The role of transformational leadership and institutional entrepreneurship in driving change in an Indian public organization

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Abstract

Drawing on theories of transformational leadership and institutional entrepreneurship, this study explores the causal drivers that transformed a public organization involved in the construction of the Delhi Metro. It explores the under-examined antecedents that drive organizational change, seeking to understand the links between leadership and entrepreneurship and significant reforms in the operation of a public organization. This paper then refers to institutional structures, cultures, practices and routines that were added or modified during the construction of a large public infrastructure project. Together, these actions demonstrate the value of transformational leadership and institutional entrepreneurship in action. The findings of the study affirm that transformational leadership and entrepreneurship can drive successful outcomes in a major public infrastructure organization. Observing and recording such changes in a specific longitudinal field study is a vital precursor to unlocking the infrastructural potential of a developing country like India.

Keywords: India, transformational leadership, institutional entrepreneurship, organizational change, case study

Running title – **Driving change in an Indian public organization**

Introduction

Recent studies have examined the construction of public infrastructure in developing countries (Cui et al., 2018; Höffken & Limmer, 2019; Rao-Nicholson & Svystunova, 2021; Qiu & Rao-Nicholson, 2021; Chatterjee & Kundu, 2022), and have considered the role of typical public organizations in this context (Morris, 2019; Monstadt & Coutard, 2019; Dolla & Laishram, 2020). Within this context of public infrastructure development, authors have noted a lack of a suitable climate of reform in some cases (Khanna et al., 2021) as well as a lack of entrepreneurial talent to support the expanding demand for new infrastructure in India (Shah & Prakash, 2018; Chertow et al., 2019; Kumar, 2021). Nevertheless, Liu and Froese (2020) note the role of institutional entrepreneurship, among others, in shaping organizations and communities in Asia.

Most previous studies have examined changes in the organization after institutional entrepreneurship has been initiated by the actors operating in the organization (DiMaggio, 1988; DiMaggio & Powell, 1991; Scott & Christensen 1995; Greenwood et al., 2002, Greenwood & Hinings, 1996; Greenwood & Suddaby, 2006). Previous studies have also examined the effects and outcomes of institutional entrepreneurship on the organization (Garud et al., 2002; Greenwood et al., 2002; Lawrence et al., 2002; Garud & Karnøe 2003; Greenwood & Suddaby 2006). These studies provide insights into the organizational changes connected with entrepreneurship, especially in terms of new processes and routines. On the other hand, there are limited studies on the forces that lead to the generation of entrepreneurship in organizations (Maguire et al., 2004; Munir, 2005; Munir & Phillips, 2005; Greenwood & Suddaby, 2006), and most of these are focused on institutional entrepreneurship within private organizations (Garud & Karnøe, 2003; Munir & Phillips, 2005; Greenwood & Suddaby, 2006) or non-government organizations (Maguire et al., 2004).

Similarly, the role of leadership in the initiation of organizational changes has not been widely studied in the context of public organizations (van der Voet, 2014). In terms of various types of leadership styles, transformational leadership is usually claimed to be best suited to combat organizational inertia and to motivate employees to adapt to organizational changes (Bass & Avolio, 1994; Eisenbach et al., 1999; Chen et al., 2018; Cho et al., 2019). Transformational leadership has been typically studied in organizations that perform well economically (Boerner et al., 2007); it has also been claimed to reduce employee resistance to change and improve engagement and participation in organizational change (Mathew & Gupta, 2015). Given that in developing countries, organizations tend to be hierarchical and parochial, it is critical to examine the impact of transformational leadership in such less ideal organizations.

As noted above, literature has continued to examine the impact of institutional entrepreneurship and transformation leadership on organizational change separately. However, some recent studies have aimed to combine these two factors in their studies. Brodnik and Brown (2018) considered the urban water system in Melbourne, Australia, and looked at the role of institutional entrepreneurship and transformational leadership in this context. They observed the crucial part that leadership plays in organizational change, including the changes that go beyond the organizational boundaries, building on the positional power of the organizations initiating the changes. There are studies in the education sector which consider both institutional entrepreneurship and transformational leadership (Ma et al., 2020; Raby et al., 2023), but these two factors are not widely examined in the context of public organizations. Despite this promising research direction that combines transformational leadership and institutional entrepreneurship, which promises to unpack the close relationship between these two factors in explaining organizational change and its diffusion beyond the organizational boundary, there is a scarcity of research in the developing country context.

In this study, we explore the links between transformational leadership and institutional entrepreneurship and the potential for change in a particular Indian public organization. Our work makes two key contributions: first, we contribute to the literature on how transformational leadership and institutional entrepreneurship can operate together to drive change in public organizations. By combining these two strands, often treated separately in the literature, we show that transformational leadership has the potential to nurture institutional entrepreneurship, within public organizations. Second, we contribute to the literature by providing evidence that the influence of transformational leadership and institutional entrepreneurship extends beyond routine changes in public organizations.

The paper is organized as follows. First, we present the literature review and identify the research gap to explore in this study. Next, we explain the study's methodology. Lastly, we discuss our results and conclusions.

Literature review

Institutional entrepreneurship

Jepperson (1991: 149) defines institutions as "socially constructed, routine-reproduced programs or rule systems". Researchers have sought to understand how these systems achieve coherence and stability. Studies in institutional theory have explored and explained the processes that underpin institutional stability (Barley & Tolbert, 1997, Clemens & Cook, 1999). Yet, these studies have not provided a convincing framework within which to understand broader institutional reform. Some authors have considered how new institutions are

created or how existing ones change over time (DiMaggio & Powell, 1991, Fligstein, 1991, Fligstein, 1996). Their curiosity was stimulated by the fact that although firms typically operate with established rules, norms and routines, we still see new organizational practices evolving over time to replace or merge with existing ones, to create hybrid systems of management. Within the literature of institutional theory, authors have regularly highlighted the progress and innovation that can transform institutions and the ways they operate (Hargadon & Douglas, 2001, Munir & Phillips, 2005). Thus, it is hard to ignore the influence of institutional entrepreneurship in pushing the boundaries of organizational change.

Dimaggio (1988) discussed the notion of endogeneity in institutional change and explored the paradox of embedded agency. Bourdieu (1988) stressed the relationship between structure and agency. Similarly, Holm (1995) raised the question of how actors who are conditioned by the institutions they work in can be galvanized to change them. Another study described how value-commitments within an organization, encouraged by careful managerial interventions, can promote organizational change (Greenwood & Hinings, 2002). The concept of embedded agency has been explored by other authors as well in different contexts (Seo & Creed, 2002; Holm, 1995). For example, studies have explored the processes by which powerful groups shape the formation of new institutions (Fligstein, 1997). Also, authors have argued that centrally placed institutional actors can act as entrepreneurs (Greenwood et al., 2002; Phillips & Zuckerman, 2001). Greenwood & Suddaby (2006: 30) even go as far as to suggest that understanding the role of central actors as institutional entrepreneurs is essential "*if we are to resolve the paradox of embedded agency*".

Transformational leadership

The extant literature has widely recognized the role of leadership in change management (Higgs & Rowland, 2005; van der Voet, 2014). Those studies observed that transformational leadership is the leadership style most suitable for organizational change as these kinds of leaders support employees to engage better with changes in their work environment (Bass, 1999). According to Podsakoff et al. (1996, p. 260), "…by articulating a vision, fostering the acceptance of group goals, and providing individualized support, effective leaders change the basic values, beliefs, and attitudes of followers so that they are willing to perform beyond the minimum levels specified by the organization". Transformational leaders are capable of creating an appealing vision of the future which may inspire willingness to change in their subordinates (Kanter, Stein, & Jick, 1992; Kotter, 1996). Furthermore, this type of leader is predisposed to lead by example and thus can model desired behaviors during a period of organizational change; they will be pivotal in terms of enacting change in the workplace (Higgs & Rowland, 2010). It could therefore be beneficial to link the two ideas of transformational leadership and

institutional entrepreneurship and examine how both factors operate in tandem to influence organizational change in public organizations.

Transformational leadership and institutional entrepreneurship work together

Authors have previously highlighted the effect of institutional voids or gaps in the institutional environment in creating operational dysfunction for businesses in developing countries (Khanna & Palepu 2000; Khanna et al. 2005; Mair & Marti 2009; Mair et al. 2011; Puffer et al. 2010). In the context of public organizations and public infrastructure projects, institutional voids can disrupt timely completion of projects. For example, there may be a lack of efficient regulatory and legal mechanisms to implement projects, resolve conflicts, or a dearth of resources such as human capital or the latest technology (George et al., 2014). Yet, in some investigations of entrepreneurship in developing countries, authors have observed that individual entrepreneurs learn to work in and around institutional voids (Mair & Marti, 2009). There are two potential factors that might counter their negative effects: namely, transformational leadership and evidence of institutional entrepreneurship within and around the public organization.

The work of van der Voet (2014) examined the role of leadership when changes were introduced in the public organization and how those changes were accepted, or not, by employees. Transformational leadership was seen to support the change process due to its focus on employee engagement and satisfaction (Liu et al., 2010; Bass, 1999). Fernandez and Pitts (2007) identified that a complex configuration of internal and external issues influence a manager's attitude and behavior relating to change. Similarly, studies have noted that the agency of the leader needs to be supported by subordinates for the introduced changes to be successful (Lynn, 1981). This highlights the importance of having a transformational leader who is capable of pulling subordinates into a team that works to achieve a shared vision. Some recent works have examined the role of transformational leadership in a public organization in India. Yadav and Yadav (2018) examined organizational commitment in public banks and observed that transformational leadership was related to stronger organizational commitment. A study by Sharma and Nair (2020) further observed no differences in the transformational leadership styles of private and public banks in India. Despite this work, there is still limited insight into how transformational leadership manifests and influences organizational changes in public organizations in India.

Some studies have shown that institutional entrepreneurship developed collectively, when several network actors (organizations or individuals) collaborate, is more likely to generate institutional change in the field than when change is initiated by a sole actor (Wijen & Ansari, 2007). This type of collective entrepreneurship develops collaborative structures and processes, and its effects can flow on to all organizations

in that field (Lawrence & Suddaby, 2006; Wijen & Ansari, 2007). These studies also suggest that leaders need certain incentives to bring their respective resources to bear upon a problem (Westley & Vredenburg, 1997; Wijen & Ansari, 2007). Similarly, institutional entrepreneurship needs to grapple with the problem of "actor apathy" (Wijen & Ansari, 2007), where some organization members might not share the vision of the entrepreneur, or lack motivation, and thus may impede the institutional change process required within their organization. One study suggested that under certain conditions, an institutional entrepreneur might have to extend their reach and seek to influence other fields (Durand & McGuire, 2005).

Public organizations and public infrastructure in India

One of the biggest challenges faced by emerging economies like India is to increase its capacity to fulfil the needs of its urban population by providing basic public amenities, including efficient and economic mass transport. The mass transport system normally includes a mix of light railway transit, bus transit, tram and subway (also known as metro or underground). This system is known as the mass rapid transit system (MRTS) (Fouracre, Dunkerley, & Gardner, 2003). As observed around the world, the development of a mass transport system is a gradual process. It normally begins when a city's population approaches the 0.5 to1 million mark and evolves as the population of the city grows. As the city's population approaches 4 million, extensions to the system are sought. In 2002, the developed nations had an average of 30 km of mass transport ('length of line') per million people in their cities (DMRC, 2003). The highest length of line, 38 km per million people, occurred in European countries, whereas it was the lowest in Africa at 1 km per million people. In the Indian city of Kolkata, there was 2 km of length of line per million people in 2002. Thus, India, in spite of rapid economic growth in the 1990s and 2000s, was not faring well in terms of generating efficient urban transportation.

In India, passenger rail projects have traditionally been plagued by construction cost overruns and shortfalls in passenger numbers (Pickrell, 1992). A 2003 study found that the average rail project cost 45% more than estimated, while patronage was 39% lower than forecast (Flyvbjerg, Bruzelius, & Rothengatter, 2003). This discrepancy has been attributed to political interference, opportunism by special interest groups and manipulations by project planners (Altshuler & Luberoff, 2003; Hall, 1982; Pickrell, 1992). Gaining political and public approval for projects seems to be a major stumbling block and often requires "an incredibly complicated selling job" (Brooks, 1997). Over the years, residents of metropolitan areas in India have experienced inadequate urban planning by city officials. An evident lack of concern by central and state governments has hampered the development of modern transport systems in their cities. However, India has seen the development of metro systems in two major cities: Kolkata and Delhi. The Kolkata metro took more

than 20 years to construct, faced cost overruns and patronage issues, whereas the Delhi Metro was constructed on schedule and within its budgeted cost. The Delhi Metro is now operational and has been well-accepted by local commuters (Lakshman, 2007; Mishra, 2000).

Methods

The construction of the Delhi Metro Rail began on 1st October 1998, although the idea of a Mass Rapid Transit System (MRTS) for Delhi was first mooted by the Central Road Research Institute in the late 1960s. In 1984 the Delhi Development Authority published its 'Master Plan Delhi – 2001', which recommended the construction of 200 km of light rail transit, 10 km of tramway, and extensions to overground rail systems and roads. In the same year, a study group was appointed by the Ministry of Railways to plan the precise alignment of an east–west corridor. The total network contains 16 sections to be implemented in a sequence based on passenger kilometers carried per kilometer length of each section. The first phase of the network comprised 65.11 km of route length with 13.01 km underground (called the Metro Corridor) and 52.10 km of elevated overground rail, called the Rail Corridor. The Delhi Metro Rail Corporation (DMRC) was created at this time to develop, implement and run this new Delhi metro service.

We selected the DMRC as the public organization for the purpose of this study and collected data on the corporation and the Delhi Metro construction project. Authors have argued that a single, in-depth case study is beneficial when the case signifies an extreme case or when a case is useful to shed light on a phenomenon that would otherwise be inaccessible (Yin, 2008). This method also allows deeper probing into processes and collecting of fine-grained data. Using the multi-stage approach to data collection, themes were extracted from detailed primary and secondary datasets (Langley, 1999). This study focused on various stakeholders, including the focal public organization and other key partners involved in the project: the DMRC, external contractors, and financiers. In the first stage, the data was collected from company reports and presentations, government reports, a commissioned book and newspaper and trade press articles.

We first undertook a detailed analysis of official promotional materials as well as over 200 articles pertaining to the Delhi Metro construction project, published in several independent English and Hindi-language newspapers or on websites or TV news channels, like The Times of India, The New Indian Express, Hindustan Times, New Delhi Television Limited (NDTV), Telegraph, Businessweek and Zee news. The second stage of the study consisted of data collection via interviews. The interviews were conducted with 30 key stakeholders within the DMRC as well as external stakeholders, such as contractors and financiers. Interviews were conducted over a period of four years, from 2008 to 2011, and lasted between 60 to 120 minutes (see Table 1).

The interview protocol included questions about key concepts such as organizational background, leadership, institutional work by the organization, capability development within the public organization and across the network and specific change initiatives. These questions were helpful in clarifying the role of transformational leadership and institutional entrepreneurship in the changes occurring within the organization. The third stage of data collection involved a dual approach of further archival data collection to verify the emerging themes from our data analysis and conducting observational visits to the construction sites and Delhi Metro stations. These visits were conducted in 2010, 2011 and 2015. Thus, the most recent primary data collection occurred during the observational visit in 2015.

[Table 1 here]

The researchers involved in this project began the coding process of our data after our interviews, and many categories resulted as we individually categorized everything broadly at this stage. It was agreed that researchers would code the categories independently to avoid influencing our coding activities. After this initial analysis, researchers independently triangulated coding based on the information from interviews and secondary sources and extant literature. Following this triangulation process, researchers obtained a more targeted set of codes. This "latent analysis" approach (Berg, 2004) led us to arrive independently at the same set of codes used to define our case. In the few instances where we differed, it was mostly due to idiosyncratic coding divergences rather than any major disagreement about the underlying theoretical framework. The stages of coding and themes that emerged in our analysis are presented in Table 2.

[Table 2 here]

Findings

Until recently, public organizations were the only players involved in the development of major public infrastructure projects in urban areas. And, for historical reasons, the government has chosen to lead the development of public organizations like hospitals, schools, prisons and transport infrastructure. Indeed, only lately have we seen the establishment of a partnership between public organizations and private firms for the development of public utilities, ranging from prisons, hospitals to transport infrastructure. Thus, the major proponent of change in this organizational field is the organization itself. The organization has to have a focus and vision to envisage the required change and implement it. The public organization, in this case, Indian Railways, was primarily responsible for the development of MRTS, had to understand the changing needs of urban transport infrastructure development and effectively generate and increase its own capability for project management. Although organizations like Indian Railways are created to deliver efficient and effective

solutions, they can also engender far-reaching changes in the wider field of business. As Dr E Sreedharan, Managing Director of DMRC, quoted in an Indian newspaper, explains (Joshi, 2001):

It will be much more than a cheap and safer means of transport. It will reduce congestion on roads making movement of traffic easier. It will also reduce atmospheric pollution to great level making the environment healthy.... The metro will totally transform our social culture giving us a sense of discipline, cleanliness and enhance multifold development of this cosmopolitan city.

Overarching dimension: transformational leadership

Experience and leadership qualities

In order to lead such a progressive organization, which was introducing a groundbreaking new system, it was necessary to find a leader with relevant experience as well as leadership qualities. Dr. E. Sreedharan, Managing Director, Delhi Metro, was appointed to the post following an illustrious career with the Indian Railways. In 1990s, Dr. Sreedharan built the 470-mile Konkan Railway on India's western coast, the first major railway project since the British left India in 1947. That a public sector project could be completed without significant cost and time overruns was considered an achievement by many at the time.

Dr. Sreedharan is also unusual among the run of Indian bureaucrats. He has a penchant for breaking the rules to achieve results and has a record of unimpeachable integrity (IE, 2003). He has been credited for the most successful public sector projects in the country's history and was called out of retirement to undertake the Delhi Metro Rail project. He describes the nature of Indian politics as being predisposed to corruption: *"...politicians tried to interfere; they wanted to milk the project. Later when they found that this is not possible, they started respecting it…. I would say that I stand firm in my convictions. I don't budge just to please somebody else. That's the main thing."*

Encouraging innovative management practices

Dr Streedharan used his authority to convince the authorities (Chief Minister of Delhi, Chief Secretary and the Minister for Transport) that if the project were to be completed on time and budget, he would need to be given full authority to select his team and there should be no political or bureaucratic meddling in the project. His plans included hiring a foreign consultant and specialists who would advise the DMRC managers from time to time. Thus, the managing director of DMRC was able to use the positional power to persuade people. Another senior manager commented – *"There is Dr E Sreedharan, and, of course, his team, who lead from front. If the top official is working and showing the way, others follow. The top did its job and lower officials were doing their job, contractors too… Top official is innovative…down the line, the team will work."*

Another manager noted that - *"he would not tolerate any interference and talks of corruption and bribery in this organization. In this country, people follow by example, and such incorruptible leadership is inspiring, and everyone wanted to follow his example."*

Overarching dimension: institutional entrepreneurship

The top management team, especially, the managing director, was vocally focused on the welfare of the employees of the DMRC as well as the many contractors working on this project. Thus, a new organizational model was needed to decrease bureaucracy and shake up the traditional practices common in the older organizations in this sector. Leadership in Indian public organizations tends to be directive rather than empowering. Most employees are driven and directed by managers rather than by their own self-discipline. The abundance of labor and qualified people to fill vacant positions results in employees feeling a constant need to please the boss. People in government jobs usually have job security. There is a "hiring and firing" imbalance leading to cumbersome organization structures, especially in government organizations. This not only creates a kind of "caste system" for employees, it also prolongs the time for decision making. Employees at the bottom of the pyramid are entrusted with almost no decision-making responsibilities. This complemented with the "caste system", prevents knowledge from flowing upwards to the top of the pyramid. More importantly, there are multiple such pyramids in a single organization and interactions among people from different pyramids tend to be limited. The knowledge acquisition process is therefore constrained, and roles of people or departments tend to be loosely defined, leading to a vacuum of responsibility. This leads to poor organizational structures and the appointment of managers rather than leaders. Such a large and top-heavy organization needs to be replaced by an organization that is lean and flexible and that can implement decisions quickly.

Creation of institutional structures, cultures, practices, and routines

Thus, institutional conformity is challenged by poor performance and needs to improve efficiency, thus, increasing the incentive to explore and embrace different opportunities (Seo & Creed, 2002, Greenwood & Suddaby, 2006). Authors have suggested that clear and concise objectives from the metro officials helped in the generation of a positive image for the company (Siemiatycki, 2006). This positive image, in turn, raised public awareness and generated an iconic symbol that was necessary to create a sense of public pride, ownership and respect for the values being generated by the new system. For example, after studying the issues challenging other metro systems around the world, the DMRC introduced a strict no-beverages policy on their stations and in train carriages (Siemiatycki, 2006). It also prohibited the posting of signs and unauthorized advertisements in the stations and train coaches. Only people with valid tickets were allowed on the premises. As DMRC's Chief

Vigilance Officer stated (Mukherjee, 2002) – *"Even in US, Paris and London poor people try to look for shelter inside metro stations. We took a lesson from that and decided to create a system in which only commuters with tickets will be allowed inside the paid area."*

This kind of strict policy was previously unheard of in Indian railway history and can be contrasted with the only other metro system operational in India, the Kolkata metro, which had significant cost and time overruns, faced planning and project management challenges, operational and passenger number issues (Lakshman, 2007). Thus, institutional conformity leads to poor performance and a need to improve efficiency. Even before the Delhi Metro was constructed or operationalized, it was clear that fundamental rethinking was needed as the new organization was conceptualized and implemented. As Anuj Dayal, DMRC spokesperson points out (TOI, 2002) – *"We do not have much paperwork. A filing system is almost non-existent as decisions are taken in consultation with the bosses and taken within an hour. The same efficiency is executed on the field where we have introduced new work practices and safety."*

The incumbent railway organizations were deeply embedded in local organizational networks, and organizational changes were infrequent. However, some researchers suggested that in spite of their organizational intractability, they could still initiate institutional entrepreneurship (Greenwood & Suddaby, 2006). Thus, people in power realized that the formation of a new organization by implanting the gene of an existing organization could provide the new organization with the legitimacy required to pursue system-changing processes. A new organizational model was needed to decrease bureaucracy and loosen the inertia common to the older organizations in this sector. The DMRC spokesperson highlights this by saying (IBN-Live, 2007) – *"It is the management style which is unique. It is based on practical experience and experiences of its leaders. The credit goes to the managing director and entire DMRC team."*

Implementation of institutional structures, cultures, practices, and routines

One manager commented: *"There are regular yoga classes and other meditation classes to take our focus away from work and focus on ourselves. This is important to promote physical and mental wellbeing."* Similarly, leadership also recognized employees' educational aspirations and gave them opportunities to attend training classes both within and outside the organization. One employee noted, *"I learnt a lot from the internal training program. I was learning the latest technology in my area of work. This is very different from other public organizations where there are very few training and professional development opportunities."*

The DMRC was aware of changing infrastructure needs and growing demand for quality processes and products in the public transport system. Hence, it had to look beyond the organizational model that it had followed in the

past and rethink its desired project outcomes and delivery mechanisms. DMRC had to choose between "Efficiency vs Conformity." Ultimately, Delhi became one of the few metro systems worldwide to achieve the International Standardization Organization (ISO) 14000 certification, an award that requires a company to maintain a credible environmental management system. In 2007, the United Kingdom Accreditation Service (UKAS) conducted a surveillance witness audit of the Delhi Metro. UKAS mentioned in its report that housekeeping and operational controls in DMRC were world-class. The UKAS auditor Andrew Marlow highlighted the organizational innovation undertaken by DMRC, speaking on IBN-Live in 2007 :

"The fact that DMRC included occupational health and safety in an integrated management system is particularly laudable… DMRC's efforts on water harvesting and energy saving are a model for other big organization to follow."

Table 3 presents a summary of the various changes introduced via transformational leadership and institutional entrepreneurship in the DMRC organization.

[Table 3 here]

Discussion

Contemporary studies on public infrastructure in India (Cui et al., 2018; Höffken & Limmer, 2019; Rao-Nicholson & Svystunova, 2021; Qiu & Rao-Nicholson, 2021; Chatterjee & Kundu, 2022) have noted the lack of relevant organizational reforms (Khanna et al., 2021) and talent to support India's growing demand for public facilities and infrastructure (Shah & Prakash, 2018; Chertow et al., 2019; Kumar, 2021). There is thus a gap in our knowledge of how organizations can leverage entrepreneurship during the process of organizational renewal or the creation of new subsidiaries (Lawrence et al., 2002). This is especially important in the case of public organizations since we know that existing public organizations can be the catalyst for new or emerging public institutions (Khanna et al., 2021). Existing public organizational routines can also be the starting point for the development of new routines and existing organizational cultures can also influence cultures developing within new organizations. Private organizations are more exposed to market demands and, unless they are endowed with outstanding survival techniques, they are forced to change, innovate and introduce strategies that keep them competitive. The public organization sits at the other end of the scale. In terms of innovation, agility and efficiency it has been caricatured as a sleeping elephant in the middle of the road that refuses either to move on or to let others pass along the way. Stories of mismanagement and managerial torpor abound in public organizations, and this is especially true in the case of emerging economies like India (Khanna et al., 2021). In

this context, our paper provides a useful contribution by articulating the role that transformational leadership and institutional entrepreneurship can play in a developing country public organization.

Theoretical contributions

Our work makes a number of important contributions to the literature. First, even though the impact of institutional entrepreneurship and transformational leadership on organizational change has been examined separately, few studies have explored these two factors' influence on organizational change (Brodnik and Brown, 2018; Ma et al., 2020; Raby et al., 2023). Thus, the findings of the present paper contribute to our knowledge about the crucial role that institutional entrepreneurship and transformational leadership play in organizational changes.

In line with the existing studies on public organizations in the developing county context, this study provides support for the role that institutional entrepreneurship plays in organizational change. The role of transformational leadership is vital in a developing public organization. There was widespread bureaucracy, slow decision-making processes and a lack of capable leadership (Rao-Nicholson & Svystunova, 2021). This is quite similar to the findings of Seo and Creed (2002) and Greenwood and Subbady (2006), who found that the organizations they studied were confronted with the choice of "efficiency versus conformity". The influence of institutional entrepreneurship can also operate to combat system inertia (Rao, 1998). This can help to generate positive achievable business goals in situations of economic adversity or uncertainty (Greenwood & Hinings, 1996).

Furthermore, our findings extend what we already know about transformational leadership, and expanding this in the context of public organization in a developing country context, finds that this leadership style influences organizational change. In the current case study, we found that the transformational leadership demonstrated by the top management team, especially the managing director, was key to challenging the existing bureaucracy. As leaders become aware of emerging needs and changes in the sectoral environment, they can choose new organizational forms that are different from the prevalent organizational structures in the sector (Qiu & Rao-Nicholson, 2021). Taken together, transformational leadership has the potential to nurture institutional entrepreneurship, within public organizations.

Second, as observed in a previous study (Brodnik and Brown, 2018), the influence of transformational leadership and institutional entrepreneurship extends beyond routine changes in public organizations. These large public organizations undergoing changes can use their positional power to induce changes beyond the organizational boundary. Thus, our study indicates that institutional entrepreneurship, supported by

transformational leadership, can induce systemic and systematic change within the sector. Furthermore, Brodnik and Brown (2018), similar to our findings, observe that transformational leadership undertakes the role of championing and advocacy in the initial stages of institutional change, where institutional entrepreneurship is driven by a few actors in the system. In the later stages, the leadership continues with the role of championing and advocacy, but more individuals in the senior role are involved in these activities. As the changes are diffused within the sector, different organizations are influenced by institutional entrepreneurs, and impact transcends the organizational boundaries. This underscores the need for further empirical investigations.

Changes to Indian public organization policies since 2015

Our final primary and observational data collection was conducted in 2015, and since then the government of India has introduced several initiatives that have targeted obsolescence and rigidity in the public organizational structures and has invigorated policy making in the area. For example, the Digital India initiative was started in July 2015 with the vision to transform India into a digitally empowered society and knowledge economy (Digital India, n.d.a). The initiative introduced changes to governance models in public organizations. As noted in the policy brief, "Digital India aims to provide the much-needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming Government through Technology…" (Digital India, n.d.b). For example, de-monetisation was introduced to reduce corruption in the Indian public and private organizations and throughout the economy. These reforms have targeted both hard and soft government infrastructure: they have introduced changes to the public distribution system and provided digital access in rural India (Lele & Goswami, 2017). This has led to progress in some e-governance areas; for example, India was recently placed third in international rankings of government e-payments adoption (Jain et al., 2021).

Although the success of these policies has been critiqued (Lele & Goswami, 2017) and in many cases, it is yet to materialize (Jain et al., 2021), we would argue that structural changes in a country do take time to materialize and our case study provides some insights into how these changes can be further strengthened in the Indian context as well as in other countries with similar public organizations and structures.

Managerial implications

This case study provides practicing managers with an insight into the changes in an incumbent public organization in the context of an emerging economy. We point to the fact that the DMRC's transformational leadership and institutional entrepreneurship has led to the timely completion of the construction of Delhi Metro. Our study highlights the areas in which the corporation has introduced innovative changes both within

the organization itself and by means of its innovative mechanisms to deal with network partners. We believe that this paper will provide valuable information to managers from both the public and private sectors who want to generate and nurture institutional entrepreneurship within their organizational structures. It has been pointed out time and again that the great hindrance to growth in emerging economies is the lack of investment in public infrastructure development. This is compounded by the fact that the public organizations leading these projects are often inefficient, lacking both advanced technology and organizational skills to manage large infrastructure projects. Our case study highlights the importance of institutional entrepreneurship in introducing change in an organizational field. This has implications for practice. Our results also draw attention to the importance of bringing in foreign consultants in developing new organizational models. This provides opportunities for managers of companies in developed markets to engage with emerging economies.

Limitations

This study is not without limitations. One caveat to be aware of is that these observations could just reflect the institutional entrepreneurship and transformational leadership of a single public organization in an emerging economy – one that has high discrepancies of power relations in a situation of resource and financial scarcity. Also, the research is a single case study and the findings may not be generalizable. Hence, we believe more case studies would be required to generalize our findings. These cases could be from within India, to provide a more generalizable results for the Indian context, or these cases could be from other countries, either emerging or developed, in order to develop a more reliable theoretical framework.

Further studies could also apply our conceptual idea to other industries or sectors. Similarly, we focus on one public organization in this study, and future research could explore our conceptual idea in the context of private organizations (especially those that interface with public organizations), to observe whether our findings can be confirmed in this new context.

Though our study shows that transformational leadership and institutional entrepreneurship can drive successful outcomes in a large public infrastructure organization, the empirical methodology does not support the identification of the moderation or mediating effects of these factors. Future studies can engage in empirical analysis that can tease out the differences between the two factors considered in this paper and the magnitude of their effects on the outcomes. Also, the nature of our data limits sophisticated analysis like Structural equation modeling (SEM), which could consider relationships between observed and latent values in the data and examine linear causal relationships within a system of variables. We would encourage future studies to examine the relationship between transformational leadership and institutional entrepreneurship with quantitative data

and use the methodology that enables testing hypothetical relationships among theoretical constructs and the constructs and their observed indicators.

Despite limitations, we believe that our study provides an interesting insight into how public organizations can be leaders for change in the construction of a mass rapid transport system. We believe that detailed studies in other sectors could combine with the results of our study to provide learnings for managers and academics on a broader scale. Although our findings can be applied to other emerging economies that face financial and managerial inertia, we hasten to add the importance of taking national characteristics into account in any study of public infrastructure development.

Conclusion

This study looks at a dynamically changing public organization and the role of transformational leadership and institutional entrepreneurship in initiating and driving these changes. The research highlights that the role of transformational leadership and institutional leadership was critical to achievement of the timely completion of the construction of the Delhi Metro construction project. This can serve as an example for other organizational stakeholders and can help the public organization sector to achieve a new reputation for energy and innovation.

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Table 1. Information on data collection stages and interviewees

	Stage 1 & 3: data collection from the secondary sources		
March – September 2008 **March 2011**	DMRC official printed material as well as material from their website. Google search led to the collection of over 200 articles related to the DMRC's construction activities. The material was obtained from several independent English and Hindi-language newspapers and websites of TV news channels.		
	Stage 2: Interview Stage		
	Respondent	DMRC	Financiers	External contractors
October 2008	Top management	1		
	Middle managers	2		
	Low ranking employees	1		
March 2010	Top management		1	
	Middle managers		1	2

	Low ranking employees	5		3
January 2011	Middle managers	2		2
	Low ranking employees	5		5
October 2015	Observational visits and presentation of preliminary results of data analysis			
	Total	16	2	12

Source: Authors' compilation

Table 2. Data analysis and the emergence of the themes

Exemplary quotations	First-order codes	Second-order themes	Aggregate dimensions
Dr. E. Sreedharan, managing director, Delhi Metro, was appointed to the post because of an illustrious career with the Indian Railways.	Reliance on experience	Experience and leadership qualities	*Transformational Leadership*
He has a penchant for breaking the rules to achieve results and has a record of unimpeachable integrity (IE, 2003).	Effective leadership		
He used his authority to convince the authorities (Chief Minister of Delhi, Chief Secretary and the Transport Minister) that the project to be completed on time and budget would require that he be given full power to select his team and there would be no political or bureaucratic meddling in the project.	Direct engagement with policymakers	Encouraging innovative management practices	
Another manager noted that - "he would not tolerate any interference and talks of corruption and bribery in this organization."	Focus on talent and corruption-free practices		
The top management team, especially, the managing director, was vocally focused on the welfare of the employees of the DMRC as well as the contractors working on this project.	HR practices	Creation of institutional structures, cultures, practices, and routines	*Institutional Entrepreneurship*
Based on their study of the issues challenging other metro systems around the world, the DMRC had a strict no-beverages policy on these stations and train carriages (Siemiatycki, 2006).	Explore new practices		

"There are regular yoga classes and other meditation classes to take our focus away from work and focus on ourselves. This is important to promote physical and mental wellbeing."	HR practices	Implementation of institutional structures, cultures, practices, and routines	
Delhi became one of the few metro systems worldwide to achieve the voluntary International Standardization Organization (ISO) 14000 certification.	New routines		

Source: Authors' compilation

Table 3. Timeline of introduction of various changes within Delhi Metro Railway Corporation (DMRC) and organizational field

	1995	1997	1998	2000	2001	2002	2007	2008
Transformational Leadership	DMRC created	Managing director appointed, Managing Director select his team without political pressures	Employees learned time management and corporate culture via courses, managers made quick and independent decisions, Employees shared innovative ideas for change, Included worker welfare in contracts, Created litigation and conflict resolution mechanism, Change in worker management by external actors	Pacific consultants were hired to provide advice on this project, Foreign consultants were hired in areas where no local experts were available	Education courses in schools and colleges			Employees sent on Metro Technology and Management and transport engineering course
Institutional Entrepreneurship		New waste Management process, Lean	Speedy payment to contractors, Under spending monitored,			'Delhi Metro Railway Operation and	UKAS audit	

| | | organization with few layers of decision making, Created a corruption free and transparent environment for external actors | development time reduced by 3 years | | | Maintenance Act 2002', ISO 14000 certification | | |

Source: Authors' compilation