So alike yet so different: A typology of interorganisational projects

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Abstract

Large projects are predominantly carried out in interorganisational networks that temporarily unify the efforts of multiple firms to work towards a shared goal, such as the construction of a complex infrastructure asset. While earlier research has highlighted multiple features that are salient to these interorganisational projects (IOPs), and discussed how they are managed, research that would systematically address the differences amongst IOPs is still at its infancy. Drawing on a review of existing research on project organising and network research, the current paper proposes a typology of IOPs consisting of three ideal network types: market-based network, dyad-driven network, and integrated core network. Differences amongst the three types of networks in their structural properties, governance, and antecedent factors are discussed in light of empirical examples, extending our understanding of IOPs as dominant forms of organising production across a broad range of industries.
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1. Introduction

In many industries, including construction, television production and shipbuilding, major investment projects are predominantly carried out in interorganisational networks, which temporarily link together the resources, capabilities and knowledge assets of several legally autonomous firms. In the literature, these kinds of interorganisational arrangements are often referred to as project networks (Hellgren and Stjernberg, 1995; Ruuska et al., 2011) or as interorganisational projects (IOPs) (Söderlund, 2004; Sydow and Braun, 2018). In the literature, the use of the term 'project network' varies considerably. The term is used by some scholars to describe regional networks[1] of individuals and organisations in which projects are recurrently carried out (Manning, 2005; Sydow and Braun, 2018), while others use the term to refer to interorganisational networks setup up for the

purpose of completing a unique task such as the construction of a shopping mall or nuclear power station (Hellgren and Stjernberg, 1995; Ruuska et al., 2011). Thus, for sake of clarity, the term interorganisational project is used throughout the remainder of this paper.

Earlier research has contributed to our knowledge on IOPs by discussing their prevalence in different industries (e.g. Bakker et al., 2011), exploring their salient characteristics (e.g. Hellgren and Stjernberg, 1995), elaborating different actor roles and relationship types (Jensen et al., 2006; Manning, 2017), and describing various processes for collaboration and coordination of work (Larson and Wikström, 2007; Pitsis et al., 2003; Oliveira and Lumineau, 2017). However, until recently, most papers have focused on what IOPs have in common, and not on how two IOPs may differ from each other.

Research on interorganisational networks informs us that network organisations can be categorized according to their structure; that is, in terms of included actors, frequency of various types of ties (contractual, relational, communication, trust), and centralization, i.e. how evenly the ties are spread

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[1] Gernot Grabher (2004) has also introduced the notion of 'project ecology' to refer to semi-permanent networks of relationships between organisations and individuals in which projects are repeatedly carried out.

across the network. Uzzi (1997) has presented a categorization of interorganisational networks based on the frequency of embedded and arm's length ties in them, Nassimbeni (1998) has highlighted salient structural features of three frequent types of interorganisational networks, Provan and Milward (1995) have characterised networks based on their density and centralization, Burt (2004) has highlighted the importance of structural holes, and Gilsing et al., 2008 have addressed the relation between network density and exploration of novel technologies. In addition to these features, also the presence of cliques, i.e. tight groups of organisations within the network has been suggested as a discriminating feature of network structure (Rowley et al., 2005; Provan et al., 2007; Schwab and Miner, 2008). Regarding cliques in a project context, Lundrigan et al. (2015) engaged in a longitudinal study of three major infrastructure projects in the UK and uncovered that certain actors functioned as core members in the observed projects, possessing considerably more decision-making authority compared to peripheral network members. Manning (2017), discussing interorganisational projects in five project-based contexts – cultural industries, event organising, construction, complex product & system development, and collaborative research and innovation, shows that the composition of the core team appears to be associated to industry characteristics. Lundin et al. (2015) have also contrasted interorganisational projects with project-based organisations and project-supported organisations.

In addition to structural features, earlier categorizations of interorganisational networks have frequently examined governance, i.e. how it is ensured that network actors engage in collective and mutually supportive action (Provan and Kenis, 2008) and how power to influence others is distributed amongst network actors (Clegg et al., 2006). Provan and Kenis (2008), and later Raab and Kenis (2009) further categorized governance of interorganisational networks into three distinct types: participant-governed, lead-organisation governed, and network administrative governance. Participant-governed networks are highly decentralized, and their members are acting on a relatively equal basis. In lead-organisation governed networks, also referred to as strategic networks, or hub-firm driven networks (Jarillo, 1988; Lundin et al., 2015), a single firm assumes leadership of the network due to its superior resources and/or position within the network. Finally, network administrative governance refers to a specific governance entity jointly set up by the network actors. Networks in IOPs have been characterised as semi-hierarchic (Hellgren and Stjernberg, 1995), but it remains unclear if some networks are more hierarchic than others, and if so, why is this the case? Several recently introduced approaches for managing projects, such as project partnering (Chan et al., 2004), alliance models (Hauck et al., 2004), integrated project delivery (Glick and Guggemos, 2009), and lean construction (Sacks et al., 2010), are critical towards the assumption of the project operating under a hierarchical chain of command. Lundin et al. (2015) and Sydow and Braun (2018), bridging project research with interorganisational network research, argue that while interorganisational networks are often coordinated by shared

governance, several examples of lead-organisation governed projects have been discussed in the literature. Finally, Ruuska et al. (2011) have highlighted how two nuclear power station projects carried out within Europe differed considerably regarding the role of the project owner, relational ties amongst network actors, and contractual agreements.

To further advance the emerging discourse on interorganisational project dissimilarity, the purpose of this paper is, by drawing on earlier literature, to describe *how interorganisational projects differ in terms of their structure and governance, and how these differences may be associated with contextual factors*. In the following, we proceed to review literature on IOPs, with a focus on articles discussing the structural properties and governance of IOPs and networks. In addition, we also cover research addressing potential antecedent factors that might be associated with different types of IOPs. Based on this review, we present a typology comprised of three ideal types of ideal networks and discuss each type individually, linking them to illustrative empirical as available in extant literature. The development of a typology represents a top-down approach to categorization of IOPs, whereas development of a taxonomy would have been a bottom-up approach in which empirically observed networks would have been categorized based on their observed characteristics (Doty and Glick, 1994; Baden-Fuller and Morgan, 2010). For the purposes of the present paper, the development of a taxonomy was not considered viable due to the inherent difficulty and cost (in terms of both resource usage and time) in collecting comparable data from representative sample of IOPs. In addition, at the present, no empirically verified measurement instrument for networks within IOPs has been presented.

2. Literature review: exploring the differences amongst interorganisational projects

2.1. Research approach

Literature reviews can be categorized as either traditional (or non-systematic) or systematic (Cronin et al., 2008). In systematic literature reviews (SLRs), the aim is to reduce bias and increase transparency of the review process by explicitly describing each step of the review process including: journal databases searched, keywords used to identify sources, criteria used for inclusion/exclusion decisions, and process for analysing included articles. In contrast, traditional literature reviews emphasise insights that are iteratively developed from a broad and diverse body of literature that cannot be delimited by means of pre-defined eligibility criteria (such as journal databases and keywords). The present study builds predominantly on two broad streams of research, project organising, and interorganisational networks with the aim of iteratively developing a typology of interorganisational projects that would highlight the salient features of ideal network types. As this is the case, diverse kinds of articles such as those discussing structural features of networks, their governance, and articles providing empirical examples can be considered potentially relevant. Furthermore, as the body of research on