

Toward a Integrated Lifecycle Governance Framework for Delivering Civil Infrastructure Projects through Public-Private Partnerships (P3s)

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Research Problem Statement/Purpose: Governments of emerging market countries face enormous financial, fiscal and capacity challenges in delivering sorely needed new infrastructure; meanwhile, financially and fiscally strapped governments of mature market economies are struggling to upgrade and retrofit aging and obsolete infrastructure. Both need more robust project governance that can enable new forms of finance to accelerate and enhance the development of their critical infrastructure. Public-Private Partnerships (P3s) have begun to tap vast pools of institutional and private finance for delivering infrastructure, but with varying success in different countries. Extant governance theories in economics, law, sociology, political science, psychology, general management and project management fall far short of providing the insights needed to structure the enabling legislation, contracts, leadership, management practices and work processes well enough to make critically important P3s sustain and thrive. Prior efforts to bridge across disciplines to develop more holistic theories of governance that could inform these cross-sectoral, long-lived projects and their supply chain networks, e.g., (Stinchcombe, 1990; Granovetter, 1985; Powell, 1990; Gereffi and Korzeniewicz, 1994; DiMaggio, 2003; Grout and Stevens 2003), barely begin to address the full scope and scale of their governance challenges. The clear 'next step' in advancing a more comprehensive theory of governance for such projects necessarily includes an extension of past efforts, e.g., (Henisz *et al*, 2012), by drawing from an expanded set of multidisciplinary concepts that are present in modern P3 projects (see Figure 1).

Brief Research Methodology/Approach: Understanding the interactions of the various mechanisms and their impact on the emergence of the project can only be understood while studying projects over time. Since P3 projects have an average time horizon of 30 years, a true longitudinal study is not possible. We have thus chosen a *quasi-longitudinal* research approach: we achieve insights into the sequence of events and the mechanisms that lead to these events by adjusting for time in three ways. First, we study multiple P3 cases at different project phases. Second, each stage will be studied in depth over the time frame of one year. To triangulate our case study data, events will also be analysed based on secondary data (formal reports, contracts, notes, media coverage, etc.) and retrospective interviews. We adopt the concept of "project overlay" for structuring our research approach (Barley, 1996). Team members will meet regularly to discuss findings in order to develop a cross-disciplinary understanding. We will invite practitioners to review and discuss our results in three annual roundtables to reflect on and

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help interpret the interim findings. We stress that, while this research is, in fact, focused on theory development, we begin from existing theories and constructs as outlined above. We believe that this abductive approach (DuBois & Gadde, 2002) offers the greatest promise for the development of powerful new theory in this domain.

Key Findings: The authors are currently in the 1st year of a three-year research project to answer these questions. Two sets of preliminary findings from this research will be presented in our proposed EPOC 2014 conference paper:

1. **Theory Integration (“bricolage”):** We will report on three clusters of theory that we hypothesize can be integrated and unified to create a more comprehensive and powerful framework for understanding and informing the governance of different phases of the P3 infrastructure lifecycle (see Figure 2). Each of these three clusters brings together work by researchers from different, and hitherto largely disconnected, fields of study into a framework that can serve to explain, predict and eventually guide the governance of P3 infrastructure projects. Understanding the development of trust among public, private and non-profit/NGO stakeholders will require integrating research from the fields of psychology, public administration, organization theory and project management. A better understanding of the public and private financing of infrastructure projects requires new research to integrate theory from public administration, finance and economics. And a more nuanced understanding of the project delivery and operations phases of such projects will require integrating theory from economics, organization theory and project management. A lifecycle view of governance will require developing overarching linkages between these three theory clusters, as shown in Figure 3. Overarching integration of the theory clusters will be accomplished in later phases of the research and reported on in future papers.
2. **Interview and Roundtable Findings:** In addition to the theoretical *bricolage* described above, we will report on our empirical findings from of a set of interviews and industry roundtables we are conducting through early 2014 to explore the role that the structure of financing on these projects plays in determining or constraining their governance. Specifically, we will report on how the composition of the equity in the special purpose vehicle created for a PPP project (the relative ownership fractions of delivery partners, institutional investors, “funds of funds,” governments and other investors) constrains the choice of delivery options for design and construction, the processes of negotiating claims and change orders during construction and the processes of regulation during operation of the facility. We hypothesize that the providers of project loans — with the exception of multilateral banks, which impose significant constraints and safeguards on project delivery options and governance—will play a smaller role in the determination of project governance options.

Implications: Combining and balancing the public and private interests, short and long-term benefits, legitimacy and efficiency, multiple shifting stakeholders, occupations, and interest groups in and around P3 projects pose complex managerial and governance challenges for those seeking to organize them. To understand and interpret these efforts, social scientists have called, variously and in piecemeal, on legal, economic, managerial, political, sociological and

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psychological concepts and arguments (Beamish and Biggart, 2010; Child, 2000; Galbraith, 1977; Gereffi, 2005; Hodgson, 1989; Kostova and Zaheer, 1999; Moe, 1990; Williamson, 1975). We seek to better combine and integrate these disciplinary frameworks (see Figure 3) by employing comprehensive institutional scaffolding that encompasses political-legal, economic and sociological, and cultural-cognitive elements that, together, can provide “thick” and flexible mechanisms of project governance. Each of the elements is linked to differing mechanisms of influence and control, which tap into differing bases of legitimacy, and address varying issues. In combination, they can give rise to robust governance systems, effective under various and changing conditions, as a number of scholars are beginning to recognize (Davies and Hobday, 2005; Flyvbjerg et al., 2005; Greif, 2006; Henisz et al., 2012; Miller and Lessard, 2000; Ostrom, 2009; Peng et al., 2008; Scott et al., 2011). It is to the integration of these various literatures that we hope to contribute.

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FIGURES

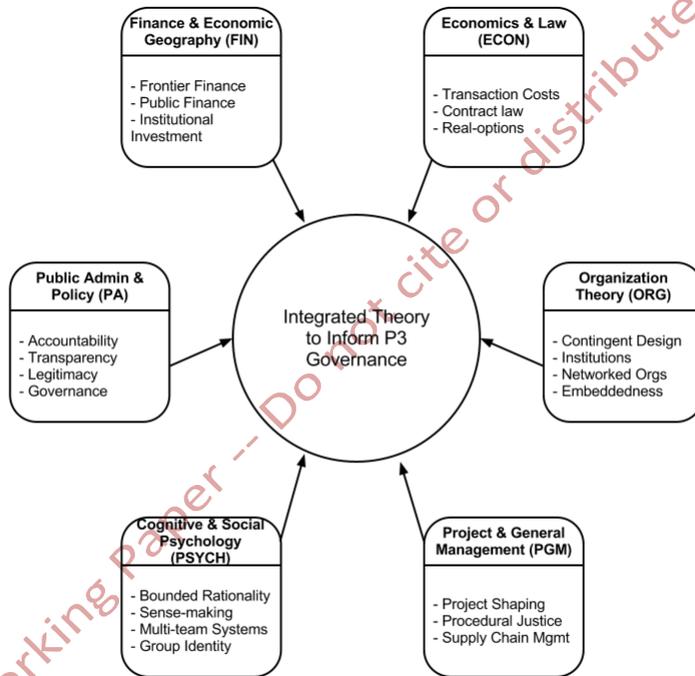


Figure 1: Disciplinary fields of study and respective concepts necessary for building an integrated theory of project lifecycle governance

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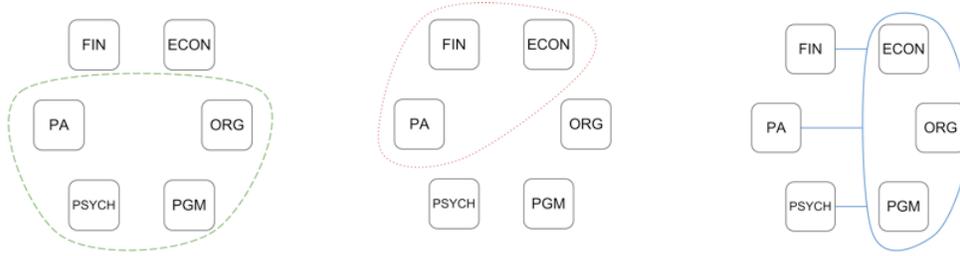


Figure 2: Governance theory clusters to understand and inform (L-R): Stakeholder engagement phase; Financing and contracting phase; Design, construction and operation phase of P3 Infrastructure Projects (see Figure 1 for abbreviations).

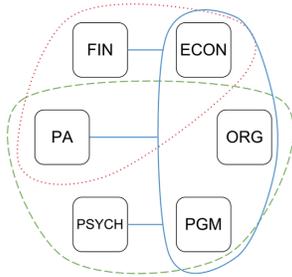


Figure 3: Integrated disciplinary perspectives along three concurrent research thrusts