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- Emerging economies need public-private partnerships (PPPs) to deliver much-needed large-scale infrastructural projects.
- An 'orientation precedes strategy' approach to partnerships generates wider societal acceptance and financial viability for stakeholders.
- The stakeholder-orientation framework improves decision-making by promoting adaptability and inclusive engagement, as illustrated by the success of India's Hyderabad Metro Rail Project.

Setting Up the Right Guardrails

Using a stakeholder orientation view to steer infrastructural public-private partnership projects.

An investment gap of US$4 trillion—almost as large as Japan's economy in 2023—exists in infrastructural development among emerging economies, particularly to fulfil the Sustainable Development Goals (SDG).[1] Advanced economies will similarly need to make large investments in modernising and digitising their existing infrastructure to reduce inequalities, and improve access to critical public goods like education, healthcare, and food.[2] Consequently, given the limited fiscal resources of governments, there is likely to be a surge in public-private partnerships (PPPs) in infrastructural development in the coming years. According to the World Bank, private participation in infrastructure initiatives has already grown by 23 percent during the 2021-23 period.[3]

Because of their large-scale nature, infrastructural PPP projects significantly impact the local economy, no matter whether they fail or succeed. For example, on the positive side, Botswana emerged as one of the fastest-growing economies because of its well-articulated and robust governance practices for PPPs, despite its economic challenges from a fiscal deficit in the minerals trade.[4] Conversely, the Philippines had to bear severe losses due to financial bankruptcies and public discontent with its infrastructure initiatives, which required it to overhaul its approach to PPPs.[5]

Given the significant impact of infrastructural PPPs, executives who are managing these partnerships must effectively address the many risks that plague these projects. While past studies have largely explored the financial, legal, and organisational aspects of PPPs, there is no guiding framework that PPP executives could use to address the performance risks from the variety of stakeholders and their interests. This article presents a novel approach of 'orientation precedes strategy' to do so. We argue that *how* PPP executives orient to their stakeholders lays the foundation for the kinds of stakeholder management strategies that are developed, and the success of these strategies. In our article, we distinguish between two kinds of stakeholders, and describe the various orientations that PPP executives can adopt to address the associated performance risks.

This article presents a novel approach of 'orientation precedes strategy' to address performance risks. We argue that *how* PPP executives orient to their stakeholders lays the foundation for the kinds of stakeholder management strategies that are developed, and the success of these strategies.

STAKEHOLDER RISKS: BALANCING FINANCIAL AND SOCIETAL OUTCOMES

The performance risks that PPPs face regarding stakeholders arise from two sources. The first relates to stakeholders' financial risks during the project and beyond. Although every PPP project starts off with optimistic estimates, unexpected challenges often threaten its financial viability and impose considerable financial losses on some stakeholders. A prominent concern pertains to the prevalence of project setbacks precipitated by unanticipated cost overruns. For instance, in Canada, the Blue Line extension of the Montréal Metro has encountered numerous delays despite assurances from the government and years of careful consideration.[6] The substantial escalation of the initial estimates, and the egregious underestimation of numerous costs associated with acquiring space for the expansion have led to unanticipated setbacks. On the other hand, successful PPPs such as the trams in Freiburg, Germany have created substantial commercial outcomes through well-thought-out ticketing and marketing strategies rather than pricey architecture.[7]

The second major source of performance risks comes from the challenges in gaining societal acceptance of the project. Infrastructural PPP projects have large-scale impacts on the local community or society, given their size and significance. Societal legitimacy, therefore, forms the other dimension of our framework. Projects cannot proceed smoothly unless they have secured buy-in from influential stakeholders.

However, the initial buy-in or the lack of conspicuous opposition should not be confused with a societal licence to operate across the entire lifecycle of the project. This is because public acceptance of PPPs that initially appear to address legitimate developmental and commercial challenges may quickly mutate into opposition as their social and environmental impacts become clearer during implementation. The Mumbai Metro Rail Project (MMRP) in India is an example of a metro PPP that has faced significant public resistance.[8] The project aimed to build a network of 14 metro lines in Mumbai at a total estimated cost of over US$23 billion. Several critics argued that the project was too expensive and would primarily benefit private investors, rather than the public. Besides, as the project was expected to displace thousands of people, many of whom were poor and lived in slums, there were concerns that the government would not be able to provide adequate compensation and resettlement for those who would be displaced.

STAKEHOLDER GROUPS: VALUE CHAIN AND ECOSYSTEM

PPP stakeholders can be grouped into two categories: value chain and ecosystem. Value chain stakeholders are typically entities in the economic value chain for the PPP, such as financial investors, construction firms, input providers, private concessionaires, technology partners, and funding agencies from local and federal/central governments, all of whom have a financial stake in the project. If the PPP is an upgrade or replacement for an existing infrastructure, value chain stakeholders also include its existing customers.

Ecosystem stakeholders cover entities such as the media, local merchants and communities, social and environmental groups, political parties, the government at large, and other entities that comprise the ecosystem in which the value chain is embedded. The initiative impacts ecosystem stakeholders, even if they are not directly part of the economic value chain. They also include the general public who are likely to be future customers of the PPP services. These stakeholders especially affect infrastructural PPPs as they often represent conflicting social, environmental, political, and other interests.

Since the stakeholder management strategies differ depending on the category the stakeholder belongs to, we depict these strategies in two separate grids (refer to Figure 1).

As shown in Figure 1, the optimal position for a PPP project is in the upper right quadrant in both grids, where financial viability and societal legitimacy for both value chain and ecosystem stakeholders can be attained. However, financial risks like cost overruns and delays, or societal legitimacy risks like adverse public perception and inadequate communication, can push the project into other quadrants. In such situations, PPP executives need robust strategies to work with their stakeholders to return the project to the desired upper right quadrant. We will illustrate these stakeholder management strategies using the Hyderabad Metro Rail Limited (HMRL) initiative, which is a PPP involving the government of Telangana (a state in India), several Indian government ministries, and private players such as Larsen & Toubro (L&T) Limited. HMRL was

STAKEHOLDER MANAGEMENT GRID

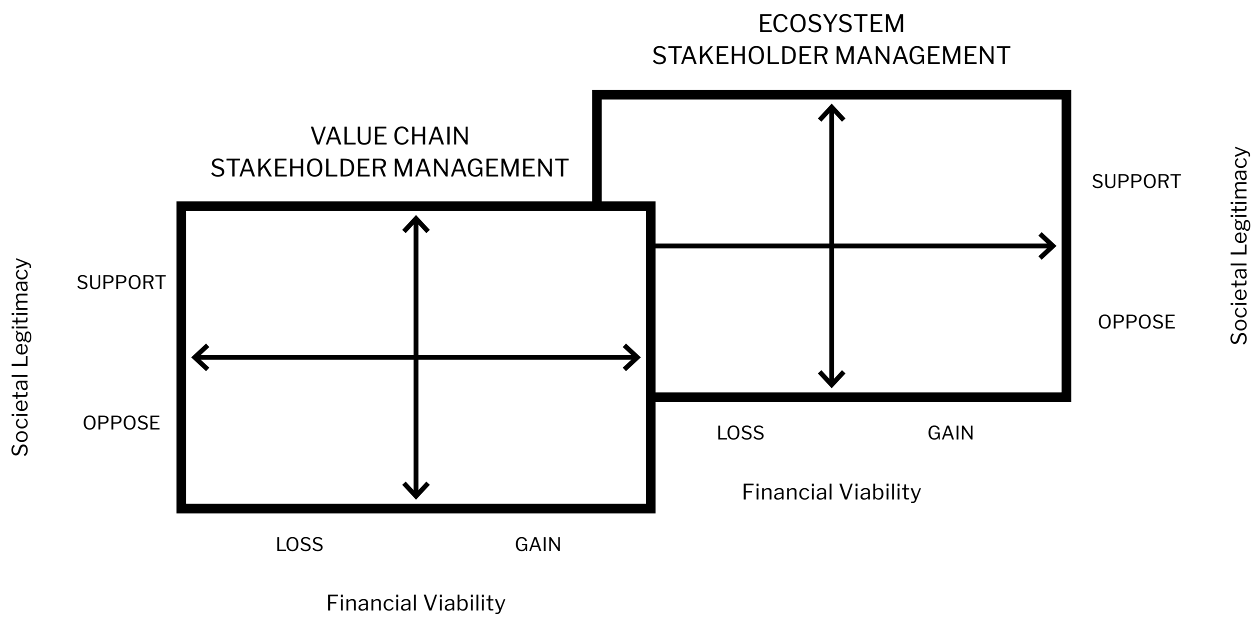

FIGURE 1

the business entity created to coordinate among the stakeholders and ensure the completion of metro rail facilities in Hyderabad, the capital of Telangana and a Tier-1 metropolitan city with a population of 10.5 million.

GETTING ON TRACK: THE HYDERABAD METRO RAIL PROJECT

The Hyderabad Metro Rail is reportedly the world's largest metro rail project implemented by a PPP, costing over US$2 billion during its initial implementation.[9] It is arguably one of the most complex infrastructure projects undertaken in India this century, given its size, the variety of stakeholders, congested conditions, and shifting sociopolitical forces. In the early 2000s, millions of Hyderabad residents faced traffic congestion, leading to heavy air pollution that made a metro rail a desirable solution. The ambitious Hyderabad Metro Rail project proposed to shorten transit times by as much as 70 percent and reduce carbon emissions by up to 3,100 tons a year once fully operational, compared to existing transportation systems.[10] Despite the variety of challenges involving financial losses, stakeholder issues, and substantial public opposition initially, the project succeeded and has become an iconic example of infrastructural development in India.

The HMRL was created in 2006 to manage the Hyderabad Metro Rail project. L&T Limited, an end-to-end infrastructure services provider in India, was the private partner that HMRL executives worked with to construct the metro rail. The project had found itself in different quadrants at different points in time. To demonstrate how stakeholders could be steered towards the upper right quadrant, we highlight the variety of orientations that the HMRL executives adopted with regard to their stakeholders and discuss the strategies they used to bring the project back on track to success.

Managing value chain stakeholders

Value chain stakeholders have 'skin in the game' regarding investments and other resources that represent their stake in the success of the PPP project. As such, they are most financially exposed to the project's success or failure. In the HMRL project, the most important value chain stakeholders were L&T (the general contractor for the project), and the state and central government agencies that had invested in the project. HMRL executives adopted the following orientations to manage these stakeholders, as illustrated in Figure 2.

STAKEHOLDER ORIENTATIONS FOR VALUE CHAIN MANAGEMENT

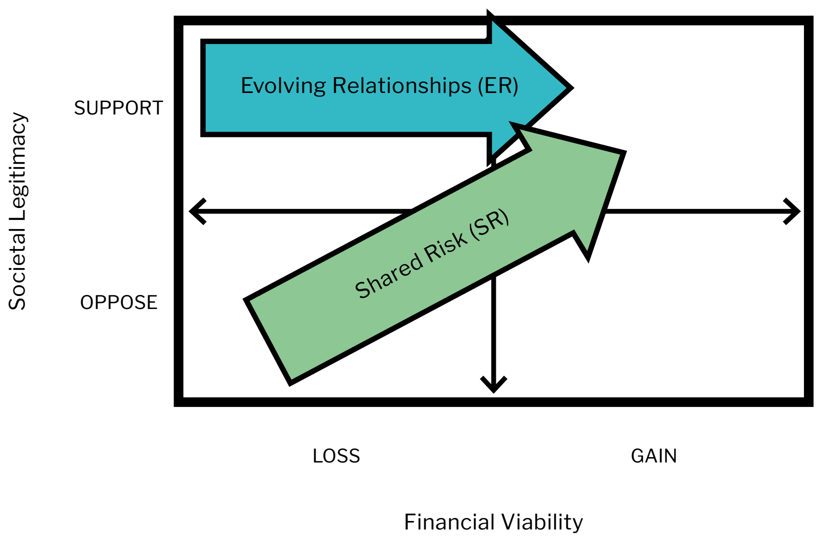

FIGURE 2

Orientation of Evolving Relationships (ER)

During the initial bidding phase for the project valued at US$1.5 billion in 2007, HMRL executives presented standard terms and conditions for a concessionaire over a 30-year duration. The offer was awarded to a local infrastructure development company named Maytas, which backed out shortly afterwards because it could not meet the terms of the offer, leading to the failure to achieve financial closure for the project as scheduled.

Although societal legitimacy was secured through considerable support from key stakeholders, the project's financial viability suffered a huge blow, and the whole venture found itself in the top-left quadrant of Figure 2. HMRL executives substantially reoriented their approach to the contract and the monitoring mechanisms by adopting an ER orientation. How this novel orientation differs from conventional contract management is that the HMRL executives emphasised 'ongoing' flexibility and adaptation in response to changing circumstances and evolving project needs, instead of static adherence to predefined terms and conditions. With this orientation, HMRL executives invited fresh tenders for constructing the metro, and in July 2010, L&T secured a bid for about US$1.8 billion. Both entities encountered numerous challenges as the project unfolded, but their relationship was strengthened due to the HMRL executives' willingness to have a flexible orientation towards evolving project needs.

This flexibility was exemplified by the HMRL executives' unique construction plan. It called for 85 percent precast materials, in order to cause the least disruption to traffic and connect the metro to the narrowest streets in Hyderabad, while L&T provided the necessary resources per the revised budget to design a first-of-its-kind, single-pier model that would ensure the least disturbance to Hyderabad's heritage sites and dense marketplaces.

Thus, adopting a progressively ER orientation is critical for adapting to an ever-changing landscape of public-private sector interactions. During the course of a PPP project, the roles and expectations of public and private entities will continue to evolve and even transform. This will require managers to adjust to shifting conditions, emergent technologies, and evolving global trends. By adopting an ER orientation, PPP executives can continually identify and resolve challenges, forecast future requirements, and promote innovation in project design and implementation.

Orientation of Shared Risks (SR)

Political tensions emerged in the state when the project was recommended in 2010 with L&T as the construction partner. The political volatility intensified and further stalled the project for another few years. As a result, the delays in everyday operations led to the metro rail project incurring additional cost overruns that pushed the overall cost to US$2 billion. Since the initial implementation efforts involved digging the roads and transporting materials, the delays cast doubt in the public's mind over the overall credibility of the project. As the state's political situation deteriorated, tensions among ecosystem stakeholders, such as the Telangana public and political parties, as well as social, religious, and environmental groups, became palpable. With the project facing financial losses and societal opposition, it was pushed into the bottom left quadrant.

Four consecutive changes in government structure had occurred within a five-year period (2009-2013) due to the severe political tensions. Consequently, HMRL executives were compelled to reposition and repurpose their proposal to gain the support of each new state government. The HMRL and L&T executives joined forces to mitigate the risks and reached out to the new state government that had taken over in 2014 and previously opposed the project. Yet again, the additional overruns were shared among the project's core value chain stakeholders, i.e., other private partners, and the state and central government ministries funding the project. In addition, HMRL executives came up with a novel concept of renting out the spaces around the metro to L&T for developing shopping malls and market areas. These malls were planned to eventually generate revenues by leveraging the high footfalls created by commuters at the metro stations, thereby contributing to the project's top line. Consequently, this initiative created 18.5 million square feet of infrastructure, including office and infotainment spaces, near critical metro stations, thus enhancing the quality of life and stimulating economic activity there.

Therefore, an SR orientation was cultivated to manage its stakeholders in ways in which all parties benefitted. Value chain stakeholders derived economic benefits while ecosystem stakeholders leveraged upgraded lifestyles. Thus, HMRL executives created a partnership that went beyond the letter of the PPP agreement and built personal connections that sustained the project over the next decade. The partnership emphasised the usage of the value chain stakeholders' complementary capabilities. To wit: L&T provided technical and operational expertise to implement the metro project and develop nearby areas for economic benefits, while the government agencies provided a key portion of the funding thereby fostering public trust. As for the HMRL executives, they provided political cover by managing the rest of the ecosystem stakeholders to create a win-win situation for all.

In the challenging settings that characterise infrastructure projects, it is critical for PPP managers to adopt such an SR mentality. This stands in contrast to conventional risk-sharing methodologies that may disproportionately assign risks to a single party. An SR orientation in turn prioritises the fair and balanced allocation of risks among public and private collaborators.[11] Risk-sharing becomes a strategic imperative especially when unpredictability is the norm, such as in the case of the Hyderabad Metro Rail project. This orientation promotes cooperation, openness, and confidence among interested parties by recognising that every participant contributes distinct competencies and strengths to the alliance. By promoting an SR orientation, PPP executives can bolster resilience, foster a collective sense of accountability, and motivate proactive resolution of issues.

Managing ecosystem stakeholders

While ecosystem stakeholders may not directly invest resources in the project, they can nevertheless powerfully influence its performance via their support or opposition. For the Hyderabad Metro Rail project, the most important ecosystem stakeholders were the political parties in opposition, the social and environmental groups in Hyderabad, as well as the local street vendors, merchants, property owners, and religious leaders, since their livelihood and the public's access to them would be affected by the metro. HMRL executives used the following strategies to manage these stakeholders, as illustrated in Figure 3 below.

Orientation of Proactive Transparency (PT)

After the project recommenced in 2010, HMRL executives planned to divide it into distinct phases such as route selection, land acquisition, and metro construction to alleviate public discomfort and foster trust. This would also enable a more organised and transparent approach to implementation and communication with the public. At each phase, HMRL executives had to work closely with L&T managers to ensure the timely completion of critical milestones while mitigating delays in obtaining the necessary permits.

STAKEHOLDER ORIENTATIONS FOR ECOSYSTEM MANAGEMENT

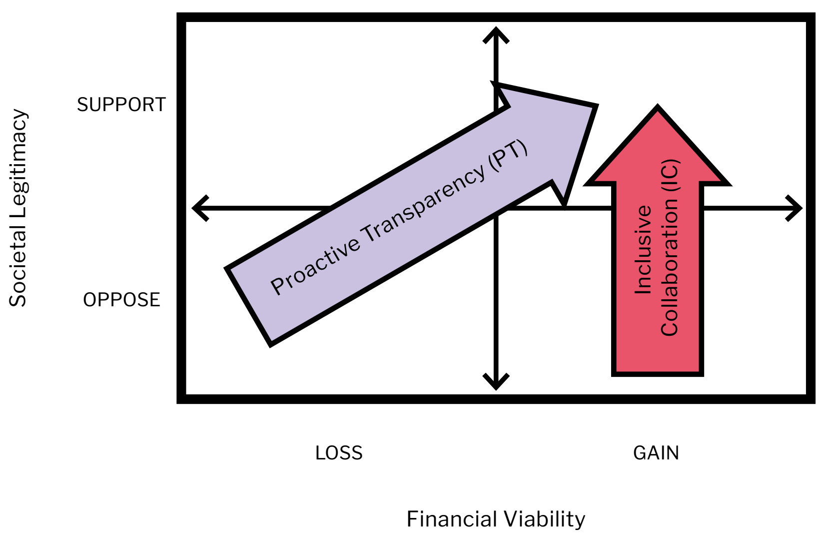

FIGURE 3

With our novel 'orientation precedes strategy' framework, managers need to have orientations such as evolving relationships, shared risks, proactive transparency, and inclusive collaboration to navigate the potential barriers via stakeholders in mega projects.

For instance, HMRL executives conducted an intricate evaluation of the metro rail network's route alignment by considering traffic patterns, population density, and anticipated demand. As the final route plans and execution procedures emerged, several authorising bodies that were key ecosystem stakeholders were convinced that the metro rail project would not only bring more relief to city commuters, but also be a game changer in attracting infrastructural investments. With the acceleration of approval processes, HMRL executives gained considerable momentum to proceed with subsequent phases. As a result, what was once deemed a slow-moving project during its initial stages surged ahead of schedule and captured widespread media attention and support among ecosystem stakeholders. By adopting a PT orientation for ecosystem stakeholders, HMRL executives brought the project back on track, erasing the financial losses and stakeholder opposition at the time of project recommencement.

PPPs require proactive transparency to build trust, address social opposition, and minimise financial losses. Open communication builds trust among stakeholders, thus fostering a sense of shared responsibility. Proactive transparency also allows project managers to address public concerns and incorporate feedback, avoiding delays and legal disputes. Early identification of issues prevents financial setbacks and ensures long-term success. This orientation enhances the resilience of PPPs, and fosters collaboration and mutual understanding.

Orientation of Inclusive Collaboration (IC)

Hyderabad, one of the oldest cities in India, had narrow and old roads that would need to be widened to accommodate the metro stations and pillars. Consequently, HMRL executives had to acquire around 3,000 properties for the metro rail project. However, this land acquisition faced great resistance from ecosystem stakeholders such as traders in high-density market areas. They demanded realignment of the route to safeguard both their businesses and the historic markets that had existed in the areas for decades, resulting in approximately 370 court cases.

To further exacerbate the situation, several religious leaders insisted on realignment as the metro line required the relocation of certain religious structures. A major public outcry ensued, requiring immediate attention. Although the metro rail project was on track to achieve financial viability, its societal legitimacy suffered, pushing the project into the bottom right quadrant, as shown in Figure 3.

At this juncture, HMRL executives adopted an IC orientation when working with their ecosystem stakeholders. They prioritised efforts to actively engage local communities and civic organisations, address land acquisition concerns, and harmonise the project's objectives with the city's developmental aspirations. Public hearings and interactive workshops facilitated meaningful dialogue, which helped create a sense of shared ownership among community members. Open communication, joint problem-solving, and knowledge sharing amplified operational efficiency, quality, and stakeholder satisfaction. For example, joint steering committees and project management teams comprising public and private consortium partners were established, fostering seamless collaboration.

A key element of an IC orientation was to tailor the approach to the particular stakeholder by paying special attention to the religious, cultural, and social issues at play. An HMRL executive told us, "If we had to fly over or reposition a Hindu structure, the general manager would deal with it because that is his religion. If we were assessing a Muslim structure, we would appoint a devout Muslim so he could advise. And we had several Christian officers who would advise us when we were approaching the leaders of a church. In India, tackling these issues with sensitivity and inclusiveness is important."

In the Hyderabad Metro Rail project, the IC orientation was especially important during the long and difficult stages of land acquisition, because it engendered community support in a variety of ways. Numerous artists joined forces to create jingles and poems that highlighted the public's identity and emotional attachment to the city's development. These activities fostered a positive sentiment among the public towards the metro rail project, revitalising Hyderabad's urban landscape. By creating an inclusive and collaborative relationship among the key ecosystem stakeholders, HMRL executives were able to secure societal legitimacy for the project.

An IC orientation differs from conventional approaches because in addition to the direct stakeholders in the value chain, it actively involves a broader range of stakeholders in the larger ecosystem. It promotes shared ownership and understanding, ensuring that the demands of the various groups are considered. By acknowledging the complexities of social circumstances, this more comprehensive and socially-conscious approach also fosters trust and reduces opposition. Most importantly, it ensures that a PPP meets the diverse needs and expectations of the variety of stakeholders that comprise the general public.

CONCLUSION

With the growing global need for PPPs to develop large infrastructure projects, it is vital that managers have a definitive framework to mitigate the risks posed by stakeholders during the project's lifetime and beyond. Using our novel 'orientation precedes strategy' framework, we argue that managers need to have orientations such as evolving relationships, shared risks, proactive transparency, and inclusive collaboration to navigate the potential barriers via stakeholders in such mega projects. In our article, we used the HMRL project as a prominent example of how a PPP that adopted the appropriate approach can overcome obstacles including financial, infrastructural, political, and religious tensions to achieve success. With the proposed framework, managers are better equipped with an orientation that helps them design strategies to overcome the barriers at every stage of the project.

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