

University of Tampere

Master program in Public Financial Management

**THREE MAIN MODELS OF PUBLIC-PRIVATE PARTNERSHIP PROJECTS IN
VIETNAM: AN IN-DEPTH ANALYSIS OF VALUE FOR MONEY**

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Abstract

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Title: **Three main models of public-private partnership projects in Vietnam: an in-depth analysis of value for money**

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The research focuses on financial aspect of infrastructure investment in Vietnam in term of applying public private partnership (PPP) models; especially, value for money (VFM). Firstly, the study describes standard PPP model and explores VFM of this model. Secondly, the research includes experience in public financial innovation in some countries that reach higher VFM of reformed PPP models. Finally, it considers PPP models applied in Vietnam to understand VFM of these models better. This result is basis for Vietnam government to impose suitable policies to guarantee greater VFM in using PPP models.

Aims and Objectives

On the one hand, the result of the research can help Vietnam government to secure greater VFM of current PPP models that is determined base on three aspects such as risk transfer, transaction costs and PPP contribution to socioeconomic development in Vietnam. In which, the study shows the way for government can improve effectiveness of risk transfer and PPP contribution, and minimize transaction costs. On the other hand, while Vietnam is piloting the use of PPP models, the research helps government find out trends that Vietnam should follow for reaching more effectiveness in applying of these models.

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1. Introduction

1. 1 Research background

Generally speaking, infrastructure is the total of material, technical, and architectural facilities that has fundamental roles for guaranteeing socioeconomic activities to take place normally. It means that infrastructure secures generally necessary conditions for production and expanded reproduction processes to maintain regularly and continuously. It is clear that infrastructure is a complex system and spreads over many different fields so there are a lot of different infrastructure classifications. However, infrastructure is divided into two basis groups such as economic and social infrastructures (CIEM, 2008, p. 18). Economic infrastructures include facilities of transport, energy, telecommunication, water supply and etc which have important role in national economy. They help national economy develop quickly and sustainability for improving quality of citizen life. Social infrastructures involve facilities of accommodation, school, hospital, science, culture and etc which serve and improve living standards of communities; train and develop human resource. What is role of infrastructure to development? In fact, the results of many researches show that infrastructural development has positive effects on socio-economic development in both developed and developing countries. César Calderón and Luis Servén researched into the impacts of infrastructure on growth and income distribution over 100 countries in the period from 1960 to 2000. The result of this study presents that infrastructure has a considerable positive effect on long-term economic growth, decreases income inequality and has most important role in poverty reduction (César Calderón, 2004). Another similar study in some Asian countries shows that infrastructure has important role in economic growth because infrastructural development contributes to performance improvement and effectiveness of economy, and has positive effect on poverty reduction (Naoyuki Yoshino, 2000). In Vietnam, a research of Pham Thi Tuy mentions that infrastructural development opens possibilities to attract various investment flows for socioeconomic development. Infrastructure is condition for developing key economic regions lead to create spill over effects on growth of adjacent areas (Tuy, 2006). In brief, infrastructure plays especially important role in national growth and is motivation for development. What has Vietnam done in infrastructural investment?

During 12 recent years, Vietnam has maintained the level of infrastructure investment at 10% of GDP (X. T. Nguyen, 2010) lead to expand volume of infrastructure and contribute to the success in national growth and development. For example, after the global crisis, infrastructure investment is one of main factors that helps Vietnam economy recover rapidly and reaches at 6.8 percent GDP in 2010(Bank, 2011). However, there is a paradox that Vietnam invests in infrastructure at high rate while Vietnam is increasingly faced with weak infrastructure. According

to the ranking of The Global Competitiveness Report 2010–2011, infrastructure is one of main factors obstructs the national competition of Vietnam (Schwab, 2010). This has a negative impact on the country's ability to maintain high economic growth in the long term. This is an evidence revealing the weakness of the public sector in investment management in terms of economic efficiency and management skills in Vietnam. In this case, private sector should participate in developing public facilities to improve effectiveness of infrastructure investment. On the other hand, financial resources of infrastructure investment are state budget, government bonds, private, ODA (official development assistance), and others, of which ODA accounts for the largest percentage, at 37% (Warlters, 2006). In 2009, GDP per capita of Vietnam was 1060\$ (Schwab, 2010). It means that Vietnam reaches the level of low average income countries. Therefore, Vietnam may receive less foreign financial grants, especially ODA and must borrow commercial loans with high interest rates. A better solution is that Vietnam should enhance participation of the private sector as PPP model to compensate for the shortage of capital in infrastructure investment. Furthermore, New Public Management (NPM) principles stress on using proven skills of private sector to improve management practices of public sector, reducing public expenditure and increasing quality of public services (Hood, 1995, pp. 96-97). These principles encouraged the establishment of PPP model as a new management tool for providing public services and developing society in both developed and developing countries (Khanom, 2010, p. 150). In fact, PPP model has a variety of advantages in supplying public services such as maximizing the use of private skills, transferring knowledge, decreasing public expenditure by encouraging the injection of private sector capital, delivering budgetary certainty, increasing value for money of projects, making public projects affordable (Kathryn Eustice, 2005, pp. 17-26). In case of Vietnam, PPP model application includes almost these reasons. For example, Vietnam government encourages private investment into fields which have high technology and modern techniques. Besides that, the government supports the transfers of advanced technologies from private to public sector (V. N. Assembly, 2005). In addition, Decision 71/2010/QĐ-TTg of Vietnam Prime Minister shows that public sector attracts private capital to supply public services through PPP model (Minister, 2010). This is a way that helps government guarantee enough capital to invest infrastructure and decrease burden of public debts gradually. However, delivering better value for money maybe is principal reason why Vietnam uses PPP model. Actually, public investment in Vietnam is growing, enduring high cost and offering low effectiveness. This is proven in terms of high level of ICOR (Incremental Capital - Output Rate) indicator. For instance, this indicator was 6.15 in period from 2007 to 2008, reached at 8 in 2009 and reduced 6.2 in 2010. The high levels of ICOR indicator means that effectiveness of Vietnam public investment is lower than other countries

in the region (Nga Nguyen Hong, 2011). Therefore, Vietnam government is attracted in using PPP model to improve effectiveness of public investment through reaching better value for money of projects. Because of this, Vietnam citizens can gain better quality of public service while government can drop public expenditures.

Vietnam expects that PPP model contributes into economic growth and improving quality of citizen life. In May 2011, the government held a seminar on promoting the PPP program between the Vietnamese government and donors in which Deputy Minister of Planning and Investment Mr. Dang said that the Vietnam government hoped to successfully implement the PPP program (VOVNews, 2011). I chose the research topic: “Three main models of public private partnership projects in Vietnam: an in-depth analysis of value for money” because I hope the result of this study can help government enhance the effectiveness of PPP model in Vietnam.

1.2 Theoretical framework

The viewpoint of Bergmann showed that PPP was partnership between public and private sector to supply a public facility and/or public service. PPP transferred a part of risks in public project from public sector to private sector. Moreover, it seemed a good method that helped public sector to utilize not only finance but also management way and high technology of private sector. He gave classifications of PPP including many different levels of apportioned risk between public and private sector (Bergmann, 2009, 138-143). On the other hand, the New Public Management (NPM) was a new method to replace old fashion bureaucratic public administration to organize and to finance public projects and activities. One of NPM features was increasing the use of private sector management approaches in the public sector (Hood, 1991). Compare with PPP model, this viewpoint supported for application of this model in public sector. Beside that, since the time of Adam Smith (the 18th century), economists have argued that resource allocation is most ‘efficient’ when it is arranged through competitive markets to cut costs and to attract customers by improving the quality of the goods or services. From the 1980s, this analysis was applied in public sector (Bovaird, 2004). This was another supporting viewpoint about using PPP model.

Transaction cost economics is fundamental theory that considers whether PPP projects can achieve value for money. The first concept of transaction cost was mentioned by Ronald Coase in the famous article “The Nature of Firm” in 1937. After that, Oliver E. Williamson has developed transaction cost economics in which he argues that bounded rationality, asset specificity and scope for opportunism lead to transaction cost arising (Williamson, 1985):

Bounded rationality means that human do not have enough abilities or resources to consider every state-contingent outcome associated with a transaction that might arise. It is difficult to decide in terms of insufficient knowledge or uncertainty or complexity. Bounded rationality limits

people's ability to receive, store and process information without error leading to large cost when it reaches threshold. For example, looking at a chess match, players have to record rules of game as well as the reaction of competitors. In each step, the player considers different strategies of competitor, and this process continues until the end of the match. In the case of multiple steps like that, the player will fall into bounded rationality. This person must decide in the absence of perfect information so that he or she spends great cost for avoiding failure. Similarly, a PPP project is complex and implemented in long-term. At the first period of project, public sector and sponsors build a PPP contract which involves duties and benefits of all participants. However, it is very difficult to estimate what happen during life-cycle of project and build a suitable contract. According to this, transaction cost appears in form of cost for searching information, negotiation, signing and implementing contracts, monitoring results and etc.

Asset specificity forms when transaction is supported by specific investment or contribution to development of special knowledge or training. The value of an asset may be attached to a particular transaction that it supports. The asset requires people who use them to have suitable compromise for the use of resources. Sometimes users can be forced into (log in) asset specificity, and sometimes the property makes difficulty for users (hold up). All of this behaviour causes transaction costs.

Opportunism means that humans will act to further their own self-interests. Opportunity act exists when people are unreliable. They tend to falsely express intention in the form of false promise or insufficient relations of future contracts. False information and limited disclosure are opportunity acts. Note that not all people have opportunity tendency. However, the problem will become more serious if opportunity acts are behaviours of many people. Because it leads to great transaction cost.

In PPP model, government cooperates with private sector in supplying public services on the basis of project contract. According to Williamson, the world of contract is world of governance (or private ordering) in which contract depends on three features such as bounded rationality, opportunism and asset specificity. This is the world that transaction cost economics is concerned. If all three factors appear simultaneously, they will cause transaction costs. The organizational imperative is: "Organize transactions so as to economize on bounded rationality while simultaneously safeguarding them against the hazards of opportunism"(Williamson, 1985).

1.3 Expected outcome

Since 1996, Vietnam has applied PPP model in infrastructural investment. Beside the achievements, there are restrictions such as some projects do not complete on time and effectiveness of some projects is low. Therefore, Vietnam needs innovations in PPP application.

This research is expected to help government secure VFM in using PPP model and find out reformed ideals of PPP model that suit Vietnam condition.

2. Literature review

Part I: PPP models

2.1.1 Definition of PPP model

Actually, a large number of PPP concepts are defined in different countries and under different circumstances by a variety of academics, public agencies and international organizations. These differences begin from the specific fundamentals of each country and the individual interests of each academic. Therefore, up to now, there is not a universal definition for PPP. In scope of the thesis, a PPP definition by Andreas Bergmann in the year of 2009 is as mentioned: “Partnership between public and private sector entities to deliver a public sector asset (normally infrastructure or a public facility) and/or service. The partnership includes multiple exchange relationships, typically over a longer, defined period of time. The risks involved are usually allocated between the public and private sector partners”(Bergmann, 2009, p. 138). Obviously, the PPP definition shows that public sector allows private sector to participate its own activities such as providing public facilities or public services. This is an innovative step in which public sector changes its traditional ways of working. On one hand, public sector agencies are transformed from positions of owners and operators of public infrastructures and/or services into positions of departments that buy services from private sector. On the other hand, private sector invests financial resources to provide public infrastructures or/and public services. Actually, PPP is long-term partnership within which the risk is shared between public and private sectors. Therefore, a successful PPP requires a considerably close combination of different conditions of both public and private sector. From the viewpoint of public sector, a PPP project has abilities to achieve a greater benefit, compare with traditional projects that public sector implements by own forces, sources and finance. It means that public sector pays attention to value for money when it uses PPP model (TETŘEVOVÁ, 2006, pp. 105-106).

2.1.2 The characteristics of PPP model

The characteristics of PPP model are considerably different from those of traditional procurement. Therefore, governments can use PPP approach as a new method to build public facilities and supply public services. Actually, a variety of researchers and international organizations mention on characteristics of PPP scheme by different ways. However, in general, PPP model has four main features as follows:

Firstly, in each PPP project, there is a co-operation between public sector and private sector to supply public infrastructure and the related services. Obviously, through PPP model, many governments have approved and stressed the important roles of private sector in traditional fields of public sector, especially financial investments of private partners (Fund, 2004, p. 6). Actually, there are a variety of changes in PPP scheme compares with traditional procurement. For example, duties of private partners are designing, building, financing and managing public facilities lead to reaching more effective results (Fund, 2004, p. 7).

Secondly, in fact, every PPP project is usually concretized by a long-term contract between public agency and private partner (Stephen Ogunlana, 2009, p. 10). It is the only contract in which a government franchises management and control of public assets for private sector. However, these assets do not belong to private sector forever. When a PPP contract finishes, the assets return to government ownership (Eduardo Engel, 2007, p. 1). This characteristic proves that PPP model is not a privatization of government facilities.

Thirdly, PPP scheme includes innovative step in which output specification, service levels and payment mechanisms are determined in the contract before PPP project begins (Stephen Ogunlana, 2009, p. 10). It means that PPP model focuses on quality of public facilities and the related services. According to this, output results of the project are more attention for reaching more effectiveness.

Finally, effectiveness of PPP model begins from sharing risks and responsibilities between public and private sector suitably (Stephen Ogunlana, 2009, p. 10). Actually, government transfers a considerable part of risk for private partners, especially financial risks. It means that duty of private sector is supplying capital for PPP projects. As a result, it contributes decrease in public debt. In addition, PPP model requires private sector to guarantee

2.1.3 The benefits and limitations of PPP model

In fact, there are many findings and discussions about benefits and limitations of PPP model. Generally, besides a wide variety of benefits that PPP model can provide for government and private partners, it also has certain limitations as showed in table 2.1 below:

Table 2.1 Benefits and limitations of PPP model

| Benefits of PPP model | Limitations of PPP model |
|--|---|
| <ul style="list-style-type: none"> • PPP model makes projects affordable. Under PPP, private sector is attracted to finance for schemes suited to the PPP model. This cost is repaid by a service charge from the authority | <ul style="list-style-type: none"> • PPP model requires sufficient expertise of private sector to warrant the PPP approach. For example, private partners have to be able to supply more effective service, experienced in |

over time or by revenues from the project, or a combination of the two. It means that private sector receives its invested capital, only if services are being successfully delivered. This process is implemented in long-term period so that the cost of project is repaid gradually over each year. As a result, PPP projects are affordable.

- PPP maximizes the use of private sector skills. Public sector authorities may be lack the necessary skills and training to implement projects, and therefore they often do not have enough capabilities to deliver projects and maintain them over a variety of years. Actually, through PPP model, public sector can utilize not only capital but also experiences, technologies and management skills of private sector to reach a best value of projects.
- Under PPP, the private sector takes life cycle cost risk. PPP model requires the private sector to compete for building facilities and delivering related services with the most economically advantageous price in long term. It means that the private sector has to analyze and provide for life cycle costs, and design accordingly.
- With PPP, risks are allocated to the party best able to manage or absorb each particular risk. Usually, a considerable part of risks is transferred from public to private sector because private sector has the necessary long-term project skills and the public sector does not. According to this, PPP model can increase effects of risks on results of projects.

pricing life cycle costs and experienced enough to manage and absorb the particular risks of the PPP projects. In addition, PPP model still requires a sufficient number of private sector bidders that have enough potential for an effective competition.

- Under PPP, public sector must have sufficient capacity and skills to adopt the PPP approach. It means that the public procuring agencies must have, or be able to develop, the requisite capability to assess and deliver value for money at the outset when government chooses services that should be procured and formulates project specifications. During the bidding process, governments ensure that bids prove to be better value than public procurement alternatives. Moreover, the government also needs to understand whether PPP approach should be used or not.
- It is not always possible to transfer life cycle cost risk. One of main objectives of PPP model is that public sector transfers the life cycle cost risk to private sector effectively. However, in some particular cases, that objective does not meet. For example, it is very is difficult for private partners to finish its own duties when facilities cannot be separated from a wider asset base that is maintained by a third party.
- PPP model does not achieve absolute risk transfer. Actually, PPP projects are often constructed by using Special Purpose Vehicle (SPV) companies. SPV companies are structured to absorb a reasonable level of disadvantageous

| | |
|--|---|
| <ul style="list-style-type: none"> • PPP delivers budgetary certainty. At the first step of PPP projects, the future costs of projects are calculated and the public sector will know about outputs of known costs. • Through PPP model, the public sector focuses on outputs and benefits from the start. It means that detailed service levels are defined at the outset to minimize or remove the need for “change orders”. In addition, PPP model requires suitable choices between the ideal service levels an authority might want and what is actually affordable. Therefore, PPP projects can avoid being far more expensive than originally envisaged. • With PPP, the quality of public facilities and related services has to be maintained during life cycles of projects. The quality is specified at the outset and is not expected to decline throughout the life of the PPP. In addition, at the beginning of PPP projects, committed price guarantees private partners to maintain those quality standards in whole cycle life of projects. • PPP encourages the development of specialist skills. Strict requirements of PPP model have led to significant opportunities for the private sector that is encouraged skilled in operating and maintaining new facilities. For example, a large number of companies have invested in the expertise and understanding of the PPP market and pricing of deals on a whole life cost basis. • PPP transactions can be off balance sheet. This means that the assets of PPP projects and the related liabilities do not appear on the | <p>changes, consistent with raising bank finance. However, SPV companies typically have high levels of debt and relatively low levels of equity. Therefore, they are unable to absorb unlimited risk. For this reason, it cannot be guaranteed that an SPV will not run into financial difficulties. In this case, the private sector might fail to deliver services fully and the public sector will have to continue the failing project. It means that incomplete or underperforming infrastructures could return to the government.</p> <ul style="list-style-type: none"> • The private sector has a higher cost of finance. For instant, the finance costs of private sector contain a premium for the risks of long-term contracts. If the public sector uses traditional procedure, it does not incur this cost. • PPP projects are long-term relatively inflexible structures. In long-term period, there are considerable changes that influence on the PPP projects. For example, the requirements of services need to change while expenditure for these changes is relatively limited. Therefore, inflexible structures of PPP projects are challenges when the projects are implemented in that fact. |
|--|---|

| | |
|---|--|
| <p>authority's balance sheet nor increase public debt. The majority of risks will be transferred to private sector.</p> | |
|---|--|

Source: Adapted from Kathryn Eustice and et al, 2005, p.17-33

2.1.4 Types of PPP model

Actually, there are a variety of classifying ways in PPP model. One of the most popular ways is that forms of PPP can be determined based on the scope of tasks, risks, and responsibilities that public sector transfers to the private partner. Under this way, there are three main PPP and many different PPP types as the variations of these three main types, as follows (Joop F. M.Koppenjan, 2009, p. 285):

- Operation, maintenance and service contracts: private sector implements public services with agreed costs and these services have to meet performance standards that governments issue. In this case, public sector funds and invests capital for projects. It means that this type of PPP model can not solve the problem of limited public budgets and is expected to reach more effectiveness.

- Build, operate and invest: private partners have to invest finance to construct a new infrastructure or upgrade existing infrastructure. After life cycle of project, private parties have to recover their investment costs and project return to the government. Concession contracts and the build - operate - transfer (BOT) model are two typical examples of this type.

- Joint ventures: public and private sector invest in joint ventures. In this case, benefits and risks are shared for both.

In other way, types of PPP model are classified in term of ownership, funding and control. Ownership could be government, private sector or joint. Capital for PPP project is from either partners, while control mention to the partner that have to operate and maintain PPP projects. A variety of different combinations in term of ownership, funding and control determines the type of PPP. Actually, degree of governmental control and private economic scale decide whether private sector only can provide related services or have outright ownership of facilities. Some examples of this classifying way are following (Darrin Grimsey, 2004, pp. 10-11):

- BOT (Build Operate Transfer). BOT is an agreement where the private sector takes primary responsibility for financing, designing, building and operating the project in a long –term period. After private sector has earned its capital and profit, control and formal ownership of the project is returned to the public sector. For example, in United Kingdom, one of classical BOT projects is the third Dartford Crossing of the River Thames linking two stretches of the M25 motorway circling London. The vehicle company operates this project with virtually guaranteed toll

income for up to 20 years, after that the infrastructure is transferred to the United Kingdom government.

- BOO (Build Own Operate). Under BOO contracts, private sector remains the control and the ownership of the projects remain in its hands. It means that the private partner finances, builds, owns and operates a public facility effectively in perpetuity. An example comes from the water treatment plants serving parts of South Australia. These facilities, financed, designed, built and operated by a private sector firm, process raw water, provided by the public sector entity, into filtered water which is then returned to the public sector utility for delivery to consumers.

- Leasing. Public sector transfers a part of risks to the private sector. Usually, government has responsibility in designing and building infrastructure. And then government leases it out or contracts it to the private sector that has to operate and maintain the infrastructure.

- Joint ventures (JV). Under JV contract, public and private sector jointly finance, own and operate a facility for a specific duration.

- Operations or management contracts. In these agreements, private sector only participates in projects partially. It means that private sector can provide a related service or manage the operations of facility for specified periods of time.

- Cooperative arrangements are informal partnerships between the public sector and the private sector in which public sector provides fiscal incentives and attracts the private sector to invest in physical or infrastructural development in their respective areas.

A type of PPP model is affected by a variety of factors such as skills of public and private partners, capabilities, limitations, nature of project, environment and etc. Moreover, types of PPP model suit different level of requirements of government. Therefore, when government wants to implement a PPP project, it decide to choose suitable type of PPP model that can delivery best addresses on its specific objectives and allows an optimum transfer of responsibilities and risks to the private sector to meet the objectives of value-for-money. In scope of this thesis, there are three types of PPP model are mentioned such as Build – Operate – Transfer (BOT), Build – Transfer – Operate (BTO) and Build – Transfer (BT).

2.1.5 Stakeholders of PPP projects

Actually, academics defined a variety of stakeholder concepts in which about 20 of 75 definitions share traditional ideal about stakeholder of Freeman. He mentioned stakeholder as "any individual or group who can affect or is affected by actions, decisions, policies, practices, or goals of the organization" ((Charles Fontaine, 2006, p.6) cited(Freeman, 1984)). Typically, in a PPP project, stakeholders are seen as participants who are directly involved in the project through contractual agreements. Usually, the stakeholders of PPP projects are government agency, private

partners as sponsors and lenders. In addition, the final purpose of PPP projects is meeting requirements of end users. According to this, PPP projects consider end users as stakeholders.

2.1.5.1 Government agency

What are roles of government agencies? In the fact that a government agency is a government department or statutory authority that is an integral party of a PPP project. Generally, in a PPP project, the roles of government agency are considerably crucial, including granting to the sponsors a concession, granting a long-term lease of the site or selling the site to sponsors, and often acquiring most or all the related services from the PPP project. Before a PPP project initiated, government agency has to consider two main aspects of the project. The first aspect is the priority of the project. Actually, every country has a competitive variety of public projects that are necessary to reach national growth. Therefore, government agency examines the necessities of the project to decide whether it should implement the project. The second aspect is considering all conditions to apply PPP model in the project. Because applications of PPP model requires a lot of strict conditions that help public sector transfer risks to private sector and achieve greater efficiency. It means that government agency considers whether requirements of PPP model are met or the project should be implemented by traditional procedure. In the next stage, a government agency will start the project, implement the tendering process and evaluate abilities of bidders. During cycle life of PPP project, government agency ensures that private partners must meet all required standards and safeguard the public interests. According to The World Bank, the government agency is expected to ensure the successful PPP by clarifying the policy and legal framework that can help investors in reducing uncertainties; using legal terms and approaches that should be familiar to the international private sector to simplify the procedures in PPP arrangements and reduce transaction costs; using supports of PPP unit of government that is relevant to commercial and legal skills to ensure consistency and credibility about the public sector's competence; and seriousness of intent and capitalizing on the experience of others (Development, 2009, p. 18). Besides that, government should assist private sector in reaching the necessary approvals, authorizations and consents for the construction and operation of PPP project. To compare between traditional public procurement methods and PPP model, single role of government as a project manager is changed to a multiple role as a project manager, inspector, customer, and partner. As a result, risks of PPP project such as increased investment of customers, unrealistic contract durations and interventions during the construction phase of customers may be mitigated.

2.1.5.2 Sponsors

In PPP model, besides government agency, another important partner is sponsors that are a party or a consortium of interested groups. In the fact is that sponsors possess large capital, advanced technologies and management skills which can meet the invitation of the government agency. They usually prepare the general proposal within constructing, operating, financing and maintaining of a particular PPP project. On the other hand, they expect to gain a high return from the construction and operation of the projects to compensate for their investments.

In order to participate in the PPP project, private companies as sponsors often establish a legal unit called the Special Purpose Vehicle (SPV) that usually include a construction company, a facilities management company and an additional equity provider. Generally, the SPV is supplied capital from debt of bank and equity of members approximately 90 % and 10 % respectively ((Stephen J. Bailey, 2010, pp.16-17) cited from (Spackman, 2002)). The SPV has its own right that is distinct from the root organizations of SPV members. Usually, the SPV is set up for only one project so that it has limited lifespan corresponding to the length of PPP project (Stephen J. Bailey, 2010, pp.16-17). Under concession agreement, the SPV implements and manages the project and has ultimate liabilities to the government about effectiveness of the project.

2.1.5.3 Lender

Under PPP projects, a main part of capital is often funded by commercial debts that are provided by banks ((Stephen J. Bailey, 2010, pp.16-17) cited from (Spackman, 2002)) play role as lenders. Additionally, PPP projects have long-term life spans and compensation mechanism for investments through user fees and/or government transfers (Eduardo Engel, 2007, p. 1). Sponsors only receive their invested capital when services of PPP projects are being successfully delivered. It means that loans of PPP sponsors often have long loan periods and uncertain revenue streams. Therefore, in PPP projects, lenders usually provide limited or non-recourse debts that are secured by a pledge of collateral, typically real property. They evaluate to identify and test sensitivities to ascertain whether the project suits non-recourse finance. Moreover, lenders always want to protect their loans and investments so that they are very interested in the demand and revenue forecasts of the project, and often examine progress of project implementation and administration of contract to ensure cost, schedule, and completion guarantees.

2.1.5.4 Construction contractor

Actually, PPP model requires construction contractors must complete the project on time within approved budget and meet required specifications. In addition, requirements of sponsors are usually fixing price and time construction contract. Obviously, these requirements include considerable risks. Therefore, main financiers as lenders will only feel safe when they see a powerful construction company that has sufficient abilities to finish its duties effectively.

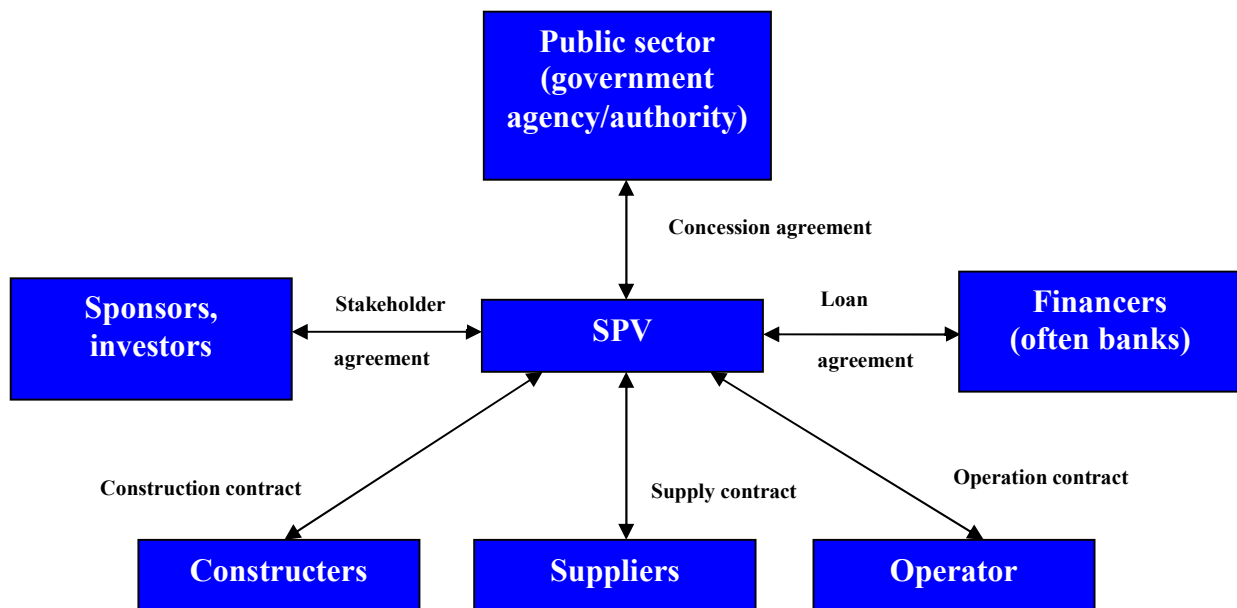
2.1.5.5 End users

Obviously, end users use related services of PPP projects directly. It means that results of PPP projects must meet requirements and make satisfaction of end users. In traditional way, governments often provide public infrastructure services free for users or on a direct charge basis with government subsidies. However, in fact, governments finance for traditional procedure by public budget, perhaps users have to pay unsuitable costs for public services through taxes. In contract with PPP model, users pay fee for provided services directly (Kathryn Eustice and et al, 2005, p.17-33). Therefore, building payment mechanisms of PPP projects should base on willingness of users to pay for using services. Because of this, forecasts about future revenues of PPP projects are more exactly. In addition, better meeting demands of users is useful condition to improve PPP contribution for socioeconomic development.

2.1.6 Contractual structure

Under PPP projects, contractual structure is a complex system within a variety of parties and their relationships are defined by contracts. These contracts have an important role in PPP projects because they determine rights, obligations of participants and risk transfers in the project.

Figure 2.1 Contractual structure of a typical PPP project



Source: Adapted from Stephen Ogunlana, 2009, p. 22

2.1.6.1 Concession agreement

Concession agreement is the background that all activities of a PPP project have to base on. Under PPP model, it is an important agreement within a public authority permits a private party to design, build, finance, and operate public infrastructure in a fixed and long-tem period, usually 25-30 years (Development, 2009, p. 9). Concession agreement shows relationships, rights and

obligations of government agency and private partner as a SPV. Actually, content of concession agreement usually relates with “to financing, design and construction, operation and maintenance, land issues, termination, guarantee agreements, monitoring and variation procedure, and dispute resolution” (Stephen Ogunlana, 2009, p. 23). Moreover, it is a legal tool that helps government regulate all related activities and decisions of private partner and it is used to allocate risks between parties.

2.1.6.2 Other contracts/agreements

In following types of contract, private partner as a SPV bases on content of concession agreement to sign other contracts for implementing stages of PPP projects.

Loan and stakeholder agreements:

The main target of these agreements is creating capital for activities of PPP projects. Normally, the finance is contributed from debt and equity stake so that it is provided through bank loans and bonds and/or equity from members of consortium.

Construction contract:

In the scope of this contract, beside SPV, contractors have important role in the design, procurement, construction, completion and testing of an infrastructure. Usually, construction contract of a PPP project is a fixed-date, lump sum and turnkey contract in which contractors offer a lump sum price without effects of inflation. Therefore, contractors in this contract have to accept more risks than those in traditional contract.

Supply agreement:

Under this agreement, SPV signs either directly with suppliers or indirectly through a contractor to supply important equipment or materials for construction or operation of public infrastructure. This type of contract has competitive prices and guarantees enough important equipment or materials for the facility to run smoothly and generate the necessary revenues.

Operation and maintenance agreements:

The final purpose of operation and maintenance agreements are management, operation, maintenance and repair facilities of PPP project. SPV of the project can undertake management, operation and maintenance the infrastructure itself, or it can choose to sign contract with specialized operators.

2.1.7 Risks of PPP model

Actually, there are a variety of risks not only in PPP projects but also in private and public projects. According to International Monetary Fund, these risks can be usefully divided into five main types, namely construction risk, financial risk, performance risk, demand risk and residual value risk, as follows (Fund, 2004, pp. 11-12):

- Firstly, construction risk is related to design problems, building cost overruns, and project delays.

- Secondly, financial risk is related to variability in interest rates, exchange rates, and other factors affecting financing costs.

- Thirdly, performance risk is related to the availability of an asset, and the continuity and quality of service provision.

- Fourthly, demand risk is related to the ongoing need for services.

- Finally, residual value risk is related to the future market price of an asset.

According to Bing Li and et al, risks of PPP projects are classified into three levels such as ‘macro’ risks, ‘meso’ risks and ‘micro’ risks. Firstly, the macro level includes external risks of PPP projects that are often associated with political and legal conditions, economic conditions, social conditions, weather and residual risk. In fact that, these risks are caused by events that occur outside the system boundaries of a project, while their consequences cross the project boundary to impact upon the project and its outcomes. Secondly, the meso level of PPP risk includes risks sourced endogenously such as project demand/usage, location, design and construction, and technology. It is obvious that these risk and their consequences occur inside the system boundaries of the project. Thirdly, the micro level mentions risks found in the stakeholder relationships formed in the procurement process. Actually, the public and private sectors have inherent differences because the public sector has social responsibility while the private sector is interested in its profit. These risks are a type of endogenous risks but they are party-related rather than project-related. That is a different point from meso risks (Li Bing, 2004, p. 19).

Table 2.2 Three levels of risks in PPP model

| Levels of risks | Groups of risks | Risks factors |
|-----------------|---------------------------------|---|
| Macro level | Political and government policy | - Unstable government - Expropriation or nationalization of assets - Poor public decision-making process - Strong political opposition/hostility |
| | Macroeconomic | - Poor financial market - Inflation rate volatility - Interest rate volatility - Influential economic events |
| | Legal | - Legislation change - Change in tax regulation |

| | | |
|-------------|-------------------|---|
| | | - Industrial regulatory change |
| | Social | - Lack of tradition of private provision of public services - Level of public opposition to project |
| | Natural | - Force majeure - Geotechnical conditions - Weather - Environment |
| | Residual risk | - Residual risks |
| Meso level | Project selection | - Land acquisition (site availability) - Level of demand for project |
| | Project finance | - Availability of finance - Financial attraction of project to investors - High finance costs |
| | Design | - Delay in project approvals and permits - Design deficiency - Unproven engineering techniques |
| | Construction | - Construction cost overrun - Construction time delay - Material/labour availability - Late design changes - Poor quality workmanship - Excessive contract variation - Insolvency/default of sub-contractors or suppliers |
| | Operation | - Operation cost overrun - Operational revenues below expectation - Low operating productivity - Maintenance costs higher than expected - Maintenance more frequent than expected |
| Micro level | Relationship | - Organisation and co-ordination risk - Inadequate experience in PPP - Inadequate distribution of responsibilities |

| | | |
|--|-------------|---|
| | | <ul style="list-style-type: none"> and risks - Inadequate distribution of authority in partnership - Differences in working method and know-how between partners - Lack of commitment from either partner |
| | Third party | <ul style="list-style-type: none"> - Third Party Tort Liability - Staff Crises |

Source: adapted from Li Bing, 2004, p. 28

Obviously, risks have negative effects on performance of PPP projects considerably. For example, there are some risk factors that lead to failure of PPP project such as poor transparency, difference in interests and expectations, inappropriate feasibility study, lack of government commitment and objectives, complex decision-making, poorly defined sector policies, inadequate legal and regulatory framework, poor risk sharing and management, low credibility of government policies, inadequate domestic capital markets, lack of mechanism to attract long-term finance from private, sources at affordable rates and lack of competition (Patrick X.W. Zou, 2008, p. 126).

Moreover, a variety of specific risks cover all phases of lifecycle of PPP projects. In pre-investment phase, major risks are bidding risks, delayed planning risks and approval risks. For example, bidders have to spend a lot of money on preparing comprehensive bid documents. This cost will increase depend on scale of PPP projects. It means that this cost is very great in large PPP projects. In case of tender fails in competition with other bidders, it will lose costs of preparation PPP projects. This is a type of bidding risks. In implementation phase, major risks are cost overrun, time delay and the even failure to achieve completion. In operation phase, the biggest risk is that projected revenues are not enough to meet the budgeted operating and maintenance expenses. Normally, there are little risks including in transfer phase.

It is clear that risks appear in all phases of PPP projects so an accurate risk analysis and assessment throughout the whole lifecycle of PPP projects is very necessary to ensure success of these PPP projects. Optimal risk allocation and balance of interests between the public and private sectors play important roles in achieving value for money in PPP projects (Patrick X.W. Zou, 2008, p. 137).

2.1.8 Institutional policy and legal framework of PPP projects

2.1.8.1 Policy framework

It is obvious that a clear policy framework helps both the public and the private sectors to know about the core rationale for PPP projects and the way that government ensure for making them happen (Development, 2009, p. 13). This is very important because a stable policy environment is a convenient condition for real implementing of PPP projects. According to United Nations Economic Commission for Europe, in order to win the support for application of PPP model, PPP process should have a coherent policies that includes clear objectives and principles, realistic goals and measure of achieving them are set up appropriately (Europe, 2008, p. 18). In addition, characteristic of public services is not commercial products so that the services are often heavily dependent on taxes. Moreover, targets of public services are not simply economic effectiveness; they also include a variety of purposes such as social equity, inclusiveness, accessibility, transparency and accountability. Therefore, while PPP model uses commercial criteria to supply public services, it cannot substitute the public interest goals enshrined in public services appropriately (Europe, 2008, p. 18). As a result, establishing stable policy framework is very necessary to balance between economic and social objectives of PPP projects. It means that this framework can help a PPP project reach the best value for money.

Under PPP model, private partners are usually main financiers and must bear almost risks so that they always want to protect their capital. Therefore, private sector is often very careful before they decide to invest in PPP projects. What does private sector look at first? It is easy to understand that it is policy framework. Private sector always expects to see aspects of a PPP policy as follows (Development, 2009, p. 14):

- The rationale for using PPP model,
- The guidelines that the public sector will use to assess PPP projects in a consistent way,
- The determination of who approves what and when throughout the process of project selection, preparation, and procurement, and
- The process of resolving disputes (often set out in legislation).

On one hand, private sector always wants to know about PPP policy as detailed as possible. Policy framework helps private partners understand about processes of PPP projects, assess to estimate costs for preparing and submitting bids, know about time of bidding process, level of feasibility and transparency of the project, the method that public authority will use to manage long-term partnership. Especially, policy framework shows commitments of governments that ensure implementing of PPP projects. On the other hand, governments should issue a comprehensive system of PPP policy by establishing a clear evaluation and process map that includes key decision points along the process, timelines, criteria for project selection and eligibility, and principles or criteria for evaluating tenders (Development, 2009, p. 14).

2.1.8.2 Legal framework

Actually, private investors always examine legal framework within abilities to guarantee effectiveness of long-term PPP contracts. According to United Nations Economic Commission for Europe, in PPP projects, private partners need predictability and security in fewer, simpler and better rules. Additionally, the legal framework needs to mention beneficiaries that are authorized to participate in legal process, protects their rights and guarantees them access in decision-making (Europe, 2008, p. 29).

In order to motivate PPP projects to develop successful, legal frameworks and related regulations should be clear, secure, predictable, stable, consistent and commercial. These characteristics are basis for creating a favourable environment and encourage private sector to participate in PPP projects. How do governments issue good legal frameworks and related regulations like those? Actually, governments could base on following key principles and priorities as follows (Europe, 2008, p. 29):

- Rights of private investors in disposing their property and assets should be protected.
- Quality of legislation can be improved through innovations such as fewer, better and simpler rules.
- Enforcement more business sensitive should be made.
- Effectiveness of the judiciary in the enforcement of contracts should be improved.
- Legal frameworks of PPP projects should be developed on the basis that includes consultations in many areas. These areas often have most directly effects on the start up of the project and its operation, such as concession, tax, competition, company laws and etc.

If legal framework of PPP model becomes fewer and more flexible, it allows focusing on achieving outcomes dramatically and encourages all partners to design and implement projects efficiently. In fact, if this framework is over-complicated and rigid, it will hinder willingness of private investors to invest in infrastructure development. Therefore, governments should execute the following tasks to make fewer and flexible legal framework (Europe, 2008, p.p. 29 - 30):

- Removing burdensome legal constrains on investors using public assets.
- Removing, streamlining unnecessary approval procedures for construction and land use.
- Removing legal restrictions on right of investors lead to investors can use the benefits of their investment. For example, investors can dispose their equity investment at market prices and repatriate the profits out of the country.

Moreover, if procedures of legal framework become simpler, it is an advantage condition for improving competition in PPP model. As a result, governments may have a variety of chances to choose good partners for increasing effectiveness of PPP projects. There are some methods to

simplify the procedures of PPP projects. Firstly, governments can standardize then stakeholders can accordingly share the understanding of the main risks, determine price across a range of similar projects and reduce the time and costs of negotiation. Secondly, legal framework may allow aggregation of projects. It means that this method includes contracting with only one partner to provide several small-scale projects and incremental partnership that allow a partnership to be developed gradually by stages rather than in one time. In this case, economies of scale and lower costs are used to increase incentives for investors. Lastly, governments can use the “Competitive Dialogue” to avoid subjective decisions of contracting authorities. This agreement includes working with bidders to develop technical and commercial solutions. According to this, it has solutions to overcome the inherent complexity of PPP projects, whereas the contracting authority must to guarantee the fairness in the tendering procedures and avoid favouritism (Europe, 2008, p. 31).

Part II: Value for money for three main targeted PPP models

2.2.1 What is “value for money” of project?

Value for money (VFM) is paramount and it is core principle that is basis for types of procedure activity, involving PPP model (Administration, 2006, p. 7). Actually, VFM is one of essential elements that government should consider before making decision on public projects. What is VFM? According to Grimsey and Lewis, VFM means that “the effective use of public funds on a capital project, can come from the private sector innovation and skills in asset design, construction techniques and operational practices, and also from transferring key risks in design, construction delays, cost overruns and finance and insurance to private sector entities” (M.K.Lewis, 2002, p. 109). Another concept mentions VFM as “the optimum combination of the whole life and sufficient quality to meet the user’s requirements and investment objectives” (Stephen J. Bailey, 2010, p. 46). Does a PPP project reach VFM when it has the lowest cost bid? According to HM Treasury, actually, VFM does not depend on the lowest cost bid (Treasury, 2006, p. 7). In general speaking, the key characteristics of VFM are suitable cost bid, effective transferring and meeting requirements of end users.

2.2.2 Factors affect on achieving value for money

In fact, there are a variety of factors that drive VFM of PPP projects. For example, HM Treasury gives 10 main factors as follows (Treasury, 2006, p. 8):

- The optimum allocation of risks: risks should be allocated to parties, which are best placed to manage. Moreover, these risks should be minimized over the lifecycle of PPP projects;
- Focusing on the whole life costs of the asset rather than only the upfront costs involved;
- Integrated planning and design of the facilities-related;

- The use of an outputs specification approach describes requirements of public projects. As a result, it allows potential bidders to improve innovations to meet requirements of public authorities;

- A rigorously executed transfer of risks which mentions to responsibilities of each party. According to this, it must ensure that the allocation of risks can be implemented seriously and related costs are actually borne by the parties as in originally allocated agreement;

- Sufficient flexibility that helps PPP projects to adapt any changes during their lifecycle;

- Ensuring sufficient incentives lead to assets and services are developed and delivered on time and effectively, including both rewards and deductions as may be appropriate;

- The term of the contract requires careful considerations of elements such as potential changes in requirements of end users; policy changes; facility upgrades during the period of the contract; potential changes in the way of supplying services; and the way to transfer the facility at the end of the contract;

- Sufficient skills and expertise in both the public and private sectors are required during lifecycle of projects; and

- Managing the scale and complexity of project to ensure that expenditures are proportionate to project.

According to results of recent survey of the UK Treasury Taskforce on PPP, there are six main determinants of VFM including risk transfer; the long-term nature of contracts (including whole-of-life cycle costing); the use of an output specification; competition; performance measurement and incentives; and private sector management skills. In addition, European Commission mentions to five elements that affect on VFM of PPP projects such as reduced life cycle costs, better allocation of risk, faster implementation, improved service quality and generation of additional revenue (Commission, 2003, p. 55). Moreover, an ideal of Asenova et al., Barretta and Ruggieero and Kharizam Ismail et al. shows that social benefits as the outcomes are one of the vital factors in measuring VFM in PPP projects ((Kharizam Ismail., 2011, p. 352) cited from (D. Asenova, 2005) and (A. Barretta, 2008)). Obviously, factors that determine VFM will be different from project to project and between sectors. Of these, reduced life cycle costs, efficient allocation of risk and social benefits are seen to be the most important elements that drive VFM of PPP projects.

Reduced lifecycle costs

Under PPP projects, there are two main methods that may reduce life cycle costs, including competition and minimizing transaction cost. On one hand, competition is one of vital factors that affects on achieving VFM in PPP projects. It creates an environment in which bidders are encouraged to innovate in their design solution and efficient in service delivery for reaching optimal

solution with most suitable cost (Darrin Grimsey, 2004, pp. 135-136). In a fairly competitive environment, it is clear that bidder that has optimal solution with most suitable cost will have biggest opportunity to become a winner. However, it is important to notice that “most suitable cost” does not mean lowest cost. “Most suitable cost” focuses on quality of public facility and related services, and meeting requirements of end users considerably. On the other hand, minimizing transaction cost contributes to reducing lifecycle costs of PPP projects dramatically. In PPP model, agreement between public and private sector is single contract known as the whole-of-life cycle ‘bundled’ approach. It means that there is integration between design, construction and operation of the facility lead to considerable drop in transaction costs. As a result, built facilities from PPP projects are suitable for the provision of core services and meet requirements of the facilities operator. This ‘bundled’ method allows maximizing service efficiencies as well as aiding maintainability and minimizing life cycle costs from small changes such as using better quality materials. In fact, small changes affect on whole project cumulatively (Darrin Grimsey, 2004, p. 136). Peter Drucker supports for this ideal that innovation is often about the cumulative effect of a variety of small changes ((Darrin Grimsey, 2004, p. 136) cited from (Drucker, 1984)). It is one of different points between PPP model and traditional procurement methods.

Efficient allocation of risk

Under PPP model, identification, allocation and management of risks play important role in determining VFM of projects. VFM is achieved by the transfer of appropriate risk to reach efficient allocation of risk. It is important to highlight that risk transfer is the objective of the PPP arrangement and focuses on optimum, rather than maximum (Darrin Grimsey, 2004, p. 136). It means that public sector can not transfer all risks of PPP projects to private partners. Moreover, government should retain suitable risks or share them with private sectors. According to result of research about VFM and risk allocation model, risk should be allocated “to whom is best able to manage, control, or bear it” (Bing Li, p. 19). In addition, United Nations Economic Commission for Europe mentions a similar ideal in risk allocation of PPP model as “PPP model allows risk which is most able to be managed by the private sector, to be transferred to them. However, governments also need to accept their share and help to mitigate those allocated to the private sector in mutual support” (Europe, 2008, p. 36). This is a general principle of risk management in PPP projects that guarantees effective allocation of risks in PPP projects. As a result of doing this principle, PPP model will have lower overall project costs and will therefore reach more VFM than traditional procurement methods (Commission, 2003, p. 50). Moreover, time can be saved and costs overrun can be restricted through effective risk allocation. Obviously, the concern in this case is how can risks be allocated effectively?

Social benefits

Social benefits are part of non-financial benefits that mention to contribution of PPP model in socioeconomic development. As an argument of The European PPP Expertise Centre((EPEC)), non-financial benefits means “socio-economic” benefits of end users or wider society from an infrastructure investment ((EPEC), 2011, p. 4). These benefits can be classified into two categories, including wider public sector benefits and wider macro-economic benefits. On one hand, wider public sector benefits refer to the impact of a specific PPP project to the public sector. Actually, when private sector implements PPP projects, it has a variety of innovations that can be learned and applied in future projects. Therefore, beneficiaries from PPP projects are not only end users but also the broader public sector and economy. On the other hand, wider macro-economic benefits refer to the impact of an investment on the economy and environment ((EPEC)), 2011, p. 16).

2.2.3 The principles to achieves VFM in PPP model.

Obviously, reduced lifecycle cost, effective allocation risk and social benefit play important role in achieving VFM. How are three factors managed in PPP projects for reaching VFM? In fact, there are a variety of researches of sciences and international organizations that focus on this concern. Especially, United Nations Economic Commission for Europe studies and shows seven main principles of good governance in PPP projects (Europe, 2008, pp. 18-64). Some of them are related to these factors considerably.

2.2.3.1 Principle to reduce lifecycle cost of PPP projects

As shown in 2.2.2, competition and reducing transaction costs are two ways to minimize lifecycle cost. On one hand, government should ensure competitive environment to choose the most suitable bidder by implementing principle as follows: “The selection of the bidder should be undertaken following a transparent, neutral and non-discriminatory selection process that promotes competition and strikes a balance between the need to reduce the length of time and cost of the bid process and, acquiring the best proposal. Along these lines, corruption should be penalized as well” (Europe, 2008, p.46). Actually, three aspects such as transparency, neutrality and non-discrimination are important characteristics that are required in process of bidder selection. Firstly, transparency in PPP projects can be achieved through information sharing. It means that government should ensure related information of PPP projects are made available to all organizations and individuals who are interested in. Moreover, they should be supplied the right of access to that information easily. Therefore, interested parties such as the media, end users, trade unions, investors, and etc should be able to know about the contents of the contract clearly. As a result, it will improve participation and monitoring of stakeholders during lifecycle of PPP projects. For example, In Canada, independent party - third party assesses whether a procurement process is

fair, equitable, and appropriate and provides results of the assessment for government sponsors, bidders and the public (Europe, 2008, p.47). Transparency encourages competitive environment for bidders so that it helps government agency and private sector entity achieve VFM of PPP projects. Secondly, neutrality refers to clear and specific rules that prevent any interest conflict between public and private sector in PPP projects. Moreover, the rules provide a means to complain and monitor the implementation themselves. Whether the rules are enough to ensure neutrality in PPP projects? Besides the rules, it is necessary to have independent domestic tribunal that can solve complaints of bidders in case of illegality in PPP procurement. That tribunal should have the right to correct infringements and preserve commercial opportunities. Additionally, an independent monitoring authority and independent auditor that have no connection to either the public or the private parties can play an important role in monitoring the implementation of the rules during bidding process. It is important to notice that the contracting authority should be completely independent from companies that participate in bidding process, in order to avoid an interest conflict (Europe, 2008, p.47). Thirdly, non-discrimination also plays important role to guarantee fair opportunity for all companies that want to participate into PPP bidding process. It means that there are more participators into this process such as large domestic companies, foreign companies and even smaller companies. According to this, it improves competition of PPP bidding process.

On the other hand, European Investment Bank shows that transaction costs are usually over 10% of the capital value of the projects, within cost of public sector at 3.5%, cost of winning bidder at 3.8%, and cost of failed bidders at about 5% (Gerti Dudkin, 2005, p. 14). It is obvious that the rate of transaction costs account for significant part of lifecycle cost of PPP projects. This concern is how to minimize transaction costs in PPP projects effectively? The suitable answer may be a transparent system of public administration. Actually, in many countries, legal framework of PPP model is often very complex raises lead to rising transaction costs (Europe, 2008, p.30). Therefore, if government wants to improve VFM of PPP projects, it needs more innovations of legal framework follows principle: “Investors in PPP projects need predictability and security in legal frameworks, which means fewer, simpler and better rules” (Europe, 2008, p.29). Obviously, fewer, simpler and better rules will reduce the number of transactions while it enhances the quality of transactions in PPP projects. It means that a simply and effectively legal system is a strong tool to eliminate the bureaucracy and decrease transaction costs of PPP projects.

2.2.3.2 Principle to allocate risks effectively of PPP projects

Similarly, European Investment Bank and other researches found out a general principle to allocate risks in PPP projects, as follows: “risk should be carried by the party which is best able to control, manage, or mitigate that risk” (Campbell Thomson, 2005, p. 11). The final target of this

principle is reaching optimal risk allocation lead to enhance effectiveness of PPP projects. Theoretically, the party in the best position to manage a particular risk should be able to do so with the lowest price lead to optimal allocation can reduce individual risk premiums and total cost of the project (Q. Government, 2008 p. 8). Certainly, the optimal risk allocation can increase VFM of PPP projects. However, how is the optimal risk allocation implemented in fact? Actually, risks of PPP projects should be controlled under framework of risk management that seeks to identify, prevent, contain and mitigate risks. Risk management is implemented during lifecycle of PPP projects with five stages such as risk identification, risk assessment, risk allocation, risk mitigation and monitoring and review (Q. Government, 2008 p. 14). In the risk identification stage, a risk workshop that has participations of many experienced technical individuals such as researchers, managers, engineers and planners should be conducted to identify all related risks to the PPP projects. After that, in risk assessment stage, there are two key factors such as probability of its occurrence and impact of its consequences if it does occur. Especially, risk allocation process can allocate responsibility base on consequences of each risk for one of contracted parties, or reach agreement of a specified mechanism which may involve sharing the risk. This stage includes five steps, as follows (Q. Government, 2008 p. 17):

- Step 1: Identify all project risks by using results of two above stages.
- Step 2: Identify the core services that are to be provided by government and risks can not be allocated to the private partner.
- Step 3: Examine each remaining risk and identify those:
 - government is best placed to manage
 - the private party is best placed to manage
 - over which neither party has control
- Step 4: Determine whether any of the remaining risks should be shared.
- Step 5: Fine tune the results of step 3 and 4, and use the contract to adjust any imbalance between the parties.

Especially, risk mitigation stage play important role in reducing the relevant party's exposure to the risk. It focuses on decreasing likelihood of a risk occurring and impacts of risk, if it occur. Lastly, in monitoring and review stage, identified risks and new risks should be monitored and reviewed while the PPP project develops and its environment changes. This process continues during the lifecycle of the contract.

In practice, there are a variety of researches about risk management of PPP model and their results may be suitable solutions that should be referred to save time and money during PPP projects. For example, Greenland Government shows a standardised risk matrix framework that

includes category, description, consequence, mitigation and allocation risks in PPP projects (Q. Government, 2008 p. 21). This matrix framework can illustrate the range of risks that may apply to each phase of PPP projects (Appendix 1). In other research, Bing Li and et al found out three levels of risks in PPP model such as macro risk, meso risk and micro risk. Moreover, they also identified four risk allocation categories of PPP model, as follows (Li Bing, 2004, p. 34):

- Risk should be allocated to the public sector, including site availability and political risks.
- Risk that should be allocated to the private sector is meso risk.
- Risk should be shared between public and private sectors. Force majeure and legislation change that belong to the macro level risk group should be shared. Because of their nature, public and private sectors may be not able to deal with them alone. Therefore, a shared mechanism may be the best solution. In addition, three micro level risk factors such as lack of commitment from public/private partner, responsibilities and risk distribution, and authority distribution between partnerships should be shared. In fact, these risks are caused by both sectors so that neither the public nor the private sector could manage them without the other party's commitment and contribution.
- Risk allocation strongly depends on individual project circumstances. Four risk factors: level of public support, project approval and permits, contract variation and lack of experience cannot easily be allocated to a particular party nor shared.

Generally, risk allocation in PPP projects is shown in the following table:

Table 2.3 Risk allocation in PPP projects

| Risks | Preferred Risk Allocation |
|--|--|
| Nationalization/expropriation Poor political decision-making process Political opposition Site availability Government stability | Public sector |
| Lack of commitment from public/private partner Force majeure Legislation change Responsibilities and risk distribution Authority distribution between partnerships | Shared between public and private sector |
| Level of public support Project approval and permits Contract variation Lack of experience | Strongly depends on individual project circumstances |
| Tax regulation change Late design changes Residual risk Inflation | Private sector |

| | |
|---|--|
| Tradition of private provision of public service Staff crisis Third party tort liability Influential economic events Financial attraction of project Level of demanding project Different working methods Industrial regulatory change High financing cost Interest rate Organization and coordination risk Weather Environment Availability of finance Ground condition Operational revenue below par Financial market Quality of workmanship Construction cost overrun Frequency of maintenance Availability of labour/material Insolvency of subcontractors/suppliers Low operating productivity Design deficiency Unproven engineering techniques Operation cost overrun Higher maintenance cost Construction time delay | |
|---|--|

Source: adapted from Bing Li, p. 20

2.2.3.3 Principles to guarantee social benefit of PPP projects

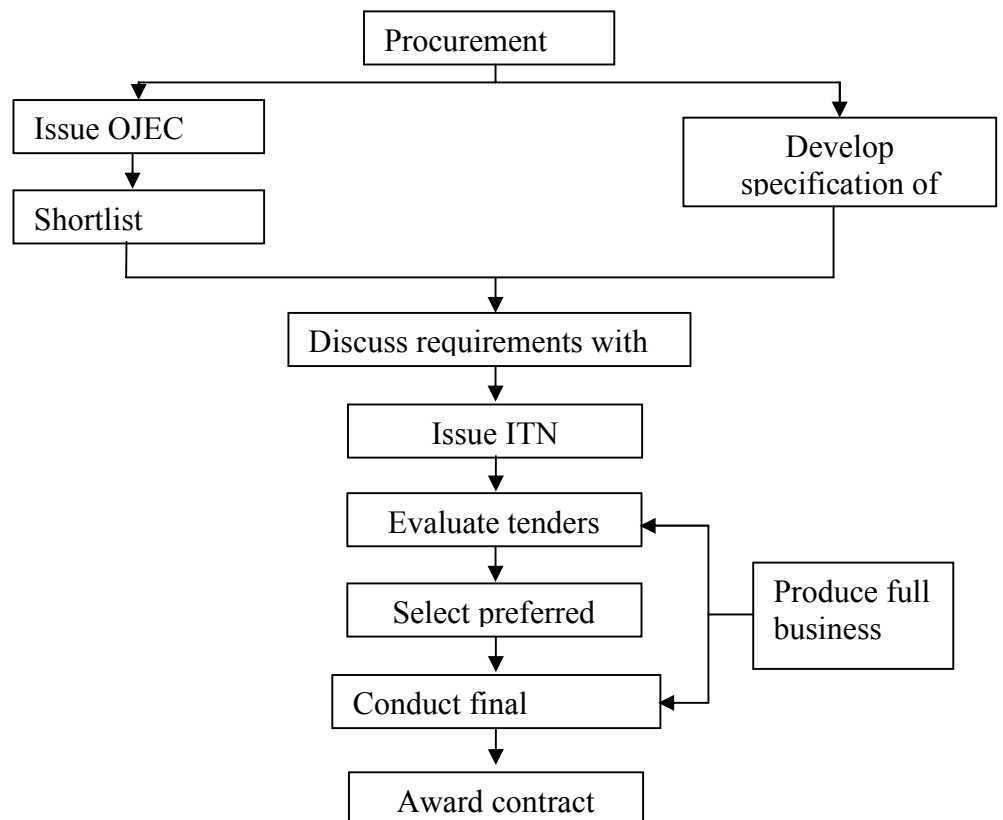
Under PPP model, while governments focus on public interests, private sectors focus on economic benefit. How is balance of benefit between public and private sectors kept? Obviously, goals of PPP projects have to be determined comprehensively for ensuring this balance. According to United Nations Economic Commission for Europe, a principle is shown as follows “The PPP process requires coherent policies that lay down clear objectives and principles, identifies projects, sets realistic targets and the means of achieving them” (Europe, 2008, p.18). The principle shows that governments should determine clear goals and objectives in their PPP policies sufficiently, including both financial and non-financial targets. Because public services are not commercial products, commercial criterias can not substitute the public interest goals in public services. Financial targets must be combined with non-financial targets to draw a comprehensive picture about PPP model. It means that PPP policies of governments should focus on VFM with strong social objectives.

Part III: Experiences of application of PPP models in some countries

2.3.1 The United Kingdom – UK experiences

In 1992, UK Government introduced a form of PPP model that called Private Finance Initiative (PFI). It has become a major way to procure public sector infrastructure (Coulson, 2008, p. 483). Under PFI, supply of public services is improved by private partners in the design, construction, financing and operator of the related infrastructures to increase quality of public services (Stephen J. Bailey, 2010, p. 15). Moreover, PFI contract is an agreement between a government agency and a vehicle company called Special Purpose Vehicle (SPV) that was set up by private companies. The SPV is a legal entity and a purpose-built organization for one project that has a limited lifespan (Stephen J. Bailey, 2010, p. 16). It is important to notice that banks supply capital for PFI at 80 percent and later on up to 90 – 95 percent of total capital requirement (D. A. Stephen J. Bailey, 2009, p. 48). Therefore, the ‘credit binge’ of the 1990s and early 2000s was an advantaged condition for private sector to develop a variety of PFI projects (Stephen J. Bailey, 2010, p. 14) in many fields such as health, education, transportation, water and sanitary, power and energy, housing and office, police and prison, and etc (Li Bing, 2004, p. 29).

Figure 2.3 PFI contract procurement process



Source: (Li Bing, 2004, p. 26) cited from (Treasury, 1995)

OJEC: Official Journal of European Community; ITN: The Invitation to Negotiate

Figure 2.3 shows that contract procurement begins from the advertisement in the OJEC. A shortlist of bidders is drawn-up and invited to submit proposals based on the information provided by the private consortia responses. The ITN that is issued to the short-listed bidders includes instructions to bidders, output specification, proposed contractual terms, evaluation criteria for bids, and a risk list/matrix. At the end of ITN stage, each bidder is required to submit a “best and final offer” (BAFO) that is assessed carefully. Parallel discussions are required with each bidder to clarify its proposal and assess whether it meets the output requirements. After that, the suitable bidder is selected and a second-place bidder is reserved. Before having final negotiations, the PFI proposition should be tested against in terms of the key risk transfer, value for money and affordability criteria established for the project (Li Bing, 2004, p. 26).

The main concern is that whether PFI application can ensure good VFM. Besides advantages to contribute socioeconomic infrastructures in UK effectively, standard PFI model still has disadvantages that affect the results of PFI projects. Actually, the original PFI model has been researched in many academic and non-academic literatures (Stephen J. Bailey, 2010, p. 15). For example, Ezulike et al. explored that the bidding process of PFI projects spends extensive time. In addition, PFI model requires a lot of time to negotiate terms and conditions of the PFI contract (Li Bing, 2004, p. 25 cited from (Ezulike EI, 1997)). According to Li Bing, the most considerable negative elements related with PFI model are ‘a lot of management time spent in the contract transaction, lengthy delays in negotiation and high participation cost’ (Li Bing, 2004, p. 25). The other viewpoint shows that long-term problems of standard PFI model are high transaction costs, insufficient market competition and expensive negotiations (Stephen J. Bailey, 2010, p. 21 cited from (Hellowell M., 2009)). Obviously, standard PFI model has poor VFM.

Moreover, credit crunch in the period between 2007 and 2009 had negative effects on private finance, especially capital for PFI projects. During this period, global economic downturn and state gave unprecedented multi-billion pound bailouts for banks and the finance system moved from highly speculative lending to a considerable decrease in availability of finance (D. A. Stephen J. Bailey, 2009, p. 48). Even after credit crunch, multiple investors instead of only one or two banks invest in PFI projects within typical reduce in lifecycle of financing agreement from 25-30 to 7-10 years. In general speaking, banks are unwilling to invest a huge capital in a single transaction lead to PFI projects have to find other participants to provide the rest of the capital requirement. Therefore, financing process of PFI projects has become slower and more uncertain than before (D. A. Stephen J. Bailey, 2009, p. 49).

It is obvious that long-term problems of standard PFI model and credit crunch seem to be the motivation for reforming of original model to reach more effectiveness, especially improving VFM of PFI projects. Actually, standard PFI model is renewed by modifying some aspects while preserving its main characteristics (Stephen J. Bailey, 2010, p. 16). There are some new versions of PFI model such as Non-Profit Distribution (NPD) model, the Hub initiative, LIFT and Express LIFT and etc:

- NPD model focuses on improving original PFI while maintaining an effective risk transfer. On one hand, NPD caps 'excessive' profits of private sector, reduces business rate and tax liabilities. Moreover, any surpluses are passed to charitable company to distribute back to the community. Contrastingly, standard PFI model does not restrict on profits of private sector and any surpluses are paid for the SPV members. It is obvious that NPD brings more social benefits. On the other hand, NPD retains an optimum allocation of risk between public and private sectors, for example whole-life costing, life-cycle maintenance and facilities management and improved overall service provision (Stephen J. Bailey, 2010, p.p. 18-19). Because of more social benefits and optimum risk allocation, NPD model seems to enhance VFM of projects.

- The Hub initiative is a flexible and pragmatic approach to invest finance for projects. It increases devolution of decision-making powers at a local level rather than departmental level and amalgamate different types of public projects to meet requirements of local users in a more comprehensive 'join-up' way. At local level, Hub companies were set up between a variety of local sponsors who understand about requirements of local users and development needs for local socioeconomic growth. Under the Hub initiative, more and more services are supplied locally in communities through multi-disciplinary teams working from single sites (Stephen J. Bailey, 2010, p.p.25-29). Therefore, projects can delivery more quickly and effectively. Moreover, local public agencies also participate into Hub companies so that Hub initiative can reduce transactions during procedure process of projects. It means that the Hub initiative can limit transaction costs considerably. As a result, the Hub initiative can improve VFM of projects.

2.3.2 Experiences of South Korea

The rapidly economic growth of Korea requires a dramatically huge capital to invest in developments of infrastructure. Therefore, Korea government utilizes private finance to compensate for capital requirements. In 1994, Private Participation in Infrastructure (PPI) as a type of PPP model was introduced in Korea. PPI has focused on cooperation between public and private sector to invest in infrastructures (Stephen J. Bailey, 2010, p.38). South Korea has rapidly adopted and improved PPI model lead to it become second country that applies PPP model considerably after the UK (Stephen J. Bailey, 2010, p.56).

After the Asian financial crisis of 1997, government introduced Minimum Revenue Guarantees (MRGs) to boost private investment however it includes danger with little VFM. As a result, there are an excessive number of infrastructural investments with low VFM and high burden on the public finance in PPI projects. Therefore, government reformed MRGs mechanism in 2006 and then replaced MRGs mechanism with an alternative cost reimbursement scheme (Stephen J. Bailey, 2010, p.56).

On one hand, Korea government encourages development of applying PPI model by incentives such as tax benefits, land expropriation, infrastructure credit guarantees and compensation on termination and for bidding (Stephen J. Bailey, 2010, p.44). On the other hand, government also wants to enhance VFM of PPI projects. Thus government established the Public Investment Management Center (PIMAC) that executes pre-feasibility studies, re-assesses studies of feasibility and supports government in improving polities and plans for applying PPI model, especially conducting VFM tests:

- Pre- feasibility studies (PFS) are short and brief evaluations that support for budgetary decision. The main purpose of PFS is enhancing fiscal productivity base on transparent and objective ex-ante project evaluations. It is important to notice that PFS only is implemented in projects with total costs to 50 billion won or more, or with subsidy of central government over 30 billion won (Stephen J. Bailey, 2010, p.47).

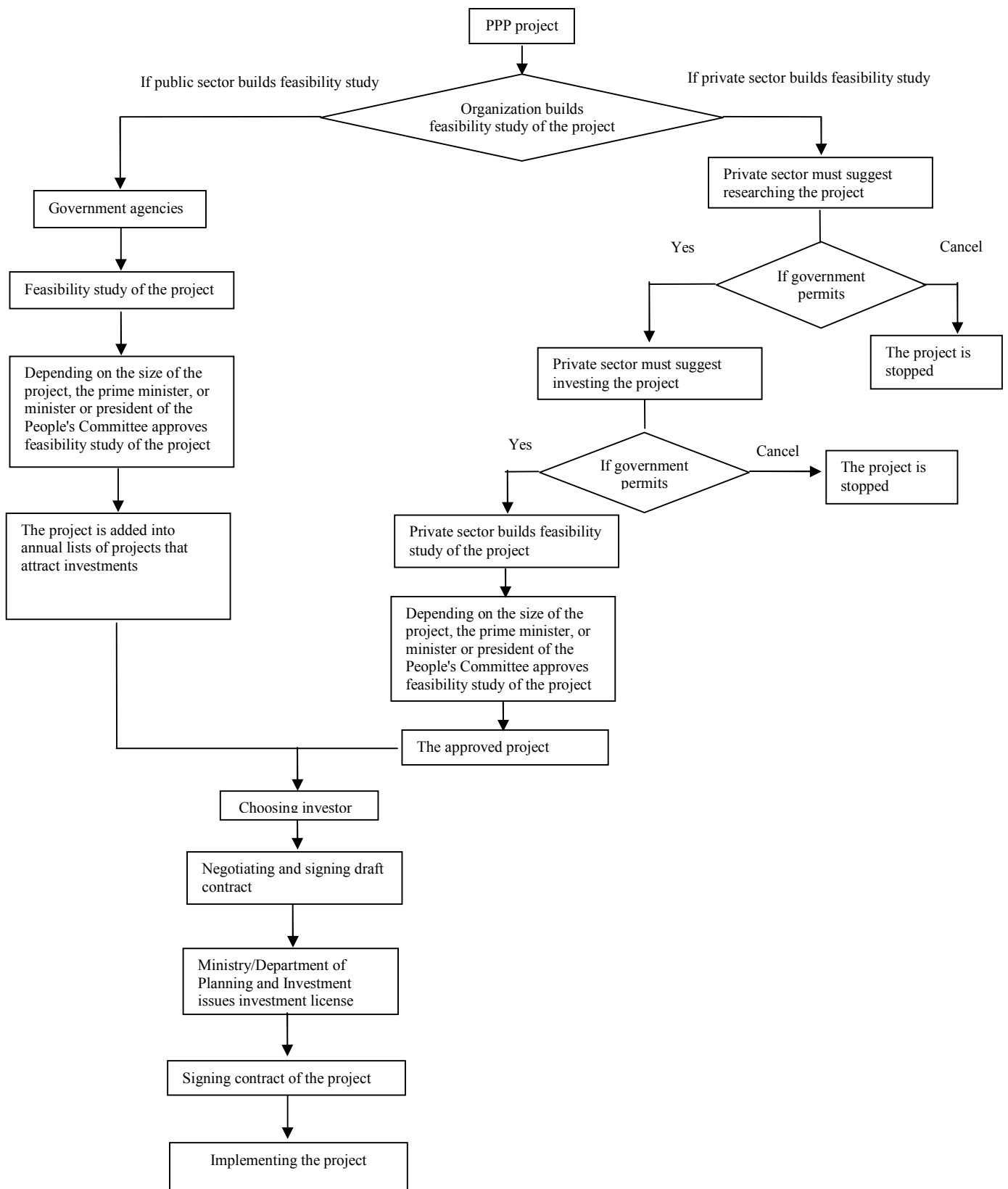
- VMF test was introduced in Korea in 2005. The final target of the test is that projects should be pursued when they can achieve VFM. The test includes three main phases. In first phase, feasibility study is done to consider the worth about social benefit before decision to invest in a project. In second phase, VFM is assessed for decision to implement through PPI. In last phase, PPI alternative is formulated as a best implementation practice (Stephen J. Bailey, 2010, p.46).

- Public sector comparator test is used to improve VFM. The test involves three main stages. The first stage is a benefit-cost analysis (B/C). If $B/C > 1$, the second stage as VFM test is done. If $VFM > 0$, it means PPI projects have more cost effective than traditional procedure. The final stage is identifying the optimal cost, toll level, fiscal support and etc (Stephen J. Bailey, 2010, p.47).

3. The three main targeted PPP projects in Vietnam

3.1 Application of three main targeted PPP models in Vietnam

Figure 3.1.1 Implementing process of three main targeted PPP projects in Vietnam



Source: Adapted from Decree 108 in the year of 2009 of Vietnam Government about Investment in form of Build - Operate - Transfer, Build - Transfer - Operate and Build - Transfer contracts.

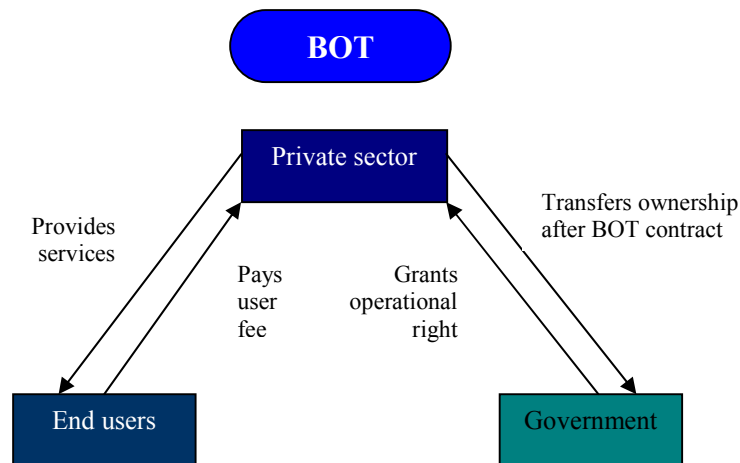
Figure 3.1.1 illustrates implementing process of a PPP project in Vietnam. All three targeted PPP projects have to be researched their feasibility by public or private sector. If the projects need from 200 hectare land or require total investment capital more than 1500 billion VND, The Prime Minister will approve feasibility studies of these projects. In other cases, ministers or presidents of the People's Committee approve feasibility studies of the projects. If approved projects that have feasibility studies done by public sector, they are aggregated in the annual lists to publish for attracting investment of private sector. Almost three targeted PPP projects are implemented in this way in Vietnam. Beside that, private sector can propose new projects and research feasibility of new projects by itself. In next stage, government authority selects suitable investor through the bidding process or the appointment of contractor. It is important to notice that government establishes a group of people that includes representatives of government authority and central/local government, and some experts in field of the project in every PPP project. This group has to support government authority in negotiating for contract and solving problems in the project. Actually, because of complexation of administrative procedure in Vietnam, establishment of this group takes a lot of time. Especially, private partners in three targeted PPP projects in Vietnam are required their investment licenses before they begin to implement these projects. Ministry of Planning and Investment will issue investment licenses for PPP projects at central level while Department of Planning and Investment in every province will issue investment licenses for PPP projects at local level.

3.1.1 Three targeted PPP models in Vietnam

PPP model was introduced in Vietnam by Vietnam government in the year of 1993. This introduction included only one variance of PPP model, namely Build- Operate- Transfer (BOT). Moreover, only foreign investors were allowed to become private partners in BOT projects (V. Government, 1993). Four years later, Vietnam government issued one more Decree about investment through BOT of domestic investors (V. Government, 1997). It is obvious that both foreign and domestic investors had fair opportunities to become private partners in supplying public facilities and related services. In 1998, Vietnam government supplemented two more different forms of PPP model that only applied to foreign investors, including Build – Transfer – Operator (BTO) and Build – Transfer (BT) (V. Government, 1998). In the next year, this Decree was modified (V. Government, 1999). Until that time, domestic investors only used BOT while foreign investors had chance to apply three variants of PPP model, involve BOT, BTO and BT. In 2007, Vietnam Government issued a new Decree that allowed both foreign and domestic investors to join in BOT, BTO and BT contracts (V. Government, 2007). However, a different Decree in 2009 replaced it to improve participation of private sector into supplying public services (V. Government,

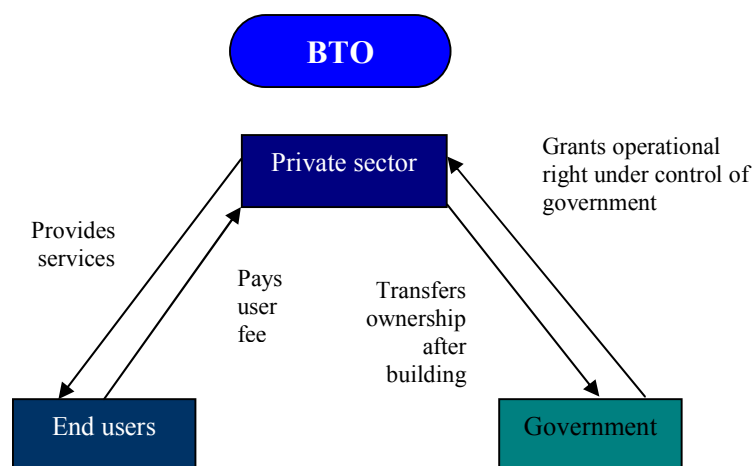
2009). Generally, Vietnam has used three forms of PPP model such as BOT, BTO and BT to attract private capital to invest public infrastructures and related services. It is obvious that legal framework of these schemes seems to be unstable and changes quickly.

Figure 3.1.2 BOT model in Vietnam



A BOT project in Vietnam is a long-term cooperation between private sector and government authority that builds and operates a public facility and then supplies related services. At the end of BOT contract, the facility is transferred back to government without compensation. Under BOT scheme, revenues of projects come from the user’s fees to compensate for capital investments of private sector.

Figure 3.1.3 BTO model in Vietnam



In BTO scheme, private sector cooperates with government authority to build public infrastructures after that the infrastructures return to government. In addition, government will allow private sector to operate the infrastructures period of time to recover capital and profits.

Obviously, there are a variety of similar points between BOT and BTO schemes in Vietnam, as follows:

- This is long-term cooperation between public and private sectors
- Private sectors invest capital to build public facilities
- Private sectors operate these facilities and provide related services for end users
- Investments of private sectors are returned in terms of user fees
- The public facilities transfer to government

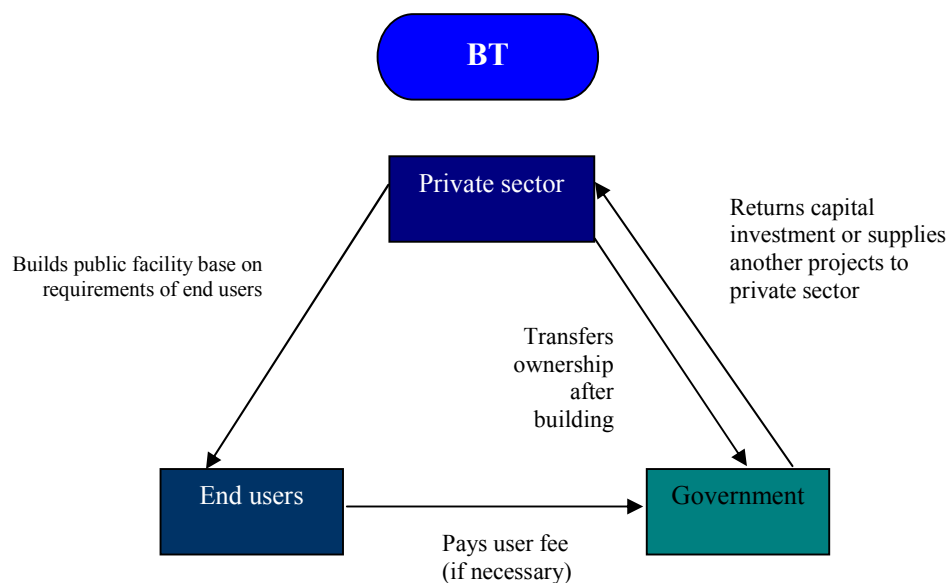
However, there is a considerably different point is the time of transferring facilities:

- In BOT scheme, the facilities are transferred to government at the end of BOT contract.

Moreover, private sectors have main responsibility during operating stage of projects. After period of operating, private sectors transfer the facilities to public sector.

- In BTO scheme, the facilities are transferred to government after building stage. The right to control the facilities belongs to government. Government allows private sectors to operate the facilities as a lease under government controls. It means government has more controls than BOT scheme.

Figure 3.1.4 BT model in Vietnam



BT scheme is final variance of PPP model in Vietnam in which private sectors invest finance to build public facilities base on requirements of end users. After building stage, the facilities are transferred to government. The biggest difference between BT and other two schemes is that government will pay costs that are equivalent to private investment, or allow private sector implement other projects to recover capital and gain profits. Moreover, end users pay fees if it is necessary to government.

From the first Decree to Decree in 2009 about applying PPP model in Vietnam, government has usually encouraged private sectors to join in supplying public infrastructures and related services in term of various advantageous tax schemes and other incentives as follows:

- BOT, BTO and BT companies are called PPP companies that entitled to a payment of business income tax (BIT) at the maximum rate of 10% for the period of 15 years while other companies must pay BIT at 25%, especially this rate of oil and gas businesses is 35% or 50% ((N. Assembly, 2008), (V. Government, 2003) and (V. Government, 2007a)).

- PPP companies are exempted from payment of BIT for the first 4 years from the company's first profit-making year, followed by a 50% reduction in BIT for the next 9 years (V. Government, 2003).

- PPP companies are entitled for an import duty exemption on goods are used to create assets of the project equipment, including machinery and specialized vehicles, fuel, raw materials and other kind of supplies used for the PPP project(V. Government, 2009).

- PPP companies are exempted from rent fee of land where project is implemented in the whole of the project(V. Government, 2009).

- PPP companies are guaranteed that they are supplied public services fully (V. Government, 2009). There is a notice that developing countries like Vietnam do not have enough abilities to provide public services for socioeconomic development comprehensively. Therefore, it is an obvious incentive.

- Industrial property rights, technical know-how, technological process and technical services of PPP companies are protected.

In Vietnam, BOT is the most popular scheme while BTO is less used.

3.1.2 Achievements of three targeted PPP models in infrastructure development

Infrastructure of Vietnam has development quickly and contributed to reduce the infrastructure deficit that Vietnam has faced since the early 1990s. According to World Bank, system of infrastructure in Vietnam reaches a variety of achievements as follows (Bank, 2006, pp. 5-6):

- The road network has increased from 96100 km in 1990 to 205,782 km in 2002. In this network, national level roads expanded from 15,100 km with 36.6% in good condition in 1997 to 17,300 km with 44.8% in good condition in 2002.

- The number of population who can access to improved water grew from 26% to 57% between 1993 and 2004, within 48% of rural households and 82% of urban households having access in 2004.

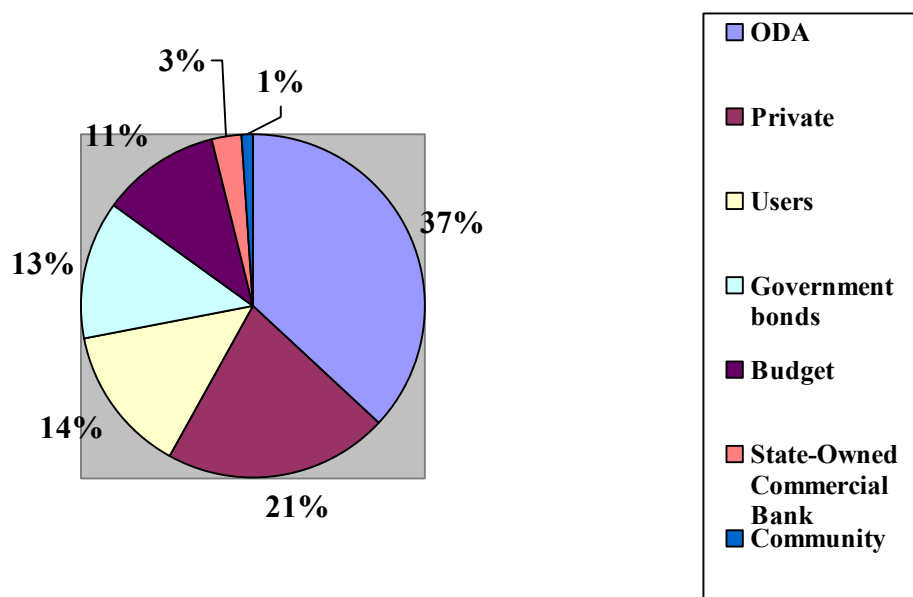
- The rate of population who can access to hygienic latrines grew from 10% to 31% between 1993 and 2004, with rural access at 16% and urban access at 76% of the population in 2004.

- The number of fixed and mobile lines per 100 people increased from 1.08 in 1995 to around 20 in 2005.

- All urban areas in Vietnam are electrified. In rural areas, electrification grew from 51% to 88% of households between 1996 and 2004.

It is important to notice that private contribution into above achievements is considerable. Increasingly, three targeted PPP models become good methods to attract capital from both foreign and domestic private sector. Firstly, World Bank shows that the rate of private contribution was 21% of investment finance in 2006 (Bank, 2006, p.20) within huge contribution of BOT, BTO and BT projects.

Figure 3.1.5 Infrastructure investment financing mechanism in Vietnam
(Percentage of investment finance)



Source: Bank, 2006, p.20

Secondly, the statistics of Vietnam Foreign Investment Agency shows that in 2011 there are 14 valid BOT, BTO and BT projects that are invested by foreign investors (Agency, 2011). Obviously, private financing through PPP model seems to become one of main financial ways for building public facilities and supplying related services. Until now, Vietnam has had more than 100 infrastructure projects implemented under BOT, BTO and BT schemes (Stephen Ogunlana, 2009, p. 65). Beside increasing quantity of BOT, BTO and BT projects, another concern is quality of these projects, especially VFM of the projects.

3.2 Value for money in using three main targeted PPP models in Vietnam

Three aspects are lifecycle costs, risk transfer and social benefits that are considered to determine VFM of BOT, BTO and BT projects.

Lifecycle costs:

Firstly, lifecycle costs of three targeted PPP projects in Vietnam that called PPP projects are considered in term of cost overrun. Actually, a variety of infrastructure projects in Vietnam has undergone cost overrun has not finished projects on time, including some PPP projects (Stephen Ogunlana, 2009, p. 73). For example, a BOT project about building Lien Khuong highway in Lam Dong Province. The highway connects Dalat city and Lien Khuong airport. This project is invested by Company 7/5 that belongs to Defence Ministry. At the beginning of the project in 2003, total capital was 572 425 million VND within 377 520 million VND was capital of private partner. In addition, the signed BOT contract showed that this highway completed in January 2007. However, there was increase in real total capital of this project at 631 913 million VND in which private capital was 437 008 million VND in 2004. Continuously, some investment items of the project were modified and some new others were added lead to portfolio of the project changed considerably in August 2007. As a result, total capital rose at 933 662 million VND that was approximately 1.6 times more expensive than costs in the first agreement in 2003 ((province, 2003), (province, 2004) and (province, 2007)). It is obvious that the project did not complete on time and had dramatic costs overrun. The main reason is insufficient feasibility study of the project and inability to identify all the factors that have negative impacts towards the project, thus making the project difficult to be kept under control. Because of insufficient feasibility study, portfolio of the project is not determined comprehensively so that there are some modifications and additions. According to this, time for building this highway is extended; and transaction costs for reforming the project are considerable contribution in cost overrun. Beside that, both local government and private partner have not enough ability to assess effects of macro factors on the project, especially inflation. According to Vietnam centre for economic and policy research, inflation in Vietnam reached high levels in 2004, 2007 and 2008 at 9.5%, 12.6% and 20% respectively (Nguyen Thi Thu Hang, 2010, p. 10). Inflation made cost escalation of the project become more serious.

Secondly, transaction costs are important factor that influences lifecycle cost of PPP projects strongly. Transaction costs are the costs of writing ‘watertight’ contracts (Stephen J. Bailey, 2010, p.33). Particularly, transaction costs of projects are very high in countries as Vietnam where have bureaucratic administration systems, and cumbersome and un-transparent procedures. In fact, Vietnam government agencies do not usually grant approvals of projects on time and sometimes they even cancel those that had been approved before. Therefore, project approval process in Vietnam is often very time-consuming lead to delay on the overall project development

process and impair financial ability of project. For example, in 2011, Mong Duong 2 thermal power BOT project started to implement in Quang Ninh province with a total investment of 1.95 billion USD. 100% capital of this project belongs to private sectors, including AES Corporation (The United State), Posco Power (Korea), China Investment Corporation (China) with the proportions of capital contribution are 51%, 30% and 19% respectively. Obviously, these private sectors come from different countries where have undergone application of PPP model in infrastructure investment. However, they must spend nearly six years to negotiate and prepare contract of the project (H. Nguyen, 2011). Certainly, investors of the project have to pay a lot of money for transaction costs.

Generally speaking, most PPP projects in Vietnam fall into the situation in which the total cost overruns due to the high level of transaction costs.

Risk allocation

In fact, there has been no explicit identification and allocation practice of project risks for PPP projects in Vietnam. Consequently, Vietnam government has to take most risks from PPP projects. For example, Vietnam Bridge and Road Association shows that 70-80% of the large transport projects on BOT or BT schemes was distorted and they are not still BOT or BT projects. Some important projects are moved to the State budget (Phung, 2011). Due to lack of allocation risk researches, some PPP projects can not balance interests between investors and the local government. As a result, there are negative impacts on end users. Typically, the charge of Binh Trieu BOT project made inconvenient for traffic at the gateway of Ho Chi Minh City so that local government have finally acquired the project (Phung, 2011).

Beside that, due to the shortage of risk framework in PPP projects, it is difficult for both Vietnam government and private investors to maximize the efficiency and minimize costs of PPP projects through risk management. On one hand, government can not ensure greater VFM in three targeted PPP models than conventional procurement process. On the other hand, the lack of suitable and efficient risk management can create government budget pressure during construction phase, if private partners require unexpected and sudden supports of government, especially financial guarantees of government.

It is important to notice that policy risks contribute to rise in delay and cost overrun. Moreover, the policy risk for PPP projects in Vietnam is allocated unsuitably. Actually, many policies of Vietnam government are unstable and change quickly while their results influence private partners in PPP projects strongly. For example, in the case of Binh Trieu 2 Bridge and Road BOT project, at first, total costs of the project was 41 billion VND with 11-year concession period. When the provincial committees changed their planning policies to widen the road from 32m to

53m However, total costs of the project was grown up to 1,600 billion VND and the concession period was extended to 25 years. This was a big financial challenge that private sector must face.

Generally, Vietnam does not interest in risks of PPP projects fully and risk allocation in these projects is ineffective.

Social benefits

The final purpose of three targeted PPP projects in Vietnam is to meet requirements of end users and contributing socioeconomic growth of nation. However, Vietnam government does not have much experience and knowledge on application of PPP model in infrastructure investment. Even government authorities at national and provincial level currently implement projects through three types of PPP variants. They have a shortage of governmental officials with the training and experience required for managing PPP projects within complexity of the contracts and associated negotiations. Therefore, unexpected results may appear during lifecycle of the projects. According to Vietnam Bridge and Road Association, when building the infrastructure, especially transport, in the form of BOT, BT and BTO contracts must note this on the effectiveness society (Phung, 2011). For example, Co May Bridge BOT Project was implemented by Hai Chau Company and Directorate for Roads of Vietnam. Private investors were allowed collecting user fees in the period of 15 years while there was the fact that private investors only need five years to recover their capital investment. Therefore, it is considered a project "super profits" for private investors in the transport sector (Giang, 2010). Obviously, revenue of government budget reduced in 10 years. It means that social benefits were affected because of shortage of this revenue. This proves that weak management skill of government in PPP projects makes social benefits decrease.

Research questions

The main research question:

How can the three targeted PPP models can be implemented more effectively in terms of value for money in Vietnam?

The sub-questions:

1. What is VFM of projects implementing the three targeted PPP models?
2. What is level of VFM in using projects implementing the three targeted PPP models?
3. How should the Vietnamese government secure greater VFM in using the three targeted PPP models in Vietnam?
4. How and what should the Vietnamese government learn from the existing value for money of the three main targeted models and other PPP models in other countries?

4. Research methodology

4.1. Research method

Because of a number of strong reasons, a qualitative method is chosen to study this topic. Firstly, this method can help researchers better understand government policies such as identifying unanticipated outcomes of policies, and finding internal inconsistencies and conflicts of policies lead to debug limits of policies (Marsall, p. 15). It is very suitable for this thesis to research on government policies have relationships with using PPP model in Vietnam. Secondly, qualitative research is a flexible method which allows greater spontaneity and adaptation of the interaction between researchers and study participants in the research (Natasha Mack, 2005, p. 4). For example, qualitative method requires researchers to use open-ended questions that allow participants to present their own opinions and experiences. This is a useful characteristic for participants to respond more elaborately and in greater detail than is typically the case with quantitative methods. Therefore, it is convenient to find out answers for “how” questions of this thesis. Finally, data format of this thesis is textual so qualitative method is a suitable choice to collect and analyze data.

In scope of this thesis, two main research instruments, namely documentary content analysis and in-depth interview are used for researching.

4.2. Research instruments and data analysis

- Documentary content analysis: “Content analysis is any research technique for making influences by systematically and objectively identifying specified characteristic within the text” (Neuendorf, 2002 p.10 cited (Philip J. Stone, 1966 p.5)). According to this, documentary content analysis is a research technique which analyzes documentary data. Because almost data relates with PPP application in Vietnam stores on documents, it is suitable to use this method for collecting and analyzing data in the thesis.

- In-depth interviews is defined as “a qualitative research technique that involves conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, program, or situation” (Boyce, 2006, p. 3). Actually, a few public agencies are tasked to implement some types of PPP model in Vietnam so that only these agencies experience application of PPP model. In this case, an in-depth interview is a suitable instrument for gaining opinion of these agencies about using PPP model. According to this, the thesis should involve this instrument to find out answers of sub research questions 3 and 4.

The aim of the study is achieving VFM of PPP project. VFM is defined: “VFM is the optimum combination of the whole life and sufficient quality to meet the user’s requirements and investment objectives” (Stephen J. Bailey, 2010, p.46). “VFM is associated in reducing life cycle costs; provide better allocation of risk, faster implementation, improved service quality and generating high revenue of the project outcomes” (Kharizam Ismail., 2011). Therefore, in case of PPP project, VFM is associated in minimizing transaction cost, achieving effective risk transfer and improving PPP

contribution to socioeconomic development. In the first aspect, transaction cost is analyzed to find out the way reduce this cost if possible. Transaction costs are costs of establishing and maintaining a public – private – partnership, including legal, financial, and technical costs of both public and private sectors in all phases of a PPP project (Gerti Dudkin, 2005). In PPP project, three features of contract such as bounded rationality, opportunism and asset specificity should be analyzed carefully to limit arising of transaction cost. In the second aspect, the key concern is risk transfer from public sector to private sector. Actually, it is very difficult to transfer risks. For example, when government uses PPP models, it hopes that risk is transferred from public sector to private sector. However, if government guarantees for sponsors to loan and uncertainties occur in life-cycle of project, risk will return to public sector. In the last aspect, it is necessary to consider contributions of PPP projects into socioeconomic development. This is the basis that helps government choose suitable PPP projects to implement and gain more contributions of these projects.

4.3. Research design

In scope of the thesis, documentary content analysis and an in-depth interview are used to collect data and explore VFM of PPP model in Vietnam.

Firstly, in case of Vietnam, documentary content analysis can collect data from three main sources such as Vietnam government, international reputable organizations and prestigious magazines. Moreover, the data is various, including laws, reports, newspapers, books, database, assessments and results of some researches relate PPP model in Vietnam. In fact, the data is gathered from the library of Tampere, national library of Vietnam, library of Lam Dong province in Vietnam and websites of Vietnam government agencies, international reputable organizations and prestigious magazines on the internet. After that, the collected data is reviewed, analyzed and discussed for determining VFM level of PPP projects in Vietnam.

Secondly, an in-depth interview is designed to collect information from public agencies that underwent really implementing PPP model in Vietnam. The interview is undertaken follow a semi-structured format. According to Canada government, semi-structured interview is suitable for small samples, studying particular situations, supplementing and validating information that is collected from other sources to reach safe diagnoses (Laforest, 2009, p. 1). Therefore, semi-structured format seems a good tool to get information of practical experiences for supporting results of documentary content analysis. The questionnaire of the interview includes 10 questions that are divided into three main parts (Appendix 2). The first part involves background questions about the individual and organisational information of respondents. The second part investigates VFM and difficulties to achieve VFM in PPP model, according to practical experiences of direct respondents. The third part gathers recommendations of respondents to improve VFM of PPP model in Vietnam.

In scope of the interview, the sampling technique focuses on convenience samples such as people who have more practical experiences about PPP application rather than random sample. Obviously, people who underwent implementing PPP model can give related information more quickly and exactly. Therefore, the validity of data interview can be improved lead to reasonable inference. In fact, direct interviews – face to face interviews are done in three administrative agencies of Lam Dong province in Vietnam such as Department of Planning and Investment, Department of Finance, and Department of Transport. The main reason why three agencies are chosen is that they have more experiences about implementing PPP projects. Firstly, Department of Planning and Investment has important roles in calling investment, approving and controlling PPP application projects in jurisdiction of local government. Secondly, Department of Finance manages local public expenditures within include public finance for PPP projects. Finally, in Vietnam, Department of Transport has extensive experiences in performing PPP projects because transport field is encouraged attracting investment by PPP model strongly.

4.4 Interview results

Actually, the time for interviewing was approximately 60 minutes per unit and respondents of all agencies closely cooperated with interviewer in supplying related information. In Lam Dong Department of Transport, interviewer worked face to face with vice-manager of Office of planning and finance that has responsibility to build and implement a variety of transport projects in Lam Dong province, including both traditional procedure and PPP projects. Besides that, interviewer worked directly with manager of Office of Basic construction and Appraisal belong to Lam Dong Department of Planning and Investment that considers feasible characteristic of projects, include PPP projects and then decides whether these project should be implemented or not. This department also has other important duties such as looking for potential investors and controlling implementation of PPP projects. Similarly, in Lam Dong Department of Finance, interviewer worked with manager of Office of Investment that has responsibility to implement financial management policies of government about investment infrastructure in Lam Dong province, especially financial policies for preparing investment and land acquisition. These are important policies that influence PPP projects strongly. In short, all respondents have practical experiences about PPP projects so that their information can be valid and useful to contribute exploring VFM of three target PPP models in Vietnam.

The detailed results of the interview are shown in Appendix 3, 4 and 5. A summarized result of the interview is displayed in Table 4.1 that includes practical experiences of respondents about applying PPP model, viewpoints of respondents about VFM of PPP projects and some their recommendations.

Table 4.1 Summarized result of the interview

| Aspects | Lam Dong Department of Transport | Lam Dong Department of Planning and Investment | Lam Dong Department of Finance |
|---|--|--|---|
| Types of PPP schemes that it underwent | <ul style="list-style-type: none"> - BOT scheme - BT scheme | <ul style="list-style-type: none"> - BOT scheme - BT scheme | <ul style="list-style-type: none"> - BOT scheme - BT scheme |
| Difficulties in implementing PPP projects | <ul style="list-style-type: none"> - Can not determine all related risks of the projects during process of feasibility study - Face difficulties due to lack of general framework of risk management | <ul style="list-style-type: none"> - Can not understand clearly about risks in all different fields. Therefore, approval process of the projects meets many difficulties - have not enough ability to assess feasibility study of the projects comprehensively lead to some of the projects are ineffective. | <ul style="list-style-type: none"> - Policies of applying PPP model change quickly - It meets a lot of difficulties in process of land acquisition because differences policies between different provinces or/and un-cooperation of people |
| Viewpoint about VFM | <ul style="list-style-type: none"> - VFM relates to economic effects of the projects. For example, saving capital - VFM relates to contributions of the projects for socio-economic development | <ul style="list-style-type: none"> - Benefit of the projects is more than the costs that invest for them - The projects must save money and ensure benefit of end users | <ul style="list-style-type: none"> - The projects finish on time - The projects achieve all their own objectives |
| Factors that affect on VFM | <ul style="list-style-type: none"> - Competitive environment - Inflation | <ul style="list-style-type: none"> Knowledge of officers who appraise the feasibility studies of the projects | <ul style="list-style-type: none"> - Limited abilities of officers - Unstable policies for applying PPP model |

| VFM level of PPP projects in Vietnam | High average | Low | Low |
|--------------------------------------|---|--|--|
| Recommendation | <ul style="list-style-type: none"> - Determine risks belong to transport field in Lam Dong province - Improve skills of implementing and monitoring the projects for officers - Contribute ideals for building national framework of risk management | <ul style="list-style-type: none"> - Shorten the approval process and time for giving investment licences. - Encourage officers to improve their knowledge about PPP model - Recommend government to train officers who participate into the projects | <ul style="list-style-type: none"> - Build suitable prices of land acquisition - Recommend government to build effective policies about applying PPP model and these policies should be stable in long-term period |

Data from the interview shows that respondents actually have experiences in implement PPP projects under BOT and BT schemes. Moreover, they also mention challenges that they meet in PPP projects. Firstly, Department of Transport plays role as government authority in PPP contracts of transport projects. In almost cases of PPP projects in transport field, this department builds feasibility study of the projects. The respondent said that officers of this department can not determine all related risks during feasibility studying and the projects include participations of private sector that makes complexity of the projects increasingly. Therefore, feasibility study process of the projects is difficult and takes a lot of time. What should this department do to improve this situation? Perhaps, participation of private sector in feasibility study is suitable. It means that this department should hire a private consulting company to implement feasibility study of the PPP projects. It is clear that private consulting companies have more experiences than government authorities in PPP projects. Therefore, feasibility study process becomes simpler with government authorities. Beside that, central government should hold national conferences within assessments of successes and failures of PPP projects that were implemented in Vietnam. Through these conferences, both public and private sectors can increase their experiences in three targeted PPP projects in Vietnam. Simultaneously, Vietnam government should encourage researches about risks of PPP projects. Results of these researches can attract public sector to interest in risks of PPP projects and support public and private sectors to determine related risks and find out effective risk allocations in PPP projects quicker. As a result, it can save time in the process of PPP projects.

Secondly, other government agencies such as Department of Planning and Investment and Department of Finance also meet a lot of difficulties such as limited abilities of officers, and unstable, insufficient and ineffective policies. In Vietnam, there are 63 Departments of Planning and Investment and 63 Departments of Finance that belong to 63 local governments. In every province, these two departments have important roles in appraising PPP projects before president of the People's Committee approve them. The respondent of Departments of Planning and Investment said that abilities of officers are limit and they can not assess feasibility studies comprehensively. Therefore, they can have wrong decisions lead to ineffective projects are implemented. In addition, the respondent of Department of Finance mentioned that PPP policies in Vietnam are unstable, insufficient and ineffective so it takes a lot of time of this department, especially in process of land acquisition. For example, each province in Vietnam has its own different policy of land acquisition. Actually, prices of provincial governments are often lower than markets' price so people do not want to leave away from their houses. It means that process of land acquisition faces with non-cooperation of people. The problem will become more serious if the projects spread in many provinces. In Vietnam, this problem is one of the main reasons why projects of building infrastructure often delay. In fact, legal framework for three targeted PPP schemes is changed quickly. In the period of 17 years, Vietnam government issued six Decrees about application three targeted PPP schemes and a variety of different guidelines of government while PPP models require long-term time to implement. Moreover, the system of Vietnam administrative procedures is complicated while the relationships between government departments are weak. As a result, it raises risks in the projects and fear of private investors when they want to join in the projects.

On the other hand, viewpoints of respondents about VFM are unclear and insufficient. Moreover, each department has specific viewpoint. For example, respondent in Department of Transport said that VFM relates lowest costs of the projects that are not whole life costs of the projects. The other respondent said that VFM of PPP projects is achieved when benefit of the projects is more than their costs. However, he did not explain whether the costs are initial costs or the whole life costs. Furthermore, they mentions a variety of factors that affects on VFM such as competition, inflation, limited abilities of officers, unstable policies and lack of general framework of risk management. However, they did not give the way that these factors influence on VFM. All respondents also assessed that VFM level of PPP projects is not high. In fact, Vietnam government does not mention VFM of PPP model in its policies. Obviously, Vietnam government only focuses on increasing the number of PPP projects while it forgets the level of VFM. As a result, some of PPP projects may be ineffective in Vietnam. Therefore, it is very necessary to improve quality of PPP projects, especially focusing on VFM. According to the respondents, under PPP projects in

Vietnam, there are two important aspects that should be innovated such as improving abilities of officers and reforming policies of government for solving difficulties and achieving VFM of PPP projects. Actually, they recommended some ideals that are necessary to be considered as presented below:

- Officers are encouraged to improve their knowledge about applying PPP model effectively such as they are trained about PPP model and they can learn practical experiences from successful PPP projects in Vietnam and other countries. Is this scheme feasible in fact? Actually, it is hard for this scheme to be implemented because of two main reasons. Firstly, government must spend a lot of budget and time to hold training courses for all officers in central and local governments. Moreover, some of officers typically use knowledge gained from these training courses only “once in a life time” and most officers have never used this knowledge. It is clear that organizing these training courses is ineffective. Secondly, these training courses can not be updated knowledge about quick changes of socio-economic developments of country, especially developing country like Vietnam. The complexity of PPP projects simultaneously increases with socio-economic developments. This is second reason explains why the training courses for all officers about PPP model are ineffective. What is solution for limited abilities of public officers? The answer is that Vietnam government should establish organization that is similar to Scottish Futures Trust and hold national conferences within assessments of successes and failures of PPP projects in Vietnam. In the year of 2008, the Scottish Government established Scottish Futures Trust (SFT) as an independent company to improve the efficiency and effectiveness of infrastructure investment in Scotland through for achieving better value for money and ultimately public services (Trust, 2008). The SFT have two separate parts namely SFT Development and Delivery and SFT Finance and Investment. SFT Development and Delivery that would sit in public sector includes investment partner, quality assurer, developer and deliverer of projects. And the other part of SFT that would be allocated in private sector is as a finance arranger or investor in projects (Stephen J. Bailey, 2010, p. 127 cited from (S. Government, 2008, p. 13)). The staffs of SFT are experts who have experience of working with the private sector and elsewhere public sector contracts with private sector building and facilities management companies and banks. Actually, they underwent PPP projects in the whole of the public sector in Scotland. During period between 2010 and 2011, the SFT achieved £129 million of independently verified benefits and savings to infrastructure in Scotland (Trust, 2011, p. 18). Therefore, the SFT could be used as a benchmark solution for Vietnam to solve the problem of limited abilities of officers.

- Central government should issue national framework of risk management with database of risks in PPP projects. This framework is very useful for implementing PPP projects. For example,

government authority can save time and money in process of feasibility study by using this framework. In addition, successful changes of the projects can be increased because almost related risks of the projects can be determined easily. This ideal of respondents is good however building national framework of risk management is an actually expensive way. In Vietnam, the number of PPP projects is less than the number of traditional procedure projects considerably. It means that the frequency of using this framework is low. Therefore, building this framework is large waste of money so Vietnam should not build it. Government should organize conferences about implementing PPP projects in which public and private sectors can exchange practical experiences in Vietnam. These conferences can encourage public sectors think about risks and results of these conferences can be benchmarks for new PPP projects in the future. Moreover, Vietnam can apply the lesson from Korea where PPP projects have optimal cost. According to this, Vietnam should focus on framework of benefit-cost analysis of PPP projects and assessment process to choose suitable form for public projects. In Korea, assessment process includes three main stages. The first stage is a benefit-cost analysis (B/C). If $B/C > 1$, the second stage as VFM test is done. If $VFM > 0$, it means PPP projects have more cost effective than traditional procedure. The final stage is identifying the optimal cost, toll level, fiscal support and etc (Stephen J. Bailey, 2010, p.47).

- In terms of reforming government policies, respondents said that related policies of government should be stable in long-term period. Moreover, the policies should be simpler, clearer and more sufficient. This is important condition to implement PPP projects because “Investors in PPP projects need predictability and security in legal frameworks, which means fewer, simpler and better rules” (Europe, 2008, p.29). Additionally, respondent suggested that provincial governments should increase the prices of land acquisition to be similar with market prices. As a result, people can accept the prices more easily lead to process of land acquisition may be on time. This is a good ideal. Because it can guarantee benefits of people who live in land acquisition and contribute to finish PPP projects on time.

5. Results

5.1. Results for sub-question 1

Sub-question 1: What is VFM of projects implementing the three targeted PPP in models?

VFM is defined as “the effective use of public funds on a capital project, can come from the private sector innovation and skills in asset design, construction techniques and operational practices, and also from transferring key risks in design, construction delays, cost overruns and finance and insurance to private sector entities” (M.K.Lewis, 2002, p. 109); or as “the optimum combination of the whole life and sufficient quality to meet the user’s requirements and investment objectives” (Stephen J. Bailey, 2010, p.46). VFM is core principle that is basis of PPP model.

In Vietnam, BOT, BTO and BT schemes are three variants of PPP model that have been applied popularly since the early 1990s. And BOT is the most common use among three schemes. According to PPP theories, VFM of three schemes has to include both financial and non-financial purposes. It means that the whole life costs of three targeted PPP projects are less expensive than those of traditional procedure projects. In addition, risks of the projects should be allocated in partners who have better risk management. Moreover, results of the projects have to meet requirements of end users and contribute to socioeconomic development in Vietnam.

5.2. Results for sub-question 2

Sub-question 2: What is level of VFM in using projects implementing the three targeted PPP models?

In the world as a whole, a variety of sciences and international organizations have studied about VFM in PPP model. The results of these researches show that there are a lot of factors that influence on VFM. In which, three most important factors that support achieving VFM are reducing lifecycle costs, effective risk allocation and social benefits.

On practice activities of infrastructure investment in term of BOT, BTO and BT schemes, Vietnam government only focuses on increasing the number of the projects to utilize capital, experiences and skills of private sector while VFM of the projects is low level. Actually, many BOT, BTO and BT infrastructure projects in Vietnam have massive lifecycle costs because of costs overrun and high transaction costs. In addition, lack of explicit identification and effective transfer of risks for three targeted PPP projects in Vietnam, risks in the projects are allocated ineffectively. Consequently, Vietnam government has to take most risks from PPP projects. According to Vietnam Bridge and Road Association, 70-80% of the large transport projects on BOT or BT schemes were distorted and government must pay huge money to buy these projects again (Phung, 2011). Moreover, some projects in term of BOT scheme have benefit conflicts between private investors and social. For example, in case of Binh Trieu 2 Bridge BOT project, the final purpose of the project is that solving traffic congestion at gateway of Ho Chi Minh City. However, when private investors set up charge station, there is considerable increase in traffic congestion there (Thanh, 2011). As a result, local government has to purchase this project. To summarize, Vietnam government only focuses on increasing quantity of three targeted PPP projects while their quality is forgotten, especially VFM of the projects.

5.3. Results for sub-question 3

Sub-question 3: How should the Vietnamese government secure greater VFM in using the three targeted PPP models in Vietnam?

In fact, there are two big reasons why most of three targeted PPP projects in Vietnam are low in VFM:

- Public sector does not have enough experiences and knowledge to co-operate with private sector effectively. According to Lam Dong Department of Plan and Investment, government authorities are not trained about implement three targeted PPP models fully and central government does not issue comprehensive assessment reports about implemented BOT, BT and BTO projects. Therefore, it is very difficult for government authorities to manage the projects in a long term period. For example, government authorities can not identify all factors that have impacts on the projects, especially estimate long-term inflation. As a result, they make old mistakes again or lead to cost overrun in the projects. Even in negotiation stage, lack of experiences can make public sector have wrong decisions that bring excessive profits for private investors as in case of Co May Bridge BOT Project.

- In Vietnam, policies for BOT, BTO and BT projects are insufficient and unstable. As a result, it raises risks in the projects and fear of private investors when they want to join in the projects. Moreover, policies of Vietnam government do not require a comparison between PPP models and traditional procedures. It means that government does not have a method to choose projects that have high VFM. In addition, the policy framework also causes difficulties of public sector in three targeted PPP projects, especially land acquisition process. Lam Dong Department of Finance supports that public sector has to implement process of land acquisition in three targeted PPP projects. This process actually faces with a big problem which is the non-cooperation of people. Because price of provincial government is often lower than markets' price, people do not want to leave away from their houses. The problem will become more serious if the projects spread in many provinces. The main reason is that each province has its own price policy of land acquisition and weak relationship of government departments in Vietnam.

Obviously, if Vietnam government wants to secure greater VFM in using the three targeted PPP models, it needs more innovations such as establishing organization as The SFT in Scotland, building assessment process that is similar process of Korea, reforming administrative procedure to improve transparency and reduce high transaction costs, building strong system of policies to support implementing three targeted PPP models and learning experiences from nations that have a lot of successful PPP projects with high VFM.

5.4. Results for sub-question 4

Sub-question 4: How and what should the Vietnamese government learn from the existing value for money of the three main targeted models and other PPP models in other countries?

In the world, The United Kingdom and Korea have a variety of successes in applying PPP model with high VFM. Vietnam can research two innovated PPP models of The United Kingdom namely the Non-Profit Distributing model and The Hub initiative. According to the Non-Profit Distributing model, Vietnam can find out new versions of PPP model in which transaction costs are reduced and limit excessive profits of private investors. There is a notice in The Hub initiative that many local agencies and private sector actually cooperate to implement PPP projects as Hub companies. As a result, local agencies will implement the projects more effectively because of not only their duties but also their legitimate benefits. It leads to saving time and reducing transaction costs considerably. In addition, the model of Scottish Futures Trust in Scotland can become good benchmark for Vietnam to achieve VFM of PPP projects. Scottish Government established Scottish Futures Trust in 2008. Scottish Futures Trust is an independent company that includes staffs from both public and private sector. The staffs of SFT are experts who have experience of working with the private sector. This is solution for limited abilities of public officers in Vietnam.

The lesson from Korea is that it's necessary to establish a specialized agency that provides detailed and practical guidelines for implementing PPP projects with high VFM. Especially, it has to make VFM test of all PPP projects and assess pre-feasibility study of them. After that, the results of these processes are compared with public sector comparator test to decide whether projects should be applied PPP model or not. As a result, PPP projects in Korea have optimal cost. This is a good way to choose suitable investment method of Korea government.

6. Conclusions, recommendations and limitations

Main research question: How can the three targeted PPP models can be implemented more effectively in terms of value for money in Vietnam?

Since the early 1990s until now, practices of three targeted PPP models in Vietnam shows that government seems only to focus on how to improve more PPP projects while government seems to forget their quality as VFM. VFM is influenced by a variety of factors within reducing lifecycle cost, effective risk allocation and social benefits are most important. In fact, most BOT, BTO and BT projects in Vietnam are unsuccessful and have low VFM. Obviously, Vietnam needs to enhance VFM of infrastructure investments in term of three targeted PPP projects. The first important thing is that government has to clearly understand and focus on VFM in implementation of the projects. In addition, government should continue to innovating administrative procedures. Vietnam has implemented simplification of administrative procedures through 'Project 30' that is assessed at high level by OECD (Ross, 2011, p. 14). However, policies about application of BOT, BTO and BT schemes are insufficient and change quickly. Therefore, government should continuously innovate to improve strong policy system that makes more transparency and fair

competition for private sector. This contributes to reduce in high transaction costs and enhancing VFM. It is important to notice that government authorities do not have enough experiences to implement BOT, BTO and BT contracts effectively. All these led to the fact that many projects have been distorted and even failed. Therefore, government should establish an organization like the SFT in Scotland to improve effectiveness of BOT, BTO and BT schemes. One more important thing is that Vietnam should adapt from international experiences and study many successful models of other countries in applying PPP model with high VFM. The lesson from The United Kingdom can be considered as the model focusing on limiting excessive profits of private sector and reducing transaction costs. Experiences of Korea show that government should establish a specialized agency that provides detailed and practical guidelines for implementing PPP projects with high VFM. Therefore, government officers should be joined more conferences and trained abroad about application of PPP model, especially in The United Kingdom and Korea where reach high VFM in PPP projects.

This research just investigates three most important factors that affect on VFM of three targeted PPP projects in Vietnam so that it is not a comprehensive picture of VFM in PPP projects. Therefore, it is necessary to study impact of other factors on VFM for improving VFM of three targeted PPP projects in Vietnam. However, the results of this research are to enhance the effectiveness of BOT, BTO and BT projects in Vietnam.

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Appendix 1 - Risk allocation matrix (Source: Q. Government, 2008, pp. 92-107)

| Risk category | Description | Consequence | Mitigation | Likely preferred allocation |
|--|---|---|---|--|
| Site risks | | | | |
| The risk that the project land will be unavailable or unable to be used at the required time, in the manner or at the cost anticipated, or that the site will generate unanticipated liabilities, with the result that the contracted service delivery and/or projected revenues are adversely affected. | | | | |
| Acquisition of Site | The risk that preferred site is in third-party ownership and has to be acquired for the project. | The risk of unanticipated land acquisition costs and delays in acquisition. | State may use its statutory powers of compulsory acquisition. | Private party |
| Existing structure (refurbishment/ extensions) | Risk that existing structures are inadequate to support new improvements. | Additional construction time and cost. | Private party will pass to builder who relies on expert engineering reports. | Private party |
| Site conditions | The risk that unanticipated adverse ground conditions are discovered which cause construction costs to increase and/or cause construction delays. | Additional construction time and cost. | Private party will pass to builder which relies on expert testing and due diligence. The government may commission initial reports if appropriate | Private party |
| Approvals (1) | The risk that necessary approvals may not be obtained or may be obtained only subject to | Delay in works commencement or completion and cost increases. | Where the project is unusually complex or the processes to obtain the approvals are likely to be | Private party unless government assumes some or all of risk due to |

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| | unanticipated conditions that have adverse cost consequences or cause prolonged delay | | lengthy, the government may start the process of obtaining approvals prior to the commencement of the tender process. The work done would then be transferred to the Preferred Bidder under a [Project Development] agreement to enable them to obtain the approval. The Bidders are ultimately responsible for determining which approvals are necessary | complexity or sensitivity of particular project |
| Approvals (2) | The risk that additional approvals required during the course of the project cannot be obtained. | Further project development or change in business operation may be prevented | Private party to anticipate requirements. | Private party unless government has initiated the change requiring approval. |
| Environmental (1) | The risk that the project site is contaminated requiring significant expense to | Clean-up costs and delay | Reliance on expert reports and insurance | Private party will generally assume the risk although because of the |

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| | remediate. | | | time and cost implications of full due diligence for each Bidder, some risk sharing may be a cost effective solution. |
| Environmental (2) | The risk that a site chosen by the private party (i.e. not the government-preferred site) is contaminated requiring significant expense to remediate. | Clean-up costs and delay. | Reliance on expert reports and insurance | Private party assumes all risk as it has selected the site |
| Environmental (3) | The risk that prior to financial close offsite pollution has been caused from a government preferred site (any site) to adjacent land. | Clean-up liability | Government to commission reports; government should also have greatest knowledge of past uses of its site. | Government may assume responsibility by way of indemnity or obligation to compensate for unidentified off site pollution pre financial close |
| Environmental (4) | The risk that prior to financial close offsite pollution has been caused from a non- | Clean up liability | Private party should commission reports and investigations. | Private party will take risk of offsite pollution from any site |

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| | government preferred site to adjacent land. | | | that is not a government preferred site. |
| Environmental (5) | The risk that after financial close offsite pollution is caused to adjacent land. | Clean up liability | Private party can manage site activity. | Private party will be in control of activities on the site post financial close and will be required to assume risk of offsite pollution caused by those activities |
| Clean-up and rehabilitation | The risk that the use of the project site over the contract term has resulted in a significant clean up or rehabilitation obligation to make the site fit for future anticipated use. | Financial liability on residual owner. | Private party able to manage the use of the asset and attend to its maintenance and refurbishment. | Private party to take risk (whether government is to resume or not) and must demonstrate financial capacity or support to deliver the site in the state required by government. |
| Native title | The risk of costs and delays in negotiating indigenous land use agreements where project site may be subject to Native | Delay and cost | Search of registers and enquiry if appropriate and take expert advice. Private party must engage with traditional | Government and private party to jointly manage risk |

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| | Title or risk injunction and/or invalidity of approvals. | | owners to establish relationship over whole of project life. Government may assist in progressing procedures for native title clearances in early stages, and where necessary exercise available compulsory acquisition powers. | |
| Cultural heritage | The risk of costs and delays associated with archaeological and cultural heritage discoveries. | Delay and cost | Search of registers and enquiry if appropriate and take expert advice. Private party must engage with traditional owners to establish effective relationship over whole of project life. Government may assist in progressing procedures for Cultural Heritage clearance in early stages. | Government and private party to jointly manage risk. |
| Availability of site | The risk that tenure/access to a non-preferred site that is not presently owned by | Delay and cost | Bidder's obligation to secure access prior to contract signing. | Private party, as it makes the decision to bid on a non-preferred site. |

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| | government or private party cannot be negotiated. | | | |
| Design, construction and commissioning risk | | | | |
| The risk that the design, construction or commissioning of the facility or certain elements of each of these processes, are carried out or not carried out in a way which results in adverse cost and/or service delivery consequences. The consequences if the risk materialises may include delays and/or cost increases in the design, construction and commissioning phases, or design or construction flaws which may render the infrastructure inadequate for effective service delivery, either immediately or over time. | | | | |
| Design | The risk that the design of the facility is incapable of delivering the services at anticipated cost. | Long term increase in recurrent costs - possible long-term inadequacy of service. | <ul style="list-style-type: none"> • Private party may pass risk to builder/architects and other subcontractors while maintaining primary liability; and • Government has the right to abate service charge payments where the risk eventuates and results in a lack of service – it may ultimately result in termination where the problem cannot be suitably remedied. | Private party will be responsible except where an express government mandated change during the design and construction phase has caused the design defect |
| Construction | The risk that events occur during construction that prevent the facility being delivered on | Delay and cost | Private party generally will enter into a fixed term, fixed price building contract to pass the | Private party will be liable unless the event is one for which relief as to time |

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| | time and on cost. | | risk to a builder with the experience and resources to construct so as to satisfy the private party's obligations under the contract | or cost or both is specifically granted under the contract, such as force majeure or government intervention during the construction phase. Bank may provide a letter of credit, which can be drawn upon by equity parties if construction is not completed. |
| Commissioning | The risk that either the physical or the operational commissioning tests which are required to be completed for the provision of services to commence, cannot be successfully completed | For the private party and its financiers - delayed/lost revenue. For government-delayed service commencement. | No payment by government until all physical and operational commissioning tests have been successfully completed | Private party, although government will assume an obligation to cooperate and facilitate prompt Public Sector attendance on commissioning tests. |
| Technical obsolescence or innovation | The risk of the contracted service and its method of delivery not keeping | Private party's revenue may fall below projections | Private party may arrange contingency/reserve fund to meet upgrade | Private party except where contingency is anticipated and |

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| | pace, from a technological perspective, with competition and/or public requirements. | either via loss of demand (user pays model) payment abatement (availability model) and/or operating costs increasing; for government - consequence will be failure to receive contracted service at appropriate quantity/quality including adverse effect on core service delivery in core service model. | costs subject to government agreement as to funding the reserve and control of reserve funds upon default; also monitoring obligations in the contract and work on detailed, well-researched output specifications (government) and design solution (private party). | government agrees to share risk possibly by funding a reserve |
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Sponsor and financial

The risk that:

- Where the sponsors are unable to fulfil their contractual obligations to government, government will be unable to enforce those obligations against the sponsors or recover some form of compensation or remedy from the sponsors for any loss sustained; or
- That the sponsors are for security or other probity reasons, inappropriate or unsuitable to be involved in, or connected with, the delivery of a project, and in so being may harm the project or bring it into disrepute.

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| Interest rates pre-completion | The risk that prior to completion interest rates may move | Increased project cost. | Interest rate hedging | With private party from the date that it is |
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| | adversely thereby undermining bid pricing. | | | reasonably likely that a partnership agreement will be entered into such that a hedging instrument can be used |
| Sponsor risk | <p>The risk that the private party is:</p> <ul style="list-style-type: none"> • Unable to provide the required services or becomes insolvent; • Later found to be an improper person for involvement in the provision of these services; and • Subject to financial demands which exceeds its or its sponsors' financial capacity causing corporate failure. | Cessation of service to government and possible loss of investment for equity providers. | <ul style="list-style-type: none"> • Ensure project is financially remote from external financial liabilities, ensure adequacy of finances under loan facilities or sponsor commitments supported by performance guarantees; • Use of non-financial evaluation criteria and due diligence on private parties (and their sponsors). • Project models to be provided for review in all cases. | Government |
| Financing unavailable | The risk that when debt and/or equity are required by the private party for the | No funding to progress or complete construction. | Government requires all bids to have fully documented financial commitments with | Private party |

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| | project it is not available then and in the amounts and on the conditions anticipated. | | minimal and easily achievable conditionality. | |
| Further finance due to changed requirements of government | The risk that the government imposes a requirement, by reason of a change in law, policy or other similar event, which is specifically directed at the project and results in additional funding being needed to rebuild, alter, re-equip, etc the facility which cannot be obtained by the private party. | No funding available to complete further works required by government. | <ul style="list-style-type: none"> Private party must assume best endeavours obligation to fund at agreed rate of return with option on government to pay by way of uplift in the services charge over the balance of the term or by a separate capital expenditure payment; Government to satisfy itself as to likelihood of this need arising, its likely criticality if it does arise, and as to financial capacity of private party to provide required funds and (if appropriate) budget allocation if government itself is required to fund it. | Government takes the risk that private finance is unavailable. |

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| Change in ownership | The risk that a change in ownership or control of the private party results in a weakening in its financial standing or support or other detriment to the project | The financial robustness of the private party may be diminished and, depending on the type of project, probity and other non financial risks may arise from a change in ownership or control which may be unacceptable to government | Government requirement for its consent prior to any change in control. N.B. private party will seek to limit this control to circumstances where substantive issues are of concern such as financial capacity and probity. | Government risk as to the adverse consequence of a change if it occurs; private party risk that its commercial objectives may be inhibited by a restrictive requirement for government consent to a change. |
| Refinancing benefit | The risk (upside) that at completion or other stage in project development the project finances can be restructured to materially reduce the project's finance costs. | A beneficial change in the financing cost structure of the project. | Government to advise Bidders during the competitive bid process of the procedures for sharing in refinancing benefit. Formula to be agreed and documented in project agreements. Generally, the project agreements will provide for sharing once the project vehicles internal rate | Shared |

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| | | | of return reaches an agreed level. | |
| Tax changes | The risk that before or after completion the tax impost on the private party, its assets or on the project will change. | A negative effect on the private party's financial returns and in extreme cases, it may undermine the financial structure of the project so that it cannot proceed in that form. | The financial returns of the private party should be sufficient to withstand such change. The private party should obtain a private tax ruling in relation to specific taxation structures. | Private party |
| Operating | | | | |
| The risk that the process for delivering the contracted services – or an element of that process (including the inputs used within or as part of that process) – will be affected in a way which prevents the private party from delivering the contracted services according to the agreed specifications and/or within the projected costs. | | | | |
| Inputs | The risk that required inputs cost more than anticipated, are of inadequate quality or are unavailable in required quantities. | Cost increases and in some cases adverse effect on quality of service output. | Private party may manage through long-term supply contracts where quality/quantity can be assured; private party can address to some extent in its facility design. | Private party unless government provides inputs |
| Changes in output specification outside agreed specification | The risk that government's output requirements are changed after contract signing | A change in output requirements prior to commissioning | Government can mitigate this risk to an extent by minimising the chance of its | Government |

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| range | whether pre or post commissioning. | <p>may necessitate a design change with capital cost consequences depending on the significance of the change and its proximity to completion. A change after completion may have a capital cost consequence or a change in recurrent costs only; for example where an increase in output requirements can be accommodated within existing facility capacity.</p> | <p>specifications changing and, to the extent they must change, ensuring the design is likely to accommodate it at least expense. This will involve considerable time and effort in specifying the outputs up front and planning likely output requirements over the term. Alternatively, shorter term operating contracts may be utilised.</p> | |
| Operator failure | The risk that a subcontract operator may fail financially or may fail to provide contracted services to | The failure may result in service unavailability, an inability for government to deliver core | Government will carry out due diligence on principal subcontractors for probity and financial | Private party is fully and primarily liable for all obligations to government |

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| | specification. | services and, in each case, a need to make alternate arrangements for service delivery with corresponding cost consequences. | capacity and commission a legal review of the major subcontracts including the guarantees or other assurances taken by the private party; if failure does occur the private party may replace the operator or government may require operator replacement. | irrespective of whether it has passed the risk to a subcontractor. |
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Market risk

The risk that:

- Demand for a service will vary from that initially projected; or
- Price for a service will vary from that initially projected, so that the total revenue derived from the project for the project term varies from initial expectations.

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| General economic downturn | In a user pays model, the risk of a reduction in economic activity affecting demand for the contracted service. | Revenue below projections. | Where government is the primary off-taker the private party may seek an availability payment element; otherwise the private party will ensure robust financial structure and sponsor/financier support. | Private party |
| Competition | In a user pays model the risk of alternate suppliers of the | Revenue below projections arising from a | Private party to review likely competition for | Private party |

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| | contracted service competing for customers. | need to reduce the price and/or from a reduction in overall demand, because of increased competition. | service and barriers to entry. The private party may seek an availability payment element and/or may seek compensation for the impact of government subsidised competition. | |
| Demographic change | The risk of a demographic/socio-economic change affecting demand for contracted service | Revenue below projections | Party to review likely competition for service, barriers to entry. Private party may seek an availability payment element. | Private party |
| Inflation | The risk that value of payments received during the term is eroded by inflation. | Diminution in real returns of the private party. | Private party seeks an appropriate mechanism to maintain real value e.g. via linkage to CPI. Government concern to ensure its payments do not overcompensate for inflation and to avoid any double payment for after costs adjustments e.g. on changes in policy/law. | Private party takes risk on the methodology adopted to maintain value. |

| Network and interface | | | | |
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| <p>Network risk is the risk that the network(s) needed for the private party to deliver the contracted services will be removed, not adequately maintained or otherwise changed – including being extended to include additional infrastructure or services not foreseen or anticipated at the date of the contract – in a way that either prevents or frustrates the delivery of the contracted services, affects the quality of the specified outputs or in some other way affects the viability of the project.</p> <p>Interface risk is the risk that the method or standard of delivery of the contracted services will prevent or in some way frustrate the delivery of the core services or vice versa.</p> | | | | |
| Withdrawal of support network | The risk that, where the facility relies on a complementary government network, that support is withdrawn or varied adversely affecting the project. | Negative patronage and revenue consequences. | Private party will seek financial redress against change which unfairly discriminates against the project particularly on a user pays project where revenue is directly affected; under an availability model private party will seek to avoid abatement if government 'prevention' is cause of unavailability. | Private party except where government initiates changes that discriminate against the project. |
| Changes in competitive network | The risk that an existing government network is extended/changed/re-priced so as to increase competition for the facility. | Negative patronage and revenue consequences. | Private party will seek financial redress against change that unfairly discriminates against the project by government subsidising | Private party except to the extent that government provides redress for appropriate, discriminatory changes. |

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| | | | competition (existing or new). | |
| Interface (1) | The risk that the delivery of core services occurs in a way that is not specified in the contract adversely affects the delivery of contracted services. | Adverse effect on delivery of contracted service, potential for default by private party and possible need for government to make other arrangements for service provision. | Government manages core service activities allowing it to influence the materialisation of interface risk and its consequences | Private party except to the extent that government provides redress for appropriate, discriminatory changes. |
| Interface (2) | The risk that the delivery of contracted services adversely affects the delivery of core services in a manner not specified in the contract. | Adverse effect on delivery of core services, default by private party and possible need for government to make other arrangements for core service provision. | Private party manages contracted service activities | Private party |
| Industrial relations | | | | |
| The risk of any form of industrial action – including strikes, lockouts, work bans, work-to-rules, blockades, picketing, go-slow action and stoppages – occurring in a way which directly or indirectly, adversely affects commissioning, service delivery or the viability of the project | | | | |
| Industrial | The risk of strikes, | Cost and time | Private party or its | Private party |

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| relations and civil commotion | industrial action or civil commotion causing delay and cost to the project. | delay. | sub-contractors manage project delivery and operations | |
| Legislative and government policy | | | | |
| The risk that government will exercise its powers and immunities, including but not limited to, the power to legislate and determine policy, in a way which negatively impacts on or disadvantages the project. | | | | |
| Changes in law/policy (1) | The risk of a change in law/policy of the state government only, which could not be anticipated at contract signing and which has adverse capital expenditure or operating cost consequences for the private party. | A material increase in the private party's operating costs and/or a requirement to carry out capital works to comply with the change | <ul style="list-style-type: none"> • Government may mitigate its liability for such change by monitoring and limiting (where appropriate) changes which may have these effects or consequence on the project and via mechanisms in the contract allowing compensation only above a pre-agreed 'Significant Amount'. • Government may also requiring the private party to effect the change in such a manner that the financial effect on government is minimised and, if payment is required, that payment is made | Government: although the parties may share the financial consequences of capital cost increases in an agreed way, for example by the private party meeting a percentage of the cost up to a specific limit and government meeting any excess. |

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| | | | <p>in a way and a time best suited to government (e.g., pay on a progressive scale).</p> <ul style="list-style-type: none"> • In a user pays model, put in place a regulatory regime that allows pass through to end-users. | |
| Changes in law/policy (2) | In some cases, the risk of a change in law/policy (at other levels of government) which could not be anticipated at contract signing and which causes a marked increase in capital costs and/or has substantial operating cost consequences for the private party. | Requirement on the private party to fund and carry out capital works or meet a marked increase in operating costs to comply with the change. | Government mitigates by excluding changes such as tax changes or changes for which the private party is compensated under a CPI adjustment or similar. | Private party |
| Regulation | Where there is a statutory regulator involved there are pricing or other changes imposed on the private party which do not reflect its investment | Cost or revenue effects | Private party to assess regulatory system and may make appropriate representations | Private party |

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| | expectations. | | | |
| Force majeure | | | | |
| The risk that a specified event entirely outside the control of either party will occur and will result in a delay or default by the private party in the performance of its contractual obligations. | | | | |
| Force majeure | The risk that inability to meet contracted service delivery (pre or post completion) is caused by reason of force majeure events. | Loss or damage to the asset, service discontinuity for government (may include inability to deliver core service) and loss of revenue or delay in revenue commencement for private party. | <ul style="list-style-type: none"> • If insurable, private party must ensure availability of insurance proceeds towards repair of asset and service resumption and government is to be given the benefit of insurance for service disruption costs; • Private party given relief from consequences of service discontinuity; • If uninsurable, private party may establish reserve funding; and • Government to develop a contingency plan for alternate service delivery. | <ul style="list-style-type: none"> - Private party takes the risk of loss or damage to the asset and loss of revenue. - Government takes some risk of service discontinuity both as to contracted service and core service subject to insurance availability and will need to arrange alternative service provision the cost of which will be met from redirected service payments and (if insurable) any shortfall made up from insurance proceeds |
| Asset ownership | | | | |

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| <p>The risk that events such as loss events, technological change, construction of competing facilities or premature obsolescence will occur, with the result that the economic value of the asset may vary, either during or at the end of the contract term, from the value upon which the financial structure of the project is based.</p> | | | | |
| Maintenance and Refurbishment | The risk that design and/or construction quality is inadequate resulting in higher than anticipated maintenance and refurbishment costs | Cost increases where private party has assured whole of life obligation and adverse effect on delivery of contracted services and a corresponding adverse effect on government ability to deliver core services. | Private party to manage through long term subcontracts with suitably qualified and resourced sub-contractors and through formal or informal consultation processes with government. | Private party |
| Technical obsolescence | The risk that design life of the facility proves to be shorter than anticipated accelerating refurbishment expense. | Cost of upgrade | Private party may have recourse to designer, builder or their insurers | Private party, but in certain high technology projects costs may be anticipated and shared |
| Default and termination | The risk of 'loss' of the facility or other assets upon the premature termination of lease or other project | Loss of investment of private party; possible service disruption for government. | • Private party (and its debt financiers) will be given cure rights (time and opportunity) to remedy defaults by | - Private party will take the risk of loss of value on termination. - Government assumes risk of |

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| | contracts upon breach by the private party and without adequate payment | | <p>the private party which may lead to termination;</p> <ul style="list-style-type: none"> • Serious breaches by the private party to lead to termination; • Upon termination the private party may receive fair market value less all amounts due to government; • Government will require step in rights to ensure access and service continuity until control issues are resolved. | disruption to service. |
| Residual value on transfer to government | The risk that on expiry or earlier termination of the services contract the asset does not have the value originally estimated by government at which the private party agreed to transfer it to government. | Capital costs incurred to upgrade the asset to the agreed value and useful life. | Government will impose on the private party maintenance and refurbishment obligations, ensure an acceptable maintenance contractor is responsible for the work, commission regular surveys and inspections; it may also direct funds from the project into dedicated controlled | Government |

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| | | | sinking fund accounts to accumulate funds sufficient to bring the asset to agreed condition and/or (if required) obtain performance bonds to ensure the liability is satisfied | |
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Appendix 2: Contents of Questionnaire

THE UNIVERSITY OF TAMPERE

INTERVIEW ABOUT VALUE FOR MONEY OF THREE TARGETED PUBLIC – PRIVATE PARTNERSHIP PROJECTS IN VIETNAM

The data from this interview is source for a research in University of Tampere, Finland. The purpose of this interview is determining value for money and exploring difficulties to achieve VFM in three target PPP models in Vietnam. All provided information is used for studying target.

Note: - Public-Private Partnership is called PPP.

- Three target PPP models are Build – Operate – Transfer (BOT), Build – Transfer – Operate (BTO) and Build – Transfer (BT) schemes.

- Value for money is called VFM.

Part I: General Information

1. Organization:
2. Address of organization:
3. Office:
4. Respondent:

Part II: VFM in three targeted PPP projects

5. What is role of your organization in implementing a PPP project?
6. What are kinds of PPP schemes that you implemented?
7. In your opinion, what is VFM of three targeted PPP projects?
8. What do factors affect on VFM?
9. What are difficulties in implementing three targeted PPP projects?
10. In your opinion, what is the current level of VFM of three targeted PPP projects?

Part III: Recommendations of respondent

11. What should your organization do to improve VFM?
12. What are your recommendations for central government to enhance VFM?

Appendix 3: Answers of Lam Dong Department of Transport

INTERVIEW ABOUT VALUE FOR MONEY OF THREE TARGETED PUBLIC – PRIVATE PARTNERSHIP PROJECTS IN VIETNAM

Part I: General Information

1. Organization: Lam Dong Department of Transport
2. Address of organization: No. 22 – Pasteur Street – Dalat City – Lam Dong Province - Vietnam
3. Office: Planning and Finance
4. Respondent: The vice- manager of this office

Part II: VFM in three targeted PPP projects

5. What is role of your organization in implementing a PPP project?

In fact, duty of my organization is that implementing investment infrastructure projects in transport field in Lam Dong province. Some of them are PPP projects in which my organization prepares bidding documents and implements feasibility study for each projects in this field. Moreover, my agency has to monitor the works of private partners during lifecycle of the projects.

6. What are kinds of PPP schemes that you implemented?

Almost projects are implemented under BOT scheme. Moreover, my organization is negotiating a BT project about building a bridge in Lam Dong province.

7. What is VFM of three targeted PPP projects?

VFM means that the projects achieve economic effect. For example, because of choosing bidder with possibly low cost, capital can be saved. In addition, the projects can contribute into socio-economic development of the province.

8. What do factors affect on VFM?

In fact, there are two main factors such as competitive environment of bidding process and inflation. On one hand, competition requires solutions that meet outcome specifications of the projects with low cost. On the other hand, inflation leads to currency devaluations so that it makes costs for the projects increasing over time. Especially, inflation of Vietnam is always at high level in recent years. As a result, many projects can not complete on time and have cost overrun.

9. What are difficulties in implementing three targeted PPP projects?

When my organization builds feasibility study for a PPP projects, we do not have enough abilities to determine all risks that relate to the projects. Moreover, under PPP model, this concern is

more complex because of participation of private sector. In addition, government has not issued general framework to manage risks lead to many difficulties in implementing the projects.

10. What is the current level of VFM of three targeted PPP projects?

VFM of PPP projects in Vietnam reach high average level because two main reasons. The first reason is that bidding process will choose suitable bidder with lowest costs so that capital can be saved. The second reason is that facilities from these projects have many contributions for national economy.

Part III: Recommendations of respondent

11. What should your organization do to improve VFM?

1. Determining risks in scope of the infrastructure projects in transport field.
2. Training about implementing and monitoring PPP projects in transport field for officers who participate into the projects directly.

12. What are your recommendations for central government to enhance VFM?

Government should build general framework of risk management in PPP projects. This framework should include clear guides for three targeted PPP schemes such as BOT, BTO and BT schemes. Actually, it is very useful for all local governments in Vietnam when they apply PPP model.

Appendix 4: Answers of Lam Dong Department of Planning and Investment

INTERVIEW ABOUT VALUE FOR MONEY OF THREE TARGETED PUBLIC – PRIVATE PARTNERSHIP PROJECTS IN VIETNAM

Part I: General Information

1. Organization: Lam Dong Department of Planning and Investment
2. Address of organization: No. 08 –Tran Hung Dao Street – Dalat City – Lam Dong Province - Vietnam
3. Office: Basic construction and Appraisal
4. Respondent: Manager of this office

Part II: VFM in three targeted PPP projects

5. What is role of your organization in implementing a PPP project?

My organization has important role in calling investment, approving investment projects and monitoring the implementing process of projects. These projects include PPP projects. Moreover, we build middle-term strategic and annual plan about investment into infrastructure in Lam Dong province. Specially, my organization supply investment licences for other organizations before they implement projects, include PPP and other projects. Obviously, my organization play important role in applying PPP model.

6. What are kinds of PPP schemes that you implemented?

Lam Dong province is often used two types of schemes such as BOT and BT. For example, high way Lien Khuong BOT projects and general administrative area BOT project. Moreover, transport field attracts most investment projects under PPP model in case of Lam Dong province.

7. .What is VFM of three targeted PPP projects?

VFM means that benefit of the projects is more than the costs that invest for them. Benefit includes economic and social benefit. It means that the projects must save money, however they must ensure benefit of end users.

8. What do factors affect on VFM?

Limited abilities of officers have negative impact on expected results of the projects. For example, because of limited ability, officers approve a PPP project that brings more profit for private partners than end users. Obviously, this project is not effective.

9. What are difficulties in implementing three targeted PPP projects?

The duty of my organization is that considering and assessing feasibility studies for PPP projects of other agencies in Lam Dong province. We can not understand clearly about all characteristics of all different fields so that they can not determine all risks that relate to the projects. Moreover, we have not trained about assessing, managing and monitoring PPP projects fully.

10. What is the current level of VFM of three targeted PPP projects?

VFM of PPP projects is low level because almost the projects in Vietnam are not on time and cost overrun. It means that benefit of end users is affected strongly while capital of these projects increases considerably.

Part III: Recommendations of respondents

11. What should your organization do to improve VFM?

1. Shortening the approval process and time for giving investment licences.
2. Encouraging officers to improve their knowledge about PPP model

12. What are your recommendations for central government to enhance VFM?

Government should train for officers who participate into the projects. The program of training should include knowledge about benefit-cost assessment and experiences of successful projects in Vietnam and other countries.

Appendix 5: Answers of Lam Dong Department of Finance

INTERVIEW ABOUT VALUE FOR MONEY OF THREE TARGETED PUBLIC – PRIVATE PARTNERSHIP PROJECTS IN VIETNAM

Part I: General Information

1. Organization: Lam Dong Department of Finance
2. Address of organization: No. 44A– Ho Tung Mau Street – Dalat City – Lam Dong Province - Vietnam
3. Office: Investment
4. Respondent: Manager of this office

Part II: VFM in three targeted PPP projects

5. *What is role of your organization in implementing a PPP project?*

My organization manages policies of government about investment infrastructure in Lam Dong province. These policies are legal basis for all government agencies to receive capital for building feasibility studies of PPP projects. Moreover, it is capital for land acquisition that is large and important. It can make time of implementing the projects delay.

6. *What are kinds of PPP schemes that you implemented?*

Almost the projects are under BOT schemes and some projects are applied BT schemes

7. *What is VFM of three targeted PPP projects?*

VFM means that capital of the projects is used effective lead to they finish on time and meet objectives of the projects.

8. *What do factors affect on VFM?*

Limited abilities of officers lead to low level of management the scale and complexity of the projects. Besides that, if policies of government are unstable, it makes more difficulties in applying PPP model.

9. *What are difficulties in implementing three targeted PPP projects?*

In fact, policies of Vietnam government about change quickly so that it is very hard to attract private sector to invest. Because it does not ensure that their capital can return and they have profits. Moreover, we meet many difficulties in process of land acquisition because reasons such as differences policies between different provinces or un-cooperation of people.

10. *What is the current level of VFM of three targeted PPP projects?*

VFM of PPP projects is low level because almost the projects in Vietnam are not on time and cost overrun.

Part III: Recommendations of respondents

11. What should your organization do to improve VFM?

1. Building suitable prices of land acquisition. The suitable prices approximate to market prices that people accept easier. It means that time for land acquisition process is shortened and the projects can finish on time.

2. Finding out solutions to improve policies of Lam Dong province for enhancing VFM in PPP projects.

12. What are your recommendations for central government to enhance VFM?

Government should build effective policies about applying PPP model and these policies should be stable in long-term period.