Why Mega-Projects (seem to?) Fail: a Meta-Organizational Perspective

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Mega projects come with big expectations. But a project's success is often in the eye of the beholder. Can managers avoid the conflict – and cost – when competing stakeholders seek to influence the outcome and process of large scale development?

Despite their socio-economic significance mega-projects – to deliver airports, railways, power plants, Olympic parks and other long-lived assets - have a reputation for disappointing performance. With cost and schedule overruns difficult to avoid in an ever-changing, often unpredictable environment, initial targets are rarely met. By re-setting performance baselines in response to these vicissitudes, project leaders risk complaints that the scheme is inefficient and spiraling out of control. Yet leaders cannot ignore that schemes which fail to adapt are also held in contempt by their stakeholders who label them as ineffective. Given the contractionary pressures, the failure or success of a project can be difficult to judge.

When does a project fail?

Critics will often attribute a project's failure to actions by the project's initiators, blaming inflexible supplier contracts, escalation of commitment, scope creep, or sunk cost fallacies. They may accuse project leaders of under-investment in front-end planning; excessive reshaping of the project's initial design; or even blatant misrepresentation to get the project started.

All of these explanations assume that megaprojects are controlled by a single, unitary actor, who is (almost schizophrenically) guilty of incompetence as well as Machiavellian intent.

In reality megaprojects are not produced by a single organization, but rather by a network of private and public entities. The goals and the plan (strategy) to achieve them are forged by a core group of key stakeholders - representing governments, land and resource ownership, public interest and local communities - whose consensus is needed to bring the project to fruition. Agreements are reached through dialogue as much as through mutual gains bargaining and compromise-seeking between these often conflicting groups, each committed to different baselines and holding different ideas of efficiency and effectiveness.

In a recent research paper The (Under) Performance of Mega-Projects: A Meta-Organisational Perspective that I co-authored with Nuno A. Gil, Professor and Chair of New Infrastructure Development at Manchester University and Colm P. Lundrigan, a Doctoral Student at Manchester University who led the research, we looked at megaprojects as a form of organization and how the structure of that organization – and the interaction between its members - explained the project's outcome.

Based on the longitudinal analysis of three private and publicly funded mega-projects in London - the £7.1bn Olympic Park, the £2.6bn Heathrow T2 development, and the £15.8bn Crossrail development - we found that in this context the disappointing and controversial (under) performance of megaprojects may actually be a result of how the organizational structure develops, rather than due to any agency or competence related failure.

The study uncovered that the megaproject organization was far from static in its structure and membership – new actors, holding valuable resources, were periodically added into the core group of stakeholders that directly influenced the scheme's strategy. This influx of new members was often accompanied by demands for a change in tack, forcing a renegotiation of contracts relating to cost, scheduling, and scope several times during the project's life. Changes to the core group juxtaposed to changes in the external environment (i.e. recessions, changes of government, market regulations) meant that the baseline targets as the project comes to conclusion can be very different to the initial stated goals. It is this gap in expectations, and the failure to achieve complete consensus between competing interest groups, that seems to result in the project being seen in a negative light.

Our analysis suggests five key design decisions that have significant underlying trade-offs which mega-project leaders should be aware of and manage carefully to reduce the costly impact of conflict and/or avoid the perception of poor performance.

1 Delaying the announcement of project targets

Given that critics frequently judge a mega-project's performance on the gap between initial and late stage targets and the frequency with which these targets change, managers should do more to persuade the leading coalition of stakeholders to delay the release of time and budget estimates for as long as possible. The ease of achieving this tactic can vary depending on the makeup of that coalition – private firms may find it less difficult to delay announcement of performance targets whereas a government-backed scheme may not have that luxury given that political masters invariably operate under a rigid electoral cycle. However, pressure can be eased by committing to flexible performance targets, for example soft openings instead of rigid opening dates. Both T2 and Crossrail had some success with this tactic.

2 Building expensive slack into the system for resilience

Building substantial contingencies into the scheme's critical path and budget envelope before releasing performance targets helps to buffer performance expectations. London 2012 and Crossrail ensured their business plans left plenty of room to work with and found that the window of opportunity helped resolve conflicts between key players and satisfy individual and sub-group objectives without undermining the scheme's legitimacy in the eyes of third parties.

There is an obvious tradeoff here. Large contingencies make it harder to sell the scheme in the early stages and encourage opportunistic members to make even greater claims on the final scope. Hence the risk of self-fulfilling prophecies is real. London2012 for example depleted its entire contingency and Crossrail, according to one respondent, is likely to do the same.

3 Managing the sequence of entry of key players into the core

The more members enter the core the more complicated it gets to seek consensus and engage in effective interests-based negotiations. With this in mind it may be tempting to fend off lobbying from parties wanting to enter if they don't seem to have much to offer. This brings short-term benefits but can undermine the legitimacy of the group's early decisions and increase the chance of conflict and tumultuous changes later on if the claimant forces entry and forms a coalition with other members to over-turn previous high-level decisions.

However, gaining consensus between the main parties upfront to allow for a smoother delivery also comes with an inherent risk. Allowing the core group to expand too much may delay the start of the project considerably, momentum may then stutter, and thus the risk that the start-up attempt will fail to get the scheme off the ground is real and indeed not uncommon.

Our analysis leads us to believe that timing the entry of players to the core can be an important variable for whether the project completes on time or not. It may be tempting to allow members with the most bargaining power to enter the core early on, but it may actually be better to let the actors whose choices influence most other choices (i.e. who are central in the network of interdependencies between choices) to enter earlier. Of course there will always remain the risk that a previously unidentified (or indeed previously non-existent) party may emerge during the process to disrupt this ideal sequence. And factors such as local politics and opportunistic moves may upend plans to adopt a rationally-optimal sequence for core formation.

4 Managing peer to peer negotiations with hierarchic choice structures

Paradoxically, because megaprojects are based on coalition leadership rather than command and control structures, a hierarchy of choices (i.e. basic design parameters that should be frozen) is important. Scarcity of resources, urgency to get things done, and large numbers of claimants can make it difficult to achieve consensus through dialogue and resolve matters through interests-based negotiation. In these cases, setting high-level rules and choices that cannot be violated is crucial. A strong constitution and vertical relationships of deference allows for de-centralizing governance into smaller centers of decision-making where the issues can be worked out while mitigating the risk of things descending into anarchy or chaos. The trick is in balancing the peer to peer status of key actors, while also ensuring that the hierarchy of choices is respected by all members.

5 Managing transparency with media.

Media power can heavily influence the public's perception of the project's performance. Headlines screaming "white elephant" and "cost over-runs" often originate from dissatisfied core group members unable to get what they want out of consensus decisions. The simple solution to this might appear to be for mega-project managers to make it a part of their process to keep the media (and political opponents) appraised of developments – a strategy which has been adopted in all of the megaproject's in our study. Leaders of megaprojects place great emphasis on building and rebuilding a narrative that frames the project as a success and attempts to build legitimacy in the eyes of third parties. Backed by a consistent story, the negative impact of late changes to targets can be swiftly neutralized. But transparency also implies greater scrutiny at early stages in a project, and the possibility of raising objections from stakeholders who otherwise might not have reacted because the project was too far along.

Success is in the eye of the beholder

The performance of a major project is never clear cut, its success or failure depending on whether it has delivered to cost and to quality in time, in-line with an individual's expectations. If key stakeholders agree that a project has to exceed its initial budget, or requires more time to complete, then it is still considered a success whereas if it comes in on time and budget but misses vital elements that stakeholders require then it may be dismissed as a failure. In the same way that beauty is in the eye of the beholder, when it comes to mega-projects (as seen through the meta-organizational prism) different actors see different things. Their statements of performance are often political and shaped by expectations that they choose to adopt as the baseline. In this sense the mega-projects success relies on the consensus of key stakeholders and the organizational structure through which their bargaining over decisions is managed.

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