

# SPECIAL PURPOSE VEHICLE (SPV) MODEL FOR PRIVATE FINANCE INITIATIVES FOR LARGE SCALE INFRASTRUCTURE PROJECTS IN SRI LANKA

B.A.S.W. Chandrarathna<sup>\*</sup>, P.A.P.V.D.S. Disaratna, S.M.N. Anuruddika and  
N.N. Wimalasena

Department of Building Economics, University of Moratuwa, Sri Lanka

## ABSTRACT

*Sri Lankan infrastructure development funding take up a good portion from the country annual budget. To cover up the cost of infrastructure projects, Sri Lanka use foreign funds and loans along with domestic earnings. Due to this process continuation for a long time, Sri Lanka has now ended up with dependencies to other countries. This research focus on studying Private Financing Initiatives (PFI) as an alternate solution for loans and insufficient Gross Domestic Product (GDP). Identifying available alternative methods, assessing suitability on private financing and developing a suitable Special Purpose Vehicle (SPV) model to suit Sri Lankan industry is the main objectives of this research. Moreover, what is PFI and how PFI was applied in other countries in their large-scale development projects, characteristics of PFI, how PFI can be attached with SPVs, what is an SPV have also studied using the available literature. In order to identify a suitable SPV in a PFI agreement, different types of SPV models has being compared. Further reasons for failure and rare existence of PFI in Sri Lanka, how PFI can be adopted to Sri Lanka, success factors, suitability of PFI and SPV, if a SPV is adopting to Sri Lanka how its relationships to be formed was identified by carrying out in-depth interviews. As conclusion, factors related to making a trend in PFI for project funding in Sri Lanka, government contribution in such projects and the need of change in government policies to bring up PFI contracts with a SPV, providing solutions for resisting PFI and leads to a successful adoption of PFI has being discussed.*

**Keywords:** Large Scale Infrastructure; PFI; Project Financing; Special Purpose Vehicle.

## 1. INTRODUCTION

Sri Lanka is now taken up on a clear lead of infrastructure development by initiating mega scale projects in port expansion, toll roads, mega city development, Airport expansion etc. With the advancement of technology and the increment in population, complex public needs, the depth and scope of projects have being raised in multiple times. According to Agarwal *et al.*, (2011) "Infrastructure projects are complex, capital intensive, having long gestation period and involve multiple risks to the project participants". In order to cope up those mentioned facts, large amount of funds are required and in common practice using either foreign funds or Government funds the requirement is full filled.

Excessive straining of government funds has the potential of leading Sri Lanka or any country into a public and foreign debt crisis. For the past few years, Sri Lankan Development projects were funded via government or foreign funding. Due to the insufficient GDP and lined up debts to pay, need for alternative funding in mega scale projects is arising. The following research was carried out in order research available alternatives and particularly to study the suitability and adoptability of PFI as an alternative funding method.

The aim of this research is to develop a framework to achieve a customized SPV model suitable for Sri Lankan context in PFI.

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<sup>\*</sup>Corresponding Author: E-mail - sasandaqs@gmail.com

## **2. LITERATURE REVIEW**

### **2.1. FUNDING METHODS FOR LARGE SCALE INFRASTRUCTURE**

“With the current global financial crisis, governments are expanding investment in infrastructure projects as a source of fiscal stimulus, with the twin objectives of job creation and improving economic performance” (Brude and Makovsek, 2013). In order to expand the capacities of new developments, Governments are now giving opportunities to the third parties to fund for the projects so the private sector can use their potentials in the development of the country and the same time they can get back a secure return on investment. Any government raises funds for projects using government bonds and guarantees, taxation, borrowing or printing money. Over doing any of these methods can cause for an economic crisis in a country. Due to the fact it’s important for a government to raise funds using alternatives in a way it will not be a burden on the public or the private sector (Gardner and Wright, 2013). The types of contracts which were developed to benefit those public private contracts were categorized under Public Private Partnering (PPP). Later on another type of PPP was introduced in United Kingdom (UK) Private Funding Initiatives (PFI) where “Private Finance Initiative offers an alternative to the conventional procurement of public service infrastructure contracts” (Li *et al.*, 2005).

### **2.2. SRI LANKAN PRACTICE**

For the year 2015 around 1051 development projects have been implemented. Out of this 306 projects were considered as large scale projects which have an estimated budget over Rs. 500 million (Department of Project Management and Monitoring, 2016). The major portion of these large projects were funded by the Sri Lankan government with the aid of foreign borrowings and funds. Even though government make an effort to bear all the expenses of these projects using borrowings or treasury bills, due to the war crisis in the country 8 years ago made a negative impact on the economy, where as a country Sri Lanka still in attempt of recovering from an excess amount of foreign debts collected among that period.

With the existing funding procedure in Sri Lanka according to Department of Project Management and Monitoring (2016) among the large-scale traditional project category, 14 projects have reported project cost overruns than the estimations, 44 projects have reported a time overrun and in addition around 10 projects have delayed in the project implementation cycle and are underperforming due to various reasons. “Weak contract management, lack of co-ordination among relevant stakeholders, poor project management capacity in project management units” were few that could be identified (Department of Project Management and Monitoring, 2016). Furthermore, according to that report during the year 2015, 10 large scale projects have come across scope changes due to various reasons such as policy decisions, technical issues and unattended bottlenecks.

Similar situations has occurred in some other countries where the public infrastructure project financing lead to failure has raisen the necessity to adopt alternative private funding. UK, Malaysia, Sweden, Japan and United States of America are few countries who successfully developed alternatives (Yamaguchi *et al.*, 2001). As in Sri Lanka the productivity of the system can be increased if the government can go for alternative funding and procurement method rather sticking into government funding traditional procurement method.

### **2.3. WHAT IS PFI?**

“Private financing is a promised way to provide infrastructure without increasing the public sector borrowing requirement (PSBR)” (Hodge and Greve, 2009).

The Private Finance Initiative was initiated in UK. It is a type of PPP where the contribution of many private parties and the government to seek and to combine the advantages of competitive tender, flexible negotiation, and transfer risk away from the public sector (Bing *et al.*, 2005).

“Private Finance Initiative (PFI) offers an alternative to the conventional procurement of public service infrastructure” (Zainon *et al.*, 2012). Rather holding into old procurement method, in Sri Lanka medium and small scale projects were opened up to PPP and PFI (Yatanwala and Jayasena, 2009). Even though it’s manageable with traditional lump sum contract for medium and small scale, when the project scope get larger

and when the public funding is insufficient PFI is one out of the best options because, “at its best, private investment can save the public money and improve services in the long run” (DiNapoli, 2013).

#### **2.4. CHARACTERISTICS, USE, SUITABILITY AND ADAPTABILITY OF PFI**

PFI has the characteristics of bearing the upfront cost of a project, risk sharing, multi-party collaboration, long term build and operation contracts with expertise and pioneer stakeholders in the industry, adaptability to large scale projects, cost saving opportunities and consideration of Value for Money concept. According to a study conducted in UK the researchers have received a good feedback form sampled project survey conducted for target group of projects which were in design and operational phase and according to the following source they have received 53% of highest ratings and no negative feedbacks have been received, this data collection has been done in 2003 in terms of successability of PFI” ( Beckett, et al., 2009).

PFI has the easy adaptability to any scale of project. It has been adapted in many sectors different scale projects in many countries. For example in military sector countries like USA are initiating private funding initiatives for their purchasing and maintenance of combat airplanes etc. (Bradford, 2001).

There are three types of PFI can be identified in the practice,

- i. Free standing projects
- ii. Joint venture
- iii. Service sold to the public sector (Alen, 2001).

#### **2.5. SUCCESS FACTORS OF PFI**

In the eyes of a private investor the factors that affect his decision for an investment is the Return on Investment (ROI) and the associated risk (Chavers *et al.*, 2015). If the government can initiate a potential financial return on infrastructure development projects in a secure environment for the investment raising funds for public service development won't be much challenging (Ali, 2008). “What transforms a desirable project on a government wish list to an attractive investment opportunity in the eyes of a potential private sector partner” (Farquharson *et al.*, 2011).

At the end of the review, success factor of a PFI project were identified as following,

- Defining a commercial value and defining potential ROI for infrastructure projects
- Securing a low risk or a risk sharing environment for investors
- Flexible Government policies towards establishment of SPV and new PFI firms
- Accurate output specification
- Negotiation with willing private investors
- Skilled contract management (Chan *et al.*, 2009).
- Well-structured SPV
- Right collaboration of stakeholders
- Political stability of the country (Chan *et al.*, 2009).
- Political influence on a PFI project and investors
- An experienced project management team and team leaders
- Striving a balance between traditional firms and new PFI firms
- Encouraging entrepreneurs for PFI projects by open opportunities and flexible agreements
- Knowledge distribution in the industry about PFI
- Construction program of a PFI consists of a flexible schedule
- Good communication between stakeholders

#### **2.6. USE OF SPV IN PFI AND POTENTIAL BENEFITS OF A WELL-DESIGNED PFI WITH AN IDEAL SPV MODEL**

When a PFI contract is initiated, it comprises of three parties, the awarding authority, the special purpose vehicle (SPV) and third party funders (Dixon *et al.*, 2005). Unlike in PPP in PFI, the use of a SPV is common. According to explanations in literature SPV and Special Purpose Entities (SPE) are defined as follows,

“Special Purpose Vehicle (SPV) created by the equity partners to fund the project” (Akbiyikli *et al.*, 2006). “A delegating entity typically commits to buying a future flow of goods or services from a project company or SPE, with which it enters into a long-term contract” is known as a SPV.

Traditional infrastructure projects will be holding higher risk to both ends of a contract, the larger the scope gets the more the risk intense, contrary to traditional method, the risk that a SPV or a SPE creates for every contract end is comparatively little. The use of SPV was recognized in USA after failing many PPP projects due to poor negotiation and insolvency of stakeholders and costly design changes, or dramatic declines in the number of users (DiNapoli, 2013). SPV can withstand the insolvency and manage better coordination between parties if the structure of the SPV is designed properly.

SPVs' will be allowing accommodating different parties in one platform while providing a secure environment in financial and legal terms. Further SPV have the potential to get “characteristic advantages of free markets, increased competition, more accurate and sensitive pricing, expanded financing options, and timely response to demand, in the provision of public goods” (DiNapoli, 2013). SPV's can preserve a good relationship between every party involved through a well-structured communication web, which will reduce mistakes, miscommunication, flexible working environment and established contractual relationships between parties for less disputes. Further SPV will be allowing to recognize the interests of different stakeholders, and “coordinating the development and operation of a particular project with the needs of larger systems and adjacent communities” (DiNapoli, 2013). SPV has an adaptability towards its imposes on risk management, and the costs of financing and the ability to reduce life time costing since an infrastructure project contract hold the operation and maintenance part of work (Chan *et al.*, 2009). Government has the benefit of using SPVs to fast track immediate development plans without going through all the government officials and agencies and SPVs relief private companies from nonperforming idling assets (Pasadilla, 2005).

## **2.7. CHARACTERISTICS OF POTENTIAL STAKEHOLDERS**

The parties involved in a SPV have to have unique characteristics to survive in a multiple party association. Since these formed SPVs' may last long for 30-40 years it is critical to identify the potentials and required characteristics of the stakeholders for a successful PFI project with a well-managed SPV.

The mother company should have the potential to set off some of their resources for management of the SPV. With this separation SPV has to be responsible on managing its' funds, decisions and risk capital as an independent organization. Even though the risk involved with SPV can be comparatively low, the stakeholders should be readily available for risk management (Gorton and Souleles, 2007). Ability to communicate with multiple stakeholders, good negotiation skills, good reputation, previous experience in similar projects and previous experience in PFI type projects are added advantages.

Work experience with government, established organization structure and ability in good project management are another significant characteristic of a SPV stakeholder. This mentioned type potential stakeholders are readily available in Sri Lanka, who are currently not involved in construction sector or not with any announced plans to form partnerships with government.

## **2.8. ADAPTING SUITABLE SPV FOR SRI LANKAN CONTEXT**

“An SPV may be structured in different ways, depending on what the originator is trying to achieve through the vehicle and depending on where it is originated geographically” (Gosrani and Gray, 2011).

When choosing the team for a SPV the according to Edkins and Smith (2006) from the early stage itself the structure of the SPV to be planned and it's better to make the possible parties involved from the initiation for higher performance.

## 2.9. REVIEW OF EXISTING SPV MODELS

- *Model one*

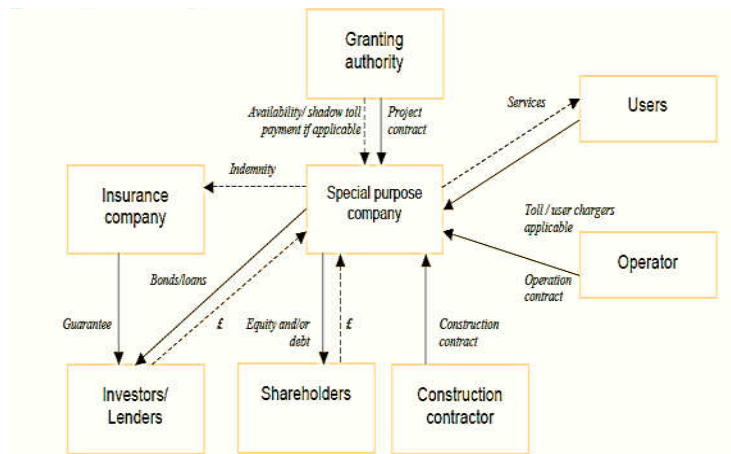


Figure 1: UK PFI Arrangement

(Source: HM Treasury, 2003)

The characteristics that can point out of these two models are,

- Government has a bond with the SPV company and the SPV company manage the bonds with other involved stakeholders.
- Since the SPV's virtually do not have an operation body this SPV company responsibility falls in to the main construction contractors' hand and after handing over it'll be passed into operation and maintenance contractor.

- *Model two*

In this type the PFI contract will be only exist between the SPV contractor and the government as in Figure 2 and the main financial institutes will be having a direct link with government. Other than the senior lender there will be secondary lenders funding the project linked to the SPV with shareholder agreements and the senior lender lends money in a loan basis so the main contractor can balance it by the time of the return on investment.

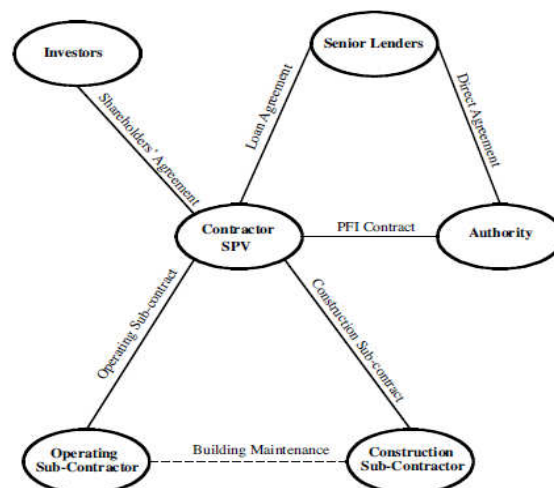


Figure 2: Lender Authority Direct Agreement Arrangement

(Source: Lemos *et al.*, 2003)

- *Model three*

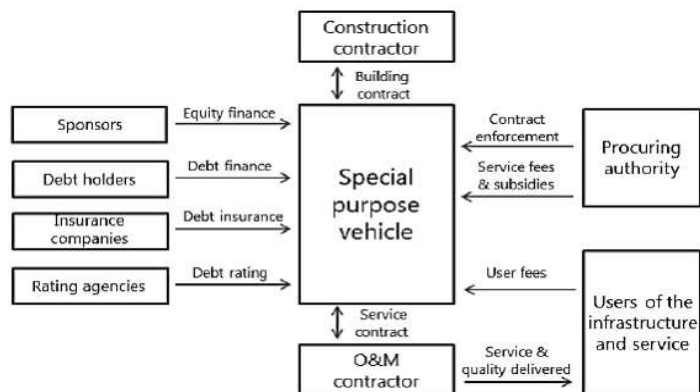


Figure 3: Web of Contracts in SPV

Source: Ehlers, 2014

In this model (refer Figure 3) each party holds a financial responsibility or a share of the SPV with established contractual relationships. So the risk and the cash flow is distributed among everybody.

- *Model Four*

In the following structure (refer Figure 4) “the underlying assets or loans are purchased by the SPV, then grouped into tranches (portions) and sold to meet the credit risk preferences of a wide range of investors” (Gorton and Souleles, 2007).

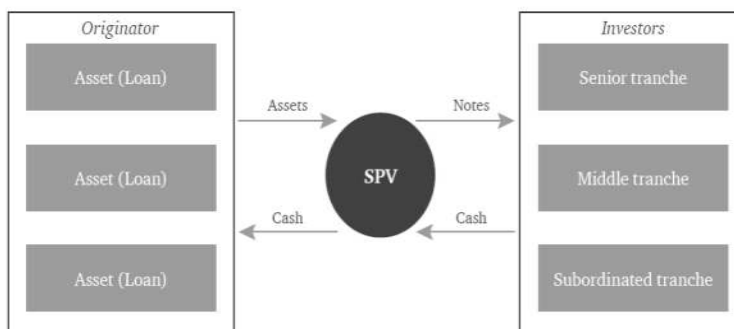


Figure 4: Securitization Model

(Source: Gosrani and Gray, 2011)

### 2.10. PRE-DEVELOPED MODEL

Figure 5 shows the possible stakeholder relationships that could be form in between the possible potential stakeholders as a combination of all the above studied models. Further, in Figure 5 two-way relationships are not defined and it was intended to confirm how the relationships are to be formed during the interview phase.

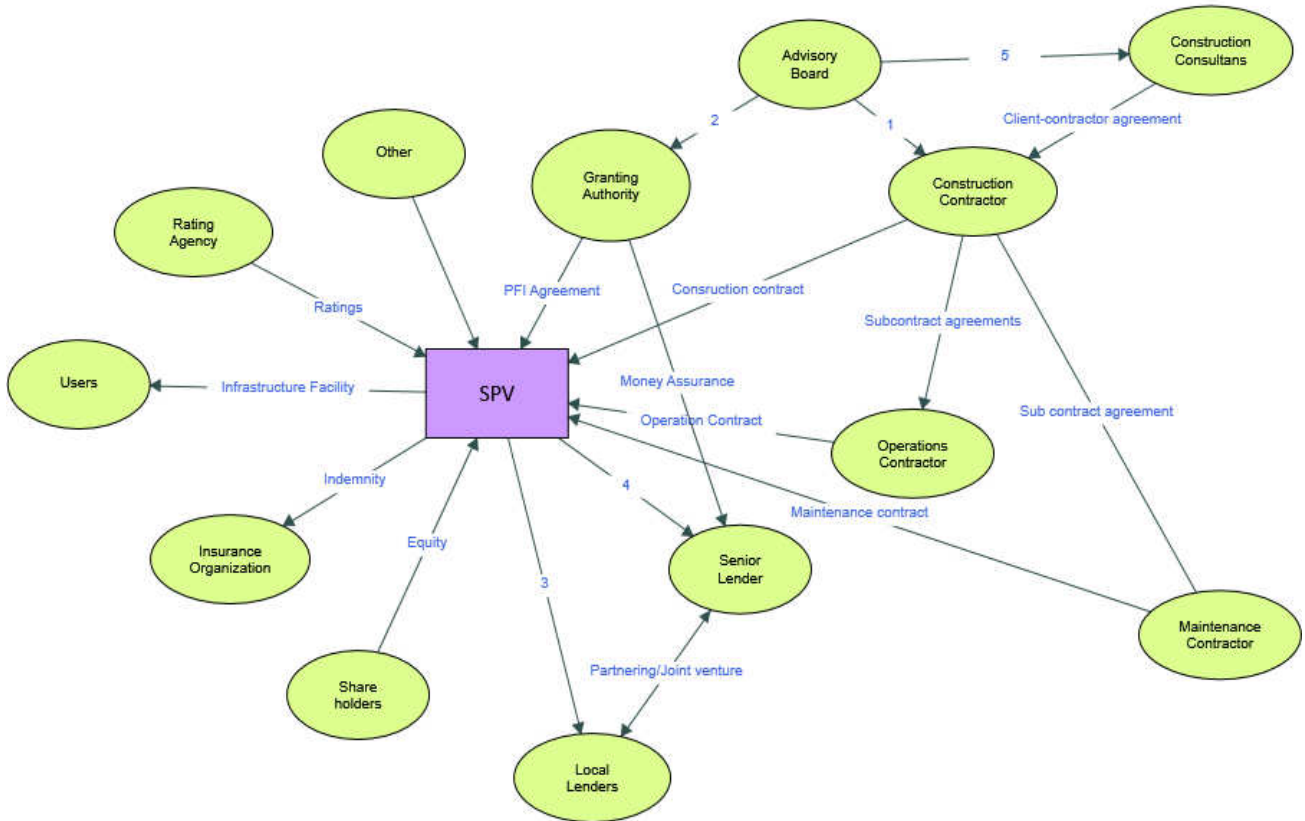


Figure 5: Potential Relationships and Stakeholders of SPV

### 3. RESEARCH METHODOLOGY

Previously in section 2, it was described the related studies carried out related to this topic and using them as an outline to data collection the salient points of this case were lined up, the methodology was identified in regards to the collected points. The method to carry out this research mainly focused on the data collection with regard to the identified model testing and collecting the industry feedback to identify the success factors of the model.

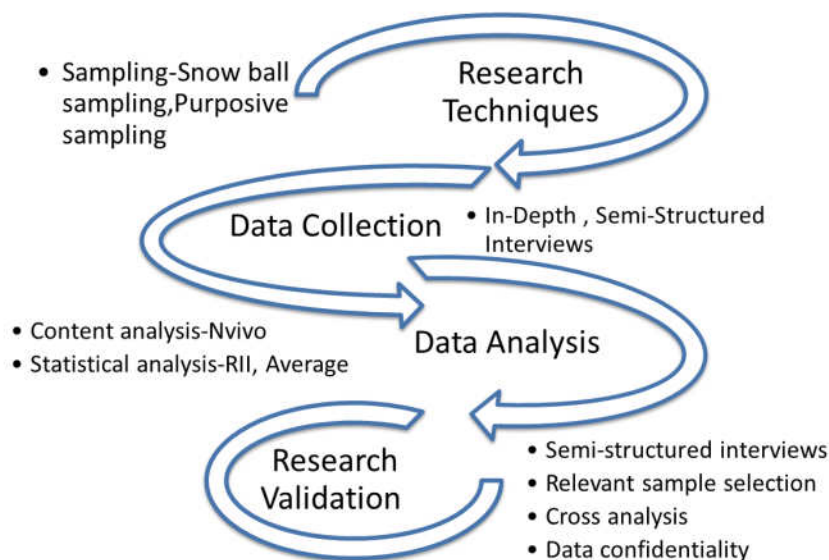


Figure 6: Research Methodology

## 4. DATA COLLECTION AND ANALYSIS

For the above research as mentioned in the methodology chapter, a field survey was done using in depth interviews for a randomly picked sample considering experts attached to mega scale development projects carried out and on-going using snowball technique. For this research, 13 interviews were carried out among relevant population. Out of the 13 respondents, two interviewees were from Granting Authorities, three from Project consultancy, three from local Contractors, one foreign contractor, one from senior lender organization, one local lender, one advisory board member and one maintenance and operation contractor. Out of all 13 interviewees three had experience of PFI and eight other interviewee's have being involved in PPP projects and two have had no previous experience in PPP or PFI but have being involved in large scale infrastructure projects.

### 4.1. REASONS FOR NEED FOR ALTERNATIVES IN SRI LANKA

During the research first phase in identification of the research problem, it was identified that government is burdened with debts where the government is in verge of finding alternatives to fund for the rising infrastructure need in the country. As planned in data collection phase to check the accuracy of this situation and the suitability of deviating from direct funding to alternate funding methods were examined.

Out of 13 interviewees 12 agreed the reason to go for an alternative project financing method was because the Sri Lankan current insufficient GDP to fund large scale projects. More over at the moment government is having difficulties in allocating money for bigger projects from the budget due to lack of upfront money. According to some interviewees the need of alternatives arise to ease the current debt burden using self-sufficient projects. Even though all experts agreed for the need of alternative funding methods the question "why as a country alternative funding is not so popular among public infrastructure" was asked. According to them, the reasons for the resistance to adopt alternative funding methods were as below,

- Political instability
- Public resistance
- No investment friendly government policies
- Lack of knowledge
- Government corruption and bad political decisions
- Government policies

Almost all the interviewees agreed that the reasons for this negative tendency towards alternative funding methods have arisen due to Sri Lanka's instable political and policy conditions. Another reason for the resistance for alternative funding methods according to interviewees 6, 8 and 5 is the lack of practice and lack of knowledge among the public. More over government corruption and bad political decisions drive away the attraction of other possible parties like multi-national companies coming to Sri Lanka.

### 4.2. SUCCESS FACTORS OF PFI

In order to find ways to adopt PFI to Sri Lanka the factors that can successfully support the process were identified, through interviewees respond the Relative Important Index (RII) were calculated and the factors were ranked (refer Table 1).

Table 1: Success Factors of PFI

Item No	Factor	RII	Rank
1	Having good commercial value for the project	3.54	2
2	Consistent government policies	3.92	1
3	Well- structured SPV	2.23	5
4	Right collaboration of stakeholders	2.46	4
5	Political stability of the country	2.85	3



The importance of consisting government policies was highlighted in the data collection. Having a good commercial value for the project was identified as the second important success factor for PFI contracts in Sri Lanka and further, the political stability of the country for the third factor and SPV arrangement related factors as least impacting factor out of these factors.

### 4.3. FAILURE FACTORS OF PFI IN SRI LANKA

Table 2: Failure Factors

Item No.	Factor	RII	Rank
1	Political instability	4.23	1
2	Resource constraints	2.92	2
3	Weak Economy	2.54	4
4	High Risk	2.77	3
5	Lack of knowledge and practice	2.54	4

According to Table 2, the results revealed that the main reason for the PFI resistance in Sri Lanka was due to the Sri Lankan political instability and lack of policy consistency. Then resource constraints like high technology, high skilled labour, funds, expert professionals is the second negative factor that affected Sri Lanka in adopting PFI. High risk associated with PFI was ranked as the thirdly impacted failure factor for PFI and weak economy and lack of knowledge and practice of this method had being the least effecting factor out of these five failure factors that were identified in literature.

### 4.4. FORMATION OF SPV

#### 1. Granting authority - SPV

In the model developed the PFI contract to be exists between the granting authority and the SPV.

#### 2. Insurance organisation - SPV

There were two options of insurance identified for this model in the literature review; first option is to insure every stakeholder and secondary relationships of the SPV through the SPV. Second option is to insure just main stakeholders such as main contractor, advisory board and the senior lender. Out of these two types, 11 respondents agreed that the SPV itself to be insured along with all secondary parties.

#### 3. Senior lender - Granting authority

In this relationship three concerns were raised,

- Money assurance for the senior lender- Nine respondents agreed that money assurance between the granting authority and senior lender is not necessary.
- Direct connection between the granting authority and lender effect the transparency- Eight interviewees out of Eleven agreed that a connection between the granting authority and senior lender would affect the transparency in a negative way.
- No direct links between but authorized links for communication- when the majority agreed to not to have a direct link between these two parties it was again mentioned having an authorized link to communicate and to maintain a certain relationship between is important for the success of the SPV

#### 4. Senior lender-local lender

It was preferred by the local lender to work under the senior lender since local banks cannot invest in projects according to country law in Sri Lanka.

#### 5. Advisory board-SPV-Client

Advisory board was preferred to be directly attached to the SPV and five respondents agreed to have the clients advisory board to be novated to the SPV. Regarding the construction consultants, it was suggested by the respondents to have a link between advisors and consultants for a better communication.

#### 6. Rating agency

There was no prominent need of having a rating agency attached in Sri Lankan context

#### 7. Financial structure

Debt-equity balanced financial structure was majority agreement on the SPV financial structure and the percentages will be varied upon the type of the project and according to the agreed parties. As an extended proposal all the stakeholders or a few major stakeholders can be shareholders of the SPV.

#### 8. Main contractor-Operation and maintenance contractor

Since this research was on mega scale infrastructure interviewees suggested that having operation and maintenance contractors directly attached to the SPV

#### 9. User-SPV

Regarding the decision of the user fee, best counsel was that the granting authority should make the decision in the project feasibility stage.

Further as suggested by respondents about the potential stakeholders to take part in the SPV were environment organizations, international and local political representation or counsellors, public and instead of the granting authority government was nominated.

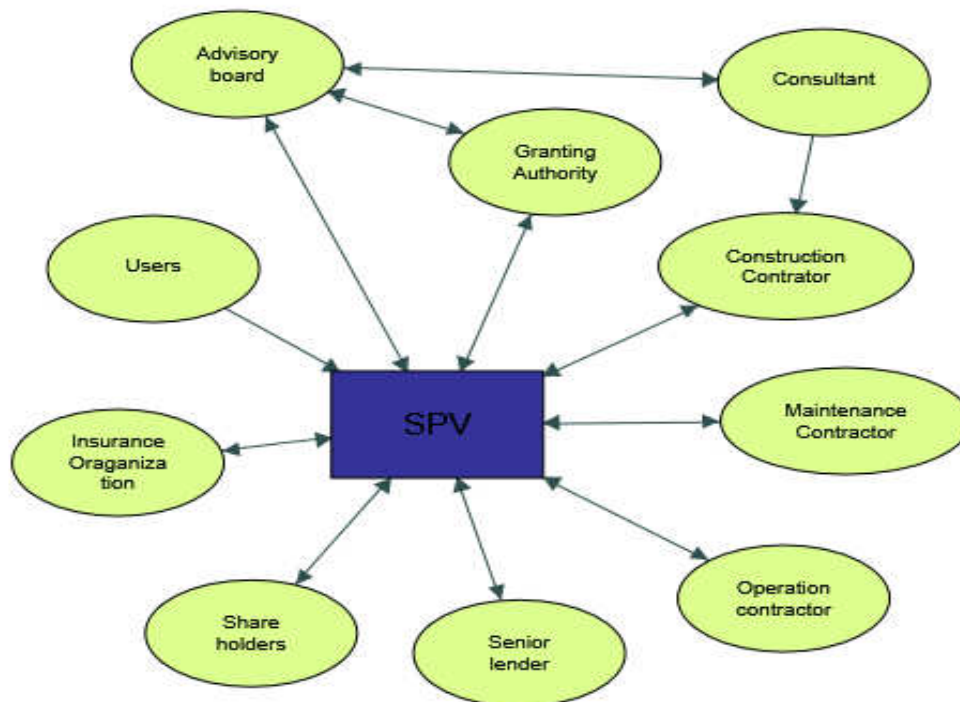


Figure 7: Identified Direct Links of the Model

#### 4.5. SRI LANKAN PRIVATE SECTOR POTENTIAL TO JOIN PFI

Responses about the Sri Lankan private sector potential to take over or make joint agreements in investing Sri Lankan large-scale infrastructure projects were as ensuing.

Accordance to collected data, 76.9% agreed that Sri Lankan industry has the potential to go hand in hand in public sector investments. “Sri Lankan private sector needs more competition to grow, at the moment even they have the potential they are limit to medium and small scale”. Along with this agreement, they also mentioned that Sri Lankan private sector is small and limited in scope where they need to grow further to get the control over large-scale projects.

#### **4.6. CHARACTERISTICS OF POTENTIAL PRIVATE SECTOR STAKEHOLDERS FOR A SPV**

For a stable and a strong SPV the following factors were expected from firms according to the experts comment,

- Risk management skills
- Long term investment plan
- Potential funding
- Established organization structure

The importance of above factors were specified as following. “Doing joint business with Sri Lankan government itself is a risk. Unless the firms who are willing to invest in those SPVs have long term investment plans with adequate funding to maintain their current cash flow as well as to grow in technology and have a stable established organization structure it’ll be a critical decision in investing in large scale infrastructure projects”.

### **5. CONCLUSIONS AND RECOMMENDATION**

As a country, Sri Lanka do recognize the need of considering alternative project financing methods for large scale infrastructure projects according to above chapter, due to the reasons of insufficient GDP in the country, payable loan burden upon the country and constraints in providing upfront money to a project.

Up to now PFI has failed as an alternative method in Sri Lanka due to facts that Sri Lankan political and policy instability, resource constraints and lack of knowledge and practice in PFI. To adopt PFI to Sri Lankan context, it was concluded to have following factors, good commercial value to the project, government policy consistency, politically stable country environment, according to Table 1.

The SPV concept to adopt in large-scale infrastructure projects was analysed in the data collection phase. It was identified the resistance towards SPV has being mainly due to the lack of policy consistency, and the external influences subjected upon a SPV. It was further identified if the SPV is formed in a way that third party influences and continuation of the SPV is assured through policies the trend for SPVs’ will be increased.

#### **5.1. RECOMMENDATIONS FOR THE GOVERNMENT**

Upon the success of a PFI contract collaborated with a SPV, the government influence is a critical factor. In related to Sri Lankan context the reasons behind failure and resistance towards adopting PFI are easily correctable if the government see PFI as a potential project financing method. As recommendation to the government for successful PFI project the most effective step that can be taken is, setting up consistent policies related to PFI, giving tax concessions and investments opportunities in government development projects to the private sector. Moreover, the private sector looks for an assurance of the project continuation upon the government instability for project consistency and if the government can initiate projects based upon real public need rather using projects in gaining political advance the trust and involvement of the private sector is expected to increase. As the government, initiation and encouragement to practice PFI should be from their side. Other than to policy development, practicing productivity in government organization, minimizing corruption, open door policy towards private small-scale investors, identification and development of new infrastructure projects and developing coordination between government authorities will be a good way of developing private sector interest in government investments according to the feedback received from the experts.

#### **5.2. RECOMMENDATIONS FOR POTENTIAL STAKEHOLDERS**

Any private sector firm who are interested in investing on a PFI project should consider the following factors according to conclusions made with collected data. Projects with a viable financial structure or with government gap funding are recommended for PFI type contracts.

- Ensure your organization goals and objectives are in line with project details. Do a risk analysis before entering into a PFI contract and asses the risk bearing capacity of your organization
- Consider the project viability, payback period and the type of agreement that is formed with the SPV

- Analyse the exit procedures and in case of insolvency what kind of security is provided for the stakeholders

### 5.3. FACTORS TO BE CONSIDERED BEFORE ESTABLISHING A SPV AND CHARACTERISTICS OF POTENTIAL STAKEHOLDERS

It's recommended for the parties that are entering in to a SPV to consider the following facts. Structure of the SPV, established connections within the SPV stakeholders, check organization capabilities in long term investments, potential funding to invest in a SPV, established organization structure, analyse the skills of the SPV management team.

The sustainability of a mother company should not be risked upon the SPV when entering a PFI contract. Before entering a SPV the company should have potential funding to manage organizational expenses in the project initiation phase in case of joint venture PFI projects and shareholder type PFI agreements. The management team of the SPV should be selected with consideration for their skills and qualifications because SPV management plays a vital role in its success. The management team should have trustworthy, unbiased, honest team players ensuring equal treatment to all parties and dealing with the stakeholders in a genuine way.

Characteristics of potential stakeholders to be a part of an SPV are recommended as, established organization structure with long term organizational goals, previous experience in related projects, working with government authorities, working in joint ventures or partnering, interest in serving public. This becomes a necessity due to the share of risk in an SPV for a stakeholder and its challenging nature. Previous experience in PPP projects, large-scale projects, and government projects will give the beneficial in spontaneous and good decision-making and easy dealing with other involved parties and challenges. Proposed model for the SPV-Final development

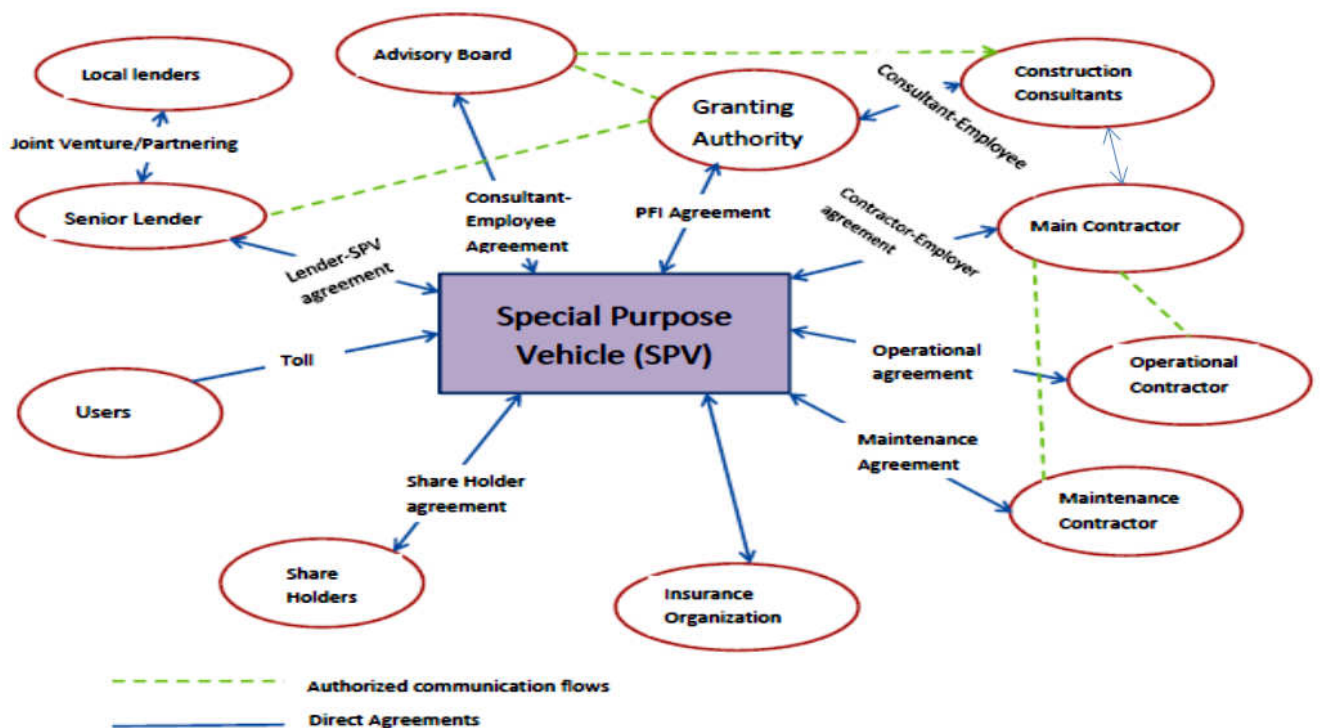


Figure 8: Proposed SPV Model

Figure 8 shows the proposed SPV model using the collected information in the data collection and analysis phase. According to the paragraph formation of SPV, the above relationships were identified. During the data collection the contractual relationships and importance of identifying and differentiating communication links were highlighted and they are included in the above model. Further, type of agreement that will be established in between the SPV and the stakeholders are mentioned on the direction arrows of the above diagram. Further

proposing this model was the objective of this research which is a proposed model of SPV that can be applied in Sri Lankan context along with PFI agreements.

## 6. REFERENCES

- Agrawal, R., Gupta, A., and Gupta, M.C., 2011. Financing of PPP Infrastructure Projects in India: Constraints and Recommendations. *The IUP Journal of Infrastructure*, 9(1), 52-55.
- Akbiyikli, R., Eaton, D., and Turner, A., 2006. Project finance and the Private Funding Initiatives (PFI). *International Investor Journal*, 4-68.
- Ali, A. M., 2008. *Private Finance Initiatives as a part of the 9th Malaysian plan*. Kuala Lumpur: Azmi and Associates.
- Allen, G., 2001, December. *The Private Finance Initiative (PFI)*. [Online] House of commons library, economic policy and statistics section. Available from: <http://www.parliament.uk/> [Accessed 4 August 2016].
- Beckett, M., Drazin, S., Finlay, D., Smith, H., Martin, N., and Neathey, R., 2009. *Performance of PFI construction*. [Online] National Audit Office. Available from: [https://www.nao.org.uk/wp-content/uploads/2009/10/2009\\_performance\\_pfi\\_construction.pdf](https://www.nao.org.uk/wp-content/uploads/2009/10/2009_performance_pfi_construction.pdf) [Accessed 30 August 2016].
- Bing, L., Akintoye, A., Edwards, P. J., and Hardcastle, C., 2005. The allocation of risk in PPP/PFI construction projects in the UK. *International Journal of Project Management*, (25), 3-11.
- Bradford, M., 2001. The British Model of Private Finance Initiative and Public-Private Partnership Ten Years Later: Toward International Extension in the Defense Sector? *The Journal of Structured and Project Finance*, 1-11.
- Brude, F.B., and Makovsek, D., 2013. *Construction Risk in Infrastructure Project Finance*. France: EDHEC-Risk Institute.
- Chavers, K., Synnott, A., Parkes, M., and Pilibossian, A., 2015. *Infrastructure Investment: Bridging the Gap Between Public and Investor Needs*. BlackRock, 17-20.
- Chan, C., Forwood, D., Roper, H., and Sayers, C., 2009. *Public Infrastructure Financing — An International Perspective*. Productivity Commission Staff Working Paper, 10-65.
- Department of Project Management and Monitoring. 2016. *Development Performance - Mid Year Review 2015*. [Online] Integrated National Development Information System: Available from: [http://www.pmm.gov.lk/resources/Development\\_Performance\\_YearEnd\\_2015.pdf](http://www.pmm.gov.lk/resources/Development_Performance_YearEnd_2015.pdf) [Accessed 31 August 2016]
- DiNapoli, T., 2013. *Private Financing of Public Infrastructure: Risks and Options for New York State*. New York: New York State Comptroller.
- Dixon, T., Pottinger, G., and Jordan, A., 2005. Lessons from the private finance initiative in the UK Benefits, problems and critical success factors. *Journal of Property Investment and Finance*, 23(5), 412-423.
- Edkins, A., and Smyth, H., 2006. Contractual Management in PPP Projects: Evaluation of Legal versus Relational Contracting for Service Delivery. *Journal of Professional Issues in Engineering Education and Practice*, 132(1), 82-93.
- Ehlers, T., 2014. *Understanding the challenges for infrastructure finance*. BIS Working Papers, 2-9.
- Gardner, D., and Wright, J. 2013. *Project Finance*. USA: HSBC.
- Gorton, G.B., and Souleles, N.S. 2007. *Special Purpose Vehicles and Securitization*. *Electronic Journal*, 5(21), 22-23.
- Gosrani, N., and Gray, A. 2011. *Creating an understanding of Special Purpose Vehicles*. The next chapter.
- HM Treasury. 2003. *PFI: meeting the investment challenge*. London: The Stationery Office.
- Hodge, G. A., and Greve, C. 2009, March. PPPs: The Passage Of Time Permits a Sober Reflection. *Economic Affairs*, 29 (1), 33-39.
- Lemos, T. D., Betts, M., Eaton, D., and Almeida, L., 2003. The Nature of PFI. *The Journal of Structured Finance (Spring)*, 28-38.
- Li, B., Akintoye, A., Edwards, P. J., and Hardcastle, C., 2005. Perceptions of positive and negative factors influencing the attractiveness of PPP PFI procurement for construction projects in the UK: Findings from a questionnaire survey. *Engineering, Construction and Architectural Management*, 12(2), 125-148.
- Gardner, D., and Wright, J., 2013. Project Finance. HSBC USA. PPP/PFI procurement for construction projects in the UK. *Engineering, Construction and Architectural Management*, 12(2), 125-148.

- Pasadilla, G. O., 2005. *Special Purpose Vehicles and Insolvency Reforms in the Philippines*. Makati City: Philippine Institute for Development Studies.
- Yamaguchi, H., Uher, T., and Runeson, G. 2001. Risk Allocation in PFI Projects. *17th Annual ARCOM Conference*. Manchester: Association of Researchers in Construction Management. 32-87.
- Yatanwala, Y., Jayasena, S., 2009. *Failure of Applying PFI in Colombo Katunayake*. [Online] Available from: <https://www.irbnet.de/daten/iconda/CIB11521.pdf> [Accessed 20 August 2016]
- Zainon, N., Lou, E., and Suhaimi, M., 2012. How it actually works - Private Finance Initiative (PFI). *Wulfania Journal*, 1-7.