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Guest Editorial

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This special collection of papers on performance measurement reports a diverse and broad spectrum of research that challenges conventional views on the 'age-old' problem of reconciling tensions between 'project success' and 'project management performance'. A project is often seen as an agent transforming something from a problem to a solution (Locatelli et al., 2023), but the problem of understanding performance remains. Problematisation typically begins with a process to integrate disintegrated areas, value different perspectives that may seem puzzling; present concepts that may seem at odds; introduce coping strategies and increase awareness of biases.

The guest editors are grateful to authors, reviewers and the IJPM team for their contributions to this special collection on project performance as it has attracted a fascinating collection of papers that we hope will inspire future research and conversations in this journal, and elsewhere. The importance of the debate cannot be understated. The requirement for robust and replicable methods for assessing project performance often lies at the heart of the accountability and transparency of public spending. For example, in the US, there is the S.1550 - Program Management, Improvement Accountability Act 114th Congress (2015–2016) and, in the UK, the work of The Public Accounts Committee in the House of Commons. That is not to say that its relevance is less in the commercial context. The financial sustainability of project-orientated commercial entities is inextricably linked with capability to deliver projects in an optimal way. Nevertheless, the delivery of public projects is largely characterised by complex interactions between benefit recipients and political agendas, whereas one could argue that profit-seeking (the fiduciary duty as it is known in the UK) somewhat oversimplifies the strategic landscape underpinning commercial projects and programmes.

1. Problematising our understanding of project performance

The actuality of project management is grounded in socio-material actions that are characterised by human behaviours, often referred to as soft skills (Azim et al., 2010) and prescribed methods (often involving technology) for the purpose of measuring individuals, activities, and the use of resources against pre-defined time, cost, and quality constraints (Jonas et al., 2012; Laslo, 2010). However, the reality is that projects are unique endeavours that are susceptible to the effects of complexity (i.e., non-linearity and emergence) risk and uncertainty. The strategic context is particularly important when seeking to problematise the principles of performance; projects are the principle means by which strategic objectives or policy is implemented within an organisation and thus successful execution is crucial to its sustainability. A project can also be seen as the organisation for transforming a permanent private or public organisation from one point to another. This is our first point of departure.

A second point of departure for this special collection was to inspire a more problematised view of project performance. In a recent editorial to the *International Journal of Project Management,* Huemann and Pesämaa (2022) argue for a more profound debate on the problem in the project management literature. There is evidence to suggest that much of the theory-based problem statements are 'gap spotting' meaning that researchers tend to locate one corpus of literature and postulate that this literature deviates from another corpus of literature (Sandberg & Alvesson, 2011). Gap spotting is a common way of promoting a problem and is frequent in this special collection of papers. Maylor et al. (2023) find a gap in project management literature between perceived and expected services in a SERVQUAL performance instrument. Blais et al. (2023) use gap spotting to integrate the literature on innovation processes with project management. Furthermore Pavez et al. (2022) promote gap spotting through focusing on the dearth of conceptual studies concerning project team performance. However, problematisations can also exist at a deeper level by targeting nuances of a concept or the validity of the problem itself. Our core construct, project performance, is truly in need for such conceptual problematisation.

A third point of departure was to learn more about the conceptual boundaries of project performance (Bourne et al., 2018). A typical connotation of project performance is that the object of study is making 'progress'. Delise et al. (2023) deliberate on the need for performance measurement tools to learn and overcome issues related to overruns and to learn from equivalent past projects. However, we consider progress to encapsulate both the positive and the negative, or absence of progress. We typically refer to the latter as a failure, error, or poor performance.

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This continuum that varies between negative, or poor performance, to expected high performance is one tenet of the performance paradigm (Eriksson et al., 2023; Pesämaa, 2017). This continuum allows us to problematise and find explanations reflecting different aspects of project performance in different project stages.

A fourth point of departure for this special collection was that project performance relates closely to governance. Whilst project performance reports the outcome of a goal, process, or activity the governance represents the guidance to reach such beneficial ends. A founding idea at the beginning of a project is often a linear model. Nothing is probably as useful as a linear model: every X variable is expected to generate Y outcomes. However, in practice we know linear models tend to come with their own problems. What happens if X doesn't always generate Y? What happens if to Y if X is delivered sub-optimally? For instance, we know while megaprojects tend to have a high project management performance failure rate regarding time, cost, and quality – megaprojects can still reach project success in terms of long term, valuable deliveries to society (Turner & Xue, 2018). This paradox between project performance and success can be explained by time, cost, and quality expectations but also by a magnitude of societal values that kick-in once the project ends. The paradox of project performance and success is thus a pedagogical or communicative problem between different interest groups representing different expected values during and/or after the project ends (Koops et al., 2016). We often refer to these goals and values in the governance literature as stakeholder problems (Qiu et al., 2019). In the performance literature, when it comes to the question "what is performance?" there has been a realisation for some time that performance depends on the position of those measuring it. This depends on the perspective, be that the managers within the project or the external stakeholders observing developments from outside the project. (Bourne & Bourne, 2011, page 1).

A fifth point of departure was strongly inspired by the notion of the 'governance of risks'. Bourne et al. (2023) discuss this in the context of moving goals and governance. Project risk is conceptually embedded in the assumptions of both project performance and project success. Project risk conceptually reflects the degree of project uncertainty. This means when we have full knowledge of the project there is no uncertainty and subsequently no risks. Governance of risks means projects cope with uncertainty, to some extent, by collaborating with individuals and organisations that have a prior experience gleaned from similar project situations. Governance of risks could also imply that individuals (or decision-makers) apply heuristics and rules of thumbs to estimate outcomes from decision scenarios. Governance of risks could also be defined as trust which is a matter of risk (Cerić et al., 2021). This means, for instance, when starting a project in a new context (e.g., another part of the world), with insufficient knowledge and aspiring for high performance outcomes, knowledge of certainty depends on trusting individuals and agents with some knowledge within that particular context.

A sixth point of departure for this special collection was to inspire a discussion on suitable approaches to diagnose error and bias. In governance terms, ignorance of unexplained deviation from goals represents something unexplained. If the unexplained deviation is a minor or insignificant amount of time, cost, quality or expected societal value we generally accept ignorance. However, where the unexplained deviation represents a significant amount of time, cost, quality, or value, then we tend to seek explanations of causality. The first type of diagnosis is to seek evidence of errors that may emanate from poorly designed protocols, routines and work processes. Bukoye et al. (2022) examine identify and discuss the role of nudges to cure poorly designed protocols. Bourne et al. (2023) further examined characteristics of biases and errors causing undesired performance. They also argue the protocols, routines or work processes that are the problem. The study of bias (decision-error) transcends disciplines and is grounded in the study of behavioural economics which combines economics and psychology to help us understand how and why people behave the way they do. Kahneman and Tversky's seminal work on prospect theory in 1979 challenged the traditional neoclassical economic view regarding assumptions that we make about individual preferences.

A seventh point of departure for this special collection of papers was to inspire various governing approaches that cure, stimulate and avoid certain undesired behavioural direction that affects performance (Bukoye et al., 2022). Herein we expected to gain fundamental principles to govern behaviours and processes through feedback, nudges, and other incentives. This element of the project performance problematisation is particularly essential since we are currently using major project and programmes as means to transform society towards soft sustainable goals. The term soft means projects are expected to have an influence on people's lives through bringing a more sustainable mindset or reaching higher degree of sericitization. Nudges and incentives are assumed to not only inspire desired behaviour but also signal how to avoid undesired behaviour.

Our final point of departure was to integrate two different literatures paradigms of performance management and project performance management. Bourne et al. (2023) integrate goals as systems of performance measurements with governance in context where initial assumptions of goals and governance change. They integrate project management with performance management literature, introducing concepts for coping with various degrees of certainty in performance measures (Melnyk et al., 2014; Speklé et al., 2021). In the project management literature there is a rich body of research examining projects in a project context (Turner & Xue, 2018; Wu et al., 2020), but much of the general project management literature overlooked specific performance management issues in projects.

2. Contributions to the special collection of papers on performance measurement in project management

The virtual special collection resulted in seven different papers reflecting upon the raised issues, explicitly or implicitly. The contributions cover qualitative and quantitative efforts that will help switching or broadening paradigms regarding project performance, performance measurement, performance management and related governance approaches.

2.1. Moving goals and governance in megaprojects

Bourne et al. (2023) suggest a paper that integrates general performance management literature with project performance management literature. Their idea of moving goals and governance suggests that there is misalignment between goals and governance. The paper uses three countries (United Kingdom, Sweden and the Netherlands), and three cases to explore the context (where), governance process (how) and the goals (what) in megaprojects. The paper suggests lenses to approach and diagnose whether context, governance and goals are uncertain or certain. Rather than using linear performance models, a more adaptive model is suggested as the continuous evolution of governance and performance measurement during the project lifecycle of a megaproject is critical to its ultimate success.

2.2. The paradox between project management performance and project success

Korhonen et al. (2023) explicate that how projects can dynamically influence the trajectory of their success by managing performance is inadequate. Based on empirical cases from Finland, they contribute to the literature on performance and success in project management. They also describe domination of certain measures reflecting innovation project success and performance. Finally, they offer a theoretical framework to understand how performance measurement can support achieving success in project-based operations.

2.3. Various forms and examples of measuring project team performance

Pavez et al. (2022) elaborate on the conceptualization of project team performance measurement. They use an Input-Mediator-Outcome (IMO) model of team effectiveness to propose a theoretical framework that organises project team performance measures considering the nature of performance (i.e., efficiency and/or effectiveness) and the nature of the measure (i.e., tangible and/or intangible). The study advances theory by offering a comprehensive and integral understanding of project team performance measurement and providing an evidence-based framework that could help practitioners improve the design of performance measurement systems for project teams.

2.4. Integration between NPD and project management

Blais et al. (2023) depict means of new product development (NPD) projects in small and medium sized project based organizations. They claim that failure rates of NPD projects are high, making it necessary to control project performance. They further claim that indicators proposed in the literature to accomplish this task are incomplete. By combining contingency theories and a resource-based view they set up a situation awareness model tested on five Canadian SMEs that are successful in NPD.

2.5. Mind the gap between expectations and experiences

Maylor et al. (2023) offer a more nuanced consideration of performance in the context of IT-enabled transformation projects. They use meta-analysis of project performance literature to identify two main knowledge clusters that is new product development, and project management success / performance. They argue that one of these, in-project performance, was of particular interest in their context. Using an initial qualitative investigation showed a prevalence for the use of product and output performance measures. An alternative service-based approach was tested using a cluster sample of customers of 40 business units based in several countries in Europe. They worked with a modified SERVQUAL instrument to take account of a range of performance factors, and to reflect the instability of expectations in this context. The use of 'current expectations' was shown to have utility, sustained by analysis of quantitative data. The contribution of this paper is in its conceptual model that offers an instrument for measuring expectations and perceptions of performance in IT enabled transformation projects.

2.6. Fallacy and errors: comparative overrun measure

From the USA, Delise et al. (2023) argue that projects often fail to meet initial estimates for cost and duration.. Better mechanisms are needed for diagnosing problems in both planning and implementation to help project managers learn to improve project performance. Based on their analysis of a large building-automation service company, they developed comparative measures incorporating outside view information. They suggest a learning perspective for project managers, to support a diagnosis of performance problems and incentives toward continuous improvement.

2.7. The behavioural approach to cope with performance issues

Bukoye et al. (2022) study various forms of nudges to cope with errors, bias and project performance outcomes across various sectors in the UK. They first selected six large-scale organizations that manage different projects across different sectors (i.e. consultancy services, nuclear energy decommissioning, infrastructure, oil and gas, renewable energy, and logistics). They identified 21 relevant nudge tools and show both direct and indirect impact of these on project performance. Next to this list of nudge tools, their contribution is in the future research agenda on the application of nudges to influence project performance.

3. Conclusions

This special collection of papers is designed to act as a portal into the critical discourse of project performance. A comprehensive set of studies, adopting a broad church of methodological and epistemological positions, is presented – which we hope will inspire further scholarship in tackling issues related to the problematisation of project success. Considering that projects are "the organisational form" that transforms an organisation from one sequence to another – we believe this should also inspire more research within this domain, including but not limited to uncertainties that surround current and future projects.

The papers here and our problematisation focus on the really thorny issues surrounding the design and use of performance measurement systems in projects. In many respects, the larger and more complex the project the more difficult the issues. There is the constant challenge around whether performance measurement systems are fit for the purpose (Bourne et al., 2023; Melnyk et al., 2014), given that environments, situations and purposes change depending on the stage of the project and the perspective from which the systems are being looked at. Traditionally, performance measurement systems have been used in organisational settings, and at times this is problematic. The added dynamics of a project setting creates an even greater challenge.

The conclusion of this special compilation of papers underscores the pivotal nature of understanding the intersection between performance management and project management, a confluence poised to gain heightened significance due to several converging trends. Notably, the rise of project-orientated initiatives and the proliferation of mega-projects are reshaping the landscape. Simultaneously, the rapid advancement in the capacity to capture and disseminate performance measurements, coupled with their integration into decision-making processes, such as through AI-driven governance, is ushering in a new era. As these trends converge, the importance of comprehending this intersection is set to amplify, warranting profound exploration of how these areas are interacting at this current stage.

4. Future research

We hope that this special collection frames not only a problem, but also creates insights into the interactions between context, governance, and goals in order to advance performance measurement in a practical project management setting.

This special collection offers a broad array of problems and academic interests within the domain of project success, performance, and governance. However, this domain will remain critical to create a more targeted understanding, awareness and tailored instruments that captures the entire process ranging from project performance during the project, to project success that emerges and develops after the project ends. To fully understand and offer an inclusive agenda there is also need for research approaches capturing all sides of the contract (i.e., dyadic) (Eriksson et al., 2023) triadic Öberg et al., 2020) and in some cases capture the entire ecology of projects and programmes (Hedborg et al., 2020) represented by a myriad of stakeholders with different views.

Firstly, taking these ideas a little further, there is another perspective that should be considered. This special collection has highlighted the tensions between project performance, as measured by the project managers, and project success, as measured by the beneficiaries and society at large. In the project literature, there has been an on-going debate about optimism bias and ways of minimizing the risks of this occurring. But in reality, from an institutional theory perspective, there are multiple pressures driven by different stakeholder interests that directly influence behaviours throughout the complete life cycle of a project and beyond. Future research into multiple stakeholders and institutional pressures on governance, performance measurement and perceptions of success and failure of projects may create new insights and approaches. This would extend our understanding of

interorganisational roles and their relationship on project performance and project success (Unterhitzenberger et al., 2022).

Secondly, at a system level there is one significant challenge, particularly in larger megaprojects. As megaprojects tend to expand and integrate with existing megaprojects as well as initiate completely new megaprojects, in fact there are multiple systems. Roehrich et al. (2023) conducted a recent longitudinal study of governing mutually shared activities of supply systems and subsystems. What is the relationship between the performance measurement system and the project management system or governance system? Is the performance measurement system a subset of the management or governance systems? Or is it separate? One does inform the other but does one control the other?

Given these paradoxes, one possible solution could be to adopt a system-of-systems approach (Bourne et al., 2018) to conceptualise the different but integrated roles of performance measurement systems and the management or governance systems with which they operate. Each of these systems exist in their own right and so will evolve as those involved develop the approach for their own particular purpose. The consequence is that this co-evolution is going to be emergent, but for that emergence to be useful rather than counterproductive, there needs to be oversight and continuous debate around the nature of those developments and their value in steering the project forwards.

Thirdly, there are going to be new and emerging technically driven, digital approaches influencing how we govern, measure, and manage projects. We have already witnessed the incredible changes to communications the internet has brought, the way digitisation has revolutionised design and manufacturing and the way social media can be used to influence narratives. Artificial intelligence is the next obvious disrupter, and the socio-technical systems of projects will continue to evolve, driving the need for future research.

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