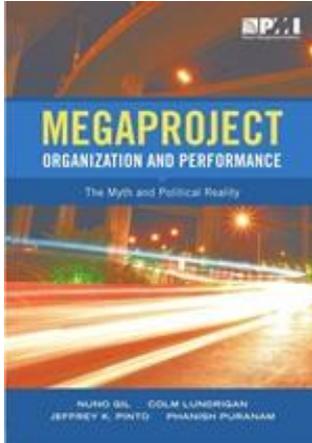


PM WORLD BOOK REVIEW



Book Title: ***Megaproject Organization and Performance: The Myth and Political Reality***

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Introduction

Large-scale, capital-intensive infrastructure projects, i.e., megaprojects, are often plagued by milestone delays, ballooning scope, and seemingly uncontrollable cost-to-complete. Examples abound. Boston's Central Artery/Tunnel Project (the Big Dig) in the United States, Heathrow Airport Terminal 2 in the United Kingdom, and Uganda's Kampala-Entebbe Expressway, just to name a few.

The authors of *Megaproject Organization and Performance: The Myth and Political Reality* use multiple case studies to identify a possible cause of the performance issues that plague megaprojects. Instead of analyzing megaprojects through the lens of project management, the authors explore the relationship between the megaproject performance with its organizational structure. They use the case studies to highlight the pluralistic nature of the megaproject's organization structure, as the project core team not only includes the project promoter but also other stakeholders. Because these actors control strategic resources and influence, the project sponsor cannot use authority vested in ownership stakes or regulation to get things done. Thus, the authors conclude, megaprojects are akin to a pluralistic organization.

The authors derived their insight from data from the robust economy of the United Kingdom, highlighting Crossrail and High Speed 2 (HS2) railways, the London Olympic Park, and Heathrow Airport Terminal 2 (T2). In addition, they extend their analysis with railroad and highway development projects in developing countries of Nigeria, India, and Uganda. With pluralism at the core of the megaproject's organizational structure, the authors argue, the disappointing and underperformance of mega-projects may be a result of organizational challenges rather than agency or competence related.

Overview of Book's Structure

This book is a compilation of four case studies that explore megaprojects from an organizational theory vantage point instead of a traditional project management analysis. The authors view megaprojects as "meta-organizations" composed of multiple stakeholders

collaborating a system-level goal [1]. In this 5-chapter book, the authors use Chapter 1 to define their framework of megaproject as a mega-organization where the structure is pluralistic instead of hierarchical. Now that the organizational design theory is defined, Chapter 2 explores the creation and growth of a megaproject organization.

Now that the tenets of a megaproject as a mega-organization are set, the authors use the next three chapters to substantiate their thesis. Chapters 3 and 4 are written around three megaprojects in the United Kingdom - Crossrail and High Speed 2 (HS2) railways, the London Olympic Park, and Heathrow Airport Terminal 2 (T2). Chapter 3 traces regular slippages in the performance targets of these projects back to their organizational structure. In other words, as the organizational structure changes, the performance targets change. Chapter 4 investigates the decision making challenges and the resultant performance impacts due to a pluralistic organization, drawing a correlation between the diffusion of power to changes in performance targets.

The authors explore the impact of a pluralistic core on project performance in developing economies of Nigeria, Uganda, and India. By examining the megaprojects in these countries, the authors show that slippages in megaproject performance targets are exacerbated by the scarcity of slack resources and mechanisms to resolve disputes.

1. For example, Gulati, R., Puranam, P., & Tushman, M. Meta-organization design: Rethinking design in interorganizational and community contexts. *Strategic Management Journal*, 33(6), 571–586, 2012.

Highlights

In *Megaproject Organization and Performance: The Myth and Political Reality*, the authors explore the root cause of why megaprojects fail. Indeed, there is a deep-seated norm that a “successful” megaproject is a project in one where it is completed in a linear process on time and within budget without any change in the scope. The authors’ aim is to examine the root cause of the performance failures from the view of organizational design and not from a project management perspective. The authors analyze the organization structure of a megaproject and investigate the extent to which empirical regularities in the performance of megaprojects can be traced back to their organizational structure.

This book offers new insight into the root cause of why megaprojects fail. For almost 20 years, the debate on megaproject performance has been biased towards two points of view. One view connects project failure to a promoter who is overly optimistic about the achievable project performance. The other view assumes the promoter is in an untenable situation where outside interests and powerful actors drive the projects to failure. The authors contend that these conventional explanations are too simple.

In this compilation of a three-year research on capital-intensive large-scale infrastructure systems, the authors correlate project performance with the organizational structure. The authors’ thesis is that megaprojects are “meta-organizations”—networks of multiple actors, including individuals, communities, public bodies, and firms collaborating under an identifiable system-level goal [1]. Under pluralism, collective decision making involves negotiations that invariably lead to slippages in the project performance targets. Therefore, megaprojects suffer from being “designed by committee” [2], resulting in tumultuous changes to the project scope, cost target, and schedule target.

Via extensive data analysis of these megaprojects, the author’s uncovered a “polycentric governance” [3] within each megaproject. In this pluralist setting, authority to make strategic

choices is decentralized across a nested group of actors with capacity for mutual adaptation and local variation. Indeed, unifying all members under a shared goal and a plan to achieve it is a “future perfect” [4] that is itself a goal difficult to achieve.

The authors substantiate their thesis via multiple case studies. Megaprojects in the developed world are examined first, including the London Olympic Park and Heathrow Airport Terminal 2, followed by railroad and highway development projects in the developing economies of Nigeria, Uganda, and India. The authors argue that megaproject organizations are not established by unitary actors but by a collective of actors. The authors find that, due to this pluralist structure, the project promoter cannot use unified authority to get things done. Thus, managers must negotiate performance expectations that satisfy an evolving group of stakeholders.

As a result, the authors conclude that the megaprojects work best when accountability is shared and everyone has a stake in the final outcome. Three strategies are offered for the project manager to manage the risk in a megaproject: 1) deferring announcements of targets, 2) building buffers, and 3) co-opting resource-rich stakeholders.

1. For example, Gulati, R., Puranam, P., & Tushman, M. Meta-organization design: Rethinking design in interorganizational and community contexts. *Strategic Management Journal*, 33(6), 571–586, 2012.
2. Rosenkopf, L., Metiu, A., & George, V.P. From the bottom up? Technical committee activity and alliance formation. *Administrative Science Quarterly*, 46(4), 748-772, 2001.
3. Ostrom, V. Polycentricity. Paper presented at the 1972 Annual Meeting of the American Political Science Association, Washington, D.C., September 1972.
4. Pitsis, T.S., Clegg, S.R., Marosszeky, M., and Rusa-Polley, T. Constructing the Olympic dream: A future perfect strategy of project management. *Organization Science*, 14(5), 574-590. 2003

Highlights: What I liked!

This book is not a typical project management book as it does not attempt to pontificate the advantages or risks of applying project management principles to megaprojects. Instead, this book highlights the challenges that project managers face in the real world. Specifically, projects are often influenced and affected by multiple stakeholders. For the project manager, the challenge is to balance the evolving heterogeneous (and sometimes conflicting) requirements and preferences against the initial project design, so that scope creeps and schedule/cost slips can be prevented and managed.

Indeed, the authors have extensively researched these megaprojects for this book. In addition to numerous interviews, the authors have combed through numerous documents, among them project documents, financial reports, meeting minutes, and public media. Therefore, the authors are able to use the data to support their argument and make their case.

This book is a compilation of four academic research papers that is prefaced with an introduction to provide an overview. In other words, this is dense reading and not for the faint of heart. For those of us who are very interested in the intangible factors that affect a project lifecycle, such as evolving priorities from multiple stakeholders, this is a worthwhile endeavor.

Who might benefit from the Book?

I recommend this book highly to program managers and project managers who are managing projects that have multiple stakeholders with evolving expectations. In social science, this complex pluralistic organization is what social scientist called a wicked problem. Wicked problem is different because traditional processes cannot resolve them, according to Horst W.J. Rittel and Melvin M. Webber, professors of design and urban planning at the University of California at Berkeley, who described them in a 1973 article in Policy Sciences magazine.

A wicked problem has innumerable causes, is tough to describe, and does not have a right answer. The stakeholders have competing versions of value. Therefore, a win by one group may be a loss to another. This is the opposite of a hard but ordinary problem, which people can solve it in a finite time period by applying standard linear techniques (such as the project management approach). Not only do conventional processes fail to tackle wicked problems, but they may exacerbate situations by generating undesirable consequences [1].

1. Camillus, John C. Strategy as a Wicked Problem, Harvard Business Review, May 2008

Conclusion

The ideal project can be managed with a very linear project management process, as stakeholders' motivations are known a priori, requirements are frozen, and the scope is well defined. However, in this interconnected age, large projects, especially capital-intensive ones, will involve multiples stakeholders whose needs and requirements will change with other stakeholder behaviors and environmental changes. This is true in both a large Fortune 500 company and the public sector.

Today, the world is both very crowded and very much interconnected. Thus, a megaproject today will no doubt have multiple stakeholders at the core. As such, when executing and managing a megaproject, the project lead must be cognizant of the existence of these stakeholders and how their views may change throughout the project lifecycle. Without this acknowledgement and the subsequent management of the evolving expectations, scope creep, cost escalation, and schedule delays will consume the project. Therefore, by paying attention to the organizational structure of a large project, one can understand the potential risks that may derail the project and therefore preemptively avoid and manage the risks.

For more about this book, go to: <https://www.pmi.org/learning/academic-research/megaproject-organization-and-performance>

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About the Reviewer



Dr. Charles Y. Chen

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Dr. Charles Y. Chen has had the privilege of leading teams of engineers and scientists to transform ideas into viable products. His career began at Northrop Grumman, initially as a systems engineer and then as a program manager, he led matrixed teams of engineers to innovate, mature, and produce new electronic sensor technologies and algorithms. Energetics Incorporated introduced Charlie to the world of management consulting. Initially as a director then as the Chief Strategy Officer, he led teams to help clients transition ideas developed in the laboratory to the marketplace, overcoming the so-called valley of death. As Executive Vice President of Engineering at Hover Energy, Dr. Chen is leading and coordinating key activities to scale-up a new wind turbine designed for the urban environment.

Dr. Chen got his B.S. and Ph.D. in Electrical Engineering from Cornell University. He received his Executive Education from University of Chicago Booth School of Business. As a PMP, he looks forward to leading teams to achieve the impossible.

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