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Managing risks in public-private partnership formation projects☆

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Abstract

While sourcing by means of Public-Private Partnerships has been lauded over recent years, increasingly risks appear to jeopardise public organisations' unique societal tasks. Integrated Risk Management has not yet been applied to public organisations getting involved in PPP in the sense of understanding risk management capabilities. This article explores risk awareness and risk management practices underpinning maintenance partnership formation by means of a dual case study of two PPP projects and a short industry survey. The results suggest that organisations face several "intolerable risks" linked to project governance and project management responsibilities: insufficient representation of qualified employees, absence of a shared performance system, assignment of responsibilities and decision-making authority, impractical or inappropriate partnership agreement, and timing of the partnership initiative. Cross-case analysis revealed the role of different levels of risk awareness and senior management involvement. Drawing on these findings, a framework for risk management for PPP formation projects is developed.

Keywords: Public-private partnership; Partnership formation; Alliance management; Project management; Risk management; Governance mechanisms; Capabilities

1. Introduction

Since the last economic recession public organisations, especially in infrastructure and security sectors, face a number of strategic challenges regarding the maintenance of their unique and complex technical system (Bobbink and Hartmann, 2014; Hartley, 2008; Humphries and Wilding, 2004; Koppenjan, 2005; Levering et al., 2013; Tatham, 2013). Public asset owners have been under pressure to reduce the downtime and life-cycle costs of their systems in an attempt to improve business cost efficiency and dependability (Brax and Jonsson, 2008; Samaddar et al., 2006). Their operational technical systems have become increasingly unique and complex, making it infeasible to develop and sustain all relevant maintenance knowledge at in-house service-departments (Pateli, 2009). Moreover, due to the ageing of the technical workforce, irrespective of their nature, service maintenance providers are forced to group technological expertise to enhance their utilisation and the development of new knowledge (Cambra-Fierro et al., 2011).

To improve public services in quality and effectiveness and to make operations more efficient, Public-Private Partnerships (PPP) have emerged as a strategic instrument in the Dutch maritime industry; they are pursued by public and commercial service providers teaming up and pooling complementary knowledge, skills, and resources over a longer period of time. This way, they seek to co-perform and secure the service maintenance on both the public and commercial systems (Chang et al., 2008; Kleemann

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and Essig, 2013). When controlled effectively, such Public-Private Service Maintenance Partnerships (PPSMPs) can increase the utilisation of resources, lower cost, and enhance innovation (Samaddar et al., 2006; Schemm and Legner, 2008). Exercising the required control across private and public actors, however, proves to be a daunting task. Researchers studying inter-organisational value creation and performance management have repeatedly reported these control challenges (Crié and Micheaux, 2006; Otto et al., 2011), referring to organisations' ongoing struggle to manage diverse partnership risks (Majchrzak et al., 2015; Pitsis et al., 2004) and the myriad of governance inadequacies (Bamford et al., 2003). Sampson and Williamson - as cited in (Vlaar et al., 2006) - found that partners' (in)ability to control partnership performance appears to depend on (in)adequate informal or formal control mechanisms (Sampson, 2004; Williamson, 1985). These findings echo related work on partnership governance (Feller et al., 2013; Keers and van Fenema, 2015; Mukherjee et al., 2013; Smith et al., 1995; Tjemkes et al., 2012). Different control approaches have been advocated emanating from a variety of perspectives, economics, organisation science, or sociology (Dunford and Jones, 2000; Wilkinson et al., 2013), contributing to the much-debated question of whether formal and informal control mechanisms substitute or complement each other (Ansari et al., 2014). Research mainly explored the selection and effects of various mechanisms, instead of deepening insight into organisations' capability to sufficiently manage PPP project risks in practice (Elmuti and Kathawala, 2001). Insufficient risk management may manifest in either organisations dropping out of partnership formation, being overwhelmed by the amount of risk factors requiring coverage, or quasi-smoothly proceeding formation by neglecting to cover them all; which may undermine cooperation at a later stage (Uiterwijk et al., 2013). Understanding organisations' capability to sufficiently manage PPP project risks, may help bridge the knowledge gap between partnership expectations and the way these are fulfilled. On top of that, integrated risk management is of growing importance to strategic managers (Bromiley et al., 2015). This is in particularly the case at public organisations, due to management challenges arising from decentralisation of activities in accordance with the subsidiarity principle (Kickert et al., 1999). *Academic research falls short of analysing public organisations' capability to manage PPP project risks, as a factor influencing collaborative performance. Our objective is to contribute to this gap.* Conceptually, we draw on and combine research on PPPs and project and performance management. Empirically, we apply IRM using a phenomenological method for conducting a qualitative sequential mixed methods approach.

Integrated Risk Management (IRM) is an interactive process of strategy formulation, identifying and assessing risks, differentiating risk factors, and formulating and implementing appropriate measures (Kinney and Wiruth, 1976). IRM is considered of key importance to monitor the overall – integrated – result (Lam, 2014).

The study context stems from a government-funded research programme aimed at developing partnerships within the Dutch maritime sector, as a strategy to increase efficient and predictive service maintenance. The programme includes two public and nine private organisations. These include fleet owners, Original Equipment Manufacturers (OEMs), and maintenance and service logistics providers representing a cross-section of the professional Dutch maritime maintenance industry. The sector's ambition is driven by the observation that maintenance constitutes a significant part of a ship's exploitation costs; systems downtime leads to a substantial loss of revenues or other value for asset owners (Peeters et al., 2012). In the past, top management tended to ignore maintenance by just considering it as a part of manufacturing overheads (Pintelon et al., 2006). From today's perspective, they are viewing maintenance and overhaul from a broader angle, adopting innovative strategies for designing, modifying and maintaining assets. As further explained in the methodology section, our unit of analysis for empirical research is multi-layered to capture the complexity of PPP: we focus on a sub-project within the government-funded research programme mentioned (project 1), the community associated with this programme, and project 2 involving a public organisation getting involved in PPP with its key supplier. The public organisation and its key supplier both participate in the government-funded research programme but they have also developed a partnership outside of this programme.

The remainder of the paper is structured as follows. The next section reviews the literature on PPPs and the role of integrated risk management in this respect, and the theoretical gap this paper is addressing. We then describe the empirical research, followed by the results and a discussion of the findings from research and practice.

2. Conceptual background

2.1. Public-private partnerships

Public-Private Partnerships (PPPs) became fashionable some forty years ago, and have been discussed in many studies since (Bovaird, 2004). Growing appreciation of the importance of market mechanisms underscored the success of privatisation in various countries and underlie the increased interest in the PPP phenomenon (Osei-Kyei and Chan, 2015). PPPs have become a rather popular institutional arrangement, as they are perceived to be a remedy for a lack of dynamism in traditional public service delivery (Jamali, 2004). PPPs introduce working arrangements based on a mutual long-term commitment between a public sector organisation and an organisation outside the public sector (Bovaird, 2004). For example, private companies may partner with public organisations to develop and execute cyber security operations; or they design, build, finance, maintain and/or operate infrastructures and facilities for public customers (Brinkerhoff and Brinkerhoff, 2011). The private sector can supposedly provide services in a more efficient manner than the public sector (Joha and Janssen, 2010).

While PPPs were originally treated as a derivative of the privatisation movement, there is a growing consensus today that PPPs implies more than the introduction of market mechanisms or the privatisation of public services. Rather, they imply a form of collaboration aimed at pursuing common goals, while leveraging joint resources and capitalising on the respective competences and