THE IMPACTS OF INFRASTRUCTURE PPPs ON PUBLIC SECTOR CAPACITY

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Abstract

Infrastructure PPPs have been shown to overcome public sector capital and capacity constraints in the short term, and therefore, increase the viability of desired infrastructure projects. Their long-term impacts on the capacities of governments have, however, not been considered as explicitly. This paper explores this issue through a review of literature on "public sector capacity," the changing role of government, public sector contracting, and outsourcing in the private sector. Our review reveals two broad areas of impact: (i) impacts on the role of the public sector and the functions that it needs to perform, and (ii) impacts on the capacity embedded in the human, organizational and institutional levels of the public sector. While the prior group of impacts have been studied quite comprehensively, we identify a number of important questions remain in the latter group.

Introduction

The pivotal role of civil infrastructure in enhancing public health and accelerating economic growth has been widely acknowledged in the literature. It thus remains a central part of development initiatives in both developed and —more significantly— developing countries. Responsibility for infrastructure development has historically alternated between private and public provision. Providing civil infrastructure has largely been the responsibility of the public sector worldwide during the last century, particularly for water supply and roads.

In many countries, infrastructure development has been hampered by two broad public sector constraints: lack of public capital; and lack of public sector capacity.

Lack of public capital: Many countries lack the ability to access financial markets, either because their formal economies and polities are underdeveloped, or because they lack the required creditworthiness to finance themselves in the international capital markets for a variety of other reasons (including economic and political instability and lack of transparent legal systems that afford protection to investors' property rights). In contrast, many wealthy developed countries have large formal economies and well developed polities. However, widespread anti-tax sentiments have made it difficult to fund new infrastructure, and impossible to maintain and upgrade existing, often crumbling, infrastructure.

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Lack of public sector capacity: Governments might also lack the resources and specialized expertise (e.g. financial and managerial skills) to develop, manage and operate infrastructure assets. This lack of institutional capacity is compounded when governments undertake especially large and complex projects. In addition this constraint leads to inefficiencies in the operation and maintenance of infrastructure. If we further include both institutional and political aspects of the public sector under our definition of capacity, this second constraint negatively impacts the first constraint (lack of capital) defined above.

To address these capacity gaps, governments have increasingly moved toward sets of arrangements involving differing degrees of private participation in financing, developing and managing of infrastructure assets over the last two or three decades. These new contractual arrangements for infrastructure delivery have generally been termed Public Private Partnerships (or PPPs).[3]

Infrastructure PPPs have been shown to overcome the two public sector constraints identified above in the short term, and therefore, increase the viability of desired infrastructure projects. Their long-term impacts on the capacities of host country governments have, however, not been considered as explicitly. A specific concern is that PPPs increasingly deliver functions traditionally provided by the public sector, so they could have the net effect of diminishing domestic human capital in service provision. This long term reliance on PPP managers (often expatriates in the case of developing countries) can lead to growing dependence on the private sector for providing managerial capacity. An alternative hypothesis is that PPPs, if set up to involve and train government officials appropriately in the course of the project, could increase human capital, transfer standard operating procedures, and otherwise increase a host government's institutional capacity for providing its infrastructure.

The remainder of this paper explores this issue in the context of infrastructure delivery. In doing so, we turn to the literature on "public sector capacity"[4] to identify two broad typologies of capacity: (i) defining capacity in terms of the functions that the public sector executes, or (ii) defining it in terms of the level at which it is found in the public sector. We investigate the possible impacts of PPPs on each of these dimensions of capacity, drawing on recent findings from the literature. We conclude with a number of suggestions for future research.

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[3] Other terms have included "Private Sector Participation" or PSP, and "Performance Based Infrastructure" or PBI (as popularized by the Schwarzenegger Administration in California).

[4] A number of different terms are used, including "institutional capacity," "public sector capacity," "public managerial capacity," and "public sector capability." We will stick to "public sector capacity" for the purposes of this article.

Capacity embedded in public sector functions

This first approach taken by authors who study public sector capacity, is to view it in terms of the functions delivered by the public authority.[5] Although these definitions are greatly biased by the type of public sector authority they consider[6], our comparison in Table 1 identifies three broad types of capacity: strategic capacity, executive capacity, and political (or institutional) capacity.

Table 1 – Functional classification of capacity

Functional area	Lindley (1975)	Howitt (1977)	Grindle (1997)	Polidano (2000)
Strategic capacity	Ability to choose which ends to pursue	Ability to identify problems, and to develop and evaluate policy alternatives to deal with them	Ability to set coherent economic strategies	Ability to deliver policy advice to decision makers
Executive capacity	Ability to take actions to achieve the ends being pursued	Ability to operate government programs	Ability to manage economic strategies	Ability to implement policies
			Capacity to administer infrastructure and supply public goods	Ability to deliver services
Political capacity			Ability to uphold "rules of the game", mediate conflict, respond to citizens, provide for participation	

The recent increased involvement of private parties in service delivery has however meant that the role of the public sector is undergoing significant changes. Scholars in public management have popularly referred to this as moving government focus from "rowing" (service delivery) to "steering" (policy decisions) (Osborne and Gaebler, 1992) under the reform movement generally known as the "New Public Management" (Hood, 1991). As Kaul (1997) put it, the role of government shifts from "a concern to do, toward a concern to ensure that things are done" through collaboration with other actors. The responsibility of ensuring that a service is performed is therefore separated from the actual performance of the service (Savas, 1987). The former has been termed "provision", while the latter has been referred to as "production" (Ostrom, et al., 1961).[7] The new role therefore calls for an expansion (or strengthening) of "provision" functions, as governments seek to coordinate more

[5] Our focus here is only on the executive branch of government. Although this might include input into the judiciary and legislative branches, these parts of government are outside the focus of this paper.

[6] Lindley (1975) considered the public sector in general, Howitt (1977) focused on Local Government, Grindle (1997) was more concerned with the public sectors of developing nations, while Polidano (2000) highlighted the functions of the executive branch of government.

[7] Other variations include: "indirect provision" and "direct provision" (Batley and Larbi, 2004), and "management" and "production" (Brown and Potoski, 2006).

complex networks of actors (Peters and Pierre, 2002). The reasoning is that, because "production" of services is no longer necessarily delivered in-house, "provision" entails a host of expanded functions that seek to stimulate and orchestrate "production" success (Salamon, 2002).

Van Slyke (2003) brings this new role into the context of public sector capacity (what he terms "public management capacity"), when he proposes it requires the public sector to fulfill the following functional roles: contract management, negotiation, bargaining and mediation, oversight and program auditing, and aspects of communication and politics.

So turning back to our functional typology of public sector capacity, we can identify impacts from the increased use of PPPs on each of the functional aspects of public sector capacity.

Strategic capacity

The use of PPPs require that a public sector agency is able to choose which services to expose to private participation, and to decide which type of arrangement to use (Brown and Potoski, 2006). In addition Mody (1996) suggests that the involvement of private companies in infrastructure delivery necessitates that the activities, that are by their very nature open for competition, be separated (or "unbundled") from those that remain as "natural monopolies." The former can then be supplied through the market, while the latter will first need to be tendered competitively, and then be subject to continued public regulation. This is best done through a process that is "well-specified, inclusive, and ideally has some independent checks on the decisions—preferably by an office or organization with little to gain from the decision" (Wallin, 1997). The successful use of PPPs therefore requires new levels of strategic capacity, both for choosing the service and delivery vehicle, and to execute the unbundling process.

Executive capacity

Clearly this is the area of capacity that is most affected by the increased use of PPPs. The new role requires that the public sector is able to "orchestrate" a new network of players and stakeholders (including local and transnational NGOs) involved in service delivery. The public sector must be a "smart buyer" of services (Van Slyke, 2003) by being able to formulate contracts, tender them, evaluate different proposals, negotiate and bargain with the preferred bidder, and then roll out the appointment. In addition, the new role requires regulatory capacity from the public sector – in the form of contract management, oversight, and auditing – to ensure the benefits of private provision are retained for the benefit of the public throughout the contract, and that private providers are treated equitably. In particular, the setting of tolls, water and power rates and other kinds of user fees or availability fees pits public interest against private concerns.

Political capacity
Lastly, using PPPs can impact the political capacity of the public sector in two ways. On the one hand it greatly complicates the political and institutional environment for public service delivery, which Wallin, 1997) describes as "bureaucratic intransigence, union opposition, and partisan politics." Increased private sector involvement therefore requires the "necessary communication and political skills to manage programs with third parties in a complex political environment" (Van Slyke, 2003). In addition, the use of PPPs requires a supportive institutional environment to attain full public benefit (Mody, 1996). This includes functional financial markets (for financial accountability) and the political context that stimulates private (both local and international) investment.

In a number of countries the aforementioned capacities have been centralized in coordinating bodies, often referred to as "PPP Coordination Agencies." The benefit of centralizing these functions into one autonomous agency is that they "provide a consistent approach to involving the private sector in the evaluation, financing, procurement, maintenance, operation, and disposition of infrastructure assets" (Farrugia, et al., Forthcoming). In many cases these agencies are mandated to take an even wider role in promoting the use of PPPs, working with the other parts of the executive branch of government to identify and roll-out feasible projects (PPIAF, 2007). The role of these agencies is therefore predominantly focused on increasing the public sector's "strategic capacity" and "political capacity" while supporting the "executive capacity" of the executive branch.

Capacity embedded in the public sector level

Batley and Larbi (2004) provide a model definition for the second typology of public sector capacity, when they define capacity as "the factor that explains human performance within a given organizational framework and institutional environment." This approach recognizes capacity as being embedded in different levels of the public sector, and even beyond it, at an institutional level.

From our comparison of the literature on capacity in terms of public sector level in Table 2, we deduce three broad levels of capacity: (i) capacity embedded at the human level in the skills and capabilities of public sector employees; (ii) capacity at the organizational level contained in processes, structures, management systems and relationships; and (iii) capacity at an institutional level, consisting of both the rules, norms and standards of the public context, as well as the macroeconomic and political environment.

To date, the impact of PPPs (specifically for infrastructure provision) on public sector capacity at each of these levels has not been considered in the literature. However, a large body of extant literature analyzes the impacts of private provision of other public services, such as waste removal, recreational area management, and various social services.[8]

Table 2 – Level classification of capacity

<table>
<tr><th>Level</th><th>Grindle and Hilderbrand (1995)</th><th>Grindle (1997)</th><th>Franks (1999)</th><th>Levy (2007)</th></tr>
<tr><td>Human level</td><td>Human resources – the capacity of the individual public sector employees</td><td>Supply of professional and technical personnel</td><td>Human resource development</td><td rowspan="2">Service provision capability</td></tr>
<tr><td rowspan="2">Organi-zational level</td><td>Organizations – the structures, processes, resources, and management styles of public sector organizations</td><td rowspan="2">Management systems to improve performance of specific tasks and functions; micro structures</td><td rowspan="2">Strengthening of managerial systems</td></tr>
<tr><td>The task network – the set of organizations involved in accomplishing a given task.</td><td>Bureaucratic capability: both financial and administrative capability</td></tr>
<tr><td rowspan="2">Institu-tional level</td><td>Rules and procedures set for the public sector, and the financial resources at its disposal (institutional context)</td><td rowspan="2">Institutions and systems; macrostructures</td><td>Institutional development, including community participation.</td><td>Investment climate</td></tr>
<tr><td>Economic, political and social milieus in which governments carry out their activities (action environment)</td><td>The creation of an enabling environment, with appropriate policy and legal frameworks</td><td>National checks & balances institutions; public attitudes toward private sector involvement in infrastructure</td></tr>
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In addition, the findings of the extensive literature on the impacts of "outsourcing" by private companies (mostly focussed at the organizational level) are also applicable to both the human and organizational levels. Contracting (or outsourcing) in this context is often viewed as the "disintegration" of non-core services to increase organizational focus, free up assets, and reduce costs (Harland, et al., 2005). Although there are many parallels, the impacts of outsourcing do differ from those of PPPs in a number of respects, including: PPPs are not aimed at increasing government competitiveness, the delivery of PPPs services remain in the host country (outsourcing often takes delivery abroad), arguments of scale economies of suppliers is less relevant for PPPs, and the social and political implications (including issues such as public perceptions, political legitimacy, and social welfare) of PPPs are considerably greater. Still, this research is helpful for our current study.

We consider these two research streams in terms of the three capacity levels identified above.

[8] Private participation in this context is generally referred to as "contracting" or "privatization." We will stick to the former term.

Human level

A number of authors have found that contracting in the social services sector decreases public sector capacity by reducing public staffing levels and hence public sector human capital (Lawther, 1999; Milward and Provan, 2000; Van Slyke, 2003). This finding is unsurprising, as a reduction in the functions delivered by governments should lead to fewer staff being needed. In many contracting arrangements private providers re-employ the public employees who used to deliver the service. But even in these cases, their numbers are soon cut in pursuit of increased efficiency. However, if we focus more broadly than just on public service delivery capacity, contracting has been found to increase the managerial capacity of public authorities, as these arrangements allow public managers to focus more closely on their organization's core activities (Van Slyke and Hammonds, 2003).

The increased interaction of public and private players has also often been suggested to increase the likelihood of skilled public workers being "poached" or "siphoned off" to these private companies (see for instance UNDP, 1993). Cohen and Wheeler (1997) however found that the rate of retention of highly-qualified staff in Kenya was much higher than anecdotally suggested. More work is obviously needed to clarify the possible relationship between the use of PPPs and public sector staff employment and retention.

Organizational level

At an organization level, it has been suggested that the newly injected management capabilities of vendors may actually offset any loss in capacity experienced by the public authority (Brown and Potoski, 2006). Public agencies also address capacity shortfalls by "buying in" management expertise (Ibid.), but this remains a short-term solution, and these agencies need to address this shortfall to avoid long-term private sector dependence. It is interesting to note that Milward and Provan (2000) suggest that it is important that public agencies become not only buyers of services, but still continue to "produce" some services themselves. The reasoning is that producing some services helps the public authorities stay apprised of what the costs of production are, thereby enabling them to identify instances of overcharging or price-fixing by private providers.

Turning to the outsourcing literature, it has often been suggested that outsourcing increases organizational flexibility to meet the challenges of a changing business environment (see for instance Gilley and Rasheed, 2000). However, in-line with our discussion on the changing role of government, outsourcing in the private sector has been found to increase supply network complexity and therefore invariably requires increased managerial capacity from private firms that are outsourcing (Cox, 1996; Harland, et al., 2005). In addition, excessive contracting could lead to "hollowing out" at an organizational level which reduces the organization's capacity to learn (Lei and Hitt, 1995), and leads to declining innovation (Kotabe, 1990).

Institutional level
At an institutional level it has been suggested that delegating authority for service delivery to non-governmental organizations might lead to a loss of the political legitimacy of "government action accomplished at arms length", specifically if the contract management of service delivery is also included (Milward and Provan, 2000). Public perceptions on the legitimacy of private firms providing public goods (such as water supply), further compounds these impacts. However, if the involvement of private providers increases the level of service provided to the public at reduced —or at least "reasonable"— costs to consumers of the service, the involvement of private providers could lead to increased political legitimacy.

Harland, et al. (2005) further suggest that extensive contracting (what they term "outsourcing") might lead to an erosion of the power of the public sector as it "creates powerful players who assimilate many independently arranged outsourcing contracts." However, they also propose that the objectivity brought by private providers might serve to challenge cultural constraints, established taboos, and entrenched attitudes, bringing in new creative ideas. This difference in institutions between the private provider and the public sector might however also lead to increased conflict (specifically in the case of non-local providers) if these institutional aspects are ingrained at a societal level.

Unfortunately the impacts on other aspects of the institutional environment, such as creditworthiness or corruption, have not been addressed in the literature. In addition, the interesting link between local government capacity and social capital (Wallis and Dollery, 2002) suggests that the impact of PPPs on social capital also merits investigation.

Conclusion and remaining questions

Our review of the impacts of PPPs on public sector capacity has revealed two broad areas of impact: (i) impacts on the role of the public sector and the functions that it needs to perform, and (ii) impacts on the capacity embedded in the human, organizational and institutional levels of the public sector. While the prior group of impacts have been studied quite comprehensively, a number of important questions remain in the latter group. These include:

1. At the *human level*, more work is needed to clarify the relationship between the use of PPPs and public sector staff retention. We would expect that the increased contact of public employees with private companies (who typically offer superior compensation packages for highly skilled and motivated employees) would lead to a transition of the best public workers to these companies. However, the impact of simplified work scope and civil service protections of public managers might offset the pull from the private sector. In addition, the economic impact of increase project flow might also impact the public sector employment conditions in the long run. In addition to staff retention, however, the possibility of skills transfer between private and public players also merits further work.

2. The impact of increased PPPs on capacity at the *organizational level* is largely contained in the changes to the role and functioning of the public sector. However, impacts on the work processes, technology employed, and management styles of public authorities warrant additional study.
3. In terms of the *institutional level*, research is needed to explore the impacts of PPPs on various institutional capacity dimensions, such as corruption, creditworthiness, and social capital. There are credible arguments for ways in which each of these dimensions can be affected both positively and negatively by the use of PPPs.

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