

Infrastructure Planning and Management

Public-Private Partnership for Infrastructure Case Studies Part 1

So in our recent discussions on a public private partnerships two things should have become clear one is that large number of governments across the world have tried adopting PPP is and therefore if you look at the sheer number of PPP is that have been an acted across sectors and across countries that serve voluminous number but if you also recall this other slide that you just saw a short while ago, we had some data that set that most of these PPP projects were not performing adequately in terms of whatever objectives they were trying to realize whether it was completion on time, completion on the budget, providing value to society etcetera, right.

And this is a key issue because a lot of people complaint that PPP is with had more failures than successes, right but very often this is of because not because PPP persuasive a bad concept I think private participation in infrastructure as I have just noted earlier is extremely important but the way in which the PPP is an acted right is often problematic the way in which risks are being transferred from the public sectors to the private sector is often done incorrectly.

The private sector or the public sector has risks that they are not able to bare and therefore when those risks arise on the project that they are not able to mitigate those and the projects start unraveling, right. So one of the questions that people often asked is how do I decide whether a project is PPP (01:34) or not and more importantly PPP is not a unitary concept, right there are different kinds of PPP is you have the build operate transfer PPP, you have the build own operate transfer PPP the right, you have the design build operate transfer.

So then the question is which model of PPP if any is appropriate to a given project context, so what you want to do now is get into a little bit more detail and start looking specifically at case studies of PPP projects and we will talk about two case studies going forward one of which is a relatively successful PPP, one of which is PPP that is not so successful and we will try to short of understand what makes PPP stick what makes certain PPP successful, certain PPP is failures and how we might actually judge a project opportunity to decide whether they should be done thorough a pubic private partnership or thorough traditional government procurement mechanisms, right.

So that is our agenda for the next 45 minutes or so but before we get into the case studies there is a theoretical framework that I want to present this is not my theoretical framework this is a theoretical framework that was developed by gentleman called Antonio Vive is and

some of his collaborators and colleagues at the inter-American development bank, the inter-American development bank is you know like the world bank is multilateral financial institution but like the Asian development bank focuses primarily on Asia foreigners landing the inter-American development bank focuses primarily on Latin America, south America those regions of the world for their landing.

So Antonio Vive is spent several years trying to implement PPP is a spot of the inter-American development bank and he and his colleagues have conceptualize and compartmentalize all the they have learned to create a framework that helps you understand whether you should undertake PPP is at all and if you at all undertake the PPP what kind of PPP you are to (undert) you should undertake, right.

This framework it is actually been written into a into documents it is about 40, 45 pages it is a very interesting readable document and we provided a link to that document as well but I will summarize that for you, so it is not sort of the summary of the entire framework because that would be to voluminous but I could sort of summarize that framework in a slightly caricature form in a slightly simplified form, ok so this is what it looks like.


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Project Delivery Modes

	Public	Mgmt Contract	BOT/BOO	Private
1. Existing Legal Framework	♦			
2. Political Willingness	♦ ✓	♦	♦	♦
3. Fiscal Space			♦	♦
4. Economic Stability	♦	♦		
5. Institutional Capacity	♦	♦		
6. Willingness to Pay	♦	♦	♦	♦
7. Ability to Pay	♦			
8. Project Size	♦	♦		

NPTEL

Source: Vives et al, 2006



Let us say that you have a particular project and you have 4 broad choices that you can make you can either say I will just do this project through that traditional government procurement mechanisms, right so that would be the public route, ok. The second is to say no what I will do is I will get a private operator in but that private operator will not be required to build the facility I will, the private operator essentially just needs to manage the facility, so they will

essentially operate the facility this is quite common for instance many water and supply agencies across India use management contracts for the management of their pumping stations and so on and so forth, right.

So this is no longer entirely public there is a private partnership but the private partnership is somewhat minimal the private player comes in essentially just to manage the operations of an asset that is already built and in some cases they might have to do a little bit of refurbishment to the asset but their capital outlay is relatively small, ok so that is the management contract then you get to, ok we will bring the private sector in but they will no longer just to manage an existing asset or do some minor refurbishment they will actually build the asset, right.

So they will bring in the finances they will build the assets whether it is a road or whether it is a sewerage treatment plant, a power plant, a desalination plant they will not only build it but they will also operate it, right this is the traditional PPP that most people think about, the traditional build operate transfer kind of public private partnership, right and the final step is to take a decision saying look let us just completely privatize, right a build operate transfer still the ownership of the asset rests within the public sector.

So a concession is given over a period of time and after the about 30 odd years or whatever the concession period is the asset is transferred back to the public sectors, so the public sector has least that asset or given a concession for the use of that asset to the private sector but underlying philosophy is still owns the asset. In privatization the underlying philosophy is you take the asset and will say actually give it to the private sector, you sale it to the private sector and you say this is no longer my asset you do with that what you will, so you are in charge of investing in that asset, you are in charge of operating, maintaining, changing the very nature of that asset all of that is yours, right.

So that is the pure privatization round, so when you have the opportunity of say building a road, right or building a water treatment facility, sewerage treatment plant you could say let the government just do all of it, right or you could say let the government build it let the private sector operate it, manage it or you could say let the private sector build it, operate it, manage it but transfer it back to the government over a period of time or you could say let the private sector just handle the asset completely, let us just privatize, ok.

So these are your four choices, ok the left most choice is the clear public sector choice the three the other three columns 3, 4 and 5 right these columns are all various shades of private

sector involvement, right so this is why I said earlier that PPP is not a single thing there are a various kinds of PPP is, I only put 3 here if you read Antonio Vive is document you will find that he has another dozen sort of categories of PPP is which essentially go from very minimal private sector involvement to considerable private sector involvement, right.

So these are your choices, should I (pub) should I do it for in the public domain, should I do at as a PPP if I what a do it is a PPP which model of PPP would be the most appropriate, right. Now in order to make decisions right Antonio says let us look at a few parameters, right. The first parameter is let us see the existing legal framework for PPP is or not, ok. If there is a the second and I will go through these parameters and there are explain what they are.

Second parameter is the their political willingness to undertake PPP is, ok so an existing legal framework implies is there a policy, is there an act, is there some kind of is there a government order on a executive order, is there some legal under happening that allow us people to jus to undertake PPP is without really being concerned about the consequences of you know some law maker coming back and say you did something that is unconstitutional that is what existing legal framework is.

Many states in India for instance have a legal framework, I will just talking earlier about how the Tamil Nadu government has something call the Tamil Nadu infrastructure development act, Andhra Pradesh has one many other states have one, states that do not have a legal framework of an have PPP policy etcetera, there is some legal framework, right that was aspect one, second aspect is the their political willingness, right is the elected representative, right the Minister however is in charge of a particular portfolio, are they ready to undertake this project to PPP because as I said earlier they are the once will have to sign off on undertaking the PPP, right.

Third what is the financial situation of the government like and that is what we call fiscal space, right there is the government have adequate funds to undertake projects or does the government not have adequate funds to undertake the projects, so it this is another aspect to think about. What is the nature of the economy, right is the economy going through an upswing or a very stable economy looking to grow or is the is that region or state or nation in economic term while what is the level of economic stability is the fourth parameter that Antonio and his colleagues request that we consider, right.

The fifth parameter that they are request that we consider this institutional capacity is their capability within the government to write the contracts for PPP to monitor the PPP do the they have capability of understanding the project process from procurement to contract thing to operating, to checking the construction and all of that, right whether it is done within government whether it is done outside, right to what extend to they have the capability of undertaking these kinds of projects, right.

What is the view of the public at large? We are going to use this project? Are they willing to pay? Right is one question we have to ask the second question we have to ask is are they able to pay? These are two settle things I might have enough money I am able to pay my ability to pay is high but I might not be willing to pay, right I believe that the government should provide roads and water supply and power for free because I am paying taxes I am not willing to pay anything extra to make these projects happen, right.

So willingness to pay and ability to pay are two very different things ability to pay essentially looks at do you have enough wealth is to pay if required, willingness to pay says given that you might I have wealth are you actually willing to pay to sustain the this project. And then finally how big is the project what are the project economics are these projects that private organization would be interested in bidding for because they see that there is a profit to be made or are these projects that are so small projects or projects were the returns are so low that private organization are not really willing to bid for this projects, right.

So Antonio and his colleagues say essentially let us analyze each of these parameters and the context of a particular project if a legal framework for PPP is does not exist, right we do not have a law, we do not have a executing order, we do not have a policy then essentially just undertake the project in the public domain, right do not even try going in for a PPP because a you may not find people who are ready to come forth and execute the PPP because there will be a confused as to whether the existing laws allow it but also going forward if that project were to be an acted is very easy for somebody to take this projects to code because there is no legal framework underlying this projects, right so just do it in the public domain.

Similarly if you do not have public willingness, political willingness sorry then again just do it in the public domain, right do not try for a PPP where you do not have a political willingness because it is very unlikely that people will sign off and execute that project or a PPP you will probably spend a lot of time and money preparing that project for you know no

obvious result on the ground and therefore it might be better to just stick to a public procurement.

On the other hand if the government does not have enough funds to undertake the project then it might be very important or might be very relevant to consider doing a PPP is, so all these diamonds represent the case where that particular parameter is absent, so absence over a legal framework do it through traditional procurement methods, absence of political willingness for a PPP do it with traditional procurement methods.

Absence of fiscal space, right the absence of you know financial capability to undertake this projects let us look at the private sector and see if the can actually bring in you know funding for these projects. If your economy is highly stable and it is expected to grow then you would expect that for instances there will be more traffic on the roads, more people are going to buy cars, right and therefore as a result you will get more revenue from toll or these roads and therefore your project will do quite well people who are PPP is would actually be quiet profitable, right.

Whereas if your economy is not growing people are losing jobs, so they are not able to buy cars should travel on that road you know they do not have a reason to travel because they are not working they have lost their jobs, then a PPP project may not do that well, so economic stability, the economic stability is poor, right essentially stick to either public sector procurement or maybe very light private involvement, ok.

Institutional capacity does the government have the capacity to understand the risks with regards to PPP is, does government have the capacity to structure a contract, does government have capacity to monitor that contract, right if the answer is no then clearly you are better of sticking to either public procurement or a very light form of PPP that does not require high capacity, right.

Again willingness to payout people willing to pay tolls, a while people willing to pay some kind of a tax or charge for use of the that asset, if the answer is yes then you know you could certainly do a PPP but if the answer is no people are not willing to pay then it is a probably bad idea to do a PPP, if people are not willing to pay for a toll road, right if they believe that the we pay taxes to the government, the government should built my roads and I should not be paying tolls to go on that road if that is the belief, right if there is no willingness to pay then there is no point building a build operate transfer kind of roads where a private operator

builds the road expects to generate revenue through toll but people are not willing to pay toll, right therefore is better when there is no willingness to pay to do projects of the public domain, ok.

Similarly with regards to ability to pay, right if forget willingness if people do not even have the ability to pay again because the economic strength of that region is low then how are you going to sustain a PPP how is the private operator going to make revenue out of that PPP, right so it is probably better to keep at the public domain, right and if the project is not large enough that a private player would be interested in taking some risks on it then again you might throw that project out in a bit process but what you will probably find this hardly anybody will come and volunteer to take up that project and therefore in those cases it is probably better to undertake that project in the public domain, right.

So what Antonio Vive and his colleagues said is look, look at these 8 parameters, right depending on the value of these parameters in a particular project context decide whether you should do it public or PPP, so in a particular project context political willingness might be very high, if political willingness is very high for a PPP yes you can certainly do it in the public domain, right that is certainly a possibility but you can also do it in any of these 3 other modes as well, ok.

So all 4 of these modes then become possible, right similarly if willingness to pay is there then there is nothing preventing you from (doing) doing it in the public domain but certainly, right you could try doing a PPP, right because people are willing to pay for that project, so for good water right for instance or reliable power people might be willing to pay a little bit extra, so take your particular project, right go through each of these parameters and figure out which of these modes are possible and then you will find that each column will have a number of diamonds in it, right.

So you then pick the column with the most diamonds as your best project choice, so in this case the public column has the most diamonds, right so you are probably better off during doing this project in the public domain rather than in any of the public sector procurement mode rather than in any of the other project delivery mode, so these things on the top, these column titles on the top or what we call project delivery modes, right you can deliver the project in any of these ways, you can deliver it through public procurement, you can deliver it through BOT, you can deliver it through management contracts these are all options for you to deliver, right.

Which is the best option for your project take your project, let us go through these variables one by one, 1 through 8 and then decide which is the most optimal option for us, right so let us take look at a couple of case studies, right where we will (appl) we look at what happened in those cases and we will look at applying these frameworks, ok.