Rethinking PPPs

- Building a world class railway station

A Proposal for Lucknow Charbagh Station

Dr. Swapnil Garg
Senior. Professor (RST)
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Project prepared during the Amelioration Course
December' 2014

Indian Railways Institute of Mechanical & Electrical Engineering,
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"…… the secret to success is daydreaming"

Tom Peters' 2013
Management Guru and CEO coach

About the Author

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EXECUTIVE SUMMARY

There exists a ubiquitous need for the railways stations in India to change and they need to become more user friendly while leveraging the benefits of technology. Numerous proposals and reports exist for carrying out this much required up-gradation. Lack of funds often gets cited as the most important reason for these proposals not taking off, and 'The PPP route' is often suggested as THE solution. However, the poor performance of PPPs in the country does not bring confidence in this choice.

In this study, I reexamine the PPP concept from a definitional perspective, and question the path taken and the assumptions made in the nations PPP journey. I argue that whereas the primary PPP concept has only a few mandatory conditions, the subsequent understanding has converted them into a massive bundle of activities, governed by set of long term rigid contracts. This results in PPP based projects taking up a monolithic form for delivery of a monopolistic public service, and this entity getting transferred into private hands. Further, such entities are left to fend for themselves despite the imposed structural limitations, with little emphasis on ways to manage and resolve them. This path is identified as the source of many of the PPP problems in the country.

Departing from this route it is proposed that the complexity and uncertainty of PPP projects is required to be managed by converting them into numerous small modules, each of which independently and together form a flexible and adaptive entity. This is a standard route by which managers address complexity in organizations or alliances. While on one hand this breaks the large project into modules based upon size/scope dimensions to reduce their complexity, it also creates a market of PPPs by creating distinctive modules along the time dimension. A market of PPP, where PPP projects can get freely transacted, introduces the much required

control system on PPP performance, based on market mechanisms. This approach is next shown to be consistent with the basic elements of the PPP concept and is also in line with the original thoughts which saw benefits of PPPs manifesting when a market of PPPs emerges.

The unique conceptual framework proposed is next interpreted in respect to conversion of a station into world class railway station. The context chosen is to convert Lucknow/ Northern Railway station into a world class facility. It is shown that by decomposing a large project of Rs 670 crore into small projects of Rs 200 crore or less, we can find viable PPP delivery modes for them. While the road infrastructure needs to be paid for by state governments and railways as a part of ROB/RUB access, the new station building can pay for itself as a commercial complex, the passenger amenities (waiting areas can be paid for by user charges) and parking lots can be worked on an independent PPP basis. Contrary to routine PPP proposals, cross subsidization here is frowned upon- you get what you pay for, such that responsibility and accountability gets properly matched. Parking a car needs to pay for itself, usage of station facilities is to paid for by station access fees and platform tickets, and road access is to paid for by users of the prime commercial property.

The justification for user charges follows from the analysis of users of railways stations. Preliminary figures show that the station is routinely handling 1-1.5 lac people per day, but needs to be upgraded to handle 2 lac passengers per day to cater to the peak loads. A railway passenger with reserved ticket was found to pay an average ticket price of Rs 500/-for his journey. Similarly, an unreserved passenger is proposing to pay Rs 100/- (on average) for his journey. Like airports, a station usage fees of Rs 20/- for reserved classes and Rs 10/- for unreserved classes, yields an additional revenue of Rs 70 cr per year, and is more than enough for what is required to provide world class facilities to our station users.

Besides proposing a conceptual departure in the PPP concept, the report also fulfills three other objectives. Firstly, it provides an updated inception report for making Lucknow station world class. This is quite in contrast to the original inception report which was written over 5 years back and is very sketchy in nature. Secondly, the report serves as a one stop place for an exhaustive reference list in regards to world class stations, as understood in Indian railways. And lastly, the report makes a broad and first cut business case for Lucknow station upgradation, opening up a platform for initiating a dialogue on how Lucknow station can be made world class and what all would be required to carry out an exercise.

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PART I

INTRODUCTION

Public Private Partnerships (hereon PPPs), simply referring to private provisioning of public services, have been the focus of national governments for over two decades and have been widely patronized. The current form of such investments can be traced back to the Public Finance Initiative (PFI) of the John Major's conservative government in the UK (Hellowell & Pollock, 2010). The World Bank's database of Private Participation in Infrastructure (ppi.worldbank.org) lists over 5000 PPP projects formed since 1991, involving investments of over 1,800 billion USD. Private investments through the PPP route have also been a key focus area for the Indian Government, and over 900 infrastructure projects have been taken up through the PPP route, involving investment of almost Rs 550 thousand crores (i.e., USD 100 billion dollars) (pppindiadatabase.com). In the year 2011 alone, 41 transport sector projects (USD 16.5 Billion) and 46 energy sector projects (USD 17.5 Billion) were approved by the Indian Government to be taken up through the PPP route.

Large fiscal deficits in the national budgets leaves no place of the much required investments in infrastructure development, and the government looks upon the private sector to step in its place. However, of late, private sector's interest to invest in public infrastructure has shown a downward trend and it is fast becoming an area of concern (Business Standard, 6th July'2013[1]). With the private sector losing interest in PPPs, infrastructure development becomes a casualty, and the GDP growth rate of the country gets adversely affected. The concern lies at the highest level, and the Prime Minister of India has appointed a committee of secretaries to come up with a creative financing-cum-implementation mechanism for enhancing investment of

[1] http://www.business-standard.com/article/economy-policy/what-is-wrong-with-ppp-in-india-113070600510_1.html

an estimated Rs 2 lakh crore in infrastructure projects in a prioritized manner and monitor the progress of PPP projects (pmindia.nic.in, 15th July'2013)[2]. The downward trend in private investments for public infrastructure can be attributed, firstly to the falling investment sentiment in the country, and, secondly to the numerous problems that the private sector is facing in handling the PPP projects, which are already under implementation.

Many of the large and prestigious PPP projects in India have run into problems. For example, the Airports of New Delhi and Bangalore built to world class levels are running into severe losses and asking for resets. The private partner (i.e., Reliance) has pulled out of the Airport metro project in New Delhi, many concessionaires have walked out after winning highway projects, government is seeking to terminate the NH-1 Panipat –Jallandhar highway upgradation project and the NH-8 Delhi-Gurgaon highway has undergone an ugly transfer of ownership, to cite just a few[3]. The Reserve Bank of India has noted that infrastructure investments have fallen by over 50% in the financial year 2012, when compared to the previous year (RBI 2012)[4]. Back home, the story is not different with Indian railways. The transport infrastructure lifeline of the nation had targeted private investments through the PPP route of over Rs 1 lakh crore, but none have been forthcoming.

The problems faced by the PPP projects are however not unique to India. Across the world a significant number of PPP projects have either been cancelled or categorized as distressed

[2] The emphasis on PPPs continues to the current government. For instance, the railway minister during his buget speech in 2014 mentions PPP 12 times.

[3] http://www.business-standard.com/article/economy-policy/what-is-wrong-with-ppp-in-india-113070600510_1.html

[4] http://articles.economictimes.indiatimes.com/2012-08-23/news/33342207_1_rbi-paints-paints-grim-economic-picture-indian-economy

projects[5]. As per the World Bank's PPP database, out of the 1374 transportation projects that achieved closure between the years 1990 and 2011, 77 (representing 6% of the committed investments) were either cancelled or distressed[6]. The situation is much worse in the water and sewerage sector, where 63 of the 632 projects (constituting almost a third of the investments) were cancelled or distressed. In 2004, Guasch (2008) found that over 75% of PPP projects in Latin America in the water sector underwent renegotiation (in less than two years), which was viewed as opportunistic and a symptom of PPP failure. Similarly, the EURO tunnel could only book symbolic profits first time in 2007, 13 years after opening in 1994.

The threat to the PPP concept are infact real. Unless fundamental rethinking of the PPP concept is undertaken it is going to get increasingly difficult to seek private investments for delivery of public services, and at the same time the existing PPP investments are also going to get eroded with time. For Indian railways, the concerns are more than real as the organization is reeling under falling infrastructure investments, poor costumer delivery standards, and inefficient operations, all of which have led to falling patronization and initiation of a downward spiral.

In this paper, we first identify some of the core issues in PPPs as they exist today. It is argued that PPPs have developed to an unintended state, and today the concept stands bound in its own legacy. The legacy bound huge conceptual elephant of PPPs, which has so evolved, is not in line with the core thoughts on PPPs. Further, PPPs need to address some unique challenges due to their basic nature. In their current state, the PPP concept cannot address these challenges. The

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[5] Distressed projects: where the government or the operator has either requested contract termination or are in international arbitration. http://ppi.worldbank.org/resources/ppi_methodology.aspx

[6] The Bank further mentions that this could be an underestimate as not all arbitration agencies disclose pending cases. http://ppi.worldbank.org/resources/ppi_methodology.aspx

paper identifies long term nature of PPPs, extensive bundling of activities and camouflaging of risks rather than their correct transfer, and governance through monolithic legally enforceable contractual documents, as some of the key concerns of PPPs. It is hypothesized that relaxing these assumptions would enable PPP structuring to move along a very different path. The same is demonstrated through a preliminary PPP structuring for a railway station modernization plan.

THE PPP CONCEPT

The foremost challenge to the PPP concept is definitional, such that what qualifies as PPP is often disputed. 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 forms of interactions (i.e., even consultations or policy dialogues) between the private and public sectors as PPPs (GOI Discussion paper, 2010). Hodge, Greve, & Boardman (2010) in the *International Handbook of PPPs*, the first such international publication, contend 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". At the definitional level many of our assumptions about the PPP concept get questioned. The Ministry of Finance, Government of India, has a published a discussion paper in 2010 on the definitions of PPPs. This discussion paper provides the back ground for this discussion on the PPP concept.

Comparing PPP definitions

Through PPPs private investment is sought for building public infrastructure. However, private money comes with an underlying assumption of risk adjusted above market returns, and only then will private money flow into infrastructure projects. It is further assumed that if some of the risks to which infrastructure projects are exposed to are transferred to the private sector the overall project would come out cheaper for the public, despite giving higher then market returns

to the private sector. This happens only when significant risks are transferred to the private sector, but only those that it is better able to handle. Such transfer of risks is a fundamental premise of PPPs.

The discussion paper of GOI (GOI, 2010) compares twenty definitions of PPPs adopted by different organizations. These include definitions provided by Ministry of Finance, Government of India while making the policy for viability gap funding of PPP projects, Gujarat Infrastructure Development Board Act, World Bank – Public Private Infrastructure Advisory Facility (WB-PPIAF), Organization for Economic Cooperation and Development (OECD), International Monetary Fund (IMF), European Commission (EC) and the like. We find considerable variation across PPP definitions that have been adopted across organizations, with few common elements across them. PPPs are consistently defined to

1. Be contractual or other kinds of arrangement between the government and private agencies.
2. Exist for delivery of public services by private agencies (delivery of services emphasized over delivery of assets)
3. Seek transfer of risks to private agencies
4. Output based remuneration to private agencies

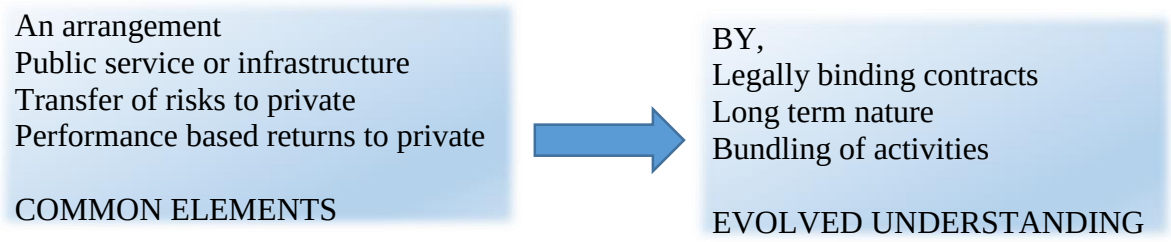

Figure A PPP Definitions

The definitions, while possessing the above similarities, do not consistently identify private investments as being necessary for a PPP; use of user charges as being mandatory for

PPPs; or emphasis on the public nature of the service or infrastructure as being necessarily required. Besides the above listed common elements, different organizations, nation states or multilateral agencies tend to further specify and restrict what will get categorized as a PPP. There are primarily three ways in which PPPs get further specified. They are necessarily viewed as being long term in nature; requiring bundling of services; and being imprinted in ink. However, as brought about above these aspects are not central to the PPP concept. 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 extension of the PPP concept. We next discuss the genesis of each one of these departures from the core PPP concept.

Bundling of activities

PPPs are frequently getting defined in terms of bundling of the distinct project activities and enblock transfer of these to the private sector. For instance, the various kinds of PPP projects i.e., BOT, BOLT, DBOLT, 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 DBOLT further adds design to it. The problem with such a bundling is that it 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 PPP projects through which New Delhi and Bangalore airports have been modernized. With significant bundling, these projects have become as large as Rs 11,000 crores and have developed into monopolies as there no longer exists a market for such large projects.

Theoretically, arguments for bundling of activities lie at two levels. Firstly, there exist differences in contracting costs for infrastructure construction when compared against the contracting costs for specifying service delivery (Hart, 2003). In situations, where it is difficult

(costly) to specify contracts for infrastructure delivery or for service delivery levels as they affect each other significantly, it is often cheaper to bundle the two together and contract them out as PPPs. Secondly, though there are efficiency drivers to the bundling idea, it is often coupled with an assumption that private finance for public services is the basis for a PPP. Often times, private finance is not needed as such, but is sought due to various reasons, one of which has been the need to move infrastructure projects off government balance sheets, especially in regimes where excessive public debt is frowned upon. Thus, PPPs can also be seen as statements of government policy that seek to build symbiotic relations with the private financial sector. Accordingly, Hodge et al (2010) and Iossa et al. (2009), identify the main characteristics of a PPP arrangement to be the use of private finance, tasks bundling, risk transfer and long-term contracting,

While there is nothing against bundling, the problem arises when such bundling results in larger than life and highly complex projects, and due to the inherent paradigm that bundling is core to the PPP concept this increased complexity remains unmanaged. Further, the increase in the level of complexity leads to a disconnect between the authority and responsibility matrix such that shrugging of responsibility and taking rightful ownership of risks becomes possible. This is well evident when the risk and responsibility for provision of land for construction of infrastructure projects in India is often transferred to the private firm, whereas all activities associated with this are to be carried out by the government. Camouflaging of risks behind complexity often results.

Can this complexity be managed? One of the favourite and most recognized ways of managing complexity is by modularization. This involves division of a complex set of activities into distinct modules, with elaborately designed self-contained modules and module interfaces. This allows one to address complexity, by 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 when required. In effect it is being recommended that the following path needs to be taken.

PPP Bundling (of activities) – (results in) → Complexity – (requires) → Modularity (in scope)

Long term contracts

Not all definitions of PPPs talk about its term. Some definitions, like that proposed for GOI, prevent such arrangement to exist for perpetuity. However, by labelling PPPs in infrastructure as LTICs (Long term infrastructure contracts) or explicitly defining them as being long term arrangements the long term nature of PPP projects gets emphasized. There is nothing wrong in something being long term, as long as all is going well. But the scenario changes as soon as the PPP project faces incorrect initial assumptions, changes in the initial assumptions, or happening of unforeseen events. The impact of such things is now to be borne by the project for its entire life time, and even a small event would led to significantly high impacts.

The premise that PPP projects are required to be long term is not central to the PPP concept. 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.

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.

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

Contractual nature of PPPs

While 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. 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. Consequently, rigid and legally bound contracts adversely affect the projects outcome and severely limit its deliverability. The problems faced by the NH-1 Panipat Jallandhar highway up-gradation project 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.

Signed and legally enforceable contracts are argued to be necessary to protect the public and private interests in the projects. However, the current trend is towards writing complete contracts, as far as possible complete. The same is evident from the remark

> "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."
>
> (Pratap, 2013)

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 could have been the primary reason why the last "P" in PPP stands for partnerships. However, we continuously fail in evolving methods of developing and working with trust between private and public agencies. One of the reasons attributable to this is one off transactions between the public and the private such that shadow of future or shadow of past is found not to exist. Developing a market of modularized and short duration PPP projects, wherein PPP projects often change hands would enable trust to start functioning and the effects of shadow of future and past to be felt such that 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

Simultaneous impact

The extension of the basic PPP concept to large scale bundling of activities, long term, and rigid contracting, all together, coverts 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 who can handle these decreases significantly. This firstly affects the initial bidding wherein multiple private parties need to come together to gain enough financial muscle 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 financial strong private agencies to take its place do not exist. More than such an event occurring, the situation is one of no alternative affecting quality delivery and compromises on the same, such that the minimal level of delivery is all that the public receives.

Long term nature of the contract, without any time spaced modularization, or even its possibility leads to one off contracts with no going back. Procastination 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. The case of NH-8 Delhi Gurgaon expressway is one such case, wherein while NHAI had no options to run the toll plazas if DSC walked out, and DSC refused to take up any up-gradation work to ease traffic problems despite court orders.

Contractual nature and ex-ante decisions, which cannot be altered on one hand make the monopoly unadaptable to changing situations and at the same time writing too long contracts leads to internal contradictions (like in the case of NH-1 Panipat Jallandhar Highway). Ex-post adjustments 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 and unvitiable even by mutual consent.

The three together mold into a massive monopoly, which is for provision of a public service, and above all this monopoly lies in the hands of a private firm, and is open to opportunistic manipulations for private profit concerns.

THE INDIAN CONTEXT

The real world story goes along these lines in India. Further, assumptions are made that private money is easy to come by and decisions made for political and bureaucratic considerations. Driven by insufficient information possessed by public agencies, and also crony capitalism or outright corruption, all project risks, without a careful assessment, are transferred to private sector. What results is aggressive bidding and then retraction of bids for fundamentally flawed projects, or severe time and cost overruns, or bankruptcy of the PPP project. The Indian PPP market has evidence of projects which have suffered like this. GVK bid aggressively for NH-3 highway, and later sought renegotiations even before starting work. GMR is asking for permission to re-service its debts. DSC constructed the NH-8 highway with 100% time and cost and as soon as the opportunity came, hood winked the government and negotiated a deal with a bank with significant government guarantees.

The discussion paper of GOI (GOI, 2010) after comparing the different definitions of PPPs proposes an umbrella definition for PPPs to be adopted in the Indian context.

> *" 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. " (Discussion paper GOI, 2010)*

Examining this definition in light of our discussion above highlights the path adopted by PPPs in the country. This definition and the subsequent listing of good practices goes on to identify PPPs as long term arrangements, compliance to pre-determined and measurable performance parameters, and while elaborating on risk sharing implies large levels of bundling of activities. However, while identifying PPPs as an arrangement it does not make it mandatory for them to be contracts, but makes private investments an integral part of all PPPs in India; recognizes that PPPs need to have a definitive time limit and cannot go on for perpetuity; makes performance linked payments to PPP (possibly through user charges) as being a necessity for PPPs; and makes it essential for PPPs in India to conform to quality performance standards.

The restrictions imposed on the PPP concept and highlighted above, through a detailed and elaborate PPP definition in the Indian context is the first step towards moving PPPs in India in an unintended direction. However, this is not unique to the Indian context, and even other organizations and agencies dealing with PPPs and more specifically infrastructure PPPs tend to put further restrictions on how they define PPPs. For example, The World Bank Group defines a PPP as not only a formal contractual relationship but also views them as spanning longer terms:

> *"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."*[7]

At the same time not everyone takes this view. For instance, the Canadian Council of PPPs adopts the definition of PPPs as

[7] http://www.worldbank.org/en/topic/publicprivatepartnerships/overview#1 (Retrieved 1st December' 2014)

*"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**."*

Relaxing the assumptions

As per the core PPP concept, a PPP comprises of some kind of an arrangement between the public and private for provision of public services, such that significant risk transfer to the private agency is involved, for which output based compensation to the private agency is to be provided. If this is so, than long term rigid contractual bundling of all possible activities into one large monolithic contract, is not the only possible way to undertaking PPP projects. Recognizing that the conceptualization of longer term, bundling under rigid contracts were not the core of the PPP projects, we seek to relax these requirements and visualize a world which does not necessarily possess these attributes.

Numerous short term, modular, and flexible contract based PPP projects will lead to creation of a market of PPP projects. In such a market, delivery becomes a key project deliver attribute and the norm of performance is to perform or perish in a dynamic private market. Not only will the market mechanism enforce cost control but it will also ensure on time and quality delivery. Hence, the conceptual change here is from a monolithic project, with all risks borne by the private agency in place of the public, to putting the market control mechanisms to work. However for this, a market is required to exist, which is not existent today. Bringing modularity to PPP projects helps create the much required market of PPPs.

Overall, the conceptual departure here implies firstly to bundle project activities together as traditionally envisaged, but hereon they are obliquely modularize such that they do not suffer from liabilities of size. Secondly, it is proposed that these modules be conceptualized as short

term modules, which are marketable entities at each stages and can change hands between private firms such that at no time hostage situations develop for the private or the public agencies.

Recognizing that theoretical conceptualization require some evidence to prove them, we next propose modernization of a railway station to world class levels by relaxing these assumptions. The case of modernization of the railways station of Lucknow, one of the busiest railway stations of northern and north eastern railway, is taken up for the study. This station has been on the list of being taken up for development as a world class station for over 6 years now, but with no headway having been made till date. It is hoped that converting a large monolithic project of Rs 670 crore into manageable parts of maximum of Rs 200 crores each, each with its own different source of financing and financial modelling, a much more efficient and quicker delivery would be possible in contrast to multiple phases of planning and re-planning for a massive project.

CONCLUSION

It is argued here that overtime the conceptualization of PPPs has drifted and the PPP concept has today got associated to a large number of unviable concepts, which are dragging the PPP story towards failure. It is shown that these concepts, which were not key to the original PPP concept, got introduced in attempts to define and specify PPPs at a more detailed level and at good intentioned attempts at refining our PPP understanding. However, these concepts have overtime become a source of more pain than benefit to the PPP concept.

To make the above argument, the paper first lists the multiple definitions of PPP which exist in the literature and seeks to identify the core aspects of the PPP concept. Armed with these

basic concepts of PPPs, the paper discusses the current assumptions being routinely made about PPPs and how these have gone about to harm the concept. To strengthen the argument we borrow examples from the Indian Context.

We next show how relaxing these later assumptions opens up a whole landscape for redrafting PPPs. It is claimed that this automatically would make PPPs address some of the key issues that they face today. To strengthen the argument, the paper locates itself in a real world situation of modernization of railway stations, a public infrastructure. With Indian Railways demonstrating almost insignificant progress in this work, despite serious efforts, it makes for an ideal context in which issues relating to PPPs conceptualization, design and delivery can be well understood. In context of this context it has being proposed that instead of the conventional pattern of drafting a Rs 670 crore project for making Lucknow Railway station world class, it is a feasible option to break up the project into 7 distinct modules, each of which have a distinct financial planning and source of funding. Indian railways activities in this revised scenario changes to conceptualization of the distinct modules, defining standard interfaces between them, and monitoring of the project over its life time and creating a market of moderately priced PPP projects which can be transacted in the PPP market relatively easily, and ensure that transfer of provision of monopoly service delivery does not occur to the private sector.

PART II

DEVELOPING A WORLD CLASS RAILWAY STATION

Introduction

The need for providing superior services at Indian railway stations has been felt by one and all, and since the beginning of the railways. Extensive land provisions in the center of the cities for station complexes, beautiful and architecturally superior stations facades, and huge investments in railway stations done, over a century ago, provide evidence of the key place that development of railway stations occupied in the minds of the early railway engineers and their state owners. However, as in the last 100 years we have hardly taken up any new station development projects, hence the focus has been lost. We no longer have the vision and capability to conceptualize grand railway terminals, which are a requirement considering the huge passenger foot falls that they have everyday. Even if we care to dream, the same gets relegated in our priorities when we recognize the large and ever growing holes in railways pockets.

Today, Indian railways has 8241 stations, of which 976 stations have been identified for development as Adarsh Stations, while 192 stations have already been declared to have been developed as Model stations[8]. More recently, 26 stations were identified for development as world class stations, with the list most recently revised to 50 on 02th June 2010. However, the current pitiable state of our stations is no secret. Today our railway stations are overcrowded, difficult to maintain, infrastructuraly difficult to keep clean, and awaiting for rush induced stampedes to happen. The facilities provided are no match of those that we enjoy at airports, though some of our services cost comparable to those provided at airports[9].

The time has come now and something needs be done sooner than later, else

a) Users will lose their confidence in the Railway system in the country.
b) Railway stations will transform into traffic bottlenecks in the center of the cities, that they would be avoided by even our genuine passengers.
c) The dirt, filth and associated image of the unclean surrounding of today's stations will force people to label them as "places not to go to".
d) With the emergence of modern metro stations, railway stations are rapidly losing out on the image that they held in the passengers mind, and soon will get viewed as the poor, dirty, and filthy and distant cousin.

Brief review of existing documentation

Indian railways initiated an exercise for converting railway stations into world class at the beginning of the twenty first century (if not earlier). A multi-disciplinary team was formed, and this team visited railway facilities existing across the world. Consequently, railway board

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8 http://www.indianrailways.gov.in/railwayboard/uploads/directorate/land_amen/downloads/Adarsh%20stations.pdfL
http://www.indianrailways.gov.in/railwayboard/uploads/directorate/land_amen/downloads/Dev-Model-Station.pdf
http://www.indianrailways.gov.in/railwayboard/uploads/directorate/land_amen/downloads/idn_WCS_020610.pdf

9 During rush seasons the dynamic fare in the premium trains is often more than the normal air tickets on the route. Also, the discounted air tickets are generally equal or less than railways published 3 tier AC fares.

prepared a detailed policy for World Class stations and published the same on 12th March 2009, which is available at the Indian railways official website[10]. This team was almost disbanded (never formally, but slowly killed) after the world class concept for New Delhi Railway station was conceptualized but the report could not be implemented during the tenure of the previous government. On date, one officer with the designation of Dy.Chief Engineer (World Class) exists and another Director (World Class) in Railway Board, however he has no work on date relating to world class stations.

The team was mandated to prepare

i) Model Request for Proposal (RFP) Document for appointment of Architect & Technical Consultant for Development of World Class Stations.
Prepared and available at Railway Board's website (dated 2nd Februvary' 2010)
ii) Manual for Standards and Specifications for Railway Stations Vol- I & II
Prepared and available at Railway Board's website (June' 2009)
iii) And, to float bids for converting New Delhi Station into a world class station.

Subsequently, they hired a consultant to carry out a detailed feasibility study for New Delhi. The proposal of this consultant was an extensive exercise, wherein air space over New Delhi railways station was to be commercially exploited. This proposal was shared with the local civic authorities for getting clearance, as it required integration into New Delhi's master plan. After a lot of work this proposal has finally been cleared by the local civic agencies (after incorporating multiple modifications). However, by now Indian railways has lost its steam for going for modernization of New Delhi Railway station. Simultaneously, the very need for existence of New Delhi Railway station has been questioned and its conversion as a commercial hub has raised several eyebrows. This proposal as on date is not going anywhere, with huge amount of background work. This work lies unutilized in files and folders.[11]

As per the Railway Boards policy for World Class stations each railway was required to carry out an inception study for the stations identified for conversion to world class. These inception studies were to be used as the background documents for floating the RFP's for hiring the architects and consultants. The inception studies carried out were very sketch in nature and were mere descriptions of what actually existed. This is evident from the studies for Lucknow station and Varanasi stations[12].

World Class Station Concept

The concept of world class stations has been floating around in Indian Railways for more than decade. However, what is world class remains an unanswered question with no direct

[10] This has emerged during discussions with numerous officers connected with this exercise, however it is not an authenticated version. Dy.CE(World Class) has been requested for a chronological sequence of events on record, and once that is available this would need detailed revision and authentication.
[11] Again, the previous Dy.CE(World Class) who has been part of the team for five years has been requested to provide copy of this report, however the same is yet to be provided.
[12] Copies of the Inception reports of Lucknow and Varanasi have been scanned and have been hosted at the blog swapnilppp.wordpress.com . Digitally scanned copies are available with the author.

answers. During discussions with various officers who have worked on the concept it emerged that the concept essentially revolves around three key aspects[13]:

1. World class stations require a separation of train boarding/deboarding areas from passenger waiting areas.
2. World class stations require a separation of arrival and departure areas
3. World class stations need to provide easy and hindrance free access/exit (road) to people using the facilities.

These three aspects are fundamental to the whole concept. A station designed keeping these aspects in mind would have already taken the first steps towards making the station clean, secure, and safe.

Current Status

Two of the Indian railways PSU's i.e., Rail Land Development Agency and IRCON International Ltd, have entered into a joint venture and formed the Indian Railways Station Development Corporation (IRSDC) (www.irsdc.com) with seed capital of Rs 20 crores. This new organization, formed in 2012, has taken up the work for development of stations at Chandigarh,UT), Brijwasan (NCR), Anand Vihar(NCR), Habibganj (Bhopal), and Shivaji Nagar(Pune). The first of these project is being taken up is at Habibganj (Bhopal) Railway station and is in advanced stages. The master engineering plan and business plan for the stations up-gradation have been prepared and have by now been approved by railway and local municipal authorities. Soon the request for preliminary qualification for bidders for station up-gradation would be invited.

CASE OF LUCKNOW STATION

BACKGROUND

Lucknow station is a major railway junction with lines coming from 6 directions and two zonal railways operating distinct station premises. It has a huge passenger catchment area as Lucknow is also the state capital of the most populous state in the country. The station also receives patronage by both VIP's and also by huge numbers of migrant labor for whom Lucknow lies on the B Route connecting Jammu Tawi to Howrah via Bihar. Annexure A provides a list of all the proposals which have been created for developing facilities at Lucknow railway station. This list is as per the Indian Railways project monitoring system (https://ircep.gov.in/IRPSM). The list provides evidence of the various different aspects in which the station requires upgradation. However, the bankruptcy of Indian Railways has come in the way of any of these projects getting sanctioned and they all stay on the drawing board, waiting to be picked up when Indian Railways can spare money for them. In all 74 projects costing Rs 524 crores have been proposed for Lucknow station, however not one of any significance has got approved in the last couple of years.

The up-gradation of facilities at Lucknow station remains a dream for many. Four such exercises need mention, as in each of these involved significant background work and commitment of more than a few well-meaning people.

[13] It is necessary for everyone to carry out a thought experiment of what one expects from an upgraded railway station complex to world class, and one would find that these three aspects distill out as the core.

a) **RDSO Study**: In 2006, the Director General of RDSO (Shri H.S.Pannu) appointed a consultant to propose a plan for easing road transportation problems in and around Charbagh station[14].
b) **LDA Study:** In 2011, Lucknow Development authority projected the need for development of the second entry at Lucknow station. Salient features of this proposal included
    a. An investment of Rs 200-250 crores by LDA.
    b. Development of the second entry at station with multilevel arrival and departure access from Alambagh side.
    c. Development of an additional island platform on the second entry side.
    d. Building of a multi-storey complex on the second entry side on railway land, which is to be leased to LDA for commercial exploitation.
    e. Relocation of some houses and stores depot (on land adjacent to station yard) of Charbagh Loco Workshop.
c) **Yard Remodeling**: Lucknow railway yard has access from five different directions, lies on the "B" route, provides access to North Eastern Railway, and handles both passengers and freight. The yard is in an urgent need of a remodeling i.e., reconfiguration and non-interlocking exercise, wherein the through/stopping traffic and passenger/freight traffic can be easily segregated and the signaling infrastructure upgraded. The modified plan has been under preparation since 2011 and is now in the approval stages. However, the plan has undergone so many iterations that it is no longer clear who's requirements it fulfills and who will own it. Typically, a plan which has undergone so many debates, ransom notes and beaten deadlines many times over, needs to be scrapped as it aims for the least commonly acceptable solution.
    As part of this remodeling plan it is being planned that
    a. Lucknow yard be divided into two independent yards i.e., North and South Yard
    b. There be 4 through lines for through traffic
    c. Two extra platforms be constructed besides platform 6-7.
d) **Inception report:** The inception report for Lucknow station was prepared in 2009. This is a highly unprofessional and half-hearted attempt at defining the needs of the station or even to describe what the station has. In the form of a master plan it proposes a new circulation area plan in the front of Charbagh station and an underground parking under the Gandhi Maidan.

URGENCY FOR REMODELLING:

Loss of user confidence: The number of passengers using railways is stagnant, and more over decreasing overtime. With growing affluence among the public at large, people have started to avoid coming to railway stations. Railway stations are become synonymous with crowded places, unruly elements, unhygienic surrounding, and traffic blockages. Already the trend of seeing-off relative and friends to the train has stopped, as the common man does not want to expose himself to the filth at railway station, if the same is avoidable.

[14] Details of this plan could not be obtained from Mr Pannu or from the architect. The authors attempts failed due to paucity of time and procrastination.

Road Transportation Woes: With the coming of Lucknow metro the traffic vows of railway passengers will increase. As the front of Charbagh station is dug up for metro construction, going from Alambagh to Hazratganj will be a nightmare and travelling times will double and triple. It is expected that the access to the station will get almost choked. The result would be that Railways would loose traffic, and alternate bus and private transportation will find a place, and railway passenger traffic may infact get lost forever.

Railway passenger problems: There is a large unmet need for new trains from Lucknow station. However, due to inefficient handling of current rail traffic, lack of maintenance facilities, and a total freeze on all investments (on account of uncertainty in planning) NO new trains are being introduced and potential revenue is being sacrificed.

STATION USERS

A passenger railway station exists for the passengers it serves. In case of Lucknow railway station, that comprises of

a) Passengers entraining and detraining at both the Northern Railway and the North-eastern Railway stations.
b) Passengers passing by in trains

The Lucknow inception report puts the traffic estimate at Lucknow station at 1 lakh per day (2009 estimate). No basis for the same was cited at any place in the report. The need for a fresh estimate of Lucknow station users was felt. An estimate of the passengers using the station was proposed to be arrived at utilizing current and past data from the PRS and UTS systems.

This exercise was taken up as indicated in figure A and discussed in details below .

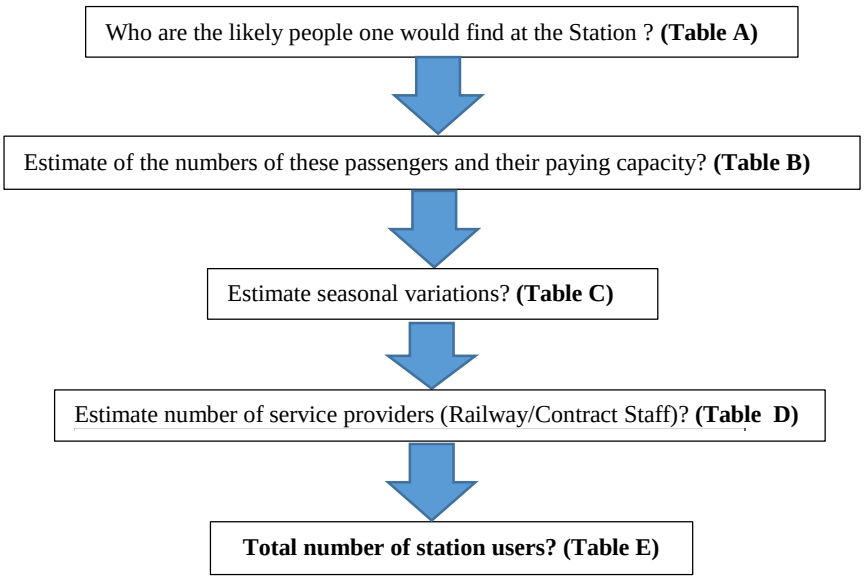


Figure A Estimating footfalls at Lucknow Station

As per Table A there are primarily four kinds of people who can be found at the station

Table A: Station Users

Category of station users	Source of data
Passengers who have reserved tickets and are either entraining or detraining the train. (Ref Table B)	PRS – tickets issued ex LKO
Passengers who have unreserved tickets and are either entraining or detraining the train. (Ref Table B)	UTS - Tickets issued ex LKO
Escorts of passengers who have come drop the passengers (Ref Table B)	Platform tickets
People who are to provide services to the passengers. (Ref Table C)	An estimate

The commercial department of Lucknow division, based on data from the PRS and the UTS systems, provides the following data of people accessing the railway station.

Table B: Passengers using Lucknow/NR station in the month of October' 2014[15]

Class [16]	Number of passengers	Earnings	Earnings per passenger	Passengers per day
1A	2571	3617934	1407.21	83
2A	31967	32403237	1013.65	1031
3AC	75757	66258027	874.61	2444
CC	13151	5974177	454.28	324
SL	223866	77463020	346.02	7222
2S	15603	2511307	160.95	503
Unreserved[17]	1186207	104863426	88.40	38265
Platform [18]	126086	630430	5.00	4067
	Total number of passengers coming to station after paying			5**4038**

An estimate of the total number of users of the station can be safely arrived by doubling these figures. Hence, as of October 2014 we expect more than one lac passengers to be using the facilities at the railway station. This number is restricted to those who have legally paid to get access to the platform.

The column of earnings per passenger gives an interesting picture of what passengers have paid for coming to the station. For instance, while a IA passenger has on an average paid Rs 1,407 to gain access to the station premises, even an unreserved passenger has on an average paid Rs 88 to get access to the platforms to board a train. Considering that a passenger arrives by road, waits for the train, boards it, travels in the coach, disembarks and exits by road, we expect the passenger to be concerned with the facilities that he gets at the boarding and disembarking

[15][15] Figures have been extracted from the standard reports generated from the Indian Railways Data Warehouse which is online and provides access to all reserved and unreserved passenger data.
[16] Reserved tickets booked with boarding of trains ex Lucknow.
[17] Unreserved tickets booked from the windows at Lucknow station, ex Lucknow
[18] Platform tickets issued from Lucknow station.

stages. ***It is argued that passenger are willing to pay for better facilities if these are provided to them at the stations. This could be seen as station access fees/ user fees.***

The passenger flow has seasonal variations in the number of passengers travelling in trains. The table below gives that number of reserved passengers originating from Lucknow Station for the last twelve months.

Table C: Monthly changes in the reserved and unreserved passengers using the station premises of Lucknow (NR)

Month	Number of Reserved passengers	Total Reserved Earnings	Average earnings per passenger	Number of Unreserved Passengers	Total Unreserved Earnings	Average earnings per passenger
September' 13	379609	176158843	464.05	1263988	86278610	68.26
October'13	**485598**	228657298	470.88	1243077	95576234	76.89
November' 13	483840	228262675	471.77	1161572	102882666	88.57
December' 13	442552	216384376	488.95	1120037	99684643	89.00
January'14	397947	202784114	509.58	982365	76861620	78.24
Februvary'14	392955	194396363	494.70	1027490	84676000	82.41
March'14	430717	214591633	498.22	1175698	101796372	86.58
April'14	424108	216284529	509.98	1268783	93866215	73.98
May'14	431732	212299173	491.74	1232385	119531041	96.99
June'14	445829	221668332	497.20	**1312505**	162309382	**123.66**
July'14	386934	213470085	**551.70**	1104036	124729099	112.98
August'14	393183	212155036	539.58	1189336	128000549	107.62
September'14	353839	194549143	549.82	1086124	103557190	95.35
October'14	463722	255678051	551.36			

The above figures lend credibility to our arguments above of the paying capacity of passengers. **ON an average a passenger with reserved accommodation has already paid more than Rs 500/- for his journey and a passenger travelling unreserved is also proposing to purchase a ticket of Rs 100/-.**

Table D: Estimate of service providers at the railway station

Category	Sanctioned Positions	Typical posts	To be considered	Number
C&W (Mechanical)	406	Fitters, Cleaners	20% of staff	80
Running staff (Mechanical)	721	Drivers, Shunters, Asst Drivers	10% of staff	72
Fuelling (Mechanical)	23	Fuel filler Clerk	100%	23
Running staff (Electrical)	46	Drivers, Shunters, Asst Drivers	10% of staff	5
Booking office (Commercial)	80	Parcel staff	100%	80

Category	Sanctioned Positions	Typical posts	To be considered	Number
CTI (Commercial)	108	Ticket Examiner	20%	22
PRS (Commercial)	179	Booking clerks	100%	179
Catering (Commercial)	48	Cook, Waiter	100%	48
Electrical (Power)	26	Fitters	100%	26
Electrical (Coach Maintenance)	529	Fitters, Cleaners	20% of staff	100
Coolie	245	Coolie	100%	245
Platform Inspectors	32	TTE	100%	32
Operating (Coaching yard)	238	Station Masters, ASM	100%	238
Signal	70	Fitters	100%	70
Telecommunication	69	Fitters	100%	69
Security (RPF)	121	Constables	100%	121
Security (GRP)	281	Constables	100%	281
Civil Engineering	941	Fitters, Pway fitters	50%	470
Cleaning	200	Cleaners Outsourced	100%	200
Vendors and staff	200	Private staff	100%	200
Service staff at LKO(NR) station (Approximate)				2500

Table E: Summarized estimate of people using the stations

	Accessed number	150% estimate for peak anytime load[19]
Reserved Passengers	16,000 *2 = 32,000	48,000
Unreserved Passengers	43,000 *2 = 86,000	120,000
Escorts of passengers	4,000	6000
Service providers	2,500	3,750
Total	**124,500**	**186,750**

The analysis above shows

- About 2,00,000 people use Lucknow station(NR) everyday.
- About a quarter of the passengers using the station have reserved tickets.
    - These passengers on an average had purchased tickets costing Rs 500/-
    - Specifically, the tickets they would have purchased would range between Rs 160 to Rs 1400/-
- Of the passengers coming to the station more than 50% are passengers who do not have prior reserved tickets
    - However, these passengers are also proposing to purchase tickets of Rs 100/- on an average.
- About 4,000 people work at the station to provide the services.

[19] 150% is a reasonable assumption for Lucknow station, as the peak traffic at railways stations varies greatly with train arrival and departures. Further, being the state capital it is a hub for political activity and sudden spurt in passengers does occur. The station has a marked history of a stamped situation wherein, passengers were run-over when they were at the station as part of a political rally. The station infrastructure, being a public utility building, has to not only cater to regular traffic but also accommodate upto 200% spurt in traffic.

PROPOSAL FOR STATION USER FEES

It is proposed that like airport tax or airport user fees, Indian railways introduces a station use fees. Such a fees need be introduced over the whole of India Railways, but only for places where development work is under way. For instance, if a corporation for Lucknow Station development is formed, this user fees should be made applicable when this starts functioning, and all user fees collected for Lucknow station be transferred to this corporation.

- A Rs 10 user fees for an unreserved ticket (average ticket cost Rs 100) gives us a revenue stream from 26 lakh passengers per month (13 lakh up and 13 lakh down) of Rs 2.6 cr per month.
- A Rs 20 user fees for a reserved ticket (average ticket cost Rs 500) gives us a revenue stream from 8 lakh passengers per month (4 lakh up and 4 lakh down) of Rs 3.2cr per month.
- In total we have a potential to earn an extra Rs 5.8 cr per month from passengers as station usage fees, which is **Rs 70 cr per year**.

This can initially be used for upgrading traffic facilities (yard remodeling) at Lucknow station and later to pay for the PPP mode big red and big blue boxes.

OVERVIEW OF UPGRADATION WORK

Sl No	Item	Approx cost	Remarks
1	Commercial complex at second entry 40,000 sq ms of commercial space	Rs 100 Crore	Estimate based on LDA's proposal (@ Rs 20,000 per sqm). This complex will exist on prime commercial land, and is expected to have huge lease and rental potentials. The covered area (about 40,000 sq meters) could be handed over to LDA to manage, with management of the second entry road traffic.
2	Railway yard remodeling works, with new platforms and washable aprons	Rs 40 Crores	Existing estimate is for Rs 20 Cr. This work is a railway operations related work and had to be funded completely by Indian Railways from its Depreciation Reserves and Development funds. Initially funds can be taken for the first year from station user fees, till these get transferred to pay for other development works.
3	Circulation area at second entry	Rs 50 Crore	Cost based on discussion with LDA architect, who had once done detailed planning and scoping for this work.
4	Flyover (ROB) over the railway yard 2 Kms long, 600 m bridge	Rs 200 Crore	@ Rs 1 Lacs per sqm as per construction rates provided by UP bridge corporation. Part shared by Railways and part by state government as per the extant ROB/RUB construction policy of Indian Railways.
5	Big Red Box 200m X 300 M	Rs 200 crore	@ Rs 30,000 per sqm(floor area) at a height of 7.2 m. A 8.5 meter shed structure on top will require 10,000 sqm of walls. At this cost a reasonable structure at 7.2 meter height can be built with complete inside furnishing.[20] PPP funded from station user fees for initial construction, and subsequently for 5-6 years till the principal is returned.
6	Big Blue box 200m X 50 M	Rs 40 crore	Similar to Big red box, but smaller in size. Provides access to all the six railway platforms of NER (LJN stn) and also connects seamlessly to NR station and Bus stand. PPP funded from station user fees.
7	Multilevel parking 1000 Cars	Rs 40 crore	Vertical Car park for 1000 cars operated on a PPP basis from parking fees and VGF. Users passengers and commercial complex
	Approximate cost	**Rs 670 Crore**	

[20] Shed of almost 65000 sqm at RCF/RBL sheds have been covered at about Rs 6000 per sqm and 87,000 sqm of walls provided at Rs 15,000 per sqm. in 2011. Side cladding/ walls to a height of 8.5 m and its , complete with natural ventilation. Based on recent Lar's of RCF/RBL it is expected that walls will cost Rs 15 crore and roof will cost Rs 36 crore

BUSINESS PLAN

The existing plans and schemes for station up-gradations are of two kinds. While some of these are detailed specifications of a specific plan for up-gradation of the station (for example LDA proposal and RDSO proposal), with primary focus on engineering and architectural aspect, the others use an hands-off business approach. Herein, an external consultant builds a business case for an economically viable up-gradation proposal. Such proposals become overly magnificent and grand as the railway administration seeks to satisfy its long and extended wish list of works to be done for station up-gradation under this project. An inability to satisfy one or more of the railways departments needs either shelves such projects or is unable to get it the necessary administrative support. Moreover, both of such plans and schemes so far lie unattempted and uncommitted to by the railway administration in the case of the Lucknow station. Hence, there remains scope of one for more of such day dreaming projects. This is what this project proposal aims to do.

The salient features of this proposal are

- The responsibility for deciding and finalizing a preliminary design lies with the Indian Railways. This is best done in an **open consultative mode** and should end with a definition of a broad level of parameters.
    - ***It is time that a crowd consulting project be launched for modernization of Lucknow Railway station.***
- Detailed estimates of road and rail traffic at the station, potential of earnings from services, and estimated revenue from commercial place exploitation, need to be carried out in detail by a business consultant.
    - ***This need not be a very elaborate exercise. It should again be done in an open crowd consultative mode.***
- With the usage potential, broad design and delivery parameters defined, the project need be ***modularized*** for delivery on PPP / internal revenue mode as appropriate. This is expected to lead to
    - Delivery to standard as the macro design and delivery parameters are no more negotiable and bear no risk.
    - An efficient use of private and public resources, within the module boundaries
    - Allow construction and operations to go on together as it is a brown field project
- The PPP project design is proposed to be taken up under a different set of assumptions
    - By very nature PPP projects result in a **monopoly, as they** are large in size, contractually sealed for long terms, and at the same time inflexible to adjustments. As a result they give a complexion of hostage situation for the government or the private parties. As such they are seen as a failures as the needs of both the parties start to get compromised overtime.
    - Hence, Monolithic PPP projects (size) or Long term PPP projects are NO longer recommended. Projects need to be made **modular** in multiple aspects.
    - Firstly, a bundling of all possible requirements and how they are to be best done is to be worked out and a master plan for the work to be finalized and frozen.
    - Secondly, this large project be broken down into smaller modules. These modules are required to define smaller size projects, with shorter term horizons, and after the initial construction options for moving out of them should exist for both

parties. Each module should aim to self sufficient and clear about its funding criterion, such that cross loading in the project is minimized as far as possible.

MODULARIZING THE PROJECT (Unique contribution)

Learning from the PPP projects (proposed or executed) in India or even the world it has emerged that risk transfer that is the basic premise of PPP does not take place in practice. Some of the reasons for this are:

a) Uncertainty in the project does not addressed
b) In an attempt to bundle all the project risks and transfer them to the private agency, PPP projects become big and unmanageable in size.

This is attributed primarily to the fact that PPP theory is guided by economic literature which knows how to manage risk, but is unclear on ways to manage uncertainty. It is the management literature which aims to make recommendations for managing environmental and technological uncertainty, that is occurrence of events of which cannot be thought of ex-ante and their probability or impact cannot be assessed and mitigation plan worked out for in advance.

The management literature recognizes that organizations are exposed to numerous uncertainties and organizations need to manage them. Modularization of work activities, flexibility and continuous change are some methods proposed for managing uncertainties. Based on these the seven distinct work contents in which the large station modernization project was divided are each modularized as PPP entities.

1. COMMERCIAL COMPLEX AT SECOND ENTRY

Work Description:

Similar works were proposed in IRPSM by LKO/NR division in 2011-12 with a budget of Rs 41 cr for 3 additional platforms and Rs 70 cr for the second entry station building. The same may be revived or the planning proposed by Lucknow Development authority and Architect Mr Anupam Mittal revisited. The master plan can be adopted with modifications after an open consultative design and planning. However, to ensure that this module is independent it needs be ensured that

- Potential for commercial exploitation of the commercial space is carefully studied before adoption. Over estimation of demand or requirement should be avoided.
- The plans for provision of platforms or for extension of subways should not be clubbed with this proposal to prevent cross loading.

Revenue source:

- Herein, LDA develops the second entry complex, allots the first and second floors to railways for its operational requirements, and constructs commercial space on the floors above and leases out the same.
- To ensure that railways does not get locked down with this investment with LDA, the PPP plan should be for a short period of 5-7 years. The transfer cost in a BOT project is normally assumed to be zero. Allowing this cost to be significant allows for flexibility in the project.

2. RAILWAY YARD REMODELING WORKS

Work Description:

a. SEVEN NEW PLATFORMS AND WASHABLE APRONS

Railway stations are primarily for rail transportation. Hence, railway movement has to be smooth and no blockages in railway operations are to be accepted. Overtime, Lucknow station has become a railway bottleneck, and the same needs to be smoothed out. The railway station requires

1. Segregation of through and stopping traffic
2. Provision of additional platforms for reducing congestion and trains waiting for platforms
3. Additional train maintenance facilities to allow for introduction of more trains, whose demands exist

b. AUTOMATIC SIGNALLING

This work has been proposed multiple times over the last few years is not getting due priority

c. THROUGH GOOD TRAFFIC LINES

d. NORTH AND SOUTH SIDE COACHING COMPLEXES

Revenue model:

These works need to be primarily paid for by railways, as this is what railway charges its passengers for. However, the station user fees which comes to about Rs 70 cr per year can initially be used for this purpose, while plans for the big red and big blue box are finalized.

3. CIRCULATION AREA AT SECOND ENTRY

Work description:

While there are historical and practical constraints at the main entry of Charbagh station, the second entry allows for grade separation of arrival and departure passengers

- Lucknow Development authority and Architect Mr Anupam Mittal have done some planning in this front. The same can be adopted with modifications.
- The scope of the work needs to be decreased, to only cover construction of the commercial area for leasing out and a grade separated entry and exit.

Revenue model:

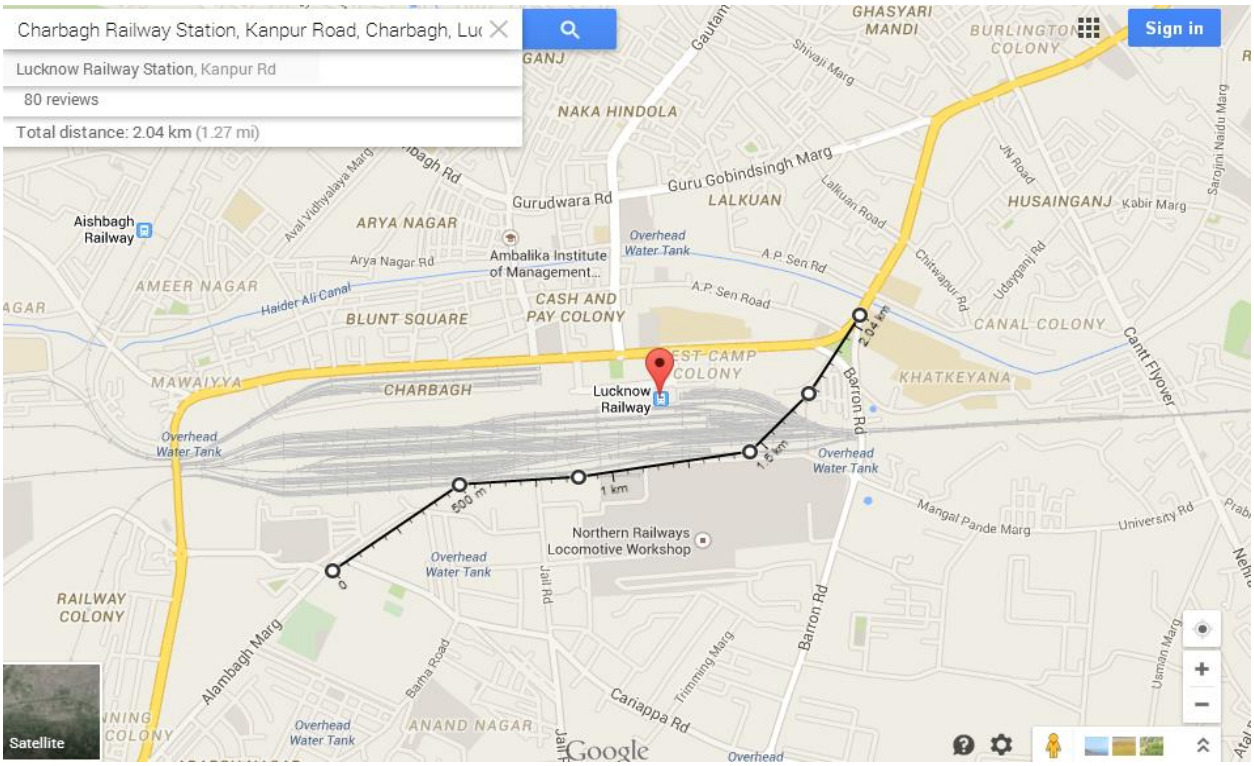
- This needs to be integrated into the commercial complex work.

4. TWO KMS FLYOVER OVER THE RAILWAY YARD

Work description:

Indian railways has a policy of paying for the over the railway portion of road over bridges and road under bridges. Either, Indian railways makes the ROB/RUB itself and requests the state governments to contribute to the work, or the state government gets the work done and the Indian railways contributes for its part.

- The proposed flyover is a substitute for two road under bridges (KKC and Mawaiya bridges) which connect the two sides of the station but have over time become serious traffic constraints. These road under bridges cannot be extended further and even if extended they would lead to further road blocks up or down the routes.
- The major portion of the flyover is a road over bridge over the railway yard, for which Indian Railways would be logically required to pay.
- With the work of Lucknow metro expected to choke road movement on one of its arterial roads (Alambagh, Charbagh, to Harzratganj), such a flyover is a necessity for the city. Also, as this road will ease road traffic movement and also reduce through traffic distance by 50% between /around the Charbagh station, the state government should be asked to foot its part of the bill and push for early execution of the project.
- Uttar Pradesh State Bridge corporation has emerged as a competent agency for taking up such works, and has recently completed two such flyovers in the city if Lucknow in record time.



Revenue Model:
Revenue sharing by Railways and state governments as per the existent ROB/RUB construction policy.[21]

5. BIG RED BOX 200M X 300 M

Work description:
This box provides separation of the train operations area from the passenger waiting area, which is one of the key requirements for world class stations.

[21] Initially UP Bridge corporation has made a 650 m flyover in Lucknow for rs 45 crore and a 4 Km flyover for Rs 180 crore. In the first one, railways has borne the cost of Rs 35 cr, with the flyover constructed in record 14 months.

- This space leads to the platforms at 3-4 places along the stretch of the platforms. Access to the platforms is however restricted to the periods when trains are coming or going. The restricted entries need be enabled with escalators and lifts.
- This space needs to be designed as a big open space, wherein all required passenger services are provided. Cloak room facilities, waiting lounges, eating restaurants, toilets, book sellers, etc, all be provided here. Minimum commercial exploitation, and only for passenger facilities.
- The essential passenger services provided by railways and the support services specially items like Base Kitchen, Running rooms, station masters offices, storage space Post mail handling, rest areas for railway staff on duty, can also be catered to within this huge covered space.
- These passenger services should be provided from a special station surcharge which need be imposed on all passengers using the station (The same need be extended to all other railway stations over Indian railways, as they are taken up for upgradation).
- The design and facilities provision in the big box needs to be standardized such that the concept can be modularly re-implemented at other locations, and quicken the pace of upgradations.

Revenue Model:

This should be provided for initially by station usage fees on passengers. Later even the platform tickets and revenue from leasing out commercial space here can be a source of revenue for operating and servicing this huge infrastructure.

6. BIG BLUE BOX 200M X 50 M

This box need be very similar to the Big red box in terms of design and facilities. This need be provided with revenues from those collected from NER station.

7. MULTILEVEL PARKING

Work description:

Technology of multistoried parking's has matured with time. Instead of single level parking facilities, multistoried parking enabled by technology are becoming the norm[22]. These parking lots are relatively cheaper, operationally convenient and low cost, while being environmentally friendly. The following is proposed

- A 1000 car PPP model based multilevel parking
- Parking space over the railway yard.
- Rotary parking complex.
- A similar parking may also be considered over the NER station building at a later date.

Revenue model:

- Revenue stream to come from parking fees and advertisement space in the parking
- Commercial space at second entry gives a routine and regular PPP based income for the parking lot. Further, as this would provide access to NR platforms, NER Platforms and also the bus stand, hence potential for parking is significant.

[22] In 2011, two multistoreyed parking lots were approved. One project was for a 700 car six storied parking, costing Rs 40 crores and awarded with a concession for 30 years. The other was a 388 vehicle parking, seven storied and costing Rs 25 crore.

SUGGESTIONS FOR EXECUTION (PRELIMIARY)

Lucknow railway station is a difficult station from the operational point of view. Due to multi directional traffic and the station lying on the B route, operations have to be continued while construction work is going on. A highly contextual execution plan would be required. The plan is contextual as

a) It is tailor made for this proposal and it would not be appropriate to use it in some other context, though the logical steps would hold.
b) It is contextual in the sense that it proposes to address the issues and hurdles faced by Railway managers. It is difficult for an outsider to understand why such hurdles are there or how they are going to affect work, but these are sure stoppers.[i]

STEP 1

A distinct corporation for upgrading and operating the Lucknow Station needs to be formed[23]. This is the special purpose vehicle (SPV) for this work. All operations at the stations and the staff would be transferred to this SPV, or deputed to it for a minimum of 5 years. Once the SPV is fully functional and has taken over the train operations fully only then construction work should start.

[23] This is to be distinct from the entities like Indian Railways Station Development Corporation, that are formed for project work.

This organization be headed by a senior person, and he be allowed to choose two cross departmental teams, A) Infrastructural team B) Operational team. All team members are to be appointed till end of project (no promotions or long term trainings or leaves permitted)

The team be housed in the vacant space above the PRS office. They be given 1 month to renovate their office and start working.

STEP 2

As background work the following should be done

- A detailed engineering survey (0.5 m total station) of the Lucknow station area.
- People identified for transfer to the SPV. Their pay to be borne by SPV for the project period. No too and fro transfers. A single cohesive project team be formed.
- All departments be asked to give their proposals of their requirements from LKO station in light of changing technology, passenger profiles, and rising expectations of the users.
- An architect to be commissioned for creating a first cut detailed layout.
- A crowd consultative project be taken up for arrive at the stations final design.

STEP 3

The SPV to be made operational and to take over all the operational and commercial responsibilities and work handled at LKO station.

SPV personnel to finalize a detailed inception report with the architects help and float a request for proposals from infrastructural contractors. The project has been modularized. Sub-projects to be bid out for smaller period of 5-7 years (with a possibility of 2 year extension at a time), with

a) Concessionaire free to adapt the architect proposed design, to reflect cost savings and provision of higher level of passenger comfort.
b) Possibility of takeover at end of every year by the SPV on basis of a predetermined payment, after the defect liability period.
c) Transfer of all passenger surcharge and platform ticket earnings to concessionaire.

ADVANTAGES OF THIS APPROACH

- BUSINESS MODEL:
  - The investment climate in the country has been pessimistic for long but is now starting to look up. But it is still very difficult to get private sector to invest into PPP projects. The health of PPP projects in the country is not good.
  - Reducing the risk profile of private sector in PPP projects has become necessary.
  - By reducing the size of private sector risks by modularizing the investments, and also by aiming for shorter PPP term, brings in the much required flexibility while playing to the requirement of **low risk appetite**.
- EXECUTION AND DELIVERY:
  - The ability of delivery within the railway organizational system has fallen to a level that it is almost impossible to deliver to new ideas. The four sitting proposals and a list of 74 works provide evidence of the same.
  - A novel delivery mechanism is required.
  - The proposal to transfer the station infrastructure to a distinct corporation addresses the **delivery issue**. As a brown field project, it is necessary that regular

train operations be continued while the up-gradation work is being taken up. For project delivery, single command structure becomes a necessity.

- FINANCIAL CONSTRAINTS
  - Most of the railway station modernization plans are struck due to lack of fund provisions. Immediate provisions of funds emerges as the biggest problem for any railway infrastructure up-gradation projects
  - Alternate and immediate sources of funds need to be provided.
  - The **additional station user fees**, with a potential for Rs 70 cr additional revenue per year only for station development, can provide relief to this.
- INNOVATIVE THINKING
  - The previous proposals had numerous prerequisites. They either required transfer of railway land, leasing of railway land to LDA, or huge investments in underground infrastructure. Pre-requisites made the proposal nonstarter.
  - The proposal as per this document has **no pre-requisites**. Further the proposal is superior in
    - Not disturbing the 100 year old Lucknow station main building which is a **architectural beauty**
    - While restricting access to the train operation area, it opens up the station from three sides for access by public i.e., existing main entry, second entry, and overhead entry directly from the through road. Besides these entries, it also provides entry from North Eastern Railway Station and also proposes an direct entry from the Roadways Bus stand. A railway station which has foot falls of over one lacs per day, does require multiple **evacuation paths** and access routes to enable effective crowd control.
    - 5 road entries/exits to station but only one to the platform provides a huge **security** relief
- LEVERAGING RAILWAYS CORE COMPETENCE
  - Train operations require a huge amount of coordination between the railway units and functionaries. This is the core competence of Indian Railways. It knows how to coordinate between multiple agents and deliver consistently and reliably 365X24X7 at the highest levels of safety and reliability standards.
  - The plan envisaged here requires modularization of a large project and then coordination among them. Leveraging railways core competence in coordination, it can coordinate among the multiple modules and deliver to the project objectives reliably and consistently.

XX THE END XXX

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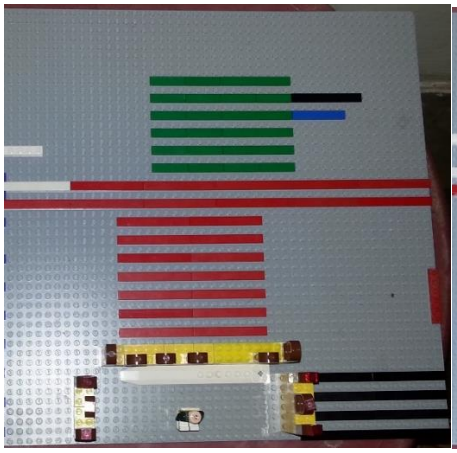
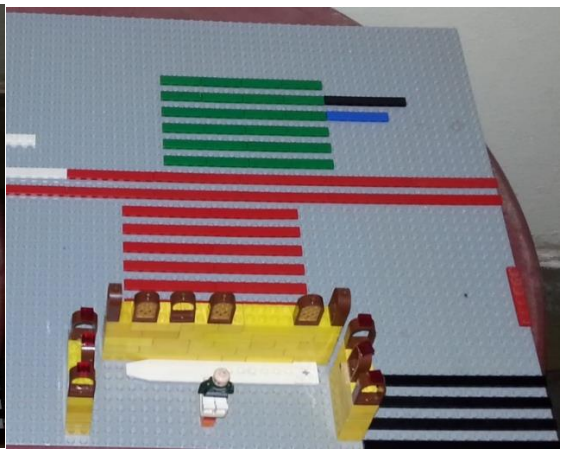
ANNEXURE A

STAGE WISE EXECUTION PLAN

During discussion it emerged that being a brown field project at one of the busiest railway stations, it is necessary that the activities be properly sequenced and prioritized. Also, to show display the progressive impact of the modernization exercise, a stage wise progress for the development work is being proposed. Such a planning satisfies no great purpose other than satisfying one that if planned and sequenced properly such an extensive up-gradation exercise can be taken up and but would need elaborate pre-planning to be carried out.

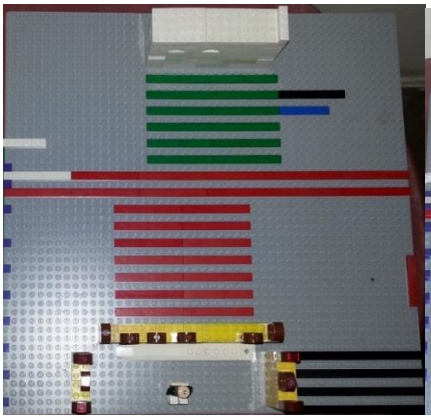
Stage 0:
The existing layouts.

- UP yard and DN yard lines
- Through passing lines
- Huge unused land space towards the seond entry side of the station

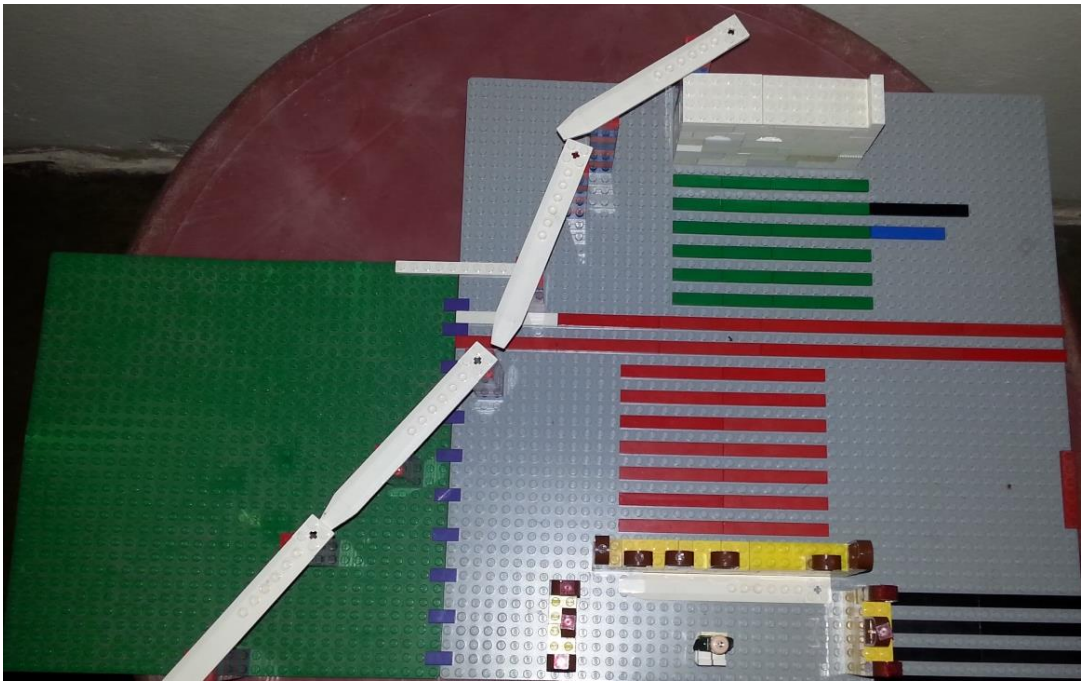
Stage 1:

- Second entry commercial building
- Approximate cost Rs 100 Crore
- Circulation area on second entry Rs 50 crores




Stage 2:

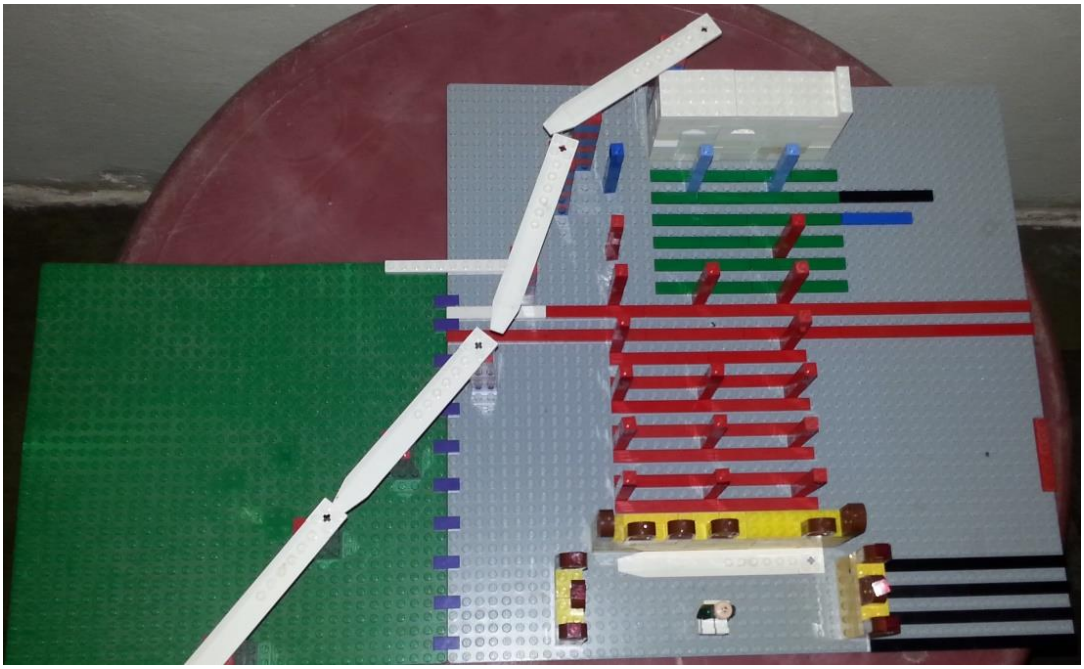
- Flyover to give access to second entry and bypass traffic
- This provides an immediate relief to road users and the two road under bridges i.e., KKC and Mawaiya road under bridges.



Stage 3:

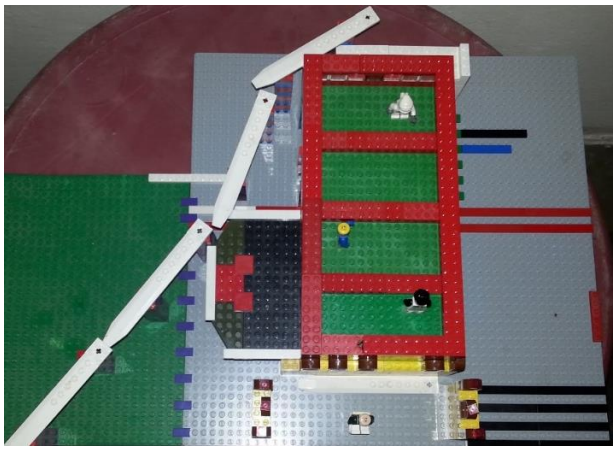
Intermediate stage

- Pillar constructions for the first floor box structures



Stage 4:

- Construction of the first floor BOX structure… 205 m X 300 m
- 205 m – distance between Lucknow station first entry and second entry
- 300m – half the length of a railway platform to be covered under the overhead structure and provided access by escalators and lifts.
- Approximate cost Rs 200 cr … 60,000 sqm at @ Rs 30,000/sqm



Road access from flyover

Stage 5:

- BOX structure over North Eastern railway station.
- Through access to the UPSRTC Bus stand.
- Multistoreyed parking plaza
- Approximate cost of Rs 100 crore for NER extentinsion
- Approximatly Rs 50 crore for the multistoreyed parking lot. The parking LOT has its own separate PPP structuring.

THE FIRST STEPS

1. This report is a pointer towards
   "It is possible to have world class stations over Indian railways"
2. The report shows one of the many pathways that can be taken for developing Lucknow Station into a world class station, and a pride for the country.
3. While the first step would be a willingness and conviction to achieve something world class, a lot of hard work, dedication, persistence, and above all out of the BOX thinking would be required. Namely,
   a. The necessity of pulling out the work from the ambits of the existing organization is necessary. For this the operations of the SPV and transfer of all day to day work to it is necessary.
   b. A master plan (something like MY LEGO MODEL) needs to be frozen.
   c. Immediate work on railway portion of the work needs to be started. This work has been planned for long and railway is well equipped to handle it.
   d. Immediate station development charge should be imposed. This can pay for the current yard remodeling work and for development of the coaching facilities.
   e. Work on flyover and second entry circulation area should be started before Lucknow metro disrupts the road traffic.
4. While initially the station access charge can pay for the expenses, with time the lease rentals of the second entry building can contribute funds for the circulation area up-gradations.

ANNEXURE B

List of proposals for up-gradation of facilities at Lucknow station for the last 5 years as per IRPSM.

- Some proposals are repeated as they have been proposed multiple times in the database.

IRPMS ID	Budget Year	Plan head	Name Of Work	Allocation	Current Cost (in Rs thousands)
0314035244	2015-2016	16	Automatic Block Signaling across LKO Area.	CAP	450000
0314035285	2015-2016	42	Development of IOH shed	DRF	195000
0314035270	2015-2016	64	Construction of new integrated running room at LKO	DF3	110100
0314033988	2015-2016	53	LKO: Replacement of Washable apron of platform no.3 ,4,5,6 &9 and new construction at saloon siding under ADEN-I/LKO	CAP	75000
0314035128	2015-2016	42	Construction of Sickline Complex at LKO	DRF	50000
0314035224	2015-2016	53	AC coaches maintenance facilities at LKO & BSB	DF1	45000
0314035225	2015-2016	53	Provision of 33/11 KV sub station at Lucknow	DF1	45000
0314034152	2015-2016	53	Improvement of circulating area, drainage system, Provision of ornamental Boundary wall and improvement of various passengers' amenities of LKO Stn.	CAP	35000
0314034019	2015-2016	42	LKO: Replacement of inspection pits at line no. 1&2 of old washing line and inspection pit of new washing lines under ADEN-I/LKO	DRF	15000
0314035271	2015-2016	64	Construction of rooms with toilet blocks for earmarked use of ladies running staff in all running rooms of LKO division	CAP	10500
0313031770	2014-2015	16	LKO Yard Remodeling Phase-II		1500000
0313032101	2014-2015	42	Development of IOH shed by extending existing Roof mounting shed by 60 mt	DRF	182500
0313031788	2014-2015	42	Construction of 26 coach length washing line at LKO of CAMTECH DESIGN	DF3	80000
0313032102	2014-2015	53	Replacement of washable apron no. 3,5 & 7,9 at LKO.		60000
0314033992	2014-2015	53	LKO: Replacement of Washable apron of platform no.6 under ADEN-I/LKO		17000
0314033071	2014-2015	53	Improvement and modification of 10 waiting rooms at A1, A & B category of stations over LKO Division with the provision of granite benches etc.	DRF	11500
0314032677	2014-2015	42	Construction of covered shed with pit for homing of 140 ton B.D crane in UP yard LKO	DF3	9800
0314033086	2014-2015	53	Augmentation of lighting system at LKO & BSB yard by providing low high mast tower with augmentation of existing power supply system.		9500
0314032539	2014-2015	42	Renovation of Sick line Lucknow.	DF3	9500
0314033335	2014-2015	64	Provision of fencing at lko yard to avoid tress passing & cattle crossing		9000

IRPMS ID	Budget Year	Plan head	Name Of Work	Allocation	Current Cost (in Rs thousands)
0314033082	2014-2015	53	Augmentation of Pre-cooling and Charging points at Varanasi and Lucknow.		8000
0314033333	2014-2015	16	Provision of drainage system between km 1069/9-10 to 1070/4-5 UTR-LKO on M/L and heavy repair to drain between line no 1&2at AMG		6000
0314033338	2014-2015	16	provision of path way between CYM cabin to dak yard east end of PF no 9 to ARME scale II line		6000
0314033085	2014-2015	53	Replacement of 2x60KVA UPS by providing 2x20 KVA withbattery at PRS/LKO		6000
0314034020	2014-2015	42	LKO :- Improvement & repair of catwalk of old washing line, provision of dustbin and repair to sick line office etc under ADEN/HQ/L		5800
0314033340	2014-2015	53	Improvement of Luggage subway by repair to leakage and wall surfacing etc at CB		5500
0314033084	2014-2015	53	LED based emergency lighting system at stations over Lucknow division.		5500
0314034104	2014-2015	53	Improvement in Illumination in circulating area and provision of LED light in existing towers.	DRF	4309
0312028582	2013-2014	16	LKO Yard Remodeling Phase-II	CAP	800000
0312028581	2013-2014	16	Automatic Block Signaling across LKO Area	CAP	249872
0312028546	2013-2014	42	LKO-Construction of 26 coach length W/Line of CAMTECH design parallel to existing under construction W/Line in LKO. Goods. shed	CAP	70000
0312028790	2013-2014	53	Setting Up of Mechanised Laundry (06 Ton) at LUCKNOW/N.R.	CAP	39500
0312028561	2013-2014	53	Replacement of the old and overaged pipeline at LKO Station	DRF	29040
0313030310	2013-2014	53	Extension of Luggage Sub Way of CB station upto Island PF No 6/7.		20000
0313030315	2013-2014	53	Provision of washable apron at saloon siding at CB station, LKO.		20000
0313000068	2013-2014	53	Improvement and modification of 10 waiting rooms at A1, A & B category of stations over LKO Division with the provision of steel benches.	DF1	18150
0313030312	2013-2014	53	Repalcement of washable apron of PF No. 3 and cross drains at CB station, LKO .		18000
0313030313	2013-2014	53	Repalcement of washable apron of PF No. 6 and cross drains at CB station, LKO .		17500
0313030486	2013-2014	53	Setting Up of Mechanised Laundry at LUCKNOW/N.R.		17500
0313030314	2013-2014	53	Repalcement of washable apron of PF No. 9 and cross drains at CB station, LKO .		15000
0313030374	2013-2014	53	Improvement of Circulating area of charbagh station and floor of Saloon siding and near by area of Charbagh station Lucknow		14000
0312028600	2013-2014	42	Replacement of existing old / over lived MS over head tank with over head tank along with tube well in lieu of abandoned tube well no.27A&28A.	DRF	13500
0313030373	2013-2014	53	Improvement of Parcel and Dhobi ghat and area near NER at Charbagh Railway station in the section of SSE(W)/CB/LKO.		12500

IRPMS ID	Budget Year	Plan head	Name Of Work	Allocation	Current Cost (in Rs thousands)
0313030372	2013-2014	53	Improvement of sitting arrangement and water booh of various plateform at Charbagh Railway station Lucknow in the section of SSE(W)/CB/LKO.		12500
0312028504	2013-2014	42	Construction of inspection pit for electric locomotive at LKO	CAP	10638
0313030482	2013-2014	64	Partitioning of 6 or more bedded 13 rooms of ground floor of LKO/CB into 2 bedded cubicals & construction of 12 new rooms in west end space of R/R.		9500
0313030302	2013-2014	42	Replacement of south side substandard catwalk by standard one (26 coach length) at New Washing Line LKO.		9500
0313031316	2013-2014	53	Provision of Coach Guidance over FOB at LKO & BSB Station		7000
0313031226	2013-2014	53	Charbagh Station: Improvement to various passenger amenities at station and PRS building.		6000
0313031245	2013-2014	53	LED based emergency lighting system at stations over Lucknow division.	DF1	5500
0312029330	2013-2014	64	Provision of two rooms and toilets etc including renovation of inspection pit and provision of electric loco trip inspection shed at charbagh	DF1	5184
0313031246	2013-2014	53	Removal of overhead wires from circulating area of varios stations over LKO div.	DF1	3500
0313031244	2013-2014	53	Augmentation of Pre-cooling and Charging points at washing line and platforms over Varanasi and Lucknow.	DF1	3000
0313031243	2013-2014	53	LED based station name board at LKO, BSB & RBL, FD & PBH.	DF1	2500
0313031332	2013-2014	42	LKO: Provision of Porta cabin at LKO New Washing Line (goods shed area).	CAP	1500
0313031856	2013-2014	64	Renovation and partitioning of running room	DF3	1500
0313031330	2013-2014	42	Mechanized pressurised cleaning plant at LKO.	DF3	852
0311025858	2012-2013	16	LKO Yard Remodeling Phase-II	CAP	220880
0311026088	2012-2013	64	Construction of Integrated multi storied running room for crew and guards at LKO	DF3	98300
0311025871	2012-2013	16	Automatic Block Signaling across LKO Area	CAP	79312
0311025908	2012-2013	16	Provision of new station building at 2nd entry at Lucknow.	DF1	69733
0311025896	2012-2013	53	Provision of Integrated passenger information system at all A-1 and Adarsh stationi.e.at LKO,BSB,PBH,AME,PRG Stations.	DF1	61376
0311024508	2012-2013	53	provision of solar power panel	CAP	47969
0311025835	2012-2013	53	Prov. of passenger cum parcel subway from PF No. 5 to 7 & strengthening of existing subway.	DF1	47663
0311025917	2012-2013	16	Provision of 03 addl. platforms of 26 coach length, extension of platform FOBs, etc. in c/w development of Second Entry at Lucknow Rly Stn.	DF1	41134
0311026103	2012-2013	42	Laying of pneumatic pipeline	DF3	32500

IRPMS ID	Budget Year	Plan head	Name Of Work	Allocation	Current Cost (in Rs thousands)
0311025836	2012-2013	53	Prov of passenger cum parcel subway from circulating area to proposed station building.	DRF	32500
0311026453	2012-2013	53	Repl. of the old and overaged pipe line and to make water supply grid of 300mm dia pipe line under ADEN/HQ/LKO	DRF	23841
0312027261	2012-2013	53	Improvement to circulating area at CB Station Lucknow & Barabanki Rly. Stn.	DF1	19000
0312026954	2012-2013	53	Improvement and modification of 10 waiting rooms at A1, A & B category of stations over LKO Division with the provision of steel benches.	DF1	16500
0312027260	2012-2013	53	Improv. to Passenger amenities such as replacement of water booths, MS grating over cross drain of PF, PF N/Board, SS benches etc. at CB/LKO.	CAP	15000
0311026391	2011-2012	53	Replacement of existing equipment of base kitchen to setup higly mechanized base kitchen at Lucknow & Varanasi.	DRF	14185
0311023157	2011-2012	53	LKO: Replacement of washable aprons of Platform No 3 at Lucknow in the section of SSE (W)/LKO under ADEN/I/LKO.	DRF	12935
					5232573

ANNEXURE C

List of people consulted for the project

For the project, I have had detailed (and some passing) discussions with the following people and remain indebted to them for sharing their views with me on the subject. Though, I acknowledge their contribution, the views remain mine in full, and also all responsibility in regards to them.

1. Mr Vinai Kumar Agarwal Ex MD/RITES and Ex DRM/Delhi
2. Mr S.P.Mahi CEO/ Indian Railways Station Development Corporation
3. Mr. Deepak Sabhlok , Director/ IRCON
4. Mr. Rajiv Aggarwal Ex Vice Chairman/LDA and Ex MD/Lucknow Metro
5. Mr. S.K Sapra Dy.CE/Const/NR/LKO
6. Mr. Tushar nath Pandey Ex Sr.DEN/C/LKO
7. Mr. Vivek Saxena Dy.CE/C/World Class/ NR
8. Mrs. Mona Srivastava Dy.CE/C/NR and ex Dy.CE/World Class
9. Mr. Ashwini Srivastava Sr.DCM/LKO
10. Mr. Parag Verma AGM/ IRSDC
11. Mr. Naresh Chauhan DEN/1/LKO
12. Mr. Anupam Mittal Architect/LKO
13. Mr. Arun Kumar Dohrae Station Manager/LKO
14. Mr. H.S.Pannu Rtd DG/RDSO -- could not be contacted
15. Mr. Ghai Architect/LKO-- could not be contacted

ANNEXURE D

Definitions of PPPs

Agency	Definition	Nature of relationship	Purpose	Compensation to private	Role of private	Bundling	Long Term	Contractual
Canadian Council of PPPs[24]	*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	X	X	X
Haryana Govt [25] Rajasthan Government[26]	*PPPs broadly refer to long term, contractual partnerships between the public and private sector agencies, specially targeted towards financing, designing, implementing, and operating infrastructure facilities and services that were traditionally provided by the Government and/or its agencies.*	Contractual partnership	Traditionally government	X	X	Finance, Design, Implement, Operate	Yes	Yes
Partnerships British Columbia [27]	*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.*	Contract	Delivery of Services	X	Responsibilities and business risks	X	X	Yes Legally binding
National Council of PPPs (US)[28]	*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*							

[24] http://www.pppcouncil.ca/resources/about-ppp/definitions.html
[25] http://pppinharyana.gov.in/PPPinHaryana_WhatIsPPP.htm
[26] http://ppp.rajasthan.gov.in/ppp/whatisppp.pdf
[27] http://www.partnershipsbc.ca/pdf/An%20Introduction%20to%20P3%20-June03.pdf
[28] http://www.ncppp.org/ppp-basics/7-keys/

Agency	Definition	Nature of relationship	Purpose	Compensation to private	Role of private	Bundling	Long Term	Contractual
	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.							
World Bank[29]	*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*							
Asian Development Bank[30]	*No clear definition, but elaborates on multiple aspects*	Range of relationships, Contractual agreement	Reforms, Infrastructure, services, public investments	Financial rewards, commensurate to predefined output	Adopt task, obligations and risks	No mention	No mention	Yes
OECD [31]	*Public-Private Partnerships (PPPs) are long term agreements between the government and a private partner whereby the private partner delivers and funds public services using a capital asset, sharing the associated risks. PPPs may deliver public services both with regards to infrastructure assets (such as bridges, roads) and social assets (such as hospitals, utilities, prisons).*	Agreements						

[29] http://www.worldbank.org/en/topic/publicprivatepartnerships/overview#1
[30] http://www.adb.org/sites/default/files/institutional-document/31484/public-private-partnership.pdf
[3131] http://www.oecd.org/govenance/oecdprinciplesforpublicgovernanceofpublic-privatepartnerships.htm

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Dr. Swapnil Garg is an Indian Railways officer with almost 23 years of service with Indian Railways as a Mechanical Engineer. He completed his under-graduation from the prestigious Special Class Railway Apprenticeship, Jamalpur in 1992 to join Indian Railways. He has worked over all the divisions of Northern Railways, Diesel Locomotive Works, Varanasi and has also served at IRCON on deputation. He did his Executive MBA from MDI Gurgaon as part of NMP –XIII and has earned a Ph.D. in Management from a Research A-1 US College i.e., University of Florida in 2012. In his dissertation titled "Working the PPP- Coordination in Pubic Private Partnerships" he studied PPP projects under construction in the Indian Highway Sector. More recently he was awarded with the Minister of Railways Award for outstanding Service, the highest honor for a serving railway officer. He quits Indian Railways in January' 2015 to join the faculty of Indian Institute of Management, Indore in the area of Strategic Management. He will like you to share your views on this report with him at swapnil.garg@alumni.ufl.edu

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THE END