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# Development of Public Sector Client Capabilities within the Context of New Public Management

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#### DEVELOPMENT OF PUBLIC SECTOR CLIENT CAPABILITIES WITHIN THE CONTEXT OF NEW PUBLIC MANAGEMENT

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#### ABSTRACT

Around the world, Governments are charged with delivering various services, including infrastructure, to the citizens whose taxes support them. Within the democratic countries of the developed world, the past 30 years have seen significant changes in how the public sector is organized to provide these infrastructure assets. These changes have been driven, in no small way, by wider public sector reform and ideas of New Public Management (NPM). NPM could usefully be understood as the development of an explicitly managerial approach to public administration, which espouses borrowing from private sector practice to improve the delivery of public services. Despite the adoption of NPM practices by the public sector clients with expectations of improved project outcomes, the evidence suggests otherwise. Infrastructure projects are fraught with poor delivery outcomes. Research in project management has emphasized the importance of a 'strong owner' to the success of projects. This paper takes as its point of departure that public sector clients charged with infrastructure acquisition need to be strong owners. The argument is made to the effect that NPM practices make it difficult for public sector clients to act as strong owners. We suggest that in order for these public sector clients to be strong owners they need dynamic capabilities, i.e. the ability to undergo change by making use of internal resources. Theoretically we link the wider debates within the domain of New Public Management with that of public sector clients involved in infrastructure delivery. We also contribute to the limited literature on public sector clients within the project management domain.

**KEYWORDS**: public sector client, infrastructure development, client capabilities, dynamic capabilities, new public management.

#### **INTRODUCTION**

Around the world Governments are charged with delivering various services to the citizens whose taxes support them. An aspect of delivering these services is that of infrastructure asset provision, which is crucial for a nation's competitiveness, economic development and social well-being (World Economic Forum, 2014). These infrastructure assets are varied; ranging from transportation infrastructure, large information systems, hospitals, to defence systems among others. In the democratic countries of the developed world, the past ~30 years have seen significant changes in how the public sector is organized to provide these infrastructure assets. These changes have been driven in no small way by wider public sector reform and ideas of New Public Management (NPM). NPM takes on different meanings and diverse manifestations, but could usefully be understood as the development of an explicitly managerial approach to public administration, which espouses borrowing from private sector practice to improve the delivery of

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public services. Core to this development is the belief that improvement in efficiency and productivity and higher overall quality of the provided public service can be achieved through increased flexibility and an emphasis on measurable results. Associated reforms have thus tended to encapsulate: corporatization and privatisation of public services; splitting the purchaser from the provider and 'contracting out'; the formation of autonomous agencies ('agencification'); downsizing and an increased reliance on contract staff; and the use of performance indicators, output controls and quality assurance exercises. These developments have led to public sector clients that, although their exact remit and autonomy invariably differ, commonly have little or no production capacity of their own, and are charged with executing projects on the basis of political decisions and set budgets.

Despite the adoption of NPM practices by public sector clients and the expectation of improved project outcomes the evidence suggests otherwise. Infrastructure projects are still fraught with poor delivery outcomes; consistently exceed budgeted time and cost, fail to deliver expected benefits; and do not meet the demands for which they were built for (Flyvbjerg, 2011; Flyvbjerg et al., 2003) Not surprisingly, therefore, these public sector clients are, increasingly, being questioned regarding their ability to deliver value for money. This paper takes as its point of departure that public sector clients charged with infrastructure acquisition and delivery need the capability to manage the projects they promote. We argue that NPM leads to a thin and hollow public sector client thereby affecting its ability to develop project capabilities and achieve desirable project outcomes. Based on a review of the literature we establish the importance of a strong owner for the successful delivery of infrastructure projects and argue that adoption of NPM practices makes it difficult for the public sector client to act as a strong owner. This, it is suggested, is due to NPM's emphasis on a thin client and the use of market mechanisms. We propose that the concept of dynamic capabilities, which explains how organizations modify their resource base, could be usefully applied to understand how public sector clients can become strong owners.

The paper, which is conceptual in nature and based on a literature review, starts by reviewing the concept of New Public Management (NPM) and how it has affected the organisational design and delivery mechanisms of public sector clients' organizations. NPM has led to a split in large monolithic public sector organisations and the use of market mechanisms with the belief that it will lead to better outcomes in terms of efficiency, productivity and higher overall quality. What the literature shows is that NPM has had unintended consequences, as it has led to public sector organizations that are thin in terms of resources and hollow in terms of institutional memory and capacity; and as such are unable to effectively deliver projects. We next review the literature on infrastructure outcomes and present an argument for the forming of a strong owner. Here we argue that despite the adoption of NPM practices with the expectation of improved project outcomes, the evidence suggests otherwise as project outcomes are still far from satisfactory. Prior research suggests that in the majority of cases, project owners are the cause of such poor delivery outcomes and as such there is the need for owners to become strong owners to ensure successful project delivery. We subsequently introduce an owner project capabilities framework where a strong owner is conceptualised from an organizational capabilities perspective. We suggest that the core tenets of NPM make it difficult, if not impossible, for public sector clients to bring in extra resources and develop owner project capabilities needed to become strong owners. The paper concludes by suggesting that NPM practices prevent public sector clients from becoming strong owners and performing various

roles and responsibilities. In becoming strong owners however, public sector clients need not become a one stop shop that has all the capabilities in house. Rather, it is more a case of knowing what type or scope of capabilities they may need on projects, knowing how it can be developed, and developing the capability skill set.

#### NEW PUBLIC MANAGEMENT

Historically, in the democratic countries of the developed world, government organizations charged with the delivery of projects (henceforth called public sector clients) have taken the form of large monolithic bodies or entities. In delivering infrastructure, these monolithic units undertook a wide range of functions such as the design, specification, management and sometimes the actual production of infrastructure. However, the past ~30 years have seen significant changes in how the public sector is organized in terms of infrastructure provision. There has been an increasing shift in the organizational design and modes by which they procure and deliver projects. In terms of procurement and delivery methods, adopted approaches include: Design and Build; Private Finance Initiatives; Public Private Partnerships; Outsourcing of works to other partners to deliver; and engaging in collaborative contracts (alliances, frameworks, partnering arrangements etc.), among others. These changes in respect to how infrastructure is delivered have been driven largely by wider public sector reforms and ideas of New Public Management (Hood, 1991; Larbi, 1999). The implementation of these reforms within the public sector has had an effect not only on how projects are procured and delivered, but also on the structural, organizational and managerial aspects of public sector clients (Larbi, 1999). For instance, in terms of organizational structure the adoption of ideas of New Public Management (NPM) has led to the splitting up of large monolithic public sector organizations. There is now a differentiation between the entities that define and pay for procuring services and those that actually provide for them, i.e. a distinct difference between the purchaser and the provider (ibid). Additionally, there has also been a shift from the traditional bureaucratic, hierarchical and centralized structures of organizations in the public sector to ones that are more decentralized, devolved, make use market of based mechanisms, and manage tasks by outcomes rather than procedures or processes.

New Public Management (NPM) as a concept takes on different meanings and diverse manifestations, but its origin is based on a set of assumptions that the public sector could be designed, organized and managed in a business-like manner to achieve effectiveness and efficiency (Diefenbach, 2009). NPM may be usefully understood as the development of an explicitly managerial approach to public administration, which espouses borrowing practices from the private sector and making use of market mechanisms to improve the delivery of public services. This broad perspective of NPM is underpinned by a set of core assumptions. It is believed that managers in general are competent and highly skilled individuals, but are unable to perform or deliver within the public system due to a dysfunctional and bureaucratic system that limits their ability to perform. Also, it is suggested that competition in a market-like environment produces better outcomes; and that private sector technology and practices are more efficient and superior to that in the public sector (Terry, 2005). As a result, organizations within the public sector that make use of NPM are expected to have little to no production capacity, but rather make use of markets and competition (e.g. competitive tendering, and contracting); and managerial mechanisms that entails flexibility and specifying performance indicators to achieve

its objectives. The general belief being that the use of such mechanisms will lead to better outcomes in terms of efficiency, productivity and higher overall quality (Diefenbach, 2009).

Although NPM takes on diverse manifestations, and is expressed in different ways in various jurisdictions, NPM users have similar end goals in mind. Governments making use of NPM have mainly sought to achieve economic efficiency and budgetary control, save money, derive value for money for tax payers, lower cost of undertaking tasks and achieve higher overall quality (Eakin *et al.*, 2011). These end goals are pursued in diverse ways. Hood (1991) suggests that the diverse manifestations of NPM are expressed in one or more of seven identified doctrines. These are: a hands-on professional management in the public sector by having named persons with greater responsibility undertaking management; explicit standards and measures of performance so as to have objective and measurable results; greater emphasis on output controls to shift focus on results than procedures; shift to disaggregation of units in the public sector; shift to greater competition in the public sector by use of term contracts and public tendering procedures; stress on private sector styles of management practices such as greater flexibility in hiring and rewards, greater use of PR techniques; and stress on greater disciplinary and parsimony in resource use (*ibid*).

In pursuit of its objectives under NPM, the public sector organization makes use of various concepts that are subsets of the identified doctrines. These concepts include: decentralization, disaggregation, downsizing, outsourcing and an increased reliance on contract staff among others (Kettl, 2000, pp. 1-2). Decentralization, for instance, involves giving autonomy or semi-autonomy to the front line managers of various (sub) units so as to reduce or break bureaucracy in the public service, as well as lead to faster decision times. Disaggregation involves the breaking down of traditionally huge and monolithic public bureaucracies into more autonomous business units or executive agencies. These autonomous units or agencies are subsequently encouraged to undertake tasks by contracting out to other government departments/bodies or the private sector in the belief that competition and the use of the private sector improves productivity and efficiency. In terms of downsizing, public sector organizations have been trimmed in size in order to achieve a 'leaner' (smaller or more compact) and 'meaner' (cost-effective) public service. This has mainly been by way of hiving-off operational arms of government to form autonomous agencies and sub-contracting government activities to private providers, as well as retrenchment of staff (Larbi, 1999).

#### **EFFECTS OF NPM ON CLIENTS**

Primarily, NPM reforms advocate for a reduction in the size of the public sector and the maintenance of a thin organization in order to save or reduce direct costs. Due to this approach, and the argument that the private sector is more effective than the public sector, substantial portions of the public sector client's role on projects have been transferred to the private sector; with the public sector client performing a more observatory or managerial role. The private sector, it is argued, has the relevant expertise and experience in achieving efficiency and excellence as compared to the public sector and as such should undertake actual production. In consequence mechanisms such as privatization, devolution of functions, decentralization, outsourcing, contracting, and disaggregation have been used in this regard to pursue objectives of efficiency, effectiveness and quality from the private sector (Eakin *et al.*, 2011; Terry, 2005). The public sector client, on the other hand, performs a role that is managerial in nature by

establishing and focusing on measurable indicators and tangible outcomes, rather than engaging itself in any problem solving, as all risks are usually transferred to the project supplier (Eakin *et al.*, 2011; IPA, 2016). In effect, the focus of the public sector client is more on the 'end' result than the 'means' to achieve the results.

As we will argue below the intended effect of NPM on efficiency, effectiveness and improvement in project delivery outcomes has not been fully realized. Rather, it is the case that NPM has had unintended consequences for these public sector clients. The focus on privatization, devolution of functions, decentralization, outsourcing, contracting, and others, has led public sector clients to hiving off various units of the organization, resulting in a much smaller size of client with reduced roles and functions. The reduction in size, the use of the private sector and the reduced roles, has in general led to a public sector organization that is thin in terms of resources and hollow in terms of institutional memory and capacity (Eakin et al., 2011). A thin institution (or organization) lacks integrity, defined as "the overall strength and soundness of an institution's regulative, normative and cognitive systems that provide stability and meaning to social behaviour" due to the erosion and the resulting weakening of its regulative, normative and cognitive systems (Terry, 2005, p. 435). An increasingly hollow public sector organization characterized by thin administrative institutions is more or less fragile and lacks the integrity and capacity to effectively deliver projects. The evolution in the design and roles of these public sector client based on adoption of NPM principles is succinctly captured per the quote below:

"What has happened here over the last 25 years, and indeed in most western jurisdictions, is that there's been a very strong trend to outsource project leadership to the consultancy sector – and that means you're also outsourcing knowledge. At the end of the project, the contractor will walk out with the money and the knowledge." (Saïd Business School, n.d.)

# INFRASTRUCTURE DELIVERY OUTCOMES AND THE NEED FOR STRONG OWNERS

It follows from the above that NPM has had a marked influence on how the public sector is organised and delivers its infrastructure. Public sector clients have been redesigned with the expectation that the new organisational forms will lead to the attainment of value for money on projects, achievement of efficiency, higher overall quality, provide the needed benefits for which projects are undertaken as well as a general improvement in project outcomes. The evidence on project delivery outcomes, however, suggests otherwise. Consistently major, irrespective of jurisdiction, have found that projects exceed budgeted cost and time, fail to deliver expected benefits and do not meet the demands for which they were built for (Flyvbjerg, 2011; Flyvbjerg et al., 2003; Merrow, 2011; Miller and Lessard (2001); Morris and Hough, 1987). Indeed, the evidence is seemingly overwhelming. For instance, in a study of 1,653 major projects, Morris and Hough (1987) found that only 35 of the projects came on or under budget, whilst the rest had significant cost and schedule overruns. Studies undertaken in the past 30 years show similar results. For example, Miller and Lessard (2001) in a study of 60 Large Engineering projects found that 18% of the projects did not meet their cost targets, whilst 28% failed to meet their schedule targets, with 40% of the projects performing poorly. A 2001 review of projects by the UK National Audit Office showed that 70% of the projects reviewed were over budget and schedule (NAO, 2001, p. 3). In general, poor project delivery outcomes are the norm rather than the exception and a large percentage of projects are expected to exceed budgeted cost and

schedule. Quite clearly, despite the adoption of NPM mechanisms to improve efficiency, productivity, and quality, cases of successful project delivery – built on budget, on time and delivering the promised benefits – seems to be the exception rather than the norm (e.g. Flyvbjerg, 2011; Flyvbjerg, 2014).

In the wake of increasing awareness of poorly performing projects comes a noticeable trend of the public sector clients charged with project delivery being questioned regarding their ability to deliver value for money. This is in spite of the fact that they have little production capacity; reduced resources; and perform mainly observatory and managerial roles. Key issues they are questioned on include the lack of appropriate levels of procurement skills that will allow them engage with its private sector supply partners on equal terms; sub-standard efficiency and productivity in the production phase; and unnecessarily large organizations with high administrative costs (LEGCO, 2014; NAO, 2009, 2010, 2012). In effect, they are expected to do more with less - experiencing budget cuts, having a smaller size or thin organizations and receiving fewer resources.

Primarily as a result of the poor delivery outcomes of projects and the quest for better project outcomes, there have been various studies to investigate the inherent causes of such failures and how desirable project outcomes could be achieved. An influential study in this regard is the work by Bent Flyvbjerg and colleagues (see Flyvbjerg, 2011; Flyvbjerg et al., 2003; Flyvbjerg et al., 2009). They argue that the major causes of poor project outcomes have to do with optimism bias and strategic misrepresentation of projects. Optimism bias relates to delusion within public sector clients, where an organization overestimates its abilities to undertake projects; whilst strategic misrepresentation relates to deception or lying in order to get the project approved for execution. However, these two concepts have a higher degree of explanatory power in economic infrastructure than in social infrastructure, and it remains the case that many projects experience cost and time overruns without optimism bias or strategic misrepresentation being present (Love et al., 2012). Other studies have instead identified factors such as the inability to manage the front-end definition; the failure to properly drive the project; the inability to shape strategy and cope with political economic and social turbulence of outside institutions; failure to manage or influence project 'externalities' among others (e.g. Merrow, 2011; Miller and Lessard, 2001; Morris, 2013; Morris and Hough, 1987). What these findings suggest is that the causes of project failures lay in areas that are usually within the remit of the project sponsor (owner) rather than that of project execution by the contractor. The inability of project owners to perform certain roles and functions required is a major cause of such poor delivery outcomes.

The importance of project owners to the successful delivery of projects has been known for a long time. Morris and Hough (1987) proposed the concept of a 'strong owner' capable of performing certain roles and functions as a dimension of project success. This strong owner concept has since been reinforced by Merrow (2011) based on research in the oil and gas industry. He advocates for a strong distinct owner team that will be able to interface authoritatively with the supply side and specify the right project. A strong owner should be capable, or have the capabilities, to perform certain roles and functions on the project. This means being able to use combinations of skills, knowledge, competences, resources, routines, and behaviours to perform set of roles and functions in the organization. However, the most obvious way of achieving this, i.e. adding resources, goes against the core tenets of NPM. Therefore, a different approach to conceptualising the strong owner in the public domain is necessary.

#### ORGANIZATIONAL AND OWNER PROJECT CAPABILITIES

Public sector clients by their nature are both owners and operators of infrastructure assets. Their core concern is that of operations and maintenance of completed infrastructure projects; such as ensuring the regular supply of energy or power, ensuring roads are in good condition for transportation purposes, regular supply of water etc. (Winch, 2014). Hence, the core capabilities of these public sector clients, for which they maintain resources, are operational and focused on the operation and maintenance of completed infrastructure assets. It is, however, the case that these public sector clients engage in the delivery of infrastructure projects on periodic basis as the need for them to extend their infrastructure base arises. This may be due to ongoing business concerns such as the need to grow, perceived inadequacies in existing infrastructure, or policy initiatives (Winch, 2014). To do so, they are required to: define the project thereby delineating its scope and specifications; procure and manage project suppliers to ensure project is delivered to specifications; set up internal control measures to ensure the project is completed within budget and schedule; and integrate the completed infrastructure into existing operations. These roles, among many others, may be viewed within an organizational capabilities perspective, as capabilities show what an organization is able to do. Infrastructure projects, temporary in nature, are fundamentally about change in the client organization, as they either extend in scope the existing operational capabilities or create new ones to meet new challenges. As such, it is possible to view the public sector's client ability to mount temporary projects by making use of its internal resources through a dynamic capabilities perspective.

Dynamic capabilities, defined as "the capacity of an organization to purposefully create, extend, or modify its resource base" (Helfat et al., 2007, p. 4), explains how organizations renew competences and undergo change in order to achieve congruence with changing environmental and business conditions (Teece et al., 1997). In general, organizations renew their competencies, develop new capabilities and undergo change by modifying their resource base – the tangible, intangible and human assets the organization owns, controls or has access to on preferential basis and enables it undertake its activities or routines (Helfat et al., 2007). This ability to purposefully create, extend, or modify the resource base is very much dependent on the 'managerial' and 'organizational' processes available to the organization, as these are the mechanisms by which organizational processes are strategic routines such as resource integration routines, resource configuration routines, routines to gain and release resources, and exit routines, which are used to undertake the change processes and develop new capabilities (Eisenhardt and Martin, 2000)

Public sector clients and public sector organizations in general are subjected to changes in the environment within which they operate. These changes have many origins but may be caused by, for example, frequent policy changes from the government, the coerced use of new procurement methods, or the use of new methods of construction (Pablo *et al*, 2007). The core tenets of NPM which advocates a reduction to the resources and the sizes of these organizations suggest that these public sector clients will find it difficult, if not impossible, to bring in extra resources to enable them undertake change. Further, they are also unlikely to forgo all existing internal resources and bring in completely new ones to undertake change, due to the institutional memory and tacit knowledge embedded in existing resources and the need for continuity. An approach by which these public sector clients can become strong owners whilst adhering to the tenets of NPM is to internally modify existing resources in order to undertake change. Dynamic capabilities, which focuses on how organizations create new resource configurations using existing resources in pursuit of improved performance, thus offers itself as a useful theoretical lens for understanding how public sector clients can become strong owners. Dynamic capabilities enable the creation of new resource configurations in the organization and the creation of new thinking. The resource configurations created will be geared towards the performance of specific roles that a strong owner needs to perform on its projects.

Building on the works by Morris and Hough (1987) and Merrow (2011) and drawing on an organizational capabilities perspective, Winch and Leiringer (2016) sought to unpack the strong owner concept and developed it into a framework that captures the broad group of activities and roles that a strong owner organization needs to perform in respect of delivering infrastructure projects. In developing the framework, they considered how the project organisations involved in project delivery interact at their interfaces within the project organising domain (see Winch, 2014). This framework they dubbed as "owner project capabilities" (Winch and Leiringer, 2016). "Owner project capabilities" may be described as the ability of owner organization to mount or undertake projects and are made up of three conceptually distinct sets: of capabilities: 'Strategic capabilities, Commercial capabilities, and Governance capabilities (ibid). Strategic capabilities are those which the owner needs in order to successfully implement its investment projects and required at the strategy, or front-end stage, of a project. They include performing roles or engaging in activities such as: project selection, project definition, raising capital, stakeholder management, and project portfolio management Commercial capabilities are the set of capabilities needed to manage the interface between the owner organization and the project-based supplier firms responsible for the execution of project tasks. This capability set is mainly outward facing as it focuses on the interaction between the owner organization and project supplier(s). Activities performed include managing relationships with project suppliers; defining and packaging works to be undertaking by suppliers; identify, select and motivate potential suppliers to undertake a task at an optimal cost; and making use of appropriate contract mechanisms to engage suppliers. Governance capabilities are those needed to manage the interface between the owner organization and the temporary project organization involved in the project. Activities here focus on ensuring the appropriate selection of projects at the front-end, assuring relevant stakeholders of project progress; managing or coordinating the project during its execution so project stays on tack and to budget; as well as ensuring that projects upon completion is integrated into the existing operations of the operator to generate intended benefits.

Public sector clients in becoming strong owners need to be able to define and identify the specific set of capabilities they require and develop or build them. They need not develop all capabilities in-house, as history has shown that it is neither feasible nor desirable to establish large monolithic client organizations that are literally one-stop shops. Rather, they need to know the scope of the capabilities required based on the project being delivered in advance, and build or develop this capability set to deliver the project successfully. The construction and completion of Heathrow Terminal 5 is an example of an infrastructure project where a project owner acted as a strong owner (see Davies *et al.*, 2016) and in many respects achieved a successful outcome (Davies *et al.*, 2009). In undertaking the construction of the Terminal 5 project, BAA (the client)

identified the capabilities that it required to ensure the project would be delivered successfully. BAA subsequently created a client organization that focused on developing a capabilities set identified as essential for the delivery of the project. These capabilities were embodied in the T5 agreement as a set of flexible, adaptive and collaborative structures and processes that dealt with uncertain and changing conditions. BAA subsequently spearheaded and managed the project with the capabilities it had developed. Significantly, unlike many other Airport projects that had experienced delays and cost overruns, the T5 project was completed on time and to budget thus, signifying the importance of a project owner with the needed capabilities to manage its project (Davies *et al.*, 2016; Davies *et al.*, 2009)

#### **CONCLUDING REMARKS**

The introduction and adoption of NPM practices by public sector clients was, at least partially, in the expectation that projects will be delivered effectively, efficiently and to the required quality. However, the evidence on infrastructure projects suggests otherwise as project outcomes are still to a large degree unsatisfactory in terms of time and cost overruns. Conversely, NPM has had unintended consequence for these public sector clients which, in general, have become thin and hollow organizations that are increasingly lacking the technical capacity to deliver projects effectively and efficiently. This prevents them from performing the roles and responsibilities needed to become strong owners and in the process improve project delivery outcomes.

We argue that public sector clients need to be strong owners if they are to ensure the successful delivery of their projects. This entails them undertaking defined roles and activities from a broad range of owner project capabilities. NPM mechanisms which place emphasis on a thin client and the use of market mechanism, however, make it difficult for these public sector clients to be strong owners. From a dynamic capabilities perspective we suggest that public sector clients can develop the capabilities they need by making use of internal resources (which they use for their operational activities). Thus, rather than adding on extra resources, which goes against the core tenants of NPM, they can make use of existing resources to become strong owners. An importance aspect of this process is the owner organization knowing the type or subset of capability it will need in the long term, and the processes it needs to use to develop it. It is difficult, if not impossible, to have a client organisation that is literally a one stop shop. It is more a case of knowing what capabilities will be needed by the organization in the long term to manage its projects and modifying resources over time to develop the capability skill set - as illustrated in the case of BAA on its T5 project.

This paper has sought to link the wider debates in the public sector within the domain of New Public Management with that of the infrastructure development and delivery by public sector clients. We have argued that NPM practices has had an effect on the organizational design of these public sector clients and may have led to an organization that is lacking in technical capacity to deliver projects with the desired outcomes due to its thin and hollow nature. We also extend the research on public sector clients and infrastructure delivery into the wider debates in organization and management with emphasis on organizational capabilities. Further, we have also contributed to the limited literature on clients, especially public sector clients, within the project management domain and emphasised their importance to the success of projects. We readily acknowledge that further empirical studies are needed of public sector clients involved in infrastructure delivery to explore: the effect of NPM practices; what organizations are now doing to reverse negative trends; and how they develop dynamic capabilities when becoming strong owners.

The next stage of this study – part of a PhD research – will be to study how NPM has affected the organizational design and ability to develop capabilities of public sector clients in Hong Kong.

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## REFERENCES

- Davies, A., Dodgson, M., & Gann, D. (2016). Dynamic Capabilities in Complex Projects: The Case of London Heathrow Terminal 5. *Project Management Journal, 47*(2), 26-46.
- Davies, A., Gann, D., & Douglas, T. (2009). Innovation in megaprojects: systems integration at London Heathrow Terminal 5. *California management review*, *51*(2), 101-125.
- Diefenbach, T. (2009). New public management in public sector organizations: the dark sides of managerialistic 'enlightenment'. *Public administration, 87*(4), 892-909.
- Eakin, H., Eriksen, S., Eikeland, P.-O., & Øyen, C. (2011). Public sector reform and governance for adaptation: implications of new public management for adaptive capacity in Mexico and Norway. *Environmental management*, *47*(3), 338-351.
- Eisenhardt, K. M., & Martin, J. A. (2000). Dynamic capabilities: What are they. *Strategic management journal*, *21*(1), 1105-1121.
- Flyvbjerg, B. (2011). Over budget, over time, over and over again: Managing major projects. In Peter W.
  G. Morris, Jeffrey K. Pinto, & Jonas Söderlund (Eds.), *The Oxford Handbook of Project Management* (pp. 321 344). Oxford, England Oxford University Press.
- Flyvbjerg, B. (2014). What you should know about megaprojects and why: an overview. *Project Management Journal*, 45(2), 6-19.
- Flyvbjerg, B., Bruzelius, N., & Rothengatter, W. (2003). *Megaprojects and risk: An anatomy of ambition*: Cambridge University Press.
- Flyvbjerg, B., Garbuio, M., & Lovallo, D. (2009). Delusion and deception in large infrastructure projects: two models for explaining and preventing executive disaster. *California management review*, 51(2), 170-193.
- Flyvbjerg, B., Skamris Holm, M. K., & Buhl, S. L. (2003). How common and how large are cost overruns in transport infrastructure projects? *Transport reviews*, *23*(1), 71-88.
- Hood, C. (1991). A public management for all seasons. *Public administration, 69*(1), 3-19.
- IPA. (2016). Major Capital Programmes: a Discussion Document Based on Insights from Recent Experience. London: HM Treasury and Cabinet Office Retrieved from https://www.gov.uk/government/uploads/system/uploads/attachment\_data/file/509686/IPA\_E xperience\_From\_Major\_Capital\_Project.pdf.
- Kettl, D. (2000). The Global Public Management Revolution: A Report on the Transformation of Governance, Washington, DC: The Brookings Institution.
- Larbi, G. A. (1999). The new public management approach and crisis states.
- LEGCO. (2014). Select Committee to Inquire into the Background of and Reasons for the Delay of the Construction of the Hong Kong section of the Guangzhou-Shenzhen-Hong Kong Express Rail Link. Hong Kong.

- Love, P. E. D., Edwards, D. J., & Irani, Z. (2012). Moving beyond optimism bias and strategic misrepresentation: An explanation for social infrastructure project cost overruns. *Engineering Management, IEEE Transactions on, 59*(4), 560-571.
- Merrow, E. W. (2011). *Industrial megaprojects: concepts, strategies, and practices for success*: John Wiley & Sons.
- Miller, R., & Lessard, D. (2001). The strategic management of large engineering projects: shaping risks, institutions and governance. *International Journal of Project Management*, 437-443.
- Morris, P. W. (2013). *Reconstructing project management*: John Wiley & Sons.
- Morris, P. W., & Hough, G. H. (1987). The anatomy of major projects: A study of the reality of project management.
- NAO. (2001). *Modernising Construction*. London Retrieved from https://www.nao.org.uk/wp-content/uploads/2001/01/000187.pdf.
- NAO. (2009). Commercial Skills for Complex Government Projects. London: The Stationary Office.
- NAO. (2010). Assurance for High Risk Projects. London: The Stationary Office.
- NAO. (2012). Assurance for Major Projects. London: The Stationary Office.
- Pablo, A. L., Reay, T., Dewald, J. R., & Casebeer, A. L. (2007). Identifying, enabling and managing dynamic capabilities in the public sector. *Journal of management studies*, 44(5), 687-708.
- Saïd Business School. (n.d.). Major Projects Leadership Academy. Retrieved from http://www.sbs.ox.ac.uk/programmes/execed/custom/clients-and-case-studies/major-projectsleadership-academy
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic management journal*, *18*(7), 509-533.
- Terry, L. D. (2005). The thinning of administrative institutions in the hollow state. *Administration & Society*, *37*(4), 426-444.
- Winch, G. M. (2014). Three domains of project organising. *International Journal of Project Management*, 32(5), 721-731.
- Winch, G. M., & Leiringer, R. (2016). Owner project capabilities for infrastructure development: A review and development of the "strong owner" concept. *International Journal of Project Management*, 34(2), 271-281.
- World Economic Forum. (2014). *Infrastructure Policy Blueprint*. Retrieved from <u>http://www3.weforum.org/docs/WEF\_II\_InfrastructureInvestmentPolicyBlueprint\_Report\_2014</u> <u>.pdf</u>.
- Zollo, M., & Winter, S. G. (2002). Deliberate learning and the evolution of dynamic capabilities. Organization science, 13(3), 339-351.