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Rethinking Public-private Partnerships: An Unbundling Approach

Swapnil Garg[a], Sachin Garg[b,]*

[a] *Indian Institute of Management, Praband Shikhar, Rau-Pitampur road, Indore 453331, India*

[b] *George Mason University, 3351 Fairfax Drive MS3B1, Arlington, VA 22201 U.S.A*

Abstract

Despite numerous failure stories the interest in Public-private Partnerships (PPPs) is growing the world over, giving rise to a "PPP Paradox". Taking a definitional perspective and leveraging learnings from the management literature on strategic alliances, the need for a fundamental rethink of the PPP world view is emphasized to explain this paradox. It is argued that in PPPs, where risk and uncertainty loom large, there is a need to consciously move away from long term, rigid, monolithic, and complex contracts and adopt short term, flexible, modular and simple arrangements that allow for effective management. We view this as an unbundling approach. The PPI World Bank database and experiences from the Indian highway sector are leveraged to contextualize the arguments made.

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Keywords: PPP; India Highway; Strategic Alliances; Management; Failures; Paradox

1. Introduction

Governments, the world over, are increasingly looking towards the private sector to help bridge the infrastructure gap. The World Bank PPI database contains information on 1634 transport sector projects (http://ppi.worldbank.org/data) in 139 low and middle income countries, involving an investment of over USD 473 billion, of which USD 387 billion is private investment. Figure 1 provides evidence that in the last 25 years the private investments taking the PPP route have been consistently increasing. At the same time, the trends also show that while the financial value of investments are continuously on the rise, the number of projects being taken up within the PPP fold are steadily falling. This evidence when supplemented with what academia and press, as a reflection of the public

* Swapnil Garg Tel.: +91-998-199-9081; fax: +0-000-000-0000 .
E-mail address: swapnilgarg@iimidr.ac.in

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opinion, has to say about PPPs puts forward a totally different story [1,2,3]. The concept of PPP is being regularly challenged. Academicians like Hodge et.al. [4] recognize the problems in defining accurately what PPPs are, Klijn [5] sees the PPP as a contested concept, De Bettignies [6] debates upon theories to be used to govern PPPs, and there are still others like Davidson [7] finds PPP implementations lacking a robust governance framework. The media and practitioner writings are galore with PPP failure stories [1,2,8] and atleast in the developing world context (especially India), The Economist [1] has already written an obituary of PPPs in India. Many high profile Indian transport sector PPPs have witnessed ugly private-government contests in courts, bureaucratic offices, political debates, and media circles. However, the story is not unique only to India. The world over, the PPP concept has come in for some serious criticism [2,9].

Nomenclature

BOT	Build, Operate, Transfer
BOLT	Build, Operate, Lease, Transfer
DBFOT	Design, Build, Finance, Operate, Transfer
GOI	Government of India
LTIC	Long Term Infrastructure Contracts
NHAI	National Highway Authority of India
PPI	Private Participation in Infrastructure
PPP	Public-private Partnership
SPV	Special Purpose Vehicle
WB	World Bank

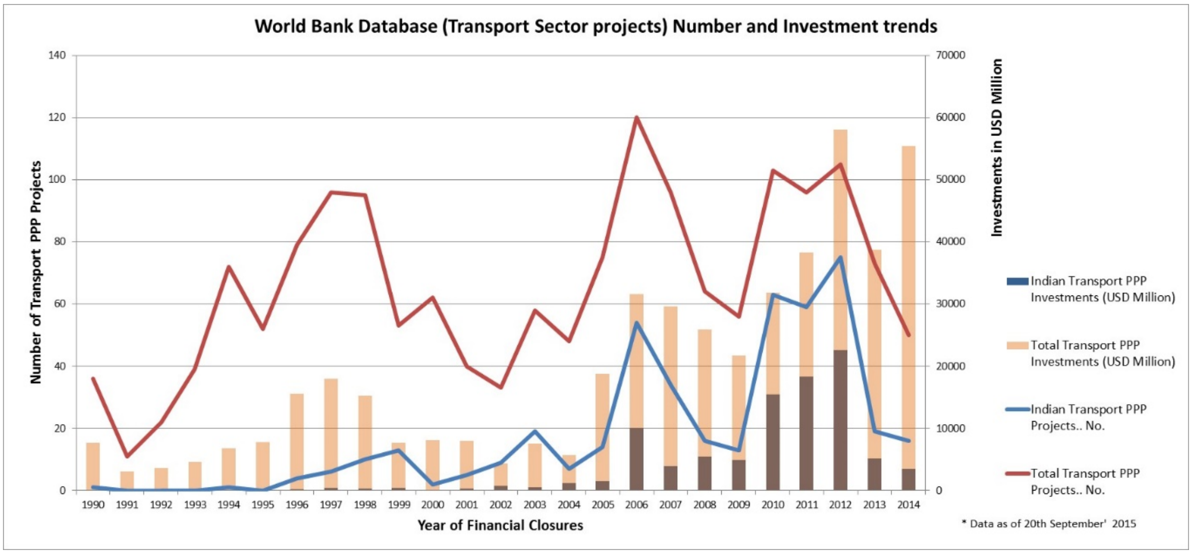

Fig. 1. Transport Sector PPPs . Source World Bank PPI Database.

1.1. Structure of paper

The paper traces the numerous issues in PPPs to the fundamental concept, i.e., the PPP definition. It is argued that over time the concept of PPP i.e., private investment for public infrastructure, has got overloaded with non-essential characteristics that have made PPPs as we see them today -- long term, rigid, monolithic, and complex contracts. The problems of the current age of PPPs can be traced to these evolved characteristics. Using the PPI World bank database on transport sector PPPs and our own experiences with the PPPs in the Indian Highway sector, evidence in support of the claims made is presented. Taking a prescriptive view, we anchor ourselves in management literature to argue that the inherent complex nature of PPPs is required to be addressed by unbundling, which is analogous to the modularization approach of managing complexity as proposed by Baldwin and Clark [10]. The rethinking of the PPP concept, by advocating unbundling and modularization across the time domain, contractual aspects, projects scope, and modular contracts is the theme of this paper.

1.2. Methodology

We have been researching PPPs for the last five years. More specifically, we have been studying the Indian Highway sector and the PPPs therein. As part of this ongoing study, we have carried out unstructured interviews with over 50 middle and senior managers involved in highway PPP projects, using structured questionnaire surveyed these managers regarding how they work in the project, followed the government and media publications in the domain, and held numerous discussion with experts in the field. These observations have been summarized in the numerous cases and research papers [11] and also shared during numerous courses and workshops with industry experts. We borrow from the learnings out of these and distill them to argue the need for a fundamental rethinking of PPP concept along the lines of unbundling. Logical arguments are made in support of and anecdotal evidence is provided to justify the stand taken. Further the appendix tabulates and provides comparative information on three highway sector PPPs in India, which have been heavily contested and have been the source of the ugly bump in the PPP story of Indian transport infrastructure upgradation.

2. PPP A Definitional perspective

PPPs have come a long way since they were first conceived. However, their first conception is a highly debatable aspect. Some trace its origin back to 1438 when a concession was awarded to a French nobleman Luis de Bernam to charge the fees for goods transported on the Rhine [12], or to early 1600s, when the British crown allowed the East Indian company, a private enterprise, to explore the east and exploit what it finds there in return for a fixed share [13]. Similarly, the origin of the term “BOT concession” is acknowledge by Grimsey, et.al, [14] to have been come from the concession granted to Perrier in France in 1782 for water distribution. Not wanting to stir a hornet’s nest, we narrowly focus ourselves on transport sector PPPs, which in their current form are largely viewed, with a reasonable consensus, as having evolved out of Public Finance Initiative (PFI) of the John Major's conservative government in the UK in 1991[15].

Table 1. Comparing PPP Definitions

Agency	Definition	Nature of relationship	Purpose	Compensation to private	Role of private	Bundling operations & management	Long term	Legal contract
Bovaird’s (48, p. 200)	PPPs are ‘working arrangements based on a mutual commitment (over and above that implied in any contract) between a public sector organizations with any other organization outside the public sector.’	Working arrangement	-	-	Mutually commit	-	-	Implied
Koppenjan (49, p. 137)	‘a form of structured cooperation between public and private partners in the planning/ construction and/or exploitation of infrastructural facilities in which they share or reallocate risks, costs, benefits, resources and responsibilities	Structured cooperation	Planning Constructi on Exploit infra facilities	Shared benefits	Share risks, costs, resources	-	-	-
Grimsey and Lewis [14, p. 2):	PPPs can be defined as arrangements whereby private parties participate in, or provide support for, the provision of infrastructure, and a PPP project results in a contract for a private	Arrangement	Deliver public infra services	-	Participate or provide support	-	-	Contract

	entity to deliver public infrastructure-based services.							
European Commission April 2004 [50]	In general, the term refers **to forms of cooperation** between public authorities and the world of business which aim to ensure the **funding, construction, renovation, management and maintenance** of an infrastructure of the provision of a service.	Forms of cooperation	Provision of infrastructure / service	-	Unclear	Implied	-	-
World Bank [51]	A long-term contractual arrangement between a public entity or authority and a private entity for providing a public asset or service in which the private party bears significant risk and management responsibility	Long term contractual arrangement	Provide public asset or service	-	Bear significant risk and management responsibility	-	Long term	Contractual
Asian Development Bank [52]	*No clear definition, but elaborates on multiple aspects*	Range of relationships, Contractual agreement	Reforms, Infra, services, public investments	Financial rewards, commensurate to predefined output	Adopt task, obligations and risks	-	-	Yes
Standard & Poor's PPP Credit Survey 2005 [53]	Standard & Poor's definition of a PPP is any **medium-to-long term relationship** between the public and private sectors, involving the **sharing of risks and rewards** of multisector **skills, expertise and finance** to deliver desired **policy outcomes**.	Medium- to long term relationship	Delivery policy outcomes	Sharing of risks and rewards	Sharing of risks and rewards	Implied	Medium- to long term	-
German PPP Task Force [54]	PPPs are aimed at increasing the efficiency of infrastructure projects by means of **a long-term collaboration** between the public sector and private business. A holistic approach which extends over the **entire lifecycle** is important here	Collaboration	Increase efficiency of infra projects	-	-	Implied	Long term	-
Canadian Council of PPPs [55]	A **cooperative venture** between the public and private sectors, built on the **expertise** of each partner, that best meets clearly **defined public needs** through the appropriate **allocation of resources, risks and rewards**.	Cooperative venture	Public needs	Appropriate rewards	Resources, risks	-	-	-
National Council of PPPs (US) [56]	A Public-Private Partnership (P3) is a **contractual arrangement** between a public agency (federal, state or local) and a private sector entity. Through this agreement, the skills and assets of each sector (public and private) are shared in delivering a service or facility for the use of the general public. In addition to the sharing of resources, each party shares in the risks and rewards potential in the delivery of the service and/or facility.	Contract	Delivery of Services	-	Responsibilities and business risks	-	-	Contractual arrangement
Partnerships British Columbia [57]	A legally-binding contract between government and business for the provision of assets and the delivery of services that allocates responsibilities and business risks among the various partners.	Contractual partnership	Traditionally government	-	-	Finance, Design, Implement, Operate	-	Legally binding contract
Haryana Govt [58] Rajasthan Government [59]	PPPs broadly refer to **long term, contractual partnerships** between the public and private sector agencies, specially targeted towards financing, designing, implementing,	Partnership	Provide infra & services traditionally provided	-	Partner with govt.	Implied	Long term	Contractual

	and operating infrastructure facilities and services that were traditionally provided by the Government and/or its agencies.		by Govt.					
John Laing plc	PPPs are **long-term partnerships** to deliver assets and services underpinning **public services and community outcomes**. Optimal structuring links private sector profitability to sustained performance over the **long-term**, yielding robust and attractive cash-flows for investors in return for delivering **better value for money** to the taxpayer.	Partnership	Deliver assets and services	Profitability, Robust attractive cash flows	Earn Money	Optimal	Long term emphasized	-
GOI, Discussion paper (2010)	PPP means **an arrangement** between a government or statutory entity or government owned entity on one side and a private sector entity on the other, for the **provision of public assets and/ or related services for public benefit**, through **investments** being made by and/or management undertaken by the **private sector entity** for a specified time period, where there is a **substantial risk sharing** with the private sector and the private sector receives **performance linked payments** that conform (or are benchmarked) to specified, pre-determined and measurable performance standards.	Arrangement	Provision of public assets and related services	Performance linked payments	Risk sharing Investments/ management	-	-	-

2.1. Definitional Challenge

The PPP concept faces a definitional challenge [4]. While studying PPPs it soon becomes confusing whether a particular case is a PPP or not, leaving us to wonder what makes a project qualify to be categorized as a PPP. Evident from the definitions summarized in Table 1, while some argue that PPPs necessarily require private financial investments and need to be governed by legally enforceable contracts, there are yet others who see all kinds working arrangements between public and private agencies as PPPs. The introduction to the *International Handbook of PPPs* [4], the first such international publication, contends that there is a “paradox in what PPP really are”, and this has led to the “PPP phenomenon remaining an enigma despite all the PPP talk”. The World Bank Publication, PPP Reference guide version 2.0 [16], states that at the conceptual level there is no single internationally accepted definition of PPPs, while the European Commission’s guide on PPP [17] recognizes that PPP is not defined at the community level. Consequently, definitions of PPP abound.

The definitions of PPPs proposed by a myriad of government agencies, financial institutions, academics, and established PPP concessionaires are summarized in Table 1. While recognizing that a comprehensive/complete list of PPP definitions is an impossible task, the above list seeks to selectively present some definitions which span numerous domains, while ensuring that all unique aspects associated with PPPs are addressed. The definitions are compared along dimensions of nature of relationship, specification of purpose, compensation to private agencies involves, role of private agency, bundling of activities, long term nature of the relationship and contractual nature of the relationships. The comparison throws up that while some aspects are uniformly emphasized across all definitions, in some aspects the definitions advocate very different views.

2.2. Comparing PPP Definitions, identifying similarities

Some common aspects that are present in all PPP definitions can be summarized as follows.

- PPPs always involve an arrangement between the public (government) and private agencies.

- PPPs emphasize delivery of public services by private agencies.
- In PPPs there a conscious shift from asset creation to service delivery.
- PPPs seek transfer of significant levels of risks to private agencies.
- PPPs involve some kind of an output based remuneration to private agencies.

PPP is an arrangement for
- public service or infrastructure
- transfer of risks to private
- performance based returns to private

COMMON ELEMENTS

By,
- legally binding contracts
- long term nature
- extensive bundling of activities

EVOLVED UNDERSTANDING

Figure 2 PPP Definitions- Common elements and evolved characteristics

2.3. Comparing PPP Definitions, identifying differences

Across the numerous definitions, there is a universal emphasis that PPPs involve both public and private parties, they involve delivery of a service or asset that is has some public goods characteristics, they involve a transfer of a significant amount of project risk to the private parties and private parties seek some performance based returns from them. Besides these common elements, academicians, governments, and multilateral agencies tend to further specify and restrict what will get categorized by them as a PPP. There are primarily three ways in which PPPs get further specified. PPPs tend to be necessarily viewed as being long term in nature; requiring extensive bundling of services; and being necessarily imprinted in ink. However, as brought about above these aspects are not central to the PPP concept, and are not an essential part of the various definitions summarized above. This paper further contends that such restrictions, in effect, lead to corruption of the PPP concept and we trace many of the problems in current age of PPPs to this overloading of the PPP concept with these evolved understandings. We next discuss the genesis of each one of these departures from the core PPP concept.

2.4. Bundling of activities

PPPs often get described in terms of the bundling of the project activities that they involve and the en block transfer of the risks associated with this bundle to the private sector. For instance, the various kinds of PPP projects i.e., BOT, BOLT, DBFOT, have progressively sought to add more and more project activities to the PPP. That is, while BOT only covers build, operate, and transfer, BOLT adds leasing to it and DBFOT further adds design to it. The problem of bundling are many and varied.

Bundling makes the PPP grow in size to such a level that they become virtual monopolies and with the inherent transfer of risks to private agencies involved in PPPs, these monopolies get transferred to the private domain. Examples lie in the Indian highway PPP projects of Yamuna Expressway and Kundli Maneshar Palwa (KMP) expressway. The Yamuna Expressway is a 165 Km 6/8 lane expressway from Delhi to Agra. It was awarded at a project cost of INR 13,000 crores[†] in 2003, and got completed in 2012 after a significant delay. The concession was awarded with 5 land parcels and ran into serious problems of land acquisition. Problems arose when farmers refused to give up their agricultural land for urban colonization by a private agency. The land parcels were included in the project to make it commercially viable. The problems in the project have been traced to the bundling of the land parcels with the highway project [18]. On the other hand, the KMP expressway was first conceived in 2003 as a 135.6

[†] INR 6800 crores ~ 1 billion USD (Sep 2015 exchange rates)

Km expressway and cost almost INR 2000 crores. The original project got only 68% complete. After missing numerous deadlines for completion (scheduled for 2009), and numerous court battles the original concession has now been terminated. The 136 Km expressway has been divided into two sections of 53 Km and 83 Km and are being separately awarded to two separate concessionaires [19].

Theoretically, arguments for bundling of activities lie at two levels. Firstly, as per Hart [20] not only are the contracting costs for infrastructure construction and for service delivery very different, but it is often difficult (or extremely costly) to specify contracts separately for infrastructure delivery and for service delivery as they affect each other significantly. It is often cheaper to bundle the two together and contract them out as a single project. Secondly, it is by bundling that a cost intensive project can be made investment neutral for the government. The initial project costs are compensated a revenue stream running into the future, to make the project commercially feasible. This also enables the government to move infrastructure projects off its balance sheets, as excessive public debt is frowned upon. A PPP contract also makes a statement of government policy that building a symbiotic relations with the private financial sector as its focus area. Accordingly, Hodge, et.al, [4] and Iossa, et.al, [21] identify the main characteristics of a PPP arrangement to be the use of private finance, tasks bundling, risk transfer, and long-term contracting.

Bundling results in larger than life and highly complex projects. The case of the PPP for the upgradation of the New Delhi Railway station in India, is an ideal example. Despite numerous exercises on attempting a PPP based upgradation the project is yet to take off, after even a decade of work on it, as it has been made into an INR 10,000 crore project, while accommodating the wishes and fancies of the hundreds of involved stake holders [22].

The risk averse nature of public servants, and the complexity of government procurement also motivates the procuring government agent to bundle as many project components as possible and get the same completed in one procurement cycle. However, this leads to added complexity of the project, making the project a near monopoly in the hands of the private agent, and also increases the disconnect between the authority and responsibility allocations, such that shouldering of responsibility and taking rightful ownership of risks becomes almost impossible. The INR 15,000 crore Delhi airport in the hands of the concessionaire demonstrates this aspect. The complete airport infrastructure is in the hands of a private agent, who commands a near monopolistic right over an essential service, and has been making regular demands on the government being in the driving seat in every negotiation [23].

Camouflaging of risks behind complexity is often the result, and their subsequent misallocation. The attempt to transfer the land acquisition risk to the private agency in highway projects in India is an ideal example of this. While land acquisition is a completely government activity, and has to be done by the government agents, in most concessions the concessionaire is made to bear the payments to be made. Most of the executed PPP projects have seen the government playing a very active role in carrying out land acquisition as was done in the Yamuna Expressway case, wherein the Chief Minister of the state of Uttar Pradesh held weekly reviews [18], or in the state of Madhya Pradesh where road projects were only tendered once land for them was fully available [24,25].

The big question is whether this complexity is a fundamental nature of PPP projects, or is it an aspect which can be adequately managed? Management scholars like Baldwin, et.al, [10] have argued that complexity needs to be managed by modularization. This involves dividing a complex set of activities into distinct modules, with modules being self-contained and the module interfaces paid due attention. In the context of infrastructure projects taken up by the PPP route, this implies breaking up a large project into smaller bits and pieces of manageable size, with the bits and pieces capable to coming together to deliver the whole. The following is implied,

$$\textit{PPP Bundling (of activities)} - \xrightarrow{\textit{(results in)}} \textit{Complexity} - \xrightarrow{\textit{(requires)}} \textit{Modularity (in scope)} \ \ldots\ldots\ldots\ldots\ldots\ldots \ (1)$$

These thoughts are shared by numerous PPP experts, who have started to bring evidence that PPP projects can even be conceived of and taken up without making them huge and monolithic. A recent exemplar reflecting the shift is the case of the small water PPP projects wherein small towns entered into and executed small size PPPs in Benin. The case is detailed out and advocated by World Bank, IFC group [26].

2.5. Long term contracts

The term of a PPP is another of its non-core aspect. Some definitions, like that proposed for GOI, while preventing PPP contracts from running into perpetuity, also mandate them to extend to more than three years. At the same time, PPPs in infrastructure often get labeled as LTICs (Long term infrastructure contracts) [27] and hence explicitly specify that these are long term arrangements. This assumption comes about when bundling of construction and service delivery gets done, such that large front end investments are to be recovered over time from nominal service delivery charges (user charges in some cases). Moreover, paying for the infrastructure over time from user imposed user charges is also not central to the PPP concept. Further, the long term nature conflicts with the PPPs policy of effectively allocating risks to the agency most suited to bear it. Knight [28], as far back as 1921, had identified that risks and uncertainties are two different aspects. While risks can be identified, quantified, and mitigated, it is uncertainty which is unknown in all forms and can never be fully addressed. While in the shorter term, risk can be forecasted and risk mitigation done, as the time span increases the risks tend to become uncertainties. Consequently, PPP projects get exposed to aspects for which no strategy for mitigation exists.

The longer term nature of PPPs increases their exposure to environmental uncertainty, and even minor errors in the initial assumptions, have adverse large bearings on the project. The impact of even small departures from initial assumptions, has to be borne by the project for its entire life time, and even a small event would led to significantly high impact and contribute to excessive contests in the PPP. A feasible option to long term contracts but still being able to adapt to changes, lies in introducing project modularity on a time dimension. That is, projects framework being so specified that at multiple instances of time the projects can change hands and the disadvantages of long term hostage conditions do not arise. A market of PPP projects has been recognized in the literature as the ultimate level of maturity that the PPP concept would reach.

Long term PPP -(results in)→ Hostage situation/ Magnification of small issues -(requires→ Modularity (in time scale) ………. (2)

2.6. Legally binding contractual nature

Common to almost all PPP definitions is the recognition that it is an arrangement between private and public, but the nature of this arrangement is left open. However, more often than naught, PPPs are specified to constitute legally bound and rigid contractual agreements, as one party is the government and for it only formally signed understandings (legal contracts) are necessary. These also become essential as the public agent has to adhere to the needs of maintaining transparency, accountability, equity, and consistency. Signed and legally enforceable contracts are argued to be necessary to protect the public and private interests in the projects.

Such contractual agreements, while serving to protect the interests of the parties in the contract, severely restrain the flexibility in the project itself and significantly limit its capacity to adapt to changing circumstances. At the same time, PPPs are also innovative steps wherein uncertainties loom large and not everything is known or can be specified ex-ante. Rigid and legally bound contracts adversely affect the projects outcome and severely limit its deliverability. However, the current trend is towards writing complete contracts and making them as complete and as rigid as possible. The same is evident from the remark by V .Pratap [29]

"It is crucial that the government identifies the issues that caused contractual difficulties, and ensures that these problems do not recur in any new agreement." [29]

Writing of complete contracts has however been long accepted by economists as being an impossible endeavor. Economic contracts are inherently incomplete and will remain so for ever as information asymmetries will always exist, and economic activities will continue to be exposed to uncertainties, even the nature of which is unknown at the time of contract writing.

An option to contractual binding of economic activity lies in trust based binding. This is the primary reason why the last "P" in PPP stands for partnerships. However, we continuously fail in evolving trust developing mechanism when the private and public agencies need to work together. The one off nature of public-private transactions is one reason often attributable to this. Due to lack of repeat transactions, trust does not flow from one transaction to another, and there exists neither a shadow of the future nor a shadow of the past. Developing a market of modularized and short duration PPP projects, wherein PPP projects often change hands, would put in place a viable trust developing mechanism. Here, the effects of shadow of future and shadow of past can be relied upon, and not everything need be specified ex-ante in the PPP contract. Project functioning should be allowed to evolve and adjust with time, with minimal ex-ante decisions. The other benefits comes from reducing the size of a possible honest mistake, both in terms of monetary value and impact over time, which a market of PPP project brings about.

Rigid Contracting-(results in)→ Rigidity/ Inflexibility—(requires)→ Market for PPPs………(3)

The problems faced by the NH-1 Panipat Jallandhar highway up-gradation project (Case 1 presented in the appendix) due to unrealistic traffic forecasts and the problems faced by the Tata Power project due to change in taxation policies in Indonesia on the coal to be imported from their for use in the power project, are representative of the constraints posed by legally rigid contracts [27].

2.7. Simultaneous impact

The extension of the basic PPP concept to large scale bundling of activities, long term, and rigid contracting, all together, converts PPP projects into monolithic giants and coupled with the fact that they are for delivery of public services they acquire the status of monopolies in private hands.

Bundling of activities, without adequate modularization, grows the financial size of PPP projects and the number of private agencies that can handle these decreases significantly. This firstly affects the initial bidding wherein multiple private parties need to come together to gain enough financial muscle and experience across domains, to bid for a large project, and adds to their complexity. Secondly, the need for professional execution increases significantly as larger amount of complexity needs to be addressed, and even minor slips on the private parties part, results in significant unintended effects on the project outcomes. Thirdly, and most importantly, if the private concessionaire turns into a rogue he holds the government to a ransom as on one hand public services cannot be disrupted and on the other hand competent and financially strong private agencies to take its place do not exist. More than such an event occurring, the situation is one of lack of alternatives/options affecting quality delivery and compromises on the same. Here, only the minimal level of delivery is what the public receives.

The long term nature of the contract, without any time spaced modularization, or even its possibility, leads to one off contracts with no going back. Procrastination in such scenarios become rampant and can also lead to hostage situations of the public body or the private body, wherein the consequences of walking out of the contract are catastrophic and hence once again minimal delivery levels are what are promised and maintained. In case 2 in appendix, NHAI had no options to run the toll plazas if the private concessionaire walked out, and the concessionaire refused to take up any up-gradation work to ease traffic problems despite court orders.

Contractual nature and ex-ante decisions, which are rigid and legally binding, make the monopoly (in private hands) unadaptable to changing situations. As demonstrated in case 1, attempts at writing complete contracts, often leads to long contracts, which are more likely to have internal contradictions. Ex-post adjustments, if they compromise with the bidding criterions, are viewed either as crony capitalism if they favor the private sector or as government bullying if they harm the private parties. Normal across the table negotiations have no place, as contractual clauses are non-negotiable even by mutual consent.

The three aspects of long term, bundling and rigid contracts, together, unaddressed by unbundling across time and scope domains to achieve modularity, or by creating a market of PPPs, leads to the situation wherein both the private and public agencies lose confidence in the concept, and the concept sees as floundering [29] .

3. PPPs in Indian transport sector

The World Bank PPI database lists 453 transport sector PPP projects in India, a significant 22.5 % of the total number of 2019 transport sector projects in the database. Of the Indian PPP projects 26 have got cancelled, 10 have already been concluded, 91 under construction, and a whooping 321 are in the operational phase. At 6% cancellations in India, it approximately the same as the global average of 5.5% cancellations of transport sector PPPs in the database. However, this is only part of the story.

A closer examination of the list of 26 cancelled projects reveals that it does not have the PPP projects which raise all the hue and cry in the media and academic circles. Some of the projects that we have closely studied and which have been the basis for the media's perception of failed PPP story in the country are not getting reflected in the database as having failed, as they did not get cancelled. Some of these are, NH-1 Panipat Jallandhar expressway (Case 1 in appendix), NH-8 Delhi Gurgaon Expressway (Case 2 in appendix), Yamuna Expressway, and DND flyway , to name a few. This is attributed to the fact that contested projects continue to attention at various levels, but they do not get cancelled. Their cancellation would result in a public outcry that would be politically suicidal for the party in power. However, it is these same projects, which when contested in media or courts, do tend to be basis of the public opinion.

A more startling fact comes to notice if one analyses the yearly trends of new concessions signed as presented in Figure 2a. After a gradual increase the number of PPP projects signed in a year jumped to as high as 75 in 2012, but has again reduced to under 20 level. These figures when supplemented with industry reports and academic writing that bidders are no longer coming forward to take up transport PPP projects, shows that the sector not in the best of health.

Despite the huge exposure of the Indian economy to over 400 PPP projects, there are very few projects in the country which can be lauded as success stories, and Pratap [29] sees the PPP concept as floundering. While some projects conceived as PPPs could not attract bidders, some failed to reach financial closure, some were dumped by the winning bidder (for instance, case 3 described in appendix), some got stuck during the implementation phase (for instance, case 1 in the appendix), and still others got taken over by the government or sold after commissioning (for instance, case 2 in the appendix). Of these, the projects that get stuck in implementation or have to be taken over by the government are the most serious. They not only involve large sunk costs, but point towards a fundamentally failing concept. The issue assumes glaring proportions when one finds most of the PPP projects delicately poised, or languishing with significant time and cost over runs, incurring huge social costs, waiting for the plug to be pulled, with few being declared failed [29].

4. PPP definitional rethinking

The purpose of looking for definitional inconsistencies was to identify reasons for poor perception of PPPs emanating from the way that PPPs are viewed and understood today. While taking a definitional perspective, giving due recognition to the fact that numerous definitions of the PPP concept exist, it is argued that PPPs in the real world and as practiced in the industry, are characterized by extensive bundling, long term periods, and executed through rigid contracts. It evolved understanding has also found its way in how PPPs have got defined overtime. The three key characteristics are shown to have driven the concept into an unintended direction, and numerous PPP failure stories, atleast in the context of Indian Highway PPPs, were shown to have emerged out of these evolved characteristics. Further, it has been proposed above that unbundling across scope and time could provide an option for better governance of PPPs. Such an unbundling would result in a modular PPP, conceived for short term, less complex, and flexible in nature, and existing in an environment where PPPs can be bought and sold in a market. Notably, this can be achieved without tampering with the core features of PPPs.

This, however, is only a part of the problem behind the perceived failure of PPPs. We next examine PPPs from the management literature in strategic alliances, as PPPs are supposed to be a partnerships or an alliance between a public and private agencies. This view also allows us to refresh our perspective on PPPs, and address the PPP paradox.

5. Management literature and PPPs

PPP are essentially partnerships between public and private agencies, aimed at achieving a common objective. As partnerships they can be viewed as strategic alliances between the public and private agencies. While the PPP literature is highly distributed and scattered across subject domains, the strategic alliance literature in the management stream is quite cohesive and mature. After having gone through an initial period of discovery, wherein the area also dabbled with definitional issues, the literature is now in a position to guide managers on their conduct in the effective management of strategic alliances.

In this and the next section we borrow from this rich literature, which sees strategic alliances as sources of competitive advantage for business firms. The broad argument being that PPPs, if viewed as partnerships, face unique challenges that are fundamentally similar to what strategic alliances face. And, rather than worrying excessively about these challenges, these should be seen as fundamental and given. The management of PPPs should move ahead in an attempt to address these challenges, rather than dabble about why these have occurred. For instance, as PPPs involve partnerships between the private and the public agencies, each of whom have different driving objectives, exponents often argue that such a relationship is fundamentally flawed on account of the differences in objectives of the two partners. However, the strategic alliance literature informs us that it is possible for agencies with fundamentally different purposes of existence to come together in a mutually beneficial relationships. The focus of management should be to address the unique requirements emerging out of differences in objectives, rather than attempting to change the partner's objectives or sideline them. This fundamental recognition will ensure that in PPP projects the profit motive of the private partner is not compromised, while the government does not attempt to latch onto the profits, become greedy on seeing the private sector profits in the project. In a PPP, the private agency is not required to work as an altruistic and benevolent partner, and the public partner is not to chase profits. This would need innovative ways of working towards the common objective for which the partners had come together.

6. Rethinking PPPs the alliance way

This paper argues that PPPs need to be rethought and maneuvered along the alliance way, and for this four fundamental rethinks are required. Firstly, the differences in the objectives of the public and private has to be recognized as given. Secondly, PPPs are likely to have a contesting nature, and the contests in their lifetime should not be seen as their failures. Thirdly, performance assessment of PPPs is always likely to be troublesome, and no one measure of their performance should be strived for. PPPs would be simultaneously seen as success and failure stories. And, lastly, despite numerous reports of their failures, they are here to stay. Perceptions of PPP failures should not come in the way of pursuing PPP, as they bring forward great potential for growth and open up new opportunities. And, it is these possibilities that have been driving the public and private commitments to PPPs, and would continue to drive them into the future. We next discuss each of these aspects in detail.

6.1. Partner needs and PPP

Organizations often adopt network forms, such as alliances. As per Powell [30] these network forms lie between the two extremes of markets and hierarchies. Networks emerge especially when it is difficult to write efficient market-based contracts or when the required resources lie elsewhere or are distributed among organizations [30]. Ireland, et. al [31] argue that it is through alliances that organizations seek resources and knowledge and also explore new markets and opportunities, to remain competitive in a dynamic landscape. So much so that in today's world going alone is no longer a viable option [32, 33].

Though the needs of the alliance partners are the prime drivers for them to get together, it is rare for such needs to be same. Often, they are not only at variance but also in contradiction. For example, pharmaceutical companies partner with research laboratories to cash in on their discoveries while laboratories seek funding for their research. Similarly, multinational automobile companies partner with local firms to get market access, while local firms seek access to modern technology. Despite being different, these needs are required to be compatible with one another, such that a common alliance objective can be agreed upon.

Alliance learning 1: Alliance formation is driven by the needs of alliance partners; needs that are different and yet compatible.

PPPs are driven by the government's quest for financial, managerial and technical abilities -- abilities that it does not possess, while private firms come forward in search of business opportunities. That is, while the government seeks to satisfy public interest, i.e., provide public infrastructure at the best value for money, the private concessionaire seeks private benefits, i.e., make profit and earn above market returns from his investments in the project [34]. Consequently, Rufin, et.al, [35] see the public agencies and the private firms in a PPP as strange bedfellows or the odd-couple. The mutual need argument of PPPs itself, though simple and fundamental, is often doubted by critics, who see it as driven by private sector's quest for profit, enabled by crony capitalism. Even development economists often tend to make a fallacious assumption when they argue that compared to PPPs arm's length contracts give better value for money as the government can borrow at a lower cost from the market. Though the basic premise of cheaper government borrowings is true, when the same is viewed coupled with government's bureaucratic overload and the possible benefits from innovation and flexibility in both technology and management, this benefit becomes miniscule. PPPs aim to deliver a higher value for the same money, after compensating for the more expensive private borrowing, as such borrowing also come forward with inherent oversight and focus on above average returns. At the same time, the government has limited internal managerial and technical capabilities and it is not possible for it to execute large highway projects, such as those discussed in appendix. Large projects involve significant design, construction, financial, and demand risks, and these risks can be best handled by distributing them among multiple agencies rather than being shouldered by the government on its own [34]. In fact, considering the large infrastructure gaps that the government's world over face, PPPs provide the only option to the government to provide the much required public infrastructure to drive growth.

PPP lesson 1: Both government and private agencies pursue PPPs to fill their needs. It is natural for a private agency to pursue private benefit and a public agency to pursue public interest in a PPP, simultaneously.

The recent McKinsey report [36], while deliberating upon how to transform India's logistics infrastructure, points to the huge infrastructure gap by estimating that the country would need investments to the tune of USD 220 billion in road development alone. Further, USD 90 billion would be required for rail development and another USD 40 billion for development of ports. At the same time, the Indian Finance minister is committed to working towards containing the fiscal deficit, which is hovering at around 4% now, and is targeted to be brought down to 3% by the next year [37]. Thus the government is not in a position to borrow more to build infrastructure on its own. However, today India has a mature base of civil construction contractor and financial institutions that together can address the numerous technology, managerial, and financial gaps that go hand in hand with the infrastructure gap. The needs of the two partners, i.e., the public need to address the infrastructure gap and the private need for profit opportunities, provide the necessary drive for together taking up infrastructure PPPs, through these needs are at variance.

6.2. Contesting nature of alliances

Das, et.al,[38] and DeRond , et.al. [39] argue that strategic alliances experience internal tensions of cooperation / competition, rigidity / flexibility, and short-term / long-term orientation. These are seen as normal facts of an alliances life, and are neither functional nor dysfunctional to the alliance health.

Alliance learning 2: Internal tensions are central to the alliance concept.

As per Rufin, et.al, [35] the simultaneous pursuit of both private and public interest in PPPs, makes the inherent paradoxes and internal tensions more pronounced in this context. As per Jay [40] in PPPs these contests are navigated while grappling with the definition of what is success and also by continuous evolution and change in the organizational logic. The extent of flexibility in design and implementation of public procurement contracts is determined by the public agencies' political risk adaptation to the third party – political opponents, competitors, interest groups, and comes at the cost of public at large [41].

Our observations, made before, that very few PPPs in India have got cancelled, while a number of them are heavily contested provides evidence in support of this argument. The IGI Delhi Airport got commissioned in 2010 and has been a show case for the country. However, besides being consistently rated as one of the most modern airports in the world, it has been in the news for many other reasons [23]. The concessionaire has pressed hard for imposition of an additional airport improvement fees on the passengers and the same has been imposed despite large public opposition and government's resentment. The land allotted to the concessionaire has become disputed, and also the formation of numerous SPV's by the concessionaire is being seen by the Government auditors as attempts to divert revenues and decrease the governments revenue share. Some view these as failures of this PPP venture, while others view it as a failure of the PPP concept itself in the country [42].

In the context of highway construction projects, the concessionaire and the public agencies are required to cooperate in getting access to right of way, getting utilities shifted, finalization of minor design changes, watching over the quality of delivery by the contractor, while at the same time competing in deciding the extent of scope of change to be allowed and the compensations to be awarded for time and scope over runs. While working within the scope of the contract, which is rigid, set in print and legally binding, the agencies are required to accommodate changes in original designs while finalizing and approving them to suit the local conditions, accommodate minor scope creeps at the behest of the local public, and even consider issues such as toll plaza shifting as it affects the viability of the project by increasing the revenue stream for the concessionaire. The short-term orientation required to deliver the project on time and within cost, needs to be balanced against the long-term quality, and public comfort perspective, demonstrated in the cases. Multiple reasons for contest exist, however for working together it would be necessary to address these amicably and while understanding and satisfying the needs of the partners.

PPP lesson 2: Internal tensions are central to the PPP concept. Ways and means to navigate them have to be worked out.

The cases summarized in appendix provide evidence of the contesting nature of PPPs. At the time of writing, the projects were at various stages of completion. The project in case 1 was stuck at 70% physical progress, project in case 2 had been completed five years back, and the project was yet to start in case 3—it was terminated before start. At different project stages they witness different kinds of contests, but each serious enough to jeopardize the complete project. While the concessionaire in Case 1 contested the government to shift the toll plaza, the concessionaire in Case 2 contested the government for substituting the lenders, while in case 3 the concessionaire is contesting that a court judgment, in a different place and in different context, should be viewed as a force majeure for this project. Behind these main contesting points, in each case there exist numerous other points of contest also. The complexity of the project requires the different participants to bring in their resources and to work together, while protecting their own interest. Contests of such kind are likely to happen, and no matter how complete the contract was written, a new subject for a contest would emerge. These contest need to be managed, and there exist a need to move away from labelling these as failures or successes.

6.3. Performance assessment

As per De Rond, et.al, [39] alliance performance is a subject of social construction and as per Christofferson et.al, [43] performance in the alliance context can be assessed through multiple perspectives and measures. Some of these are stock market indicators (cumulative abnormal return), accounting measures (such as return on investment), relational parameters (such as satisfaction level) and stability (such as alliance duration). However, as Robson, et.al, [44] argue that these multiple measures are often not in agreement and empirically found them to contradict one another. In such a scenario, the balance scorecard approach provides a more attractive option for assessing performance, as it can provide a holistic view by supplementing accounting measures with perceptual measures. In the alliance context, Kaplan, et.al, [46] propose a collaboration theme scorecard, which can measure alliance performance, while relying on transparent cost drivers, commercial viability metrics, quality and risk assessment scores, and trust and transparency survey scores.

As per Jay [40] alliance performance also varies with the perspective of the stake holders. Partner firms assess alliance based on the returns that it gives, while alliance managers assess it based on their objective, and the two are often not in sync. For instance, a research alliance is successful if it makes new discoveries, however if the owning firm fails to economically exploit the discoveries, it views it as a failure. Finally, alliances face the paradox of performance, i.e., there exists a great amount of ambiguity about whether a certain outcome represents success or failure.

Alliance learning 3: Measurement of alliance performance is ambiguous.

As per Hodge [46] the assessment of a PPP's performance is more ambiguous than alliance measurement as there are unique challenges in defining the evaluand, in choosing between the multiple objectives, in the evaluators' role, in what is performance, and in choosing the disciplinary perspective for evaluation. The IGI Delhi airport was constructed and delivered in a record time, and has been consistently rated among the best in the world. It has brought

Indian airports which fared in the bottom 5% in Asia, to complete with the best in the world. It is a great achievement and provides huge comfort to the passengers. However, as a glass and steel structure it is argued to be highly energy inefficient, the concessionaire has forced passengers to pay an additional amount to use the airport, the bid loosing concessionaire has repeatedly gone to court pointing out that bidding parameters are being compromised routinely, and is being seen by some as giving the concessionaire a free run with public assets on account of the significant land parcels transferred to him for commercial exploitation. At the same time, the concessionaire by its monopolistic bargaining position has extracted numerous additional concessions from the government, thus in this PPP all downside risks are with the government, while all upside risks are with the concessionaire.

PPP lesson 3: Assessment of a PPP's performance is not straight forward

The cases discussed provide supporting evidence. On account of these PPP projects, the government, despite its tight budgets, could take up these infrastructure upgradations that would otherwise have been postponed indefinitely. The private sector got an opportunity to do business and involve in construction, which would provide them with avenues to make profits. However, for over three years the public was inconvenienced in traveling on a partially constructed road in case 1, while making full toll payments. Similarly, in case 2 daily commuters after six years of construction on a 16 km road saw their journey time remain the same at an hour, with the introduction of an additional toll, as the traffic congestion at the toll plaza would eat away the 30 mins of travelling time that they had saved. However, at non peak traffic times the journey can be completed in less than 20 mins, which was a dream come true. The assessment of project performance by the different agencies is highly varied, and it is difficult to come to a conclusion of whether the projects showcase successes or failures.

6.4. Alliance paradox and PPP paradox

Despite the popularity of alliances, there is widespread disillusionment with their performance. Das, et.al, [38], Kale, et.al, [33] , and Kaplan, et.al, [45] report failure / instability rates of alliances between 30-50 per cent. Even failure figures as high as 70 per cent have been reported. As per Kale, et.al, [33] this is the "alliance paradox". An alternative perceived by the corporates as highly attractive, and also remaining an attractive option, despite the high failure rates. Ireland, et.al [31] see this happening as alliances are sources of competitive advantage for firms, while as per Kanter [32] firms do not have an option go alone in today's world. Firms enter into alliances, recognizing their low success probability, driven by their need to remain competitive in the market and anticipating future growth.

Alliance learning 4: Despite their questionable performance, alliances are the way to go.In today's economy, going alone is no more an option.

Despite widespread dissatisfaction with PPPs, their worldwide growth exemplifies the "PPP paradox", which is similar to the "alliance paradox". Infrastructure gaps loom large in both developed and developing economies, and governments find it hard to provide the necessary finances to build the much required public infrastructure, while going alone. The private sector also feels that this investment in the public infrastructure, which has large positive externalities cannot be left alone to the government to provide, considering the slow pace with which the government is moving. If a part of this is hived off to them, it not only opens the doors to an attractive market opportunity, but they also get a chance to expedite infrastructure upgradation, which would be to their benefits. For instance, construction of a public infrastructure of highways, reduces travel times and hence brings cost efficiencies to businesses, while improvements in ports open export/ import opportunities while decreasing their associated costs.

PPP lesson 4:PPPs are here to stay, despite their dismal performance.

Figure 1 brings evidence that despite all the noise about the failure of the PPP concept in India, the private investments continue to be on an upswing.

7. Conclusion

The PPP story in India is going through a crisis. While there exist robust drivers for bringing in PPPs, the perceptions about the viability of PPPs in the country is falling. The same is also true for other developed and developing economies, all of whom look at PPPs as the innovative way to address their fundamental problems relating to infrastructure gaps. The paper argues for a rethink at two levels. Firstly at the definitional level and secondly at the fundamental concept level. While the definitional rethink argument is based upon tracing how PPPs are being defined, the conceptual level rethink is argued by advocating learnings from the rich management literature on strategic alliances.

At the definitional level it is brought out that PPPs at their core are ways for using private finance for public infrastructure. However, in an attempt to define them better they have started to mean long term, rigid, monolithic, and complex contracts. Defining them in this way is a source of problem. Firstly, it makes PPPs monolithic projects, and while executing the PPP it become large monopolies in the hands of the private. Secondly, for making these into commercial viable projects these become long term and compromise with the much required flexibility in the business domain. Hence, whereas the privates sector is advocating the need for change, and agile organizations PPPs move to the other end of the continuum. It is proposed that there exists a need for unbundling PPPs using novel innovative ideas along time, and scope dimensions, such that they can become short term, flexible, modular and simple arrangements.

At the conceptual level, the need for learning from the strategic alliance literature is emphasized. Management literature is reviewed to bring out that after decades of deliberations management scholars and practitioners have to come to terms that alliances will have partners whose fundamental needs in the alliance would be at variance, they would have a contesting nature that should not be seen as a failure, their performance measurement would be ambiguous, and putting it all together a alliance paradox exists. All of these are shown to be valid in the PPP context also, and examples from the Indian transport sector, and three highway case studies are shown to bring evidence in support.

Appendix: Three comparative case studies of contested PPPs in the Indian highway sector

	Case 1 NH 1 Panipat Jalandhar	Case 2 NH 8 Delhi Gurgaon	Case 3 NH3 Shivpuri Dewas
Unique aspect	First DBFO project in India Revenue sharing with Government 20.14% to increase 1% per year Concessionaire allowed to collect tolls even before construction starts	Negative grant INR 61.06 cr (USD 10 million) Revenue sharing above 1.3 lakh passenger carrying units	Premium INR 180.90 cr. One of the highest premiums ever promised.
Particulars	291 Km of six laning from existing 4 lanes	27 Km of 6/8 lanes and service lanes	332.45 Km of four-laning
Preparation	DPR by M/s CES (2006) INR 2747.50 cr (USD 450 Million) At project award only 2% land required to be acquired	DPR by M/S Rites ltd in 1997 INR 547.5 cr (USD 90 Million) Unanticipated growth in traffic High level of coordination required not envisaged Design of nine major structures required to be revised. Lack of experience (early project)	INR 2815 cr Most of the land already acquired Environmental clearance for project in place (16thJan'13)
Project Award	9thMay'08 15 years concession with 910 day construction period	31stJan'02 20 year concession with 30 month construction period	12thJan'12 30 year concession with 910 days construction
Financial closure	INR 4518.17 cr (USD 750 Million - 9th May'2008)	Equity INR 164.2 cr (USD 30 million) (originally 51% Jaypee, who reduce it to 1.2%) 76% taken over by IDFC, awaiting govt. clearance for rest Debt INR 383.3 cr, (USD 60 million) (Originally with HUDCO lead consortium) SBI approves a debt of INR 1275 Cr (Jan'09) IDFC approves a debt of INR 1600 cr (9th Sep'10)	Pending IDBI tentative financial Sanction letter
Concessionaire	Consortium of M/s Soma (India) and	Jaypee DSC ventures (early)	GVK Shivpuri Dewas

	Case 1 NH 1 Panipat Jalandhar	Case 2 NH 8 Delhi Gurgaon	Case 3 NH3 Shivpuri Dewas
	M/s Isolux (Spain). M/s Soma-Isolux NH one tollway private ltd	Delhi Gurgaon Super Connectivity Ltd	Expressway Pvt. Ltd
Construction	Start: 11th May 2009 Scheduled Completion: 9thNov' 2011 with two intermediate milestones. First milestone achieved – 11th May'2010. Second milestone – 65% missed – 11th May'2011 Project stuck at 70% completion for 3 years	Starts: 12thJan'03 Complete: 25thJan'08 Time delay 3 years Major scope changes Cost escalation to INR 1170 cr (USD 195 million) Coordination issues with 15 government agencies INR 155.5 cr (USD 26 million) agreed for major scope changes only	Not started
Dispute	Shifting of toll plaza from 146.40 km to 110km and from 212 km to 211.45 km citing revenue leakage. Increase in price due to supreme court on stone quarries Lack of maintenance of the existing tolled highway	Public discomfort at Toll Plaza Irregular renegotiation of debt Wrong toll reporting by concessionaire Inadequate maintenance	Change in law on account of a Supreme Court ruling
Positive aspects	Good traffic projections. Heavily travelled and passing through prosperous agricultural, commercial and Industrial belts. Already tolled so willingness to pay	Good traffic projections. 1.27 lakh PCU's per day in 2000 2.41 lakh PCU's per day in 2012	Good traffic projections
Challenges	A brown field project Very large project	A brown field project Heavy coordination requirements between 15 different agencies Unprecedented growth of Gurgaon, leading to an unprecedented growth in traffic beyond what was envisaged. Additional requirements, requiring major change of scope Lack of experience In media glare	A brown field project Very long concession period
		Approach and Actions	
Government (NHAI)	Conditionally approves Toll Plaza shifting with a six month delay (9thNov'10) Issues termination notice (13thJuly'12) Withdraws permission with full board meeting, and also lays blame with its own previous officers who had approved toll plaza shifting (3rdMay'13) Asked by courts to take over the project and start its own tolling and complete construction. Decided to file an appeal against the Supreme courts final judgment order (1stMay'2014)	Silent to public outcry and to banks negotiating behind its back. Issues termination notice on 7thDec'11. Final termination notice issued on 18th February' 2012. Unable to get the concessionaire to respond and with IDFC also failing to get the concessionaire to respond, issues show cause notice for termination on 8th March'2013. Also raises claims against concessionaire for failing to maintain road thickness, mis-reporting toll revenue, and not taking action to reduce public inconvenience at Toll Plaza.	States concessionaires claims are bad in law and facts Delays appointment of arbitrator Terminates contract and encashes bid security
Government (Ministry)	Asked by NHAI to initiate action against NHAI's officials who approved toll plaza Supports NHAI in court Approached by NHAI to decide the toll plaza shifting issue	Sides with NHAI on protection of public interest Finally, calls everyone to sort out the matter	Directs NHAI to rebid for the project once a termination order has been issued and case has gone for arbitration.
Concessionaire	Asks for toll plaza shifting citing revenue leakage and traffic diversion. Stops construction work. Completes the socio-economic study on impact of shifting of the toll plaza (15th January'2013).	Refuses to address toll plaza congestion issues Under reports toll earnings, to be under the ceiling when toll sharing with Government would start. Renegotiates loan behind NHAI's back.	Asks for extension citing change in law, due to supreme courts order Terminates contracts from its side
Independent	M/s Louis Berger Group Inc.,	Allows and agrees to necessary payments for	Not appointed

	Case 1 NH 1 Panipat Jalandhar	Case 2 NH 8 Delhi Gurgaon	Case 3 NH3 Shivpuri Dewas
engineer	3 times refuses toll plaza relocation citing media attention and public hue and cry. Agrees conditionally (10th July'10) On completion of socio-economic study, reverses its stand and disapproves toll plaza shifting citing safety concerns, improper financial modeling and excess toll revenue of INR 689 cr (USD 115 million)	scope change. Quite about public discomfort The toll plaza was to cater to traffic of 2.2 lac PCU/day as per original traffic estimates, but it does not have this capacity. Initial design was inadequate. NHAI appoints an independent traffic survey agency which reports gross under reporting of toll collections in September'2013, to the tune of USD 8 million per month.	
High Courts	High court of Punjab and Haryana was watching project progress as part of a 1998 public interest litigation. It directs concessionaire to complete work and NHAI to coordinate. Taking cognizance that concessionaire has stopped work, missed deadlines, and also stopped maintenance of highway, it imposes penalty on concessionaire Court stays NHAI's termination order on 3rd August'2012. Vacates the same on 27th May'2013 sets the concession agreement aside. It directs NHAI to take over the project, not looking into the legal contractual aspects. Concessionaire seeks relief from Delhi High Court against termination notice of NHAI, however court regrets.	Concessionaire seeks intervention of Punjab and Haryana Courts for police help at toll plaza. Courts stop toll when it finds that its orders for initiating actions for reducing toll plaza congestion are not being complied with. Forces a minutes of meeting to be signed for resolution of issues relating to toll plaza congestion. Concessionaire approaches Delhi high court against the NHAI termination notice. After 23 hearings, the court forces a memorandum of understanding to be signed between all concerned. IDFC also approaches the same court seeking action and servicing of its debt, and proposes amicable settlement of issues.	Brought in by concessionaire to protect encashment of performance guarantee by NHAI due to non performance Also, for not appointing arbitrator Hands over case to arbitrators to decide
Supreme court	First hears case on 31st May'13 and final judgment on 17th May'14	Refuses to intervene as cases are in other courts.	In another judgment supreme court imposes restrictions on small quarries, requiring them to also have environment assessment
Equity owners	Personally fined by courts for not starting work despite court orders. Fines increased later.	Change in equity (Jaypee→ DSC→ IDFC) Stand personal guarantee for IDFC loans Payments for construction with held. IDFC proposes to take over the project equity, but NHAI within its laws only allows 74% equity transfer.	Attempt to initiate force majure clause of concession agreement. Attempts not to extend performance guarantee Make a laundry list of demands, including many which are outside concession agreement
Financers	At project initiation hold a very positive outlook on project, even ADB views are positive.	SBI led banks approves debt IDFC(six other public banks) approve a very high debt and also disburse amounts of the order of USD 200 million without proper clearances from NHAI.	IDBI sanctions debt, but with major restrictions citing supreme courts order
Pubic	Have been tolled from 11th May'09 to travel on roads under construction Other traffic will also get tolled as toll plaza shifting has been approved	Heavy traffic jams at toll plaza Local population suffers as it is being tolled even for short distances	Suffers on 2 lane bad roads, though willing to pay.
Media	Numerous press reports against the tolling argument of the concessionaire.	Blames NHAI for the fault. Convicts concessionaire of collecting undue benefits Raises concerns on PPP concept. With closure of operating toll plazas, the pay per use model is viewed as falling apart.	
FINAL RESOLUTION	**Supreme court** passes final comprehensive and complete order running into 72 pages on 17th April'2014. Case Civil Appeal 4611/2014 arising out of SLP 19379/2013.	Original concessionaire exits project. Taken over by IDFC as both equity and significant debt exposure. Joint meeting with heads of all institutions (govt) called by **Secretary of Ministry** on 22nd January'2014. Financial institutions threatened	Case with **arbitrator.** Contract terminated by NHAI and bid security encashed Decision on performance guarantee after arbitration Contemplating banning

	Case 1 NH 1 Panipat Jalandhar	Case 2 NH 8 Delhi Gurgaon	Case 3 NH3 Shivpuri Dewas
	• HC orders set aside • No fines • Toll plaza shifting approved • Takes up NHAI for vacillating stand on Toll plaza shifting The judges also said that the court will not permit the contesting parties, unless bona fide, to raise any dispute that will retard the completion of the project as it will neither be in the interests of the project, nor for the public at large. As of September, 2015 the work is ongoing and project still not finished.	for reckless lending. Agreement reached on i) NHAI to drop its claims of USD 130 million concessionaire ii) Implementation of all conditions of MOU by financial institutions iii) right for force-majure will remain with NHAI. iv) liabilities of NHAI on termination remain unaltered. v) **One toll plaza to be closed and increased toll on the other one allowed**. vi) NHAI drops its various claims – for lack of maintenance, service road repair, and under reporting. IDFC agrees in court with the above order, and toll plazas are closed. New toll rates at the other toll plazas to be announced, IDFC gets necessary approvals and agreements for toll collection from July'2014. It is now maintain the highway and collecting the tolls, which falling way short of the expenses and it is being projected that by end of the concession period, there would significant non-performing assets on IDFC's balance sheet. .	concessionaire for 2 years Concessionniare goes in arbitration with following claims: Cost compensation by NHAI to cover increase in capital cost Tolling of the existing road from appointed Date; Revision in premium payable

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