Journal of Purchasing & Supply Management 18 (2012) 113–121

Contents lists available at SciVerse ScienceDirect

Journal of Purchasing & Supply Management

journal homepage: www.elsevier.com/locate/pursup

The interplay of governance mechanisms in complex procurement projects

Marjolein C.J. Caniëls [a,1], Cees J. Gelderman [a,*], Nicole P. Vermeulen [b,2]

[a] Open University of the Netherlands (OUNL), Faculty of Management Sciences, P.O. Box 2960, 6401 DL Heerlen, The Netherlands
[b] Open University of the Netherlands (OUNL), Faculty of Management Sciences, c/o Rue du 31-Décembre 26, 1207 Genève, Switzerland

ARTICLE INFO

Available online 2 June 2012

Keywords:
Governance mechanisms
Contract theory
Complex procurements
Buyer–supplier relationships
Authority
Trust
Contractual incentives

ABSTRACT

Although many studies have investigated governance in inter-firm relationships, little is known about the simultaneous use of several governance mechanisms in complex procurement projects and their impact on project outcomes. In a case study about a complex procurement project in the Norwegian oil and gas industry, we investigate the interplay of contractual incentives, authority and relational governance. The project faced many problems with cost overruns and schedule delays. The study clearly illustrates the interrelationships between governance mechanisms and their effect on project outcomes. The findings suggest that relational governance (trust) is only beneficial for project outcomes when it is accompanied by contractual incentives and control systems (authority). Relational governance in itself does not guarantee an effective and beneficial interplay of all three mechanisms in a way that positive project outcomes are generated.

1. Introduction

Complex procurement projects are characterized by a high degree of uncertainty and technological complexity, the involvement of a large number of actors, and a time span of several years (Olsen et al., 2005). The complexity usually prevents the buyer from simply buying discrete components and combining these. Therefore, the buying process does not follow the serial and sequential transaction mode of traditional procurement (Caldwell et al., 2009). Hence, it is a managerial challenge to design contracts and employ governance mechanisms that can cope with the pitfalls associated with uncertainty, transaction costs and opportunism that are typically involved in these complex procurement projects (cf. Williamson, 1985, 1991).

Governance mechanisms are safeguards against opportunism that firms employ to govern inter-organizational exchange (Jap and Ganesan, 2000). Companies use formal governance mechanisms such as market contracts and authority (Yu et al., 2006), as well as relational governance mechanisms such as relational norms and trust (Zaheer and Venkatraman, 1995). In managerial practice these mechanisms are often applied in combination. However, in academic literature there exist opposing views on whether or not governance mechanisms act as substitutes (e.g., Reve, 1990; Wuyts and Geyskens, 2005; Williamson, 1985) or whether they are complementary (e.g., Poppo and Zenger, 2002; Ness and Haugland, 2005). Even though many studies have investigated the operation of isolated governance mechanisms (e.g. Gassenheimer et al., 1996; Hawkins et al., 2008; Jap and Anderson, 2003; Joshi and Stump, 1996; Poppo and Zenger, 2002; Wathne and Heide, 2000), only few studies investigate the *simultaneous* use of several governance mechanisms (exceptions are Caniëls and Gelderman, 2010; Olsen et al., 2005; Liu et al., 2009).

This paper contributes to current understanding of governance mechanisms in different ways. First, we investigate the simultaneous use of contractual incentives, authority and relational governance. Hence, we specifically focus on the interplay of governance mechanisms, something that has not been addressed very often in academic studies. Second, the paper takes a dynamic perspective on the development of governance mechanisms in inter-firm relationships, by studying the changes in the interplay of different mechanisms over time.Inter-firm relationships are intrinsically unstable, because the costs and the benefits of the relationship may change for each party after a while. In the beginning, benefits of the cooperation outweigh the costs. However, as the cooperation continues circumstances might cause costs to overshadow the benefits for one of the parties, while the other party may still gain from the relationship. This situation may induce opportunistic behavior of one party. Several governance mechanisms can safeguard against this opportunistic behavior. However, the accents on each of the isolated mechanisms in the constellation of all mechanisms may have to shift over time as well, in order to attend to the changing circumstances and changing behavior of business parties. Since it is hard to carry out longitudinal studies, adaptations in the mix of governance mechanisms over time are hardly ever investigated. Yet, they are

* Corresponding author. Tel.: +31 45 5762590; fax: +31 45 5762103.
E-mail addresses: Marjolein.Caniels@ou.nl (M.C.J. Caniëls), Kees.Gelderman@ou.nl (C.J. Gelderman), nicolevermeulen@hotmail.com (N.P. Vermeulen).
[1] Tel.: +31 45 5762724; fax: +31 45 5762103.
[2] Tel.: +41 77 4622963.

1478-4092/$ - see front matter © 2012 Elsevier Ltd. All rights reserved.
http://dx.doi.org/10.1016/j.pursup.2012.04.007

part of daily business practice and as such a relevant and interesting area of research that can offer important managerial insights. Third, the study links the co-evolvement of governance mechanisms to *project outcomes*, assessed in terms of cost, timely delivery and achieved quality. The specific focus on project outcomes is original, because most studies in this field focus on the use or working of governance mechanisms in buyer–supplier relationships, but not so much on the impact of these mechanisms in a project management context.

In order to explore the interplay of governance mechanisms a case study has been conducted on a complex procurement project in the Norwegian offshore oil and gas industry. Companies in the oil and gas industry generally spend around 80% to 90% of their costs on contractors (Raymond and Leffler, 2006). Procurement projects in this sector are generally complex, inducing companies to explore the simultaneous use of contracts and other governance mechanisms (Olsen et al., 2005). The case study involved semi-structured interviews with key respondents, which were employed by an initial operator, a second operator and an integrator. Furthermore, this study draws on the available documentation and archival records such as contracts and project monthly reports.

This article is organized as follows. First, we present the theoretical background of the study, resulting in a conceptual model. Then, we discuss the research methodology, followed by a presentation of the results of the case study. Subsequently, we discuss the results by analyzing our empirical observations and comparing them to what is known from previous studies. The final section presents conclusions and recommendations for further research.

2. Theoretical background

2.1. Governance mechanisms

Building or rebuilding an offshore oil platform is a typical example of a complex procurement project, involving several contractors and subcontractors for a number of years (Olsen et al., 2005), and requiring extensive coordination between parties. Complex procurements are often associated with uncertainty and (technological) complexity. The financial risks are likely to be enormous. The complexity of such projects makes it very hard to plan and achieve project outcomes in terms of time, costs and functioning according to specifications. Furthermore, since companies are in a constant struggle to achieve competitive advantage and financial performance, there is potential for opportunistic behavior (Hawkins et al., 2008). Williamson (1975, p. 6) defined opportunism as "self interest seeking with guile". Opportunism includes the incomplete or distorted disclosure of information. It refers to calculated efforts to mislead, distort, disguise or otherwise confuse the other party (Williamson, 1985). Many studies have demonstrated the destructive and devastating impact of opportunism on the performance of a strategic alliance (Parkhe, 1993), satisfaction (Gassenheimer et al., 1996), trust (Morgan and Hunt, 1994), and its potential to generate conflict (Joshi and Stump, 1996). Hence, opportunistic behavior can be expected to have a detrimental impact on cooperation in complex procurement projects.

Companies can utilize a variety of governance mechanisms in order to cope with exchange hazards and to reduce or prevent opportunism. Governance mechanisms are safeguards that firms employ to govern inter-organizational exchange, minimize exposure to opportunism and protect transaction specific investments (Jap and Ganesan, 2002). These mechanisms are used in several interorganizational exchanges, also in procurement. In this study we seek to expand the knowledge of the isolated and combined impact of the following governance mechanisms (cf. Wang et al., 2008; Olsen et al., 2005):

1. Price agreements and incentives anchored in *contracts*;
2. Hierarchical mechanisms, based on control and *authority*;
3. Relational governance mechanisms, based on *trust*.

Contractual agreements are tied to the functioning of the market mechanism in which behavior is induced by economic rationales and prices. Contracts ensure relationship governance by imposing explicit, legally enforceable contractual terms (cf. Williamson, 1991).

Hierarchical control is primarily used to governance relationships with a strong hierarchical structure, and is generally labeled as authority (e.g. Olsen et al., 2005). Authority implies the reliance on governance mechanisms such as rules and procedures, and it involves exercising control and power strategies (Haugland and Reve, 1994; Ness and Haugland, 2005). Authority is applied by the party who has the (legitimate) right to make decisions. This party is then using its power to control the activities of the other party (Wang et al., 2008).

In contrast to contracts and authority that can be classified as formal governance mechanisms, trust is a typical example of relational governance (cf. Yu et al., 2006). Relational governance assumes a shared set of norms and values between exchange partners (Wang et al., 2008). Important relational norms are flexibility, solidarity, and information exchange (Heide and John, 1992), and mutuality, role integrity, and harmonization of relations conflict (Ness and Haugland, 2005). These relational norms can provide an important safeguard against opportunistic behavior (Caniëls and Gelderman, 2010; Macneil, 1980; Dwyer et al., 1987). Relational governance (trust) implies that transactions are monitored while relying on social norms and personal relationships (Haugland and Reve, 1994). It refers to the willingness to rely on exchange partners in whom one has confidence (Moorman et al., 1992). Sako (1992) emphasized that trust refers to an expectation that a trading partner behaves in a predictable and acceptable manner. Basically, the most important aspect of trust is a positive belief, an affective sentiment about an exchange partner. One has confidence in the partner's reliability and integrity (Morgan and Hunt, 1994). It is widely acknowledged that trust is of key importance in projects that involve multiple project partners (e.g., Maurer, 2010).

The literature on governance mechanisms distinguishes many other potential safeguards such as reducing information asymmetry (monitoring), promoting goal convergence and values (socialization), and to excluding less reliable partners (selection) (e.g. Wathne and Heide, 2000). We adopt the classification into contracts, authority, and relational governance (trust), because it covers a broad area of measures that can be employed when dealing with opportunistic behaviors. Moreover, each of the three mechanisms operates in a different way, therefore it may have a unique impact on performance outcomes (cf. Jap and Anderson, 2003). The theoretical underpinning of this classification lies in contract theory, which considers contracts as a structural dimension in relationships (Ness and Haugland, 2005).

2.2. Interplay of governance mechanisms

The current literature on governance mechanisms has not yet reached consensus on whether governance mechanisms substitute, or rather complement each other. Various studies have emphasized the complementary characteristics of using different governance mechanisms (e.g., Das and Teng, 1998; Larson, 1992; Poppo and Zenger, 2002; Zucker, 1986; Klein Woolthuis et al., 2005; North, 1990; Hoetker and Mellewigt, 2008; Bradach and