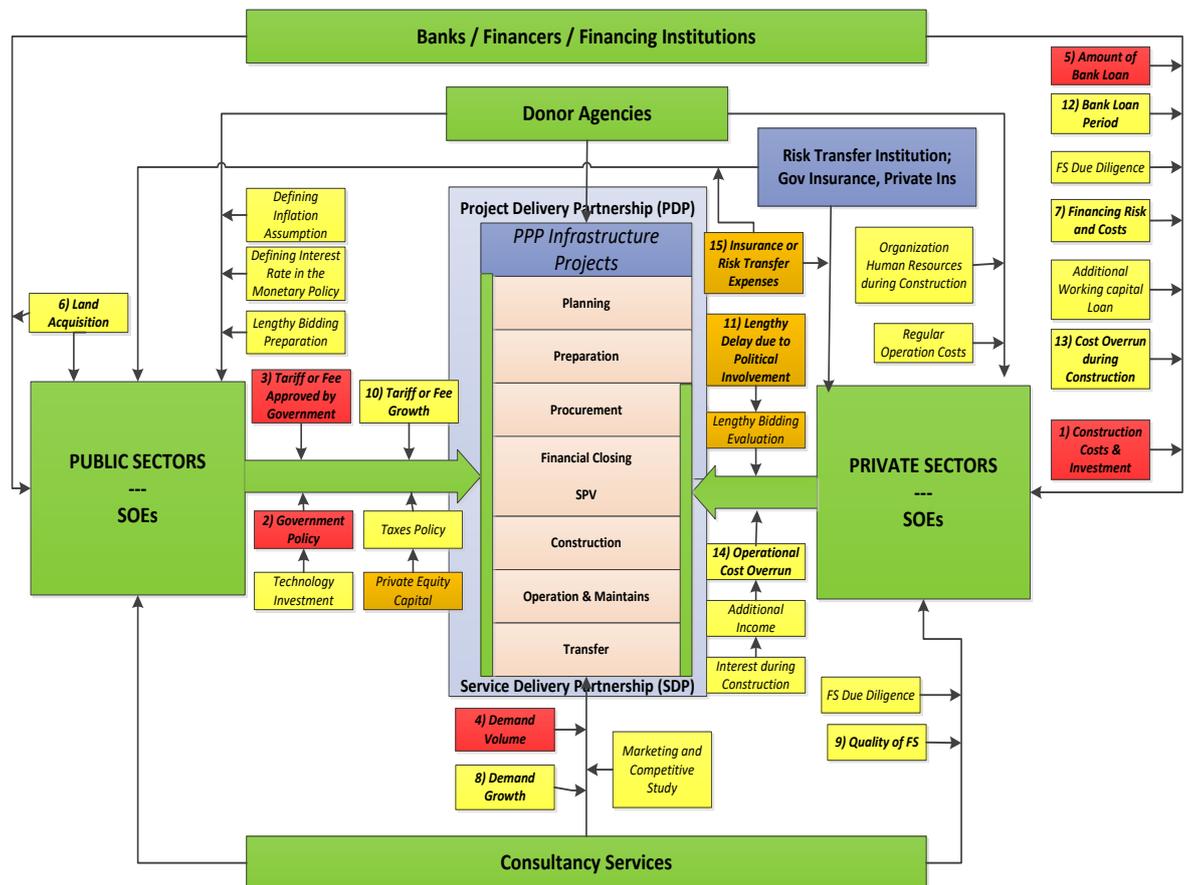


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

This diagram is helpful in identifying how the various stakeholders interact and at which stage. The central role of donors which this diagram implies may not always be the case, perhaps this aspect needs more attention?

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The contribution of this thesis towards improving the existing PPP modality frameworks is through integrating the government contribution and the PPP financing mechanism in the final PPP modality framework that is shown in Figure 3.

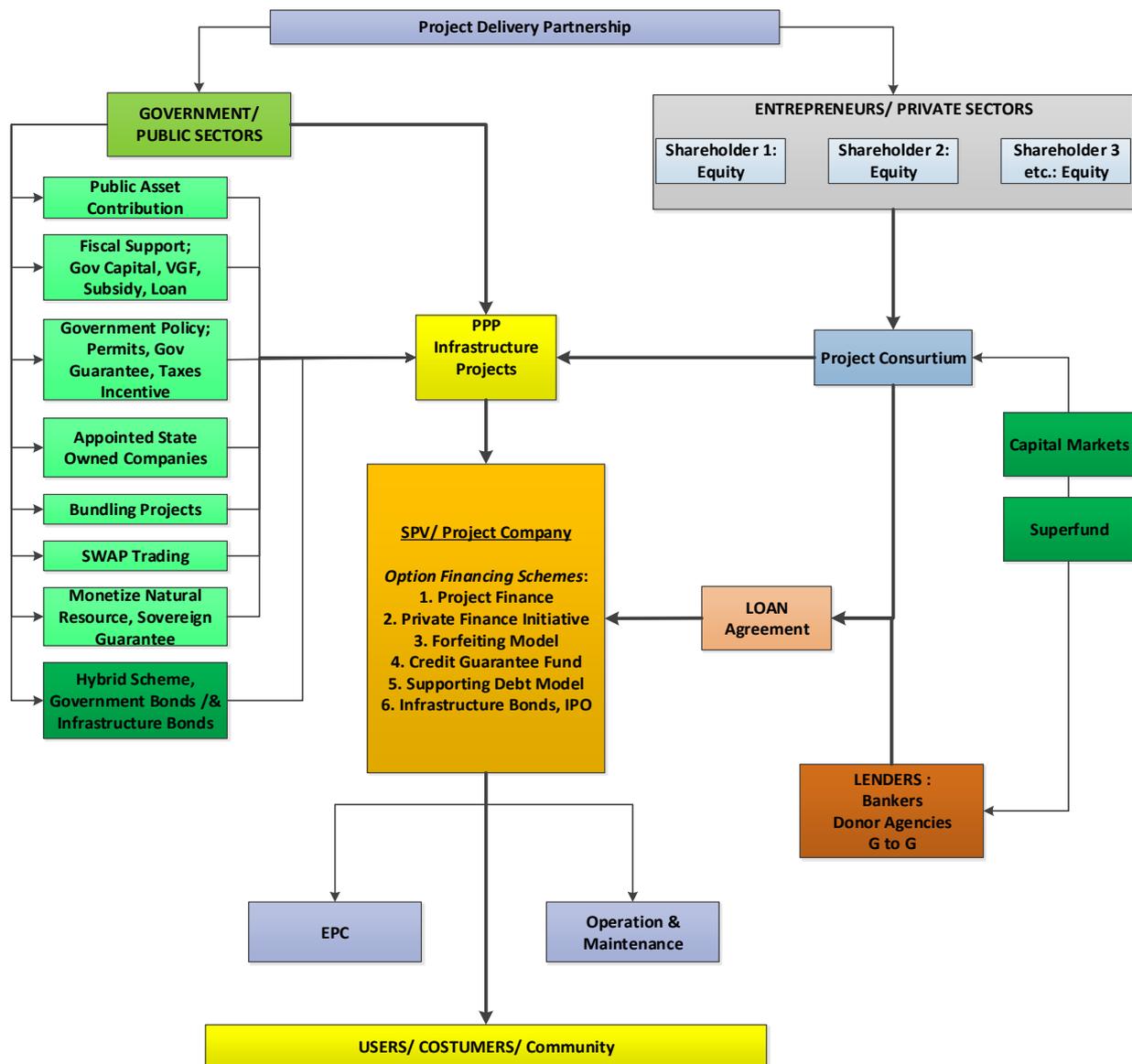


Figure 3: The Modality Framework generated from this Research for PPP Infrastructure Project Development

3. Please study the Modality Framework in Figure 3 and indicate the usefulness of the Modality Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

Again a helpful high-level overview. Would need to be combined with methodologies for identifying what support is needed and therefore which PPP modality is most useful. In many cases, the support is needed in the shorter term before the corridor or location develops to provide a more robust revenue stream.

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : CEO.....
Institution : Relecom & Partners.....
Experience : 15 years as International Business Development fellow

This questionnaire asks you for your opinions on three frameworks that are shown in the three diagrams below. Each framework is related to financing PPP infrastructure projects. The survey should take 15 mins. There is a short explanation of the research and the frameworks before the three questions.

This is the last stage of a PhD research project. The survey is being used to gain the opinion from the industry related to the outputs of this research. The objective of this validation is to define how these frameworks can relate to the actual PPP practices in the infrastructure industry.

The aim of this research is to develop a robust framework to assist the investment decision for infrastructure projects with PPP financing in Indonesia.

Specific objectives of the research included:

- 1) to identify and analyze the optimal infrastructure financing scheme based on analysis of best-practice PPP infrastructure financing;
- 2) to determine from different stakeholders' perspectives the critical parameters in infrastructure financing effecting PPP finance performance; and
- 3) to develop PPP frameworks for Indonesia to support the allocation and distribution of risks in decision making in order to select the most appropriate form of leverage method for PPP infrastructure projects.

Objective No. 1 has been explored in the literature review, which has been published. The publication can be accessed at: https://www.academia.edu/10273068/A_Comparative_Analysis_of_PPP_Financing_Mechanisms_for_Infrastructure_Projects.

The second and third objectives were answered by developing three related frameworks. These three frameworks are expected to assist stakeholders in determining and assessing the levels of risk in the key parameters relevant to the investment decisions they have to make for infrastructure projects with PPP financing.

Figure 1: PPP Infrastructure Life Cycle Project Framework developed from Quantitative & Qualitative Analysis. The selected critical parameters are presented in the frameworks. Some important notes including:

- The parameters are grouped into the policy and micro- & macro-economic revenue streams, the potential costs, the project financing mechanism, and the project management. The parameters in red boxes are the top five critical parameters and the yellow boxes are parameters from the quantitative analysis and the light blue color boxes are the parameters added from the interview analysis.
- Specific for the land acquisition that occurred in the quantitative analysis, it was considered as the government policy and included in the macro & micro parameters. The result from interviews with experts revealed that land acquisition and resettlement (LARAP) should be treated in the financial mechanism framework in order to better define and estimate the value and time of land acquisition, since availability of land is the most important start up foundation of the continuity of the infrastructure projects.
- The Project Delivery Partnership and Service Delivery Partnership become new idea as option to accelerate the infrastructure delivery by developing cooperation between government and consortium private entity in the early stage of lifecycle in PPP infrastructure projects.

1. Please study the Lifestyle Project framework in Figure 1 and indicate the usefulness of the Lifestyle Project Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

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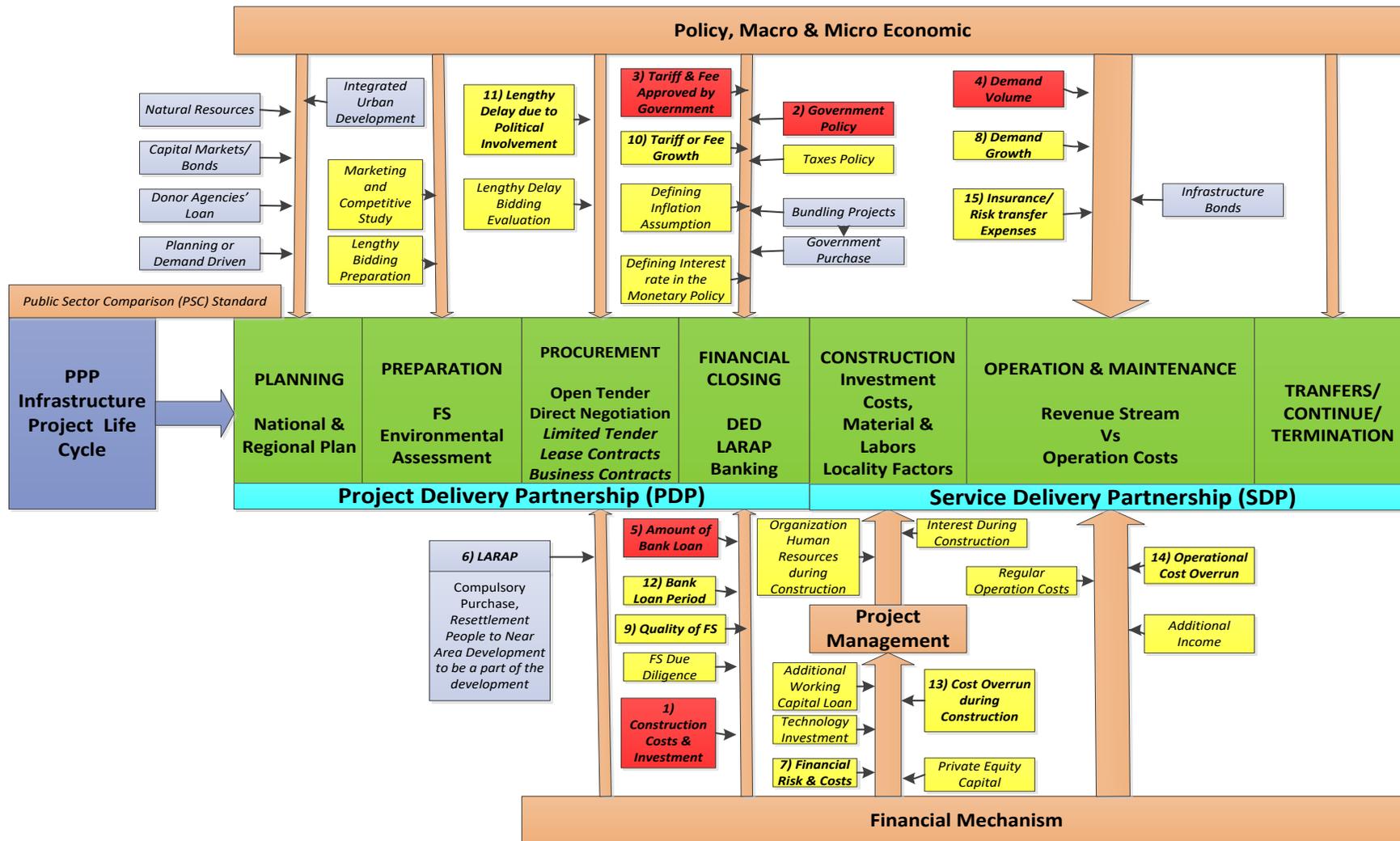


Figure 1: PPP Infrastructure Developing Life Cycle Project Framework developed from Quantitative & Qualitative Analysis

Figure 2 is the stakeholder framework that has incorporated the critical parameters resulting from quantitative data analysis. The new information that can be highlighted here is the research has found that the Risk Transfer Institution also plays an important role in PPP infrastructure project development. Therefore, ‘risk transfer institution’ is now incorporated in the key stakeholders in the PPP infrastructure delivery. The key parameters that resulted from quantitative analysis are presented in yellow and red boxes in Figure 2 have been related to the each stakeholder’s perceptions.

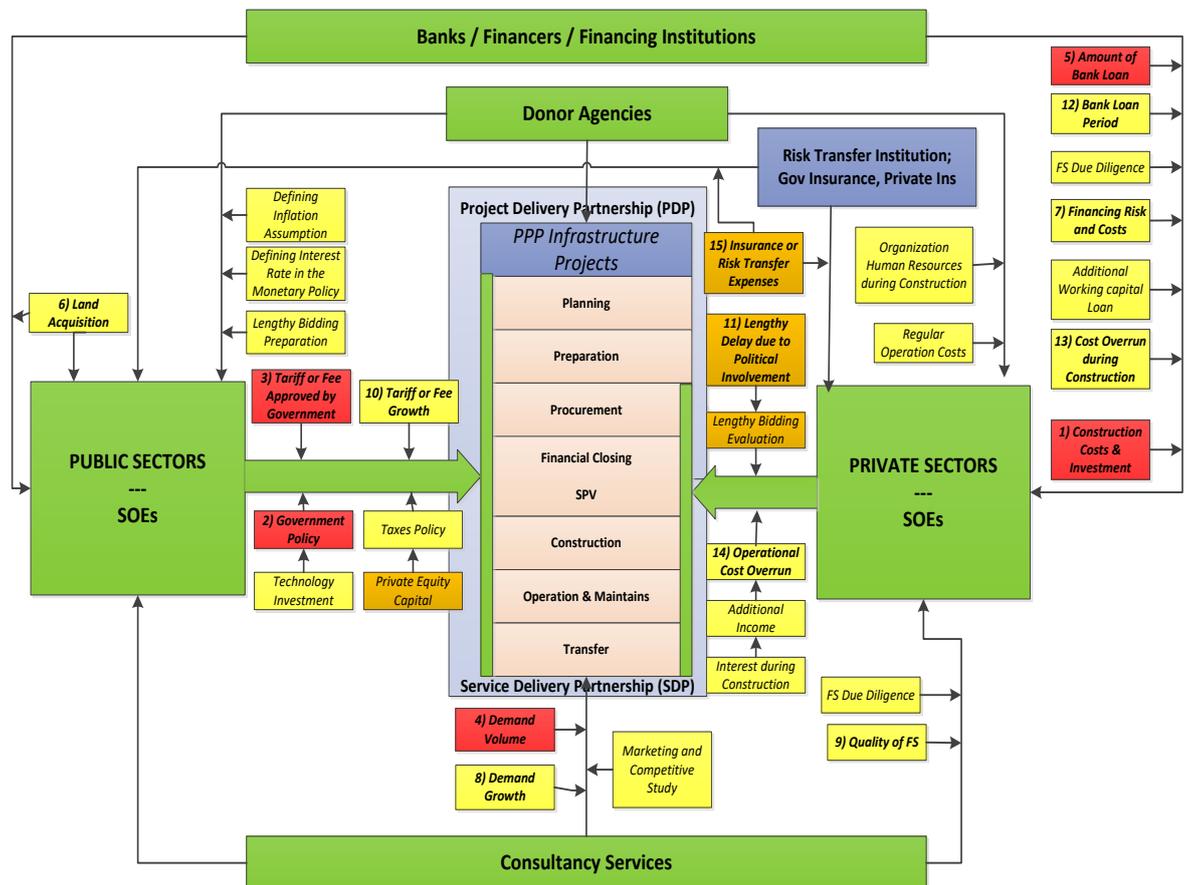


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2 and indicate the usefulness of the Stakeholder Framework for you

Not Helpful 1 2 3 4 5 Very Helpful

If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

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Figure 3, government contribution is an essential method in leveraging the infrastructure projects. In Indonesia, various PPP projects have implemented several of the identified government contributions.

There are 4 types of government contribution that have been implemented in Indonesia, namely:

- i) public asset contribution;
- ii) fiscal support, including government capital, Viability Gap Fund (VGF), Availability Payment Scheme (APS), subsidy and government loan;
- iii) government policy, including permits, government guarantee and taxes incentives; and
- iv) appointed state owned companies.

The finding from this research has added more methods of government contribution to leverage the modality of infrastructure projects. The additional government contributions that have been identified in this thesis are:

- i) bundling projects;
- ii) SWAP Trading;
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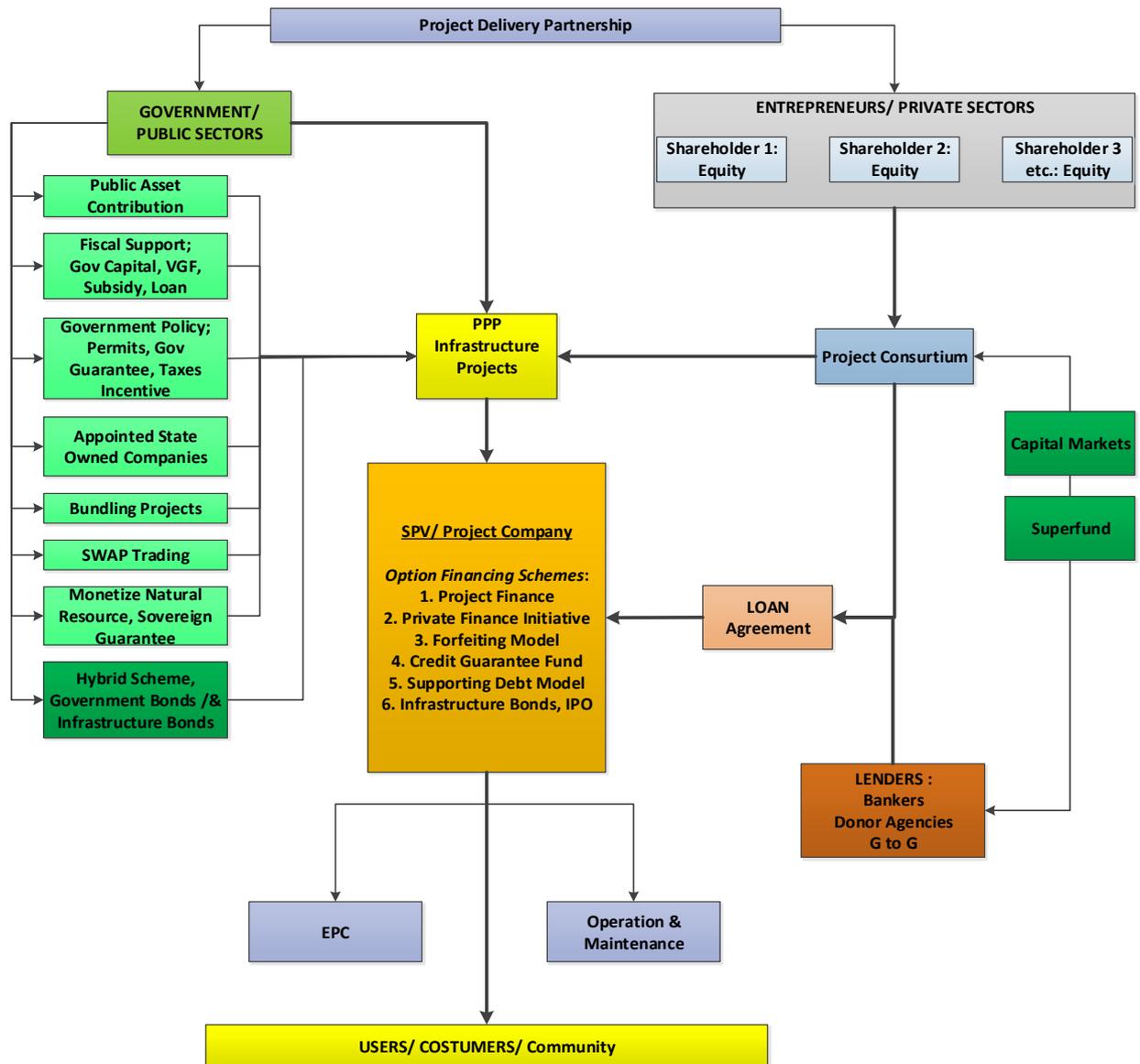


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If yes, please explain how it can help you, if not please provide suggestions for improvement to make it useful:

Pay attention in one thing: Succesfull PPP are led by Private Sector / Entrepreneurs and not SOE. I feel it is the main weakness of PPP project in Indonesia. SOE should focus on difficult and not high profitable project. Second, Land acquisition has to be the concern of the State or Government in order to ease and accelerate the process.....

Survey into PPP Infrastructure Framework SECOND VALIDATION: INDUSTRY PhD Thesis

Leny Maryouri
16049808 - Curtin University

Title: Developing Frameworks for the Successful Delivery of PPP Infrastructure Projects in Indonesia

Position : Director
Institution : PT Sarana Multi Infrastuktur (Persero)

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1. Please study the Lifestyle Project framework in Figure 1. Do you think the Lifestyle Project Framework is helpful for you?

Not Helpful 1 2 3 **4** 5 Very Helpful

Why/why not? Please give the reasons:

For some extent the framework has show some aspects that influence the PPP process, but somehow there is mix understanding on the project management and financial mechanism. This should be detailed in which factors that both influencing to each other

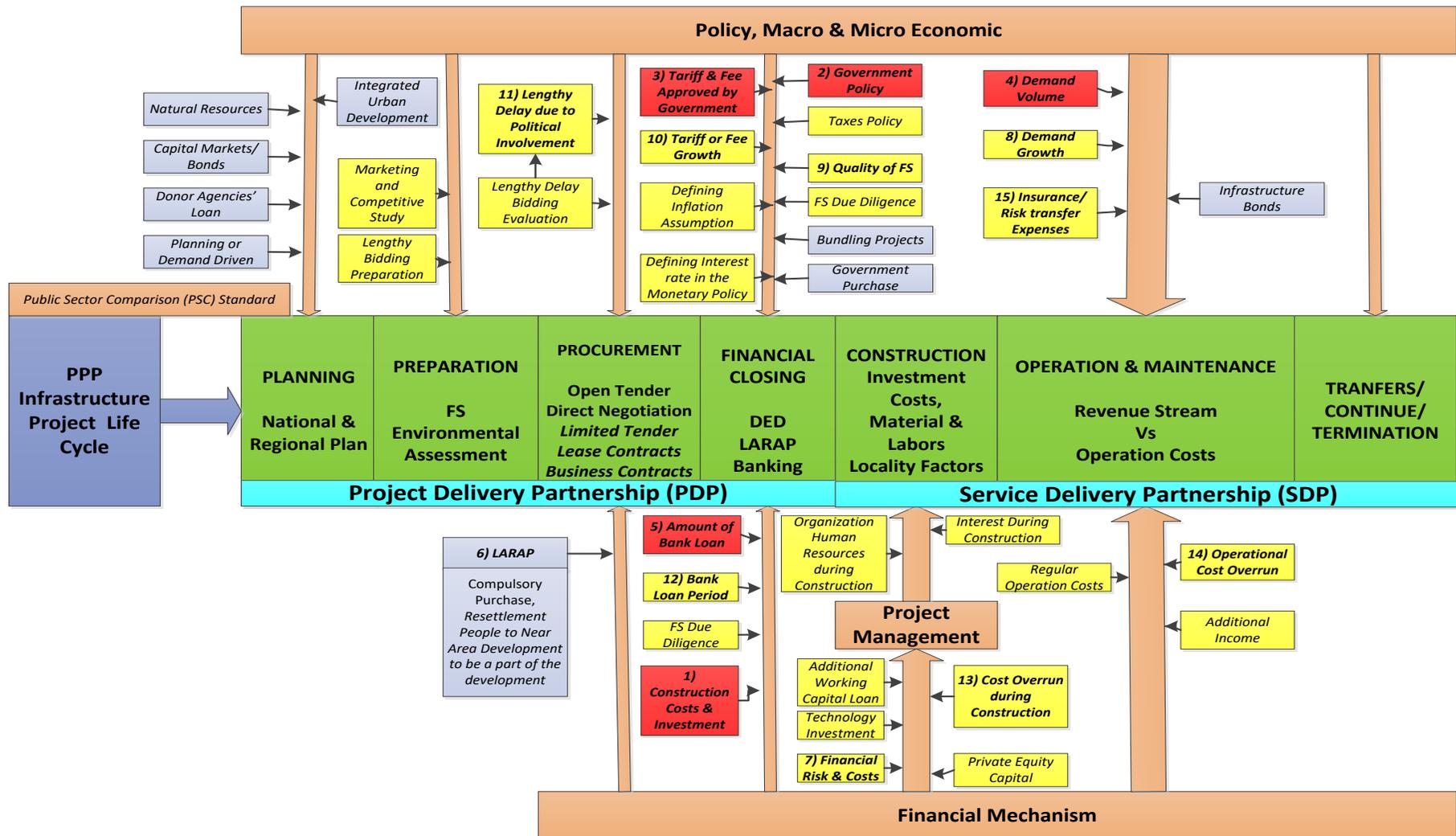


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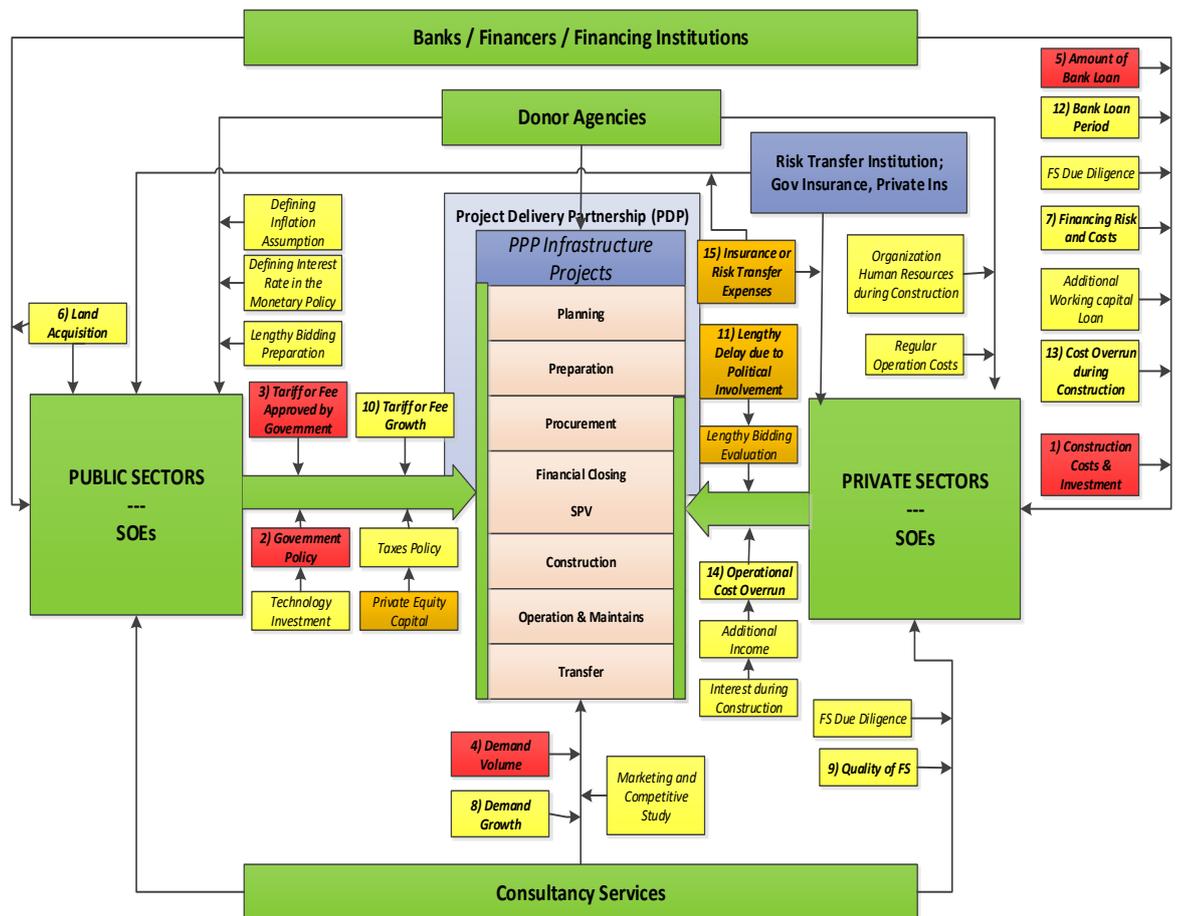


Figure 2: PPP Stakeholder Framework developed from Quantitative, Qualitative Analysis

2. Please study the Stakeholder Framework in Figure 2. Do you think the Stakeholder Framework is helpful for you?

Not Helpful 1 2 3 4 5 Very Helpful

Why/why not? Please give the reasons:

The framework has help me to understand the process and within mind of stakeholders. However its not really capture the interest of ultimate stakeholder which are end customers and political leaders, since they are the main stakeholders that heavily influence the process and determined the successful PPP projects

Figure 3, government contribution is an essential method in leveraging the infrastructure projects. In Indonesia, various PPP projects have implemented several of the identified government contributions.

There are 4 types of government contribution that have been implemented in Indonesia, namely:

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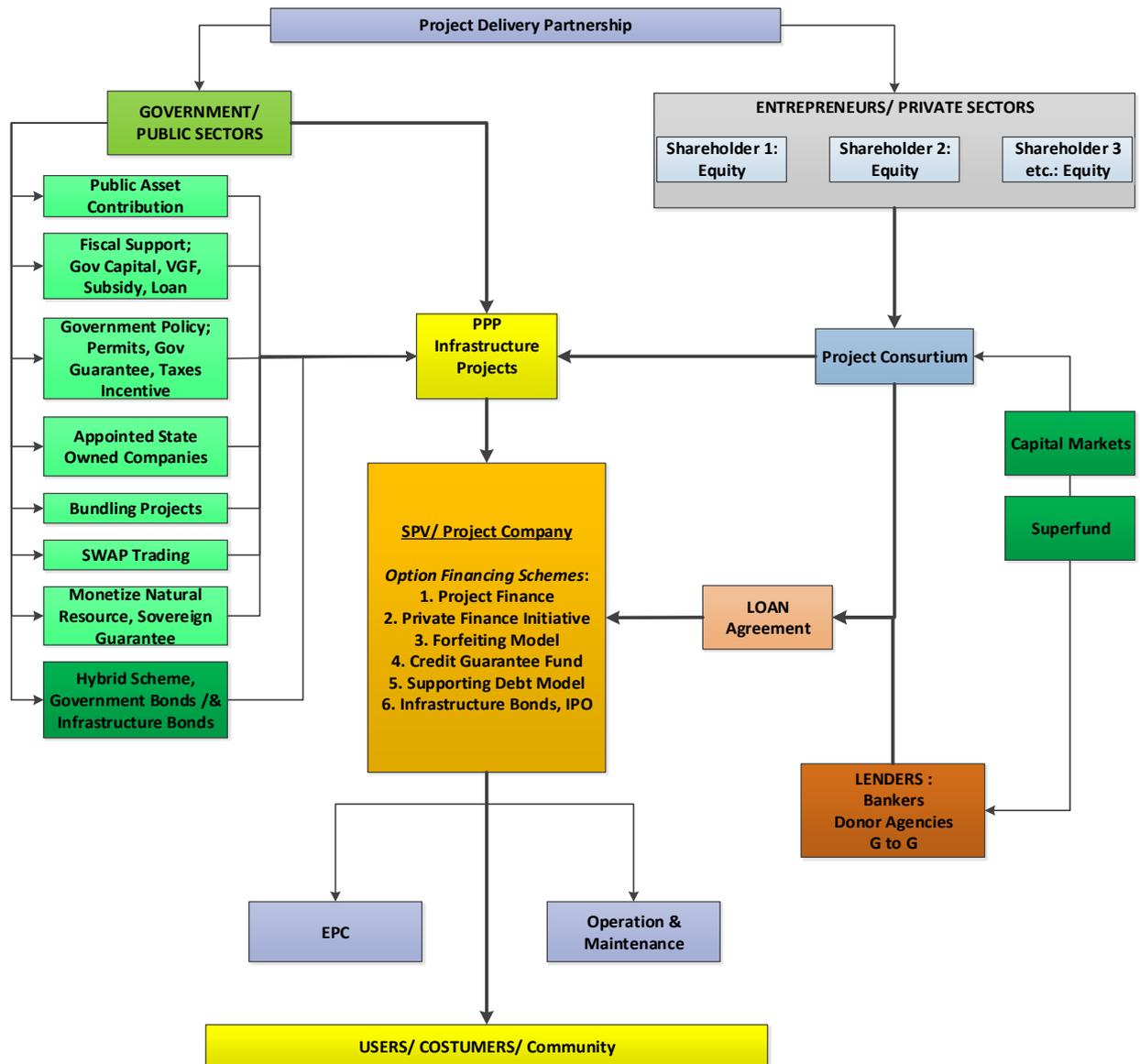


Figure 3: The Modality Framework generated from this Research for PPP Infrastructure Project Development

3. Please study the Modality Framework in Figure 3. Do you think the Modality Framework is helpful for you?

Not Helpful 1 2 3 4 5 Very Helpful

Why/why not? Please give the reasons:

Yes it is helpful, but not clear not enough what means by Bundling, SWAP trading and Monetize natural resources. Are they included as modalities? Or just variations of contract/agreements among public-private entities

Appendix 9 PPP Infrastructure Frameworks

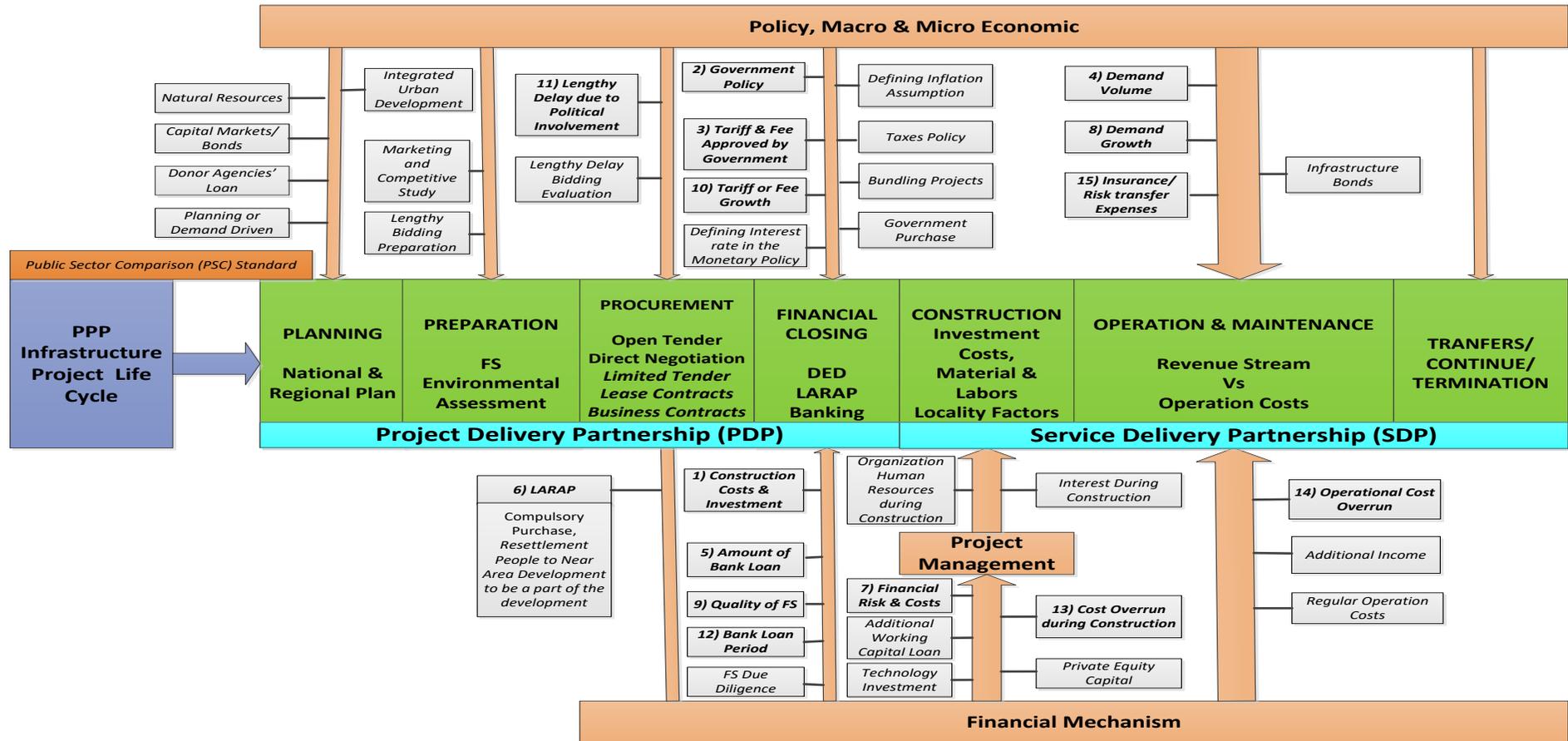


Figure 1: PPP infrastructure developing life cycle project framework as the outcome from this research

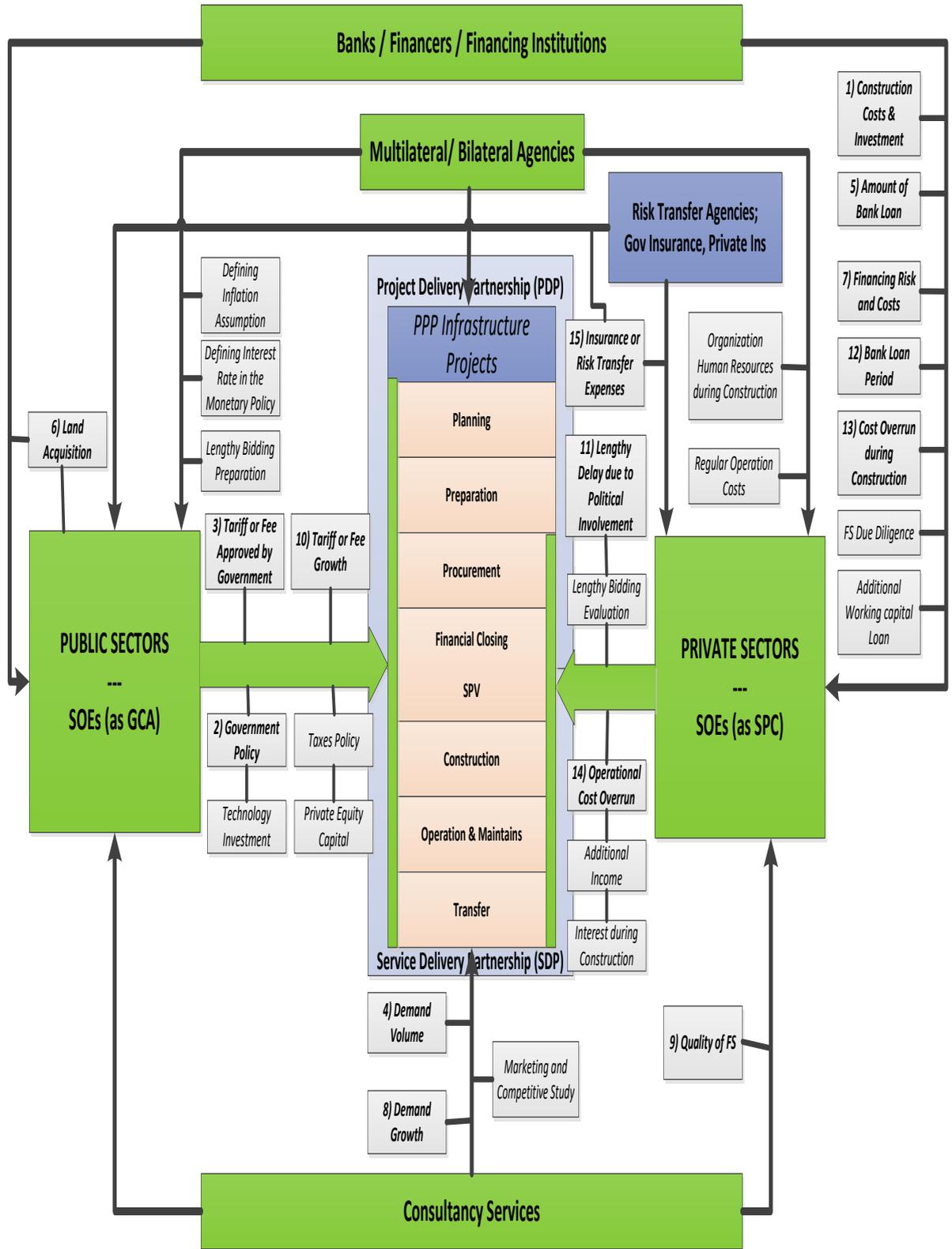


Figure 2: PPP stakeholder framework as the outcome from this research

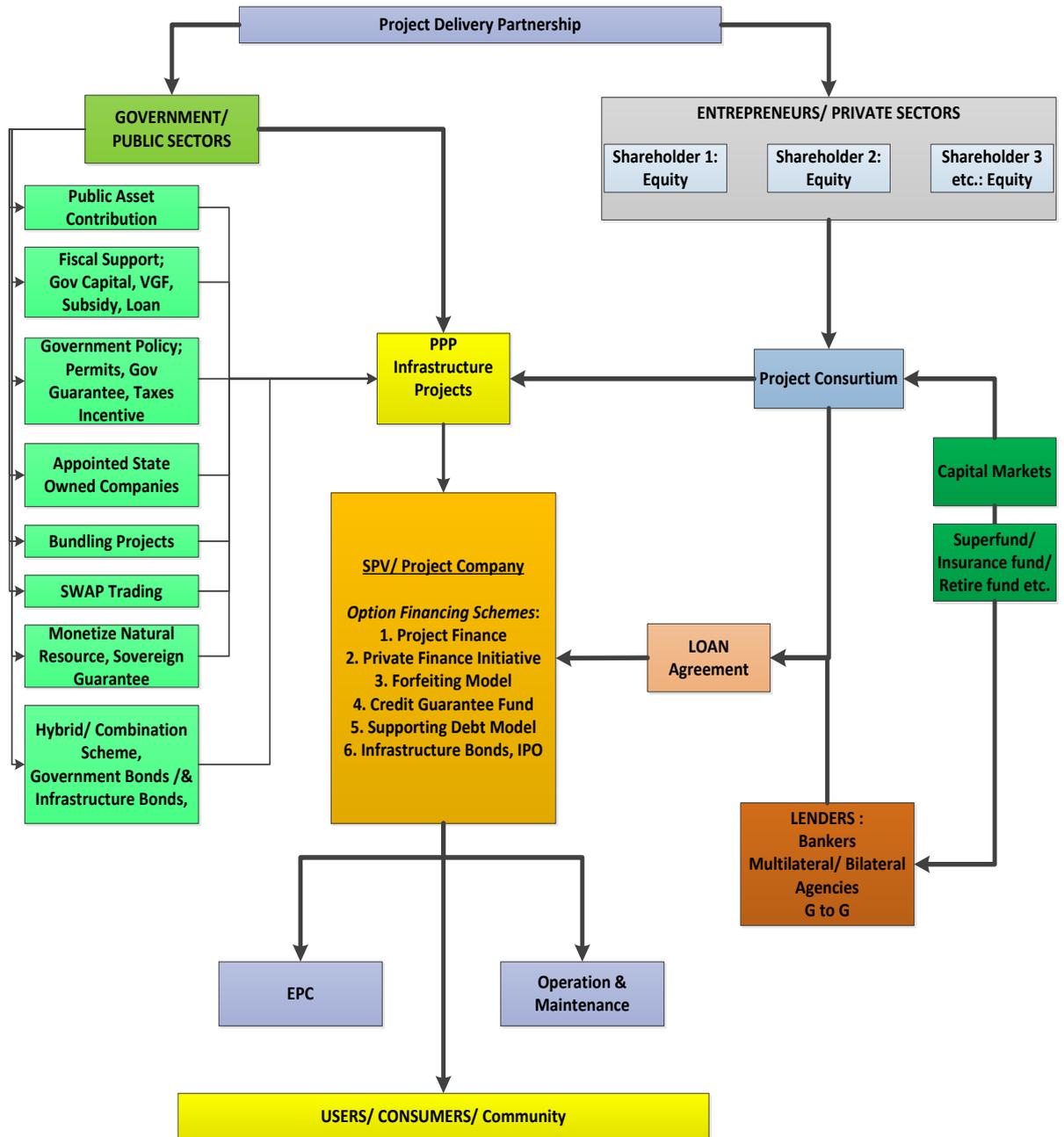


Figure 3: The modality framework generated from this research for PPP infrastructure project development and validation survey

Thank you