



Impact pathways: managing relational risk in project operations

Journal:	<i>International Journal of Operations and Production Management</i>
Manuscript ID	IJOPM-08-2022-0484.R2
Manuscript Type:	Impact Pathways
Keywords:	Project management, Outsourcing, Buyer-supplier relationships, Supply risk

SCHOLARONE™
Manuscripts

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

TITLE: Impact Pathways: Managing relational risk in project operations

ABSTRACT

Purpose –To assess how we implement new ways of managing relational risk at the operational level of outsourced projects and to provide guidance to project management (PM) policy makers and practitioners seeking to ensure project operations consistently delivers project relational risk management (PRRM) strategies.

Design/methodology/approach – Through exploratory study data were obtained from a panel of six experts in PM and from a pilot survey of PM practitioners. The data reveals future directions and vectors for scholarship and research activity in terms of the impact of PRMM-related mechanisms and deliverables on project success and the implementation process to enhance PRRM as a key PM capability.

Findings – Deliverables for PRRM need to part of a multi-dimensional framework that includes mechanisms besides the contract. Such a framework enables the codification of PM knowledge so that PRRM contributes to project success. With knowledge codified, PRRM strategies can be consistently delivered at the operational level. The framework is novel in that it integrates hereto disparate elements that are encompassed under the broad umbrella of relational governance mechanisms.

Practical implications – Project management policy makers and practitioners recognise the importance of effective relationships to deliver projects successfully, yet they lack practical solutions to address the negative effects of dysfunctional relationships. The authors provide a list of PM Deliverables for effective PRRM, including deliverables besides those related to the contract, which can be used in practice to bring the gap between PRRM strategy development and implementation. This will enable client organisations that outsource their projects to an external contractor to enhance their PRRM capability and increase the likelihood of project success.

Originality/value – The authors provide insights into how PRRM is practiced at the project operations level where PM is outsourced. These insights lead to three pathways of impactful OM/PM scholarship and research, namely: 1) how PM deliverables act as a Key Success Factor for effective PRRM, 2) how the duality of roles carried out by PM actors influences PRMM practices, 3) how companies innovate to enhance their PRMM capability. These pathways will enable PM research and scholarship to address disconnects between PRMM strategy and operations and hence go beyond answering “what” PRMM is to encompass “how” it is implemented.

Keywords – Project management, outsourced projects, project relationships, risk management, project operations, key success factors, project management deliverables

1. Problem and background

In this pathway, we inform future avenues of scholarship and research activity in managing relational risk in project operations, to achieve project success. We define *relational risk* as the impact of relationships on the opportunities and consequences of joint efforts between parties (Staniec, 2021). *Project operations* are those PM-related activities after search, preparation, bidding, and negotiation i.e., implementation and transition (Cooper and Budd, 2007). We focus on project operations where the client has outsourced PM. We conceive *project success* narrowly, as the measurable elements of PM performance, which focus on the efficiency of the project implementation process i.e., delivering against time, cost, and quality objectives (Savolainen, *et al*, 2012).

It is widely recognised that relationships matter in projects and that dysfunctional relations between client and contractors are a major risk to effective project operations. PM practice has responded by focusing at the strategic level on Project Relational Risk Management (PRRM). High profile and landmark projects that successfully delivered PRRM strategies are the construction projects of the London 2012 Olympics and the clinical trial projects of COVID-19 vaccine development.

The main mechanism of strategic implementation has been the contract i.e., the London 2012 Olympics projects utilised the New Engineering Contract (NEC) suite of “relational” contracts. PM research and scholarship has mirrored this approach, with studies devoted to different aspects of relational contracting, as an important element of effective relational governance. Yet what is lacking in prior studies, and which is a major challenge currently facing PM policy makers and practitioners, is how to ensure execution at the project operations level consistently delivers PRRM aims developed at the strategic level. So, there is a strategy-execution disconnect.

There are two specific issues which need addressing. Firstly, there are many examples of projects which adopted relational forms of contract that were not successful. So, the contract is not a panacea. This suggests that there are other important factors coming into play in relation to PRRM besides the contract, though what these factors are and how they influence project success is not clear. Second, given there are various contract-related and non-contract-related factors to effective PRRM, there is a lack of understanding as to how knowledge is codified to enable PM policy makers and practitioners to consistently deliver project success. Identifying pathways to address these issues is the focus of this paper.

Our central research question is: *how do we implement new ways of managing relational risk in project operations?*

Our research team was formed from an academic/industry collaboration involving researchers from PM and data analytics and highly experienced PM practitioners. Team members' experience ranged from 20-35 years working on projects involving external contractors/suppliers. We drew on our practical experiences, in-depth knowledge of PM and extant literature to develop a list of PM Deliverables for effective PRRM, which would guide specific project operations practices. We used the CURED framework for PRRM to group the deliverables. CURED comprises of five mechanisms: **C**ontract, **U**nderstanding, **R**esources, **E**ducation and **D**elegation (Bryde *et al*, 2019) and we derived deliverables under each mechanism.

We then shared an initial list of deliverables with a panel of six experts, all with at least ten years of PM experience, representing various project intensive industries, including construction/infrastructure, IT, and drug development. We collected data on 1) the importance of each PM deliverable to PRRM, 2) the completeness of the list 3) how the deliverables impact on project success.

Using this data, a final list of PM Deliverables was constructed. We developed an instrument to measure the importance and the impact of each deliverable, which we piloted with six UK industry practitioners.

Table 1 shows our final list of PM Deliverables for PRRM under the five CURED mechanisms.

Novel themes that emerged from our data, which cut across the different mechanisms of the CURED framework, were:

1) The strong perceived influence of the contract on behaviours; 2) the importance of clear and defined roles between actors; 3) the innovative nature of moving towards managing PRR through PM practices.

In the next section, we outline three pathways, which build on each of these themes and provide a focus for investigating issues of establishing and embedding effective PRRM in outsourced projects. We do this by identifying scholarship and research activity that will connect the identified PM Deliverables, via the CURED framework, to project success. In table 1 we provide a selection of direct quotes from the expert panellists, to illustrate how the qualitative data links to the pathways. Additionally, the first pathway, in particular, was informed by the quantitative data from the pilot survey.

2. Pathways to impact

2.1 Influence of the contract for effective PRRM.

The first theme is the strong perceived influence of the contract on behaviours. Our findings suggest that in practice there is still a pre-eminence placed on PM activities relating to the contract, in terms of driving behaviours in respect of managing the client-contractor relationship. A good example is a project to refurbish an international airport terminal which changed the contract during project operations to make it more relational and as a result got the project back on track – see PROJECT A in Table 2. There is also, though, a recognition in the wider operations management literature on service outsourcing that the choice to focus on managing the contract as the main governance mechanism might be context specific i.e. where outcomes are difficult to measure, as could be the case in project environments, other monitoring activities could be a more effective (Ye *et al* 2022).

Hence, given that PM is a service, PM Deliverables in other areas besides the contract are potentially as important. Therefore, there is an opportunity to advance knowledge by undertaking scholarly activity and research to further understand the interplays between the PM Deliverables for effective PRRM and the relationships between deliverables and the multi dimensions that make up desired outcomes. For example, our data suggests that deliverables relating to Understanding, Resources, Education and Delegation in CURED may have a stronger relationship with outcomes, relative to those related to Contract.

This finding can direct further exploration. Knowledge could be enhanced as to how PRRM, is a key success factor (KSF) in delivering desired relational outcomes, alongside other well-established factors under the headings of people, organisation, and systems – i.e. Minarro-Viseras *et al* (2005). Following this pathway will complement literature that reports on “contracting research”, which typically focuses on enhancing understanding of how variations in the character of contracts acts as a KSF, see, for example, Selviardis and van der Valk (2019).

2.2 Understanding the interplay of organisation/project roles of client and contractors in PRRM.

Our second theme is the importance of clearly defined roles between PM actors. There is a need for further understanding of the complex interplays and tensions resulting from the dual roles played by actors involved in the PM of outsourced projects. With the main tension being they have an affiliation, not only to the project, but also to the organisation that employs them. It is complicated by the fact that some actors are more distant from the project than others. For example, people working in legal and finance departments are often crucial to the success of a project, yet their distance from the heart of project operations means they see their primary duty being to serve the interests of their company.

A potentially useful avenue for exploration of this issue is to engage with literature on the “symbolic interactionist” perspective of role theory, whereby role takers construct and enact a role based on their understanding of it (Breese, *et al*, 2020). The interactionist approach emphasises the social interactions of individuals, with a role constantly evolving based on what other people expect of someone playing that role. Actors involved in the PM of outsourced projects are part of complex and evolving social networks, both within their own organisations and with external organisations, such as their suppliers and professional associations.

A moot question is how do actors form a perception of their PM role as being as much about managing the client/contractor relationship as being about undertaking traditional PM practices, through their social ties? Understanding how ties form from an intra- and inter-organisation and project perspective and with groups outside the organisation and project sphere can extend role theory and help advance understanding of the impact of the duality of roles on PRRM. It can also contribute to recent calls in the operations management literature for clarity in PM role definitions, particularly Principal (client) and Agent (contractor) roles (Zwikaël and Meredith, 2018). Such roles may, in part, be defined in terms of their social-related networking activities

2.3 Understanding the nature of innovation in PRRM.

The next theme relates to the innovative nature of moving towards PRRM through PM practices. Our findings reveal the variations in PRRM as characteristic of “incremental innovation”, which is changes to a process - in this case the project risk management process - by which small and incremental micro-innovations, rather than large-scale and radical ones, result in continuous improvement (Das and Joshi, 2007). For example, two very similar projects operationally had two very different outcomes (PROJECT A v PROJECT B in Table 2). The successful one, PROJECT A, introduced three micro-innovations, in terms of the PM deliverables in Table 1, which were not previously done on the company’s projects: 1) relevant method(s) of communication were agreed 2) project ways of working were defined and agreed 3) levels of delegation were set against risk and trust thresholds.

Prior literature frames elements that typify different relational approaches, such as the nature of the contract, as typifying incremental innovations, i.e., Sumo, *et al*, (2015). An important question, then, is what amount and/or mix of PRRM process micro-innovations i.e., small and incremental changes to the PM system, leads to a significant increase in project success? Seeking answers to this question has the potential to advance theoretical knowledge of the relationship between incremental innovation and PM performance, and to further understand the nuances of the incremental v radical innovation dichotomy.

Work could build on the diffusion of innovations theory, which focuses on explaining how “the adoption and implementation of new ideas, processes, products, or services ... within and across organizations” takes place (Lundblad, 2003; 51). A key question is how the embedding of micro-innovations that characterise PRRM in PM practices takes place. There is scope to extend theory by explaining how the diffusion takes place across the Client-

Contractor inter-organisational dyad of outsourced projects. There is also the potential to contribution to routine dynamics literature, where recent work by operations management scholars suggests that the active engagement of actors at different organisational levels and boundaries is crucial in establishing new routines in organisations (Knol *et al* 2022). This focuses on answering who? As well as how?

A second lens to guide this pathway is that of social capital theory. Literature demonstrates that the inter-organisational relationships of senior management, such as the board-interlocks of directors, provide an informational advantage that helps in the adoption of new processes (West and Bodgers, 2014). However, such leader-created social networks have received little attention so far in research and the role these leaders play in innovation diffusion is not well understood. Hence, there is scope to add to theoretical knowledge through researching how the social networks of actors from client and contractor organisations, who typically undertake PM leadership roles, influences the adoption of PRRM and how this adoption evolves over time. Undertaking such research will answer calls in the operations management literature for a better understanding of the contextual factors, in this case the unique characteristics of outsourced projects, which influence how social capital is built up to achieve desired outcomes (Jääskeläinen *et al*, 2022).

3. Conclusion

To conclude, we return to our initial research question *how do we implement new ways of managing relational risk in project operations?* This paper outlines a response in three interlinked areas. Firstly, it is necessary to understand the PRRM mechanisms and associated PM Deliverables that impact on project success. Secondly, barriers to the implementation of PRRM strategies in project operations must be overcome, with a formidable barrier being the duality of roles undertaken by PM actors. Thirdly, the implementation of PRRM in project operations typically involves process innovations that, whilst being systemic, are most likely to be adopted in practice if of an incremental rather than a radical nature.

Each of these three areas provide the rationale for a pathway to guide PM scholars and researchers. The first pathway invites scholars to investigate how PM Deliverables, act as KSFs for effective PRRM. There is the opportunity to contribute to understanding factors of success. The second pathway invites scholarship on how the different roles that PM actors play influence PRRM practices. Such scholarship can advance by utilising the symbolic interactionist perspective of role theory. The third pathway invites scholarly activity around investigating how adopting PRRM is characteristic of incremental innovations. This pathway presents an opportunity to engage with diffusion of innovation and social capital theories.

Reference

- Breese, R., Couch, O. and Turner, R. (2020), "The project sponsor role and benefits realisation: More than 'just doing the day job'", *International Journal of Project Management*, Vol 38 No 1, pp. 17-26. DOI: 10.1016/j.ijproman.2019.09.009
- Bryde D., Unterhitzenberger C. and Joby, R. (2019), "Resolving agency issues in client-contractor relationships to deliver project success", *Production Planning & Control*, Vol 30 No 13, pp. 1049-1063. DOI: 10.1080/09537287.2018.1557757
- Cooper, M. J. and Budd, C. S. (2007), "Tying the pieces together: A normative framework for integrating sales and project operations", *Industrial Marketing Management*, Vol 36 No 2, pp. 173–182. DOI: 10.1016/j.indmarman.2006.03.005

Das, S.R. and Joshi, M.P. (2007), "Process innovativeness in technology services organizations: roles of differentiation strategy, operational autonomy and risk-taking propensity", *Journal of Operations Management*, Vol. 25 No. 3, pp. 643-660. DOI: 10.1016/j.jom.2006.05.011

Jääskeläinen, A., Lintukangas, K. and Frederik G.S. Vos, F.G.S. (2022), "The role of social capital in achieving preferred customer status with manufacturing and service suppliers", *International Journal of Operations & Production Management*

Knol, W.H., Lauche, K., Schouteten, R.L.J. and Slomp, J. (2022), "Establishing the interplay between lean operating and continuous improvement routines: a process view", *International Journal of Operations & Production Management*, Vol. 42 No. 13, pp. 242-270. DOI: 10.1108/IJOPM-06-2020-0334

Lundblad, J.P. (2003), "A Review and Critique of Rogers' Diffusion of Innovation Theory as it Applies to Organizations", *Organization Development Journal*, Vol. 21 No 4, pp. 50-64.

Minarro-Viseras, E., Baines, T. and Sweeney, M. (2005), "Key success factors when implementing strategic manufacturing initiatives", *International Journal of Operations & Production Management*, Vol. 25 No. 2, pp. 151-179. DOI: 10.1108/01443570510577010

Savolainen, P., Ahonen, J.J. and Richardson, I. (2012), "Software development project success and failure from the supplier's perspective: A systematic literature review", *International Journal of Management*, Vol. 30 No. 4, pp. 458-469.

Selviardis, K. and van der Valk, W. (2019), "Framing contractual performance incentives: effects on supplier behaviour", *International Journal of Operations and Production Management*, Vol 39 No 2, pp. 190-213. DOI: 10.1108/IJOPM-10-2017-0586

Staniec, I. (2021), "Managing Relational Risk in Turbulent Environments", in *Organizational Change and Relational Resources*, Klimezak, K.M. and Shachmurove, Y. (eds.), Routledge, New York. DOI: 10.4324/9781003172604

Sumo, R., van der Valk, W., van Weele, A. and Bode, C. (2015), "Fostering incremental and radical innovation through performance-based contracting in buyer-supplier relationships", *International Journal of Operations and Production Management*, Vol. 36 No 11, pp. 1482-1503. DOI: 10.1108/IJOPM-05-2015-03

West, J. and M. Bogers. (2014), "Leveraging external sources of innovation: A review of research on open innovation", *Journal of Product Innovation Management*, Vol 31 No 4, pp. 814-831. DOI: 10.1111/jpim.12125

Ye, Y., Peng, X., Lei Fan, R. and Narayanan, A. (2022), "An empirical investigation of governance mechanism choices in service outsourcing", *International Journal of Operations & Production Management*, Vol. 42, No. 9, pp. 1467-1496. DOI: 10.1108/IJOPM-01-2022-0025.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

Zwikael, O. and Meredith, J.R. (2018), "Who's who in the project zoo? The ten core project roles", *International Journal of Operations & Production Management*, Vol. 38 No. 2, pp. 474-492. DOI: 10.1108/IJOPM-05-2017-0274

<p>PRRM Mechanisms (CURED) and PM Deliverables</p> <p>CONTRACT*</p> <ul style="list-style-type: none"> Contracting options were selected to support achievement of project objectives** Project uncertainty was assessed, and risk appetite agreed Project complexity was assessed Clearly defined project requirements were set Project scope was aligned to requirements Commercial incentivisation were aligned to project goals Method of contract change was agreed Joint contract training was undertaken with Client and Supplier <p>UNDERSTANDING</p> <ul style="list-style-type: none"> Consensus reached that the Scope of Work delivers project requirements Project success criteria was collaboratively developed and agreed Relevant method(s) of communication were agreed Project ways of working were defined and agreed Vision, values and behaviours were understood and aligned to project goals An employee well-being strategy was defined and measures were implemented <p>RESOURCES</p> <ul style="list-style-type: none"> Resourcing framework was agreed Organisation capability road map was developed Internal and external resources were identified Resource procurement methods were agreed Resources budget were developed Project plan was developed and agreed <p>EDUCATION</p> <ul style="list-style-type: none"> A training programme was developed for both hard and soft skills, in a compelling and engaging way Knowledge sharing and management capability was in place Staff and stakeholders were educated Team behavioural training was completed <p>DELEGATION</p> <ul style="list-style-type: none"> A leadership programme was developed Project governance was defined and aligned to organisational governance Levels of delegation were set against risk and trust thresholds Area of expertise and control was understood Roles and responsibilities were clarified and agreed The level of project autonomy was set against organisational rules An assurance strategy was defined and implemented <p>*Mechanism **PM deliverable</p>	<p>Example Desired Outcomes</p> <ul style="list-style-type: none"> Better meeting of time, cost, quality and specification objectives Better decision making Increased risk mitigation Better behaviours Increased team morale Reduced health and well-being issues amongst staff 	<p>Issues to be addressed</p> <ul style="list-style-type: none"> Countering an over-emphasis on using the contract as the mechanism to manage PRR Understanding how the various roles undertaken by key actors influence the adoption of relational risk management practices Deciding the right mix of relational risk management process micro-innovations Understanding the complex and evolving social networks involving the key actors 	<p>Pathways [with associated quotes from expert panellists]</p> <p>PATHWAY 1</p> <p>How the PM Deliverables, besides those relating to the CONTRACT, act as Key Success Factors for effective PRRM. [Potentially contributing to the Factor School of PM research]</p> <p>“What goes on beyond the contract i.e. post-contract award is crucial – it’s the difference between oversight and micro-management” [Quote- expert panellist]</p> <p>PATHWAY 2</p> <p>How the different roles that PM actors play influence PRR management practices [Potentially using the symbolic interactionist perspective of role theory]</p> <p>“There is “job preservation” – the level of oversight [a person] needs to demonstrate [in the role]” [Quote – expert panellist]</p> <p>PATHWAY 3</p> <p>How the process of adopting PRR management is characteristic of innovations [Potentially using diffusion of innovation theory and social capital theory]</p> <p>“People are busy and silo’d – how do you get them doing things differently?” [Quote –expert panellist]</p>
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Table 1: Pathways to Guide Future PM/OM Scholars

PROJECT	DESCRIPTION
PROJECT A – Providing a new terminal at an international airport	<p>PM client managed a major international airport and had experience of undertaking projects to upgrade and expand the physical facilities for airlines and for passengers. Its annual revenue was @\$3.8 billion and it employed @5000 people. PM contractor was a large sized consultancy company serving multiple industries. Its turnover was @\$1.9billion and it had a global workforce of @19,000. They provide strategic built asset advisory and project delivery services to clients. The contractor had previously collaborated with the client being one of four suppliers on the client’s procurement framework.</p> <p>The project involved the construction of a new purpose built airport terminal and was part of a long-term \$3.2 billion programme to upgrade the airport facilities. The project budget was @\$1.2 billion. The project was judged as being successful, with the client very satisfied with the outcome.</p>
PROJECT B – Providing a new water reservoir	<p>PM client was a private water/wastewater company with an annual revenue of @\$2.2 billion and employing @5000 people. They were well experienced in undertaking large-scale projects, with five-year capital programs worth @\$5.5 billion. PM contractor was a small-sized civil engineering company, established for @25 years and based locally. The PM contractor had undertaken work for the client in the past, being on its list of approved suppliers.</p> <p>The project involved construction work on two reservoirs: the discontinuation of one reservoir, the establishment of a new one, with associated works, such as water draining, landscaping and river reinstatement. The budget was @\$2.4 million. The project was judged as being unsuccessful, with the client unhappy with the performance against numerous key performance indicators.</p>

Table 2: Description of Projects