Managing appropriation concerns and coordination costs in complex vendor relationships: Integration and isolation as governance strategies

Citation for the original published paper (version of record):
Agndal, H., Arvidsson, A., Nilsson, U. (2023). Managing appropriation concerns and coordination costs in complex vendor relationships:
Integration and isolation as governance strategies. Industrial Marketing Management, 113: 116-127.
http://dx.doi.org/10.1016/j.indmarman.2023.05.023

Industrial Marketing Management 113 (2023) 116–127

Contents lists available at ScienceDirect

Industrial Marketing Management

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

Managing appropriation concerns and coordination costs in complex vendor relationships: Integration and isolation as governance strategies

Henrik Agndal [a,*], Ala Arvidsson [b], Ulf Nilsson [c]

[a] School of Business, Economics and Law, University of Gothenburg, Sweden
[b] Department of Technology Management and Economics, Chalmers University of Technology, Sweden
[c] Sabanci Business School, Sabanci University, Turkey

ARTICLE INFO

Keywords:
Inter-organizational governance
Client–vendor relationships
Appropriation concerns
Coordination costs
Automotive industry

ABSTRACT

Many studies have shown that the inter-organizational governance mechanisms required to manage appropriation concerns come into conflict with the mechanisms needed to manage coordination costs. Research has, however, largely left unanswered the question of how client organizations govern complex vendor relationships that involve multiple categories, transactions, and activities where appropriation concerns and coordination costs must be managed simultaneously. We propose that this may be achieved by utilizing two strategies; while *integrating* some activities, transactions and categories, others can be *isolated*. Drawing on 23 interviews as well as procedural documents associated with vendor management, this study examines how a leading automotive manufacturer governs relationships with three vendors. The analysis reveals how corporate and operational-level staff combine formal and informal governance mechanisms as they pursue integration and isolation strategies, enabling the client organization to maintain and develop long-term complex relationships. Our findings lead us to question a tendency in the literature to regard isolation as negative and integration as an ideal strategy for managing long-term relationships. Only when utilized in tandem will isolation and integration strategies enable organizations to align the conflicting governance mechanisms required to manage appropriation concerns and coordination costs.

1. Introduction

Many studies have shown that non-hierarchical transactions engender appropriation concerns and coordination costs that client organizations must manage by creating appropriate governance structures (e.g., Anderson & Dekker, 2005; Anderson, Dekker, & Van Den Abbeele, 2017; Dekker, 2008; Gulati & Singh's, 1998). Research has found that, when addressing the risk of opportunism that generates appropriation concerns, governance mechanisms often involve an economic-hostage logic and coercive power (Dekker, 2004; Rindfleisch & Heide, 1997). Clients' efforts to manage appropriation concerns have therefore frequently been understood as conflict-oriented and intrusive, contributing to creating arm's-length and potentially short-lived inter-organizational relationships (Agndal & Nilsson, 2010; Kajüter & Kulmala, 2005). Managing coordination costs effectively, however, may require interaction that runs in the opposite direction, such as the cultivation of a collaborative atmosphere and long-term orientated inter-organizational relations (e.g., Birnberg, 1998; Cooper & Slagmulder, 2004; Agndal & Nilsson, 2009; Tomkins, 2001).

Prior research on inter-organizational governance has thus suggested that mechanisms designed to enable firms to manage appropriation concerns and coordination costs shape inter-organizational relationships in opposite directions (Gulati & Singh, 1998; Litwak & Hylton, 1962; Malhotra & Lumineau, 2011). The question then arises, *how do client organizations govern vendor relationships that involve multiple exchanges that involve opposing requirements for governance*? Extant research has relatively little to say about how firms act to mitigate the conflicts that arise between inter-organizational governance mechanisms (Caniëls, Gelderman, & Vermeulen, 2012). One reason may be that studies have focused mostly on relatively simple inter-organizational relationships where client firms need not strike a balance between the governance requirements associated with appropriation concerns and coordination costs (Agndal & Nilsson, 2019; Brattström & Richtnér, 2014). Another reason may be a tendency in the literature to treat organizations as unified entities that communicate with a single voice across exchanges (e.g., Anderson & Dekker, 2014; Cooper & Slagmulder, 2004; Dekker,

* Corresponding author.
E-mail addresses: henrik.agndal@handels.gu.se (H. Agndal), ala.arvidsson@chalmers.se (A. Arvidsson), nilsson@sabanciuniv.edu (U. Nilsson).

https://doi.org/10.1016/j.indmarman.2023.05.023
Received 1 June 2022; Received in revised form 21 May 2023; Accepted 31 May 2023
Available online 12 June 2023
0019-8501/

2004, 2008; Frazier, 1999). Therefore, there is little recognition in extant research that the factors determining a client organization's choice of governance mechanisms can vary across areas of exchange within a particular vendor relationship.

In more complex relationships that involve simultaneous transactions across multiple purchasing categories, however, conflicts between governance mechanisms may not be uncommon. Such a situation can, for example, arise when appropriation concerns in one category justify replacing a vendor, while the coordination needs of a joint development project in another category necessitate a long-term oriented and collaborative approach to governance.

While past research has frequently acknowledged the conflicting governance requirements of appropriation concerns and coordination needs, the question as to which strategies client organizations deploy to manage this conflict has been left largely unanswered. We address this gap by investigating how client organizations manage governance challenges in complex vendor relationships. We understand inter-organizational relational complexity as involving multiple sourcing categories, transactions, and activities (Ashley Fulmer, Gelfand, Fulmer, & Gelfand, 2012; Van Weele, 2014).

Empirically, we observe how an automotive manufacturer manages appropriation concerns and coordination costs in three long-term vendor relationships. Strategies designed to align opposing governance mechanisms may be particularly important in complex relationships that parties strive to maintain over time. We therefore study vendor relationships characterized by significant asset specificities (Drake & Haka, 2008; Gulati & Singh, 1998; Hibbard, Kumar, & Stern, 2001). We adopt the client organization's perspective because governance practices are typically driven by clients, with vendors adapting to their requirements (Cooper & Slagmulder, 2004).

In the following sections, we develop a framework and present the main research questions. Thereafter, we introduce our method and present findings that illustrate and deepen our framework. We conclude the paper by discussing its contributions.

2. Theoretical framework

In this section we propose that, by isolating some activities, transactions and categories while integrating others, client organizations can create governance structures that mitigate the conflict between governance mechanisms designed to manage appropriation concerns and coordination costs.

2.1. Appropriation concerns and coordination costs

The framework of appropriation concerns and coordination costs as determinants of inter-organizational governance structures finds its origins in transaction-cost economics. To explore the micro-dynamics surrounding the development and adaptation of inter-organizational governance mechanisms in greater detail than typically allowed by the transaction-cost framework, however, studies in this vein also often draw on organizational sociology (Anderson & Dekker, 2005; Dekker, 2004, 2008; Gulati & Singh, 1998).

Appropriation concerns reflect a vendor's potential for engaging in opportunism that arises from behavioural uncertainties and incomplete contracting (Gulati & Singh, 1998; Reusen & Stouthuysen, 2020; Williamson, 1981, 1987). Stouthuysen et al. (2019:2) describe this as *"the buying company's worries about its ability to capture a fair share of the rents from the relationship"*. The larger the relationship-specific investment and the greater the magnitude of the quasi-rents, the more pressing are the appropriation concerns (Batenburg, Raub, & Snijders, 2003; Dekker, 2008). The need for safeguards against appropriation of quasi-rents therefore plays a central role in long-term relationship governance, particularly as appropriation concerns largely appear ex-post contracting and may be present for extended periods of time (Klein, Crawford, & Alchian, 1978; Williamson, 1991). Under such conditions, client organizations strive to develop hierarchy-like inter-organizational governance structures that enable them to employ formal governance mechanisms such as monitoring vendors and aligning interests by rewarding or deterring certain behaviours (Dekker, 2004; Gulati & Singh, 1998). Client organizations also often strive to reduce their dependencies on vendors by introducing dual sourcing, thereby mitigating the moral hazard inherent to vendor relationships (Pazirandeh & Norrman, 2014; Pfeffer & Salancik, 2003). Studies have found, however, that in long-term relationships formal governance mechanisms may act in concert with more informal or relational mechanisms (Roehrich, Selviaridis, Kalra, van der Valk, & Fang, 2020). Through repeated interactions, clients can also collect first-hand information about vendors' abilities and character (Dekker, 2008; Gulati, Lavie, & Singh, 2009; Tomkins, 2001). A form of experiential trust in the organizational counterpart subsequently develops (Johanson & Mattsson, 1987; Lambe, Wittmann, Spekman, & R. E., 2001; Morgan & Hunt, 1994) and may complement the formal mechanisms that enable clients to manage appropriation concerns (Dekker, 2004; Gulati & Singh, 1998; Meyer, 2011).

Coordination costs are driven by *"the difficulties associated with decomposing tasks and specifying a precise division of labour"* (Gulati & Singh, 1998, p. 784) between organizational counterparts, requiring structured communication and decision-making to pool resources, carry out adaptations, and determine how interdependent activities should be performed (Dekker, 2004). Even in the absence of appropriation concerns, there may thus be significant uncertainties when forming and working within vendor relationships. Hierarchy-like inter-organizational governance structures can then help clients manage coordination costs (Vélez, Sánchez, & Álvarez-Dardet, 2008), particularly when high task interdependence requires extensive coordination of communications and decision-making (Galbraith, 1977; Thompson, 2017). Studies suggest that experiential trust may play a particularly important role in mitigating coordination costs, for example by facilitating the information-sharing needed for joint problem-solving and value creation (Dekker, 2008; Gulati, 1995; Lambe et al., 2001).

2.2. Inter-organizational relational complexity

Studies of appropriation concerns and coordination costs rarely involve complex inter-organizational relationships. Other industrial marketing and purchasing research, however, suggests that relational complexity may arise from the involvement of multiple functions and individuals in the same relationship (Arvidsson & Melander, 2020; Emsley & Kidon, 2007; Lovelace, 2001; Mogre, Lindgreen, & Hingley, 2017; Moses & Åhlström, 2008). Such complexity can be captured by distinguishing between the actions of corporate-level and operating-level stakeholders (Stouthuysen et al., 2019). Corporate-level stakeholders are boundary spanners who impact the strategic direction of a relationship by overseeing the totality of categories with which a vendor is involved. Operating-level stakeholders are concerned primarily with the day-to-day activities that drive individual transactions and often fail to understand the totality of an exchange with a vendor across purchasing categories. Governance challenges related to complexity thereby arise in part from the potential for uncoordinated action and the involvement of multiple channels of information (Arvidsson, Melander, & Agndal, 2022; Johnsen, Mikkelsen, & Wong, 2019) as stakeholders approach the relationship from distinct perspectives. By considering the various functions in which corporate- and operating-level stakeholders engage, we arrive at an understanding of relational complexity comprising activities, transactions, and categories (see Fig. 1).

At the *corporate* level, many firms employ purchasing-category management as an organizing principle (Gelderman & Van Weele, 2005; Kraljic, 1983). Clients may, however, place products from the same vendor in separate categories. In such instances, purchasing-category management may face a particular governance challenge (Arvidsson et al., 2022); while a heavy-handed, market-based approach

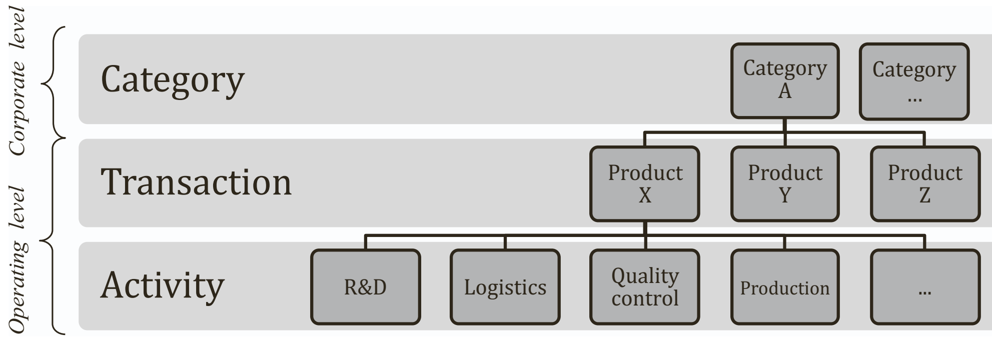

Fig. 1. Complex client–vendor relationships.

to vendor management may be appropriate when purchasing commodities in one category (Ellram & Murfield, 2019; Knight, Tu, & Preston, 2014), it may undermine commitment and long-term-oriented trust-building in categories where products require close collaboration (cf., Lambe et al., 2001; Morgan & Hunt, 1994).

At the *operational* level, the consequences of engaging in consecutive transactions with a specific vendor have been explored extensively (e.g., Rozemeijer, van Weele, & Weggeman, 2003). Studies illustrate, in particular, how inter-organizational relationships deepen as parties carry out mutually oriented activities (Gulati & Singh, 1998; Lambe et al., 2001). The complexities arising from engaging in multiple *simultaneous* transactions have rarely been explored, though, even if the challenges relating to simultaneous categories may be analogically applied at the transaction level. In such cases, though, purchasing-category management may oversee and coordinate transactions within each category (Ellram and Murfield, 2019; Sands, Beverland, Campbell, & Pitt, 2020). Corporate-level intervention may thereby play a central role in aligning governance mechanisms across transactions.

A significant body of research examines relationships involving multiple *operating*-level activities, such as joint product development, logistics, quality management, and after-sales service (Roehrich, Davies, Frederiksen, & Sergeeeva, 2019; Agndal & Nilsson, 2008, 2009; Wynstra & Ten Pierick, 2000). Such studies suggest that relationships represent activity flows wherein services and components are transformed by, and transferred between, organizations (Håkansson & Snehota, 1995). Indeed, vendor relationships are often described based on the multiplicity of operational contact surfaces involved in complex activity flows (Arvidsson & Melander, 2020; Håkansson & Snehota, 1995; Oh & Rhee, 2010). It is then not surprising if operating-level stakeholders with distinct tasks and mandates apply conflicting strategies to control vendor relationships.

2.3. Integration and isolation as inter-organizational governance strategies

Some research deepens our understanding of the challenges involved in designing governance structures that can align mechanisms that are needed to manage appropriation concerns and coordination costs. Stouthuysen et al. (2019) found that, while a client organization's corporate management emphasized the importance of appropriation concerns, operating managers were concerned primarily with coordination costs. Agndal and Nilsson (2019) found the opposite dynamic in a case where the client's operational staff managed appropriation concerns through conflict-oriented negotiations that foiled top management's efforts to reduce coordination costs by creating trusting, long-term relationships. In a similar vein, Agndal and Nilsson (2010) as well as Kajüter and Kulmala (2005) found that client organizations' attempts to use coercive power as a mechanism for managing appropriation concerns generated an unwillingness among vendors to share data to meet coordination needs. There is little research, however, that suggests how such conflicting governance needs can be managed in an inter-organizational context where there is "*both conflict and cooperation and formal authority structure is lacking*" (Litwak & Hylton, 1962:399).

A few studies, nonetheless, suggest that multiple modes of governance may coexist. Brattström and Richtnér (2014) and Roehrich and Lewis (2014) found that potential conflicts between formal and informal governance mechanisms were handled by separate departments taking on distinct roles. Håkansson and Lind (2004) found that distinct inter-organizational governance methods were employed at different geographical sites within the same relationship. Such research indicates that client organizations do not necessarily need to strike a balance between opposing governance mechanisms by developing a compromise that represents neither extreme; rather, by structuring their interactions with vendors, client organizations can potentially design governance structures that combine measures to address both appropriation concerns and coordination costs.

A substantial body of literature on *intra*-organizational governance has reached a similar conclusion. When units within an organization face contradictory expectations—e.g., simultaneous requirements of flexibility and efficiency (Adler, Goldoftas, & Levine, 1999; Carlsson, 1989) or requirements to both align and adapt activities associated with separate organizational functions (Raisch & Birkinshaw, 2008; Simsek, 2009)—the solution may be structural separation (Burns & Stalker, 1961; Drucker, 1985; Lawrence & Lorsch, 1967). In an *intra*-organizational setting, structural separation represents a mode of governance whereby individual organizational units are allowed to act according to norms and incentives that suit their specific functions (Fang, Lee, & Schilling, 2010). This may be particularly relevant when there are conflicting requirements to concurrently protect and disseminate knowledge (Kale & Singh, 2007; Kale, Singh, & Perlmutter, 2000), a dilemma that bears a strong resemblance to the conflicting needs involved in managing appropriation concerns and coordination costs in inter-organizational relationships.

While structural separation may reduce the potential for conflict between units—e.g., between those who seek to safeguard knowledge and those who seek to disseminate it for operational purposes—research simultaneously cautions that isolating units may conflict with the imperative to increase efficiency through integrated action across an organization (Gibson & Birkinshaw, 2004). The collective conclusion that can be drawn from studies of *intra*-organizational governance is, therefore, that conflicting governance requirements can be managed efficiently only by judiciously isolating some functions and activities while integrating others.

Two questions then arise in relation to inter-organizational governance. First, can appropriation concerns and coordination costs be managed by employing integration and isolation as inter-organizational governance strategies? Second, which governance mechanisms are utilized at the operational and corporate levels to accomplish isolation and integration in complex relationships?

We pursue these questions by deploying an understanding of integration as the intentional—formal or informal—linking of one activity, transaction or category with other activities, transactions or categories to support efforts to handle appropriation concerns and to manage coordination costs. Isolation, conversely, involves intentional—formal or informal—separation of one activity, transaction or category from other activities, transactions or categories to accomplish independence or autonomy. The combination of isolation and integration strategies, thereby represents an inter-organizational governance structure whereby (client) organizations can balance the potential for inefficiencies generated by adopting a pure isolation strategy and the conflicts and coordination needs that might arise from a relationship-wide integration strategy.

3. Method

To explore and illustrate how client organizations manage conflicting governance mechanisms, this study required rich empirical insights (see, e.g., Meredith, 1998). A case study design was therefore suitable. First, this enabled collection of comprehensive data from individuals that shape relationships (Easton, 2010). Second, case studies are suitable for studying contemporary phenomena without separating them from their contexts (Halinen & Törnroos, 2005). This was central to our aim to understand the tensions that characterize governance of inter-organizational exchanges.

3.1. Case and vendor selection criteria

The case involves a client operating in the automotive industry and three vendors (A, B, and C). The vendors were selected from a pool of long-term, strategic relationships to provide cumulative findings rather than to inform a comparative analysis. Keeping the client firm constant enhanced our understanding of the context. The vendor relationships thereby represented embedded sites within the case. The relationship, as seen from the client's perspective, was the main unit of analysis. Vendors were selected in discussions with the chief purchasing officer/VP to represent complex relationships. We also wanted the relationships to be long-lived and exhibit tensions between governance mechanisms.

3.2. Data collection

Semi-structured interviews generated the main set of data. A protocol guided the interviews (see Appendix 1). Questions were directed towards governance of specific vendor relationships rather than general vendor-management practices.

Interviews were conducted with 6–7 key client stakeholders at the operating and corporate levels in each relationship. Interviewees were initially identified together with top management and later using a snowballing technique (Corbin & Strauss, 2012; Denzin & Lincoln, 2000). This yielded 23 interviews with informants who work with one or more of the three vendors (see Table 1). All interviews were recorded and transcribed. Each interviewee received a code used in the analysis and case description.

We also studied the client's supplier-management procedural documents. These helped to generate a deeper understanding of interview data and terminology and facilitated descriptions of procedures that are followed in supplier quality management (marked as: A, G), code of conduct (marked as: B, H), supply chain sustainability (marked as: C), and compliance (marked as: D, E, F). All authors have been involved in research projects with the client firm's purchasing department within the past 5–10 years, enabling a deeper contextual understanding of the data.

3.3. Data analysis

As suggested by Miles and Huberman (1994), data were analyzed within and across vendor relationships. Following the method described by Gioia, Corley, & Hamilton (2013), analysis was performed in three steps based on our framework. *First*, within each vendor relationship, relational complexities and governance practices were identified by coding our data (interview quotes, procedural documents) according to the analytical framework of appropriation concerns and coordination costs at the corporate and operating levels. *Second*, data were compiled across vendor relationships and structured according to governance mechanisms that were designed for managing appropriation concerns and coordination costs at the corporate and operating levels. *Third*, we identified ways in which action at the operational and corporate levels contributed to isolation and integration as governance strategies to manage appropriation concerns and coordination costs. The findings are summarized in Table 3 (see Appendix 2 for sample data relating to the framework). In each stage, analysis involved systematic coding, displays of coding results, and discussions among the researchers involved.

In the case description, data are presented to create, from the client's perspective, an understanding of how the three vendor relationships were governed. We emphasize elements of governance that related specifically to relational complexity, leaving more general aspects of relationship governance aside as these are well attested to in the extant literature.

Table 1
Interview data sources.

Vendor	No.	Position	Code	Unit	Interview
Regarding all vendors	1	Top management	P1	Prch	60 min face-to-face
	2	Top management	P2	Prch	120 min face-to-face
	3	Legal	L	Legal	120 min phone
Relationship with vendor A	4	Group manager	A1	Prch	90 min face-to-face
	5	Category buyer	A2	Prch	90 min face-to-face
	6	Category buyer	A3	Prch	90 min face-to-face
	7	Category buyer	A4	Prch	90 min face-to-face
	8	Operational buyer	A5	Prch	90 min face-to-face
	9	Category manager	A6	R&D	60 min face-to-face
Relationship with vendor B	10	Category manager	B1	Prch	90 min face-to-face
	11	Group manager	B2	Prch	90 min face-to-face
	12	Category manager	B3	Prch	90 min face-to-face
	13	Senior director	B4	Prch	90 min face-to-face
	14	Category manager	B5	R&D	90 min face-to-face
	15	Section head	B6	R&D	50 min face-to-face
	16	Strategic purchaser	B7	Prch	50 min face-to-face
Relationship with vendor C	17	Group manager	C1	Prch	90 min face-to-face
	18	Category buyer	C2	Prch	90 min face-to-face
	19	Operational buyer	C3	Prch	90 min face-to-face
	20	Group manager	C4	R&D	60 min face-to-face
	21	Category buyer	C5	Prch	2 interviews: 30 min face-to-face + 45 min phone
	22	Operational buyer	C6	Prch	45 min face-to-face
	23	Operational buyer	C7	Prch	60 min face-to-face

3.4. Case characteristics

The client firm is an OEM operating in the automotive industry, with more than 40,000 employees globally and more than 500,000 vehicles sold annually. Sourcing from external vendors accounts for 70% of production costs, with direct materials representing about EUR 7bn annually. The company has approximately 500 active vendors of direct materials, supplying more than 10,000 items.

Procurement is centralized at the client, with the CPO reporting directly to the CEO. The purchasing department deploys close to 250 employees at headquarters. At the operational level, vendors often take part in component development processes and contracts often stretch over many years. At the corporate level, executives and CEOs of vendors meet regularly with the client company's top managers.

All three vendors operate in several categories and pursue multiple projects involving many transactions, teams, and individuals (see Table 2). Vendor A has been a long-term provider for more than 30 years—a stint the client characterizes as having existed "*since the beginning of time*" (A2). In some categories the client is the vendor's main buyer and in some categories the vendor is even considered an extension of the client with long-term and close interpersonal relationships. Vendor B has also been a long-term provider for more than 30 years; "*I've worked with them since '95. And they have been there long before me*" (B1). The vendor has at times lost business in some large categories but has won business in others. Vendor C has also been a supplier for decades: "*I've worked here since '86. And have seen many changes in the different categories with them*" (Senior purchasing manager: P2). The relationship has undergone a major change in the last decade after the vendor employed a local agent.

Transactions often involve multiple functions, including purchasing, R&D, and supplier quality management (SQM). The involvement of distinct functions varies across the category groups as the importance of design or ongoing quality development varies, such as in technologically uncertain projects. As a senior director in vendor relationship B observed, "*We have around 5 people at purchasing dealing with* [vendor B] *in my commodity. In R&D I guess they are counted in three digits* [i.e., hundreds of individuals] *and in SQM in 2 digits, maybe around 10.*" (B4).

The three relationships in many ways represent the archetypal dilemma that arises when managing appropriation concerns and coordination costs. All the vendors sell to other automotive customers, generating a need to preserve the integrity of proprietary information. Significant information exchange and investments are, however, necessary in joint development projects. Information must also be exchanged across activities, transactions, and categories to maximize efficiency. The complexity involved in interacting within and across projects therefore makes incomplete contracting (Williamson, 1987) the norm. Clients and vendors simultaneously try to leverage their positions across transactions and categories as they face extreme cost pressures. Governance mechanisms designed for managing appropriation concerns therefore come into conflict with the imperative to make coordination as efficient as possible.

The client's relationships with the three vendors also involve mutual dependence. For the client, switching costs are high and components have long life spans. For vendors, investments are difficult to recoup outside the relationship. The parties therefore have a strong incentive to maintain their relationships.

4. Governance of three vendor relationships

Here we describe challenges relating to coordination costs and appropriation concerns at the corporate and operating levels, identifying which governance mechanisms are used to manage these challenges.

4.1. Appropriation concerns

Appropriation concerns reflect a client organization's interest in preventing a vendor from capturing more than a perceived reasonable share of the rents generated within a relationship (Stouthuysen et al., 2019; Williamson, 1987). Governance mechanisms designed to safeguard against such opportunistic action include, e.g., detailed monitoring, reducing dependencies, efforts to align interests through rewards or the threat of punitive action (Dekker, 2004; Gulati & Singh, 1998) and, to a lesser extent, through trust-building (Meyer, 2011). We observed several examples of this dynamic involving isolation and/or integration at the corporate and operating levels.

4.1.1. Corporate level

The challenges involved in coordinating the three relationships appear to be significant and no single functional unit at the client organization has a comprehensive overview of all activities, transactions or categories involved in exchanges with a particular vendor. In the words of the client's chief purchasing officer, there is no "*master file covering everything that is going on*". To balance isolation against integration, the client organization therefore conducts vendor audits across categories and transactions. These audits are typically performed by the SQM function with the goal of highlighting areas that need improvement and ensuring that vendors meet the general selection criteria that initially justified contracting them.

To prevent conflicts from spilling over between categories, the client firm strives to reduce interdependencies by partitioning the relationship. To achieve this form of isolation, categories are managed independently by category teams. By appointing key account managers (KAMs) to specific clients, however, vendors act in the opposite direction. This sometimes generates confusion in communications. As a category manager noted,

> "*The tricky thing when it comes to this big complex vendor relationship is actually to work with a couple of persons—and they need to make you trust them in the same way as I need to make them trust me.* [. . .] *I try to communicate with the persons at the vendor that I work with*" (A3).

Appropriation concerns are also managed across categories to ensure that a vendor does not leverage its dominant position in one category to gain benefits in other categories, representing a form of isolation strategy whereby vendor representatives are generally required to communicate with category managers rather than top management. A buyer commented that this is particularly important in a relationship shaped over extended periods of time where strong personal ties can develop between the client's and the vendor's staff at the top management level. We also observed examples where the client firm introduced

Table 2
Case background information.

Case	Relationship with vendor	Type of involvement with the client	Length of contractual relationship	Vendor HQ	Cross-functional teams based on no. people involved	Inter-organizational structure
A	Vendor A	Many contracts in more than 3 categories	30+ years	Same country as client	PSM > R&D/SQM	Vendor restructured to match the client
B	Vendor B	Many contracts in more than 3 categories	30+ years	Other country than client (local office)	R&D > SQM > PSM	Vendor operates hierarchically, in contrast to the client
C	Vendor C	Many contracts in more than 3 categories	30+ years	Other country than client (local contact person)	R&D > SQM > PSM	Vendor operates hierarchically, in contrast to the client

competition in the form of dual sourcing in some categories to reduce vendor power. By treating categories as separate businesses, the implications for the overall relationship can then be managed. Clients' concerns with maintaining their overall relationships also sometimes led them to accept appropriation concerns in particular categories rather than managing these with potentially conflict-oriented measures such as shifting volumes between vendors.

When the client needs to exert pressure, categories are instead treated as integrated parts of the business with a particular vendor. The escalation process then fills an important role in leveraging the client's position to manage appropriation concerns, e.g., arising from recurring quality problems or price negotiations; as several study participants emphasized, displeasure with a vendor in one category carries with it an implicit (and sometimes explicit) threat that action may be taken against the vendor in other categories. To illustrate this point, we noted in one of the relationships that, when escalated to top management, unaddressed quality issues in one category resulted in the vendor's business being "*put on hold*". This meant that no new contracts were signed in any category, giving the vendor a strong incentive not to escalate to the corporate level any issues that could be resolved by operational staff. The client organization's procedural documents regarding vendor quality management outlined what audit processes may look like:

> "[The client] *will check the supplier's scorecard and recent quality performance (PPM, QPM, recent audit scores, quality spills, Low performing Supplier status, etc.) of the supplier. Depending on these results,* [the client] *may request a new SEM or ask for further evaluation audits"* (PD A).

Several interviewees also described appropriation concerns relating to vendors' attempts to leverage investments in joint product development in one category as they entered price negotiations in other categories. While at an operational level the category-specific scopes and roles are more clearly separated or isolated, the firm coordinates across categories at the corporate level in an attempt to stay informed and prevent such vendor opportunism. A strategic purchaser in the relationship with vendor C exemplified what happens when a vendor attempts to receive compensation beyond what is perceived as contractually agreed-to:

> "*Maybe they do overtime at the supplier and they come up with a claim* [. . .]. *And if we have an agreement that we have not signed from both sides, then I put it up on the action list* [. . .]" (B7).

4.1.2. Operating level

Appropriation concerns regarding operational issues such as quality problems in connection with a particular transaction are commonly handled by forming cross-functional teams involving R&D, purchasing, logistics and quality control. One category manager working with vendor B described how discussions then become more "*fact-based*" (B5). Particularly problematic are design changes—e.g., to reduce costs—implemented during an ongoing transaction. Discussions of such changes often involve both technical and commercial issues and require close cooperation across functions to ensure that the client reaps a fair share of the rewards generated. The client firm also sometimes needs to address quality issues or distribution of rents without allowing such potentially conflict-laden discussions to spill over to other activities in the same transaction. A specialist team is then assembled to address the issue, which is "lifted out" or isolated from the ongoing daily joint work with the vendor.

The client organization also controls opportunistic behaviour at the operational level by actively encouraging spillover of information between transactions and activities. This takes the shape of both formal meetings between operational staff within categories and informal conversations. Consequently, the vendor cannot act opportunistically in one product-development process by, for example, misusing sensitive data they have acquired, as this may later affect other product-development processes. The consequences of misbehaviour within the given category are more immediate, though, commented one operational buyer, particularly because coordination across categories takes time and takes place formally only once it is apparent that category teams cannot solve problems locally and must therefore escalate them. In that sense, negative experiences spread quickly within transactions but more slowly between transactions.

Facing the possibility of follow-up transactions—effectively moving from a market-based to a more trust-based mode of interaction—also helps to keep vendors in check. In situations involving conflict in locked-in areas of relationships, such as disagreements over price or attempts to change contractual agreements, however, the formal escalation process is also a primary means of resolving operational issues at higher management levels. This effectively entails turning operational issues into corporate-level interventions. Given the potential for being considered problematic suppliers, though, the vendors mostly strive to resolve operational problems together with the client's operational staff.

Sourcing staff we interviewed also pointed to complexities related to strategic cost management and the allocation of efficiency gains across simultaneously running transactions. Sometimes components or modules are used in several of the client's products. Within each transaction such modules are usually subject to annual cost/price reductions (typically a percentage rate per year) based on cost split-ups and open-book accounting. Integration in the form of coordination between transactions is then necessary to ensure that vendors do not reap excessive rewards for efficiency gains already implemented within the scope of other transactions.

4.2. Governance of coordination costs

Complex relationships give rise to significant coordination costs that client organizations attempt to govern not only through mechanisms such as efficient structures for communications, task allocation, decision-making, and relationship-specific adaptations (Dekker, 2004; Gulati & Singh, 1998) but also through the development of organizational trust to facilitate, for example, information-sharing (Lambe et al., 2001; Coletti, Sedatole, & Towry, 2005). As occurs when it manages appropriation concerns, the client organization's attempts to govern the three vendor relationships provide several examples of efforts to manage coordination costs using isolation and integration strategies.

4.2.1. Corporate level

The more activities, transactions and categories that are involved in a client–vendor relationship the more complex it becomes for upper management to address coordination costs. Previously, the client organization had operated within a structure based on key supplier managers. The supplier-manager position was, however, eliminated when the purchasing function was reorganized a few years prior to the study. Coordination across categories instead relies largely on the involvement of the chief purchasing officer. He commented that this generates challenges in understanding "*the whole picture*" of the business with any particular vendor, which makes sharing information between category managers pivotal. The elimination of the key supplier-manager role was premised, however, on an isolation logic; communication between staff across categories was often unnecessary. This is not least the case in the three vendor relationships, which involve categories that in many ways are unrelated. As a category buyer in the relationship with vendor A reflected, "*You need to understand you will never know everything. There are so many people involved in the work in all areas. So, you need to find a good level of information*" (A4).

The escalation process is also a key formalized tool for managing coordination costs arising from multi-level relationship complexity, particularly operational problems that cannot be solved by operational staff. In the escalation process, efforts are made to involve counterparts at the same organizational level with whom there are good interpersonal relationships. Upper management involvement in operational issues, however, drives coordination costs, and extensive efforts are therefore made to isolate operational issues from the management level. To illustrate, a manager in the relationship with vendor B stressed in particular that "*I try not to fiddle with their daily work. If the* [operational buyers] *say that they need my help in some problem or item, then I would support them, of course, but otherwise I try to stay out*" (B2). From the client's point of view, matching hierarchies thereby means, in the words of a category buyer (A4), involving operational staff at the vendor as well to ensure "*that the right people talk to each other*". Integrating efforts at the corporate level to address coordination costs instead include annual meetings between upper management-level actors, such as the client's purchasing manager and vendors' CEOs, business area managers or KAMs. Such meetings typically focus on overarching strategic issues unless problems that cause significant operational disturbances need to be addressed. Overall vendor performance, e.g., relating to the implementation of more sustainable practices, is also addressed through this mechanism.

According to some study participants, reluctance among the client's upper management to tackle operational issues frustrates vendors. This is particularly a problem when the vendors have a more hierarchical decision-making structure. For instance, when the client's purchaser has a relatively far-reaching mandate to make decisions but the counterpart's representative needs to involve a KAM, this manager often wants to meet with a manager at the client. This may damage trust-building at the operational level and complicate communications. A group manager involved with vendor C commented,

> "*We have had situations where they only want to talk at management level* [. . .]. *I mean if top management wants to have a good relationship with* [the vendor], *that's good because that will give us some good leverage in the future if needed, but they should not be involved in the business at all*" (C2).

4.2.2. Operating level

The client firm consistently attempts to isolate and push decision-making as far down in the organization as possible for the particular purpose of reducing coordination costs. This is supported by what it termed a "*part-centric view on product documentation*" (PD G) where the individual sub-component is the carrier of technical and commercial information rather than the product.

By emphasizing that the individual purchaser takes responsibility for solving operational issues, the escalation process acts as a mechanism that prevents conflicts from spreading across transactions and categories. The "trust-based culture" that the client firm strives for also plays an important role in managing coordination costs across activities and transactions. A group manager working with vendor C commented on the importance of interacting with the same individual at the vendor over time, noting that "*I have to trust that the* [individual] *is responsible*" (C1).

Although it was stressed in almost all our interviews that top management wishes to avoid handling operation problems, one interviewee pointed out that escalation can also function as a means of preserving a good working climate needed for efficient cooperation at the operational level. Isolating problems by escalating them reduces stress on individuals with limited decision-making authority or capacity to tackle complex conflicts. As a category manager in the relationship with vendor B observed,

> "*The last communication I remember was some kind of a payment issue that was very complicated. Then I had a chat with my contact* [whom I know very well and am close with]. *There were a lot of stakeholders involved and I tried to push a bit to get the discussion going. Then it kind of didn't reoccur in my mailbox so I assume it was solved* [higher up in the organization]" (B3).

Vendor relations have thus been preserved by clearly separating the responsibilities of each functional unit at the client; engineers at the R&D function were recently even geographically separated from the purchasing department. This, according to several study participants, has had both positive and negative effects on vendor relations. The isolation of R&D from purchasing reduces the spillover of negative sentiments from commercial negotiations—which are more conflict-filled and focused on the bottom line—to engineering work requiring an open atmosphere for innovation. "*Normally I would not pick up the phone and call the technical engineer*", commented a category buyer involved with vendor A, arguing that they do not speak the same language and that goal conflicts may disrupt their work. Issues that can be difficult to resolve because of goal incongruence are even transferred from the R&D department to purchasing with the aim, in the words of a section head in the relationship with vendor B, of "[letting] *them take the fight so that we can keep our good working relationship*" (B6).

Geographical isolation has meant that sharing information about the vendors has become more difficult, however. Because separate functions interact with vendors with limited coordination, internal conflicts have been generated. In the view of a category buyer in the relationship with vendor A, this reflects a lack of clarity regarding the roles of functions in, for example, development projects. He commented,

> "*I work with R&D every day. I was there this morning discussing all our open issues. I think it was a very poor decision to separate us because it was most effective when we sat in the same building where we had the discussions about articles, we had discussions about coming changes every day and they understood what my thoughts are. We think very differently or sometimes very alike. I mean we have different focus points, they have different deliverables. Once we sit down and talk together it becomes so much more effective*" (A3).

Lack of internal coordination also spills over to interactions with the client's vendors. While representatives of the client organization repeatedly emphasized that they seek to foster a trust-based culture to facilitate coordination through informal communications and relationship-building, separating functions greatly complicate these trust-building efforts. Interviewees at the operational level also provided several examples where category managers had to step in and initiate trust-building exercises to resolve larger conflicts involving several transactions with the same vendor.

The case thus provides many examples illustrating how the client organization works variously to integrate and isolate activities, transactions, and categories to handle the conflicting governance requirements associated with appropriation concerns and coordination costs. In many instances integration and isolation efforts are integral to vendor-management strategies. In other instances, integration and isolation appear to function more like emergent practices. The following section summarizes and discusses these strategies.

5. Discussion: Integration and isolation as governance strategies

Research has suggested that conflicting governance requirements *within* organizations can be managed by judicious structural separation (Drucker, 1985; Fang et al., 2010; Gibson & Birkinshaw, 2004). We wondered whether we would observe a similar approach adopted when clients strive to manage the conflicting governance mechanisms required to manage appropriation concerns and coordination costs in complex inter-organizational relationships. Our empirical research showed that the client organization did strive simultaneously to isolate and integrate activities, contracts, and categories to manage the risk of opportunism, to achieve operational efficiency, and to ensure the long-term survival of the relationship.

Our second question led us to consider which governance mechanisms are utilized at the operational and corporate levels to achieve isolation and integration. Clearly, the organizational structure and surveillance tools that define tasks, roles and procedures (Dekker, 2004; Gulati & Singh, 1998) represent formal mechanisms utilized in this process. Informal governance mechanisms such as learning and trust

(Gulati et al., 2009; Lambe et al., 2001; Morgan & Hunt, 1994) are also important, even if they appear to be emergent rather than planned in nature. In the following sections we discuss how isolation and integration strategies were pursued at the operational and corporate levels. Table 3 summarizes these actions.

5.1. Utilizing isolation to manage governance challenges arising from relational complexity

The three vendor relationships in our case study provide many illustrations indicating how the client organization purposefully strives to isolate categories, transactions and activities. The mechanisms by which isolation is achieved and the rationales for isolation vary, though.

A central purpose of isolation at the corporate level is to avoid cross-category interdependencies. This enables the client organization to implement sanctions in certain categories while maintaining good relations in other areas. It also enables the client to reduce the vendor's negotiating power that comes from being a supplier in multiple categories. By treating categories as separate entities within a vendor relationship, the client can simultaneously introduce competition in some categories while allowing the vendor to play a more prominent partnership-like role in others.

Table 3
Utilizing isolation and integration as strategies to govern complex long-term relationships.

		Governance strategy	
		Isolation	Integration
Appropriation concerns	Corporate level	- Partitioning a vendor relationship to reduce cross-category interdependencies -Implementing sanctions in selected areas - Dual sourcing or change in volumes to avoid dependence on vendors	- Internal cross-category coordination of knowledge to support action against vendor - Performing audits and implementing contract sanctions across categories to force vendor compliance
	Operating level	- Structural separation of functions to enable confrontational negotiations	- Cost transparency and open-book accounting to enable cost management across transactions - Auditing across functions and activities to monitor vendor compliance - Pooling competencies to resolve compensation conflicts caused by performance issues
Coordination costs	Corporate level	- Reducing coordination between (technologically) unrelated categories - Delegation and clarification of responsibilities to promote operational autonomy	- Socialization to facilitate communications across categories and joint development projects
	Operating level	- Escalating difficult decisions to preserve operational relations - Structural separation to force functional autonomy - Separation of functions to allow practicing 'good-cop/bad-cop' tactics while maintaining a trusting vendor relationship in development projects	- Knowledge transfer across transactions - Pooling resources across functions to support value-creating cross-functional work and develop vendor performance

Several mechanisms are used to achieve isolation at the corporate level. Previously, the client organization employed key supplier managers, a function that was eliminated to reduce costs. This forces the vendors to operate on multiple contact surfaces and only by seeking out the client's chief purchasing officer can vendors leverage power across categories. The corporate level also strives to promote isolation by pushing decision-making as far down in the organization as possible and by not engaging in operational issues. We even observed multiple instances in which corporate management pushed issues back down the hierarchy after they were escalated in accordance with the wishes of both the vendor and the client's operational staff. In some instances, vendor representatives were even denied access to upper management. Such an isolation strategy represents an organizational structure through which the client can reduce coordination costs (see Vélez et al., 2008).

The client organization also pursued isolation at the operational level. Reflecting other studies (Roehrich et al., 2020), here study participants described the importance of establishing an open and collaborative atmosphere to facilitate coordination of cooperative work with a vendor. Consequently, isolating controversial activities by pushing them up in the organizational hierarchy through the escalation process helps to preserve such an atmosphere. Similarly, functional units are isolated by structural separation—by limiting communications between functions, by clearly delimiting tasks and responsibilities, or geographically—to maintain functional autonomy. This enables the vendor to practice 'good-cop/bad-cop' discipline in certain areas while simultaneously maintaining a broader committed relationship. Engineering activities that rely on joint cooperative work are also frequently isolated from tasks where substantially adversarial roles are played in response to appropriation concerns—such as purchasing negotiations. In this way, isolation preserves trust and communications needed to manage coordination costs (Dekker, 2008; Gulati, 1995) while the organization can simultaneously manage appropriation concerns.

We thus find that isolation represents a strategy for reducing vendor power and unnecessary coordination as well as for improving operational efficiency while simultaneously preserving the relationship at the functional level. This view of isolation goes far beyond suggestions in the extant literature that geographic (Håkansson & Lind, 2004) and functional (Roehrich & Lewis, 2014) separation may enable potentially conflicting governance mechanisms to coexist.

5.2. Utilizing integration to manage governance challenges arising from relational complexity

In the governance literature, integration is broadly suggested as a strategy for achieving efficient coordination (e.g., Foerstl, Hartmann, Wynstra, & Moser, 2013; Franke & Foerstl, 2020). In the complex relationships we studied, integration across categories was indeed undertaken to manage coordination costs, to transfer knowledge between transactions and categories, to unify vendor communication and to achieve a coherent vendor-management strategy. The design of an organizational structure that promotes interaction across categories when purposeful for strategy development and implementation is thus a central mechanism for integration. Integration across categories is also a key means of managing appropriation concerns. This involves leveraging power against vendors, e.g., by applying price pressure across categories and to force remedial action in specific categories when contractual terms are not met. An important formal integrating mechanism is the cross-category vendor audit.

Integration at the operating level, such as value-creating cross-functional work, is undertaken to manage coordination costs at all stages of a transaction. This aspect of integration is described extensively in the literature (Foerstl et al., 2013; Franke & Foerstl, 2020). Managing appropriation concerns through integration at the operating level involves primarily contractual safeguards and post-contract issues, such as problems with quality or changes in terms. Under such conditions, the expertise embedded in several departments is pooled to support a fact-based and informed decision-making process.

Our findings regarding integration as a governance strategy for achieving efficient coordination and managing appropriation concerns thus largely support findings of a notable body of research. This study does, however, suggest that efficiency gains arising from routine coordination in highly complex relationships may sometimes be limited. Rather, integrating efforts are in some instances relevant primarily for special purposes and are triggered by particular events.

6. Contributions, implications, and limitations

The literature on inter-organizational relationships has—often implicitly—assumed that firms adopt governance structures primarily involving mechanisms designed to help them manage *either* appropriation concerns *or* coordination costs. Therefore, studies have largely left unanswered the question of how to design a governance structure that aligns the contradictory governance mechanisms associated with appropriation concerns and coordination costs. The literature on *intra*-organizational governance, however, has suggested that structural separation (Adler et al., 1999; Burns & Stalker, 1961; Drucker, 1985; Lawrence & Lorsch, 1967; McDonough & Leifer, 1983) balanced against integrated action to maintain efficiency (Gibson & Birkinshaw, 2004) represents a purposeful response to conflicting governance requirements. Inspired by this notion, we developed a framework where *integration* and *isolation* represent an inter-organizational analogy specifically addressing the governance challenge of simultaneously managing appropriation concerns and coordination costs. We make several contributions to the literature on inter-organizational governance.

First, to the extent that it has been concerned with relational complexity, prior research suggests integration as a response to coordination needs (Power, 2005). We add to this our own findings that integration may serve as a governance strategy for managing appropriation concerns and that appropriation concerns as well as coordination costs can be managed through isolation. The governance *conflict* between appropriation concerns and coordination costs can also be addressed by isolating some activities, transactions and categories while simultaneously integrating others. Isolation entails separating activities, transactions, and categories to enable organizations to employ, for example, intrusive monitoring governance mechanisms in some areas while maintaining a trust-based atmosphere in other arenas, such as when an organization wishes to protect joint engineering work from market-based price negotiations. Integration, conversely, involves linking activities, transactions, and categories. A central purpose of integration may be to generate positive effects—for example from trust-oriented governance—across activities, transactions, and categories to enable experiential trust-building (Johanson & Mattsson, 1987; Lambe et al., 2001; Morgan & Hunt, 1994) that complements formal governance mechanisms (Gulati & Singh, 1998; Meyer, 2011). Our findings also suggest that integration may provide a strategy for managing appropriation concerns by leveraging power across categories, transactions and activities, ex-ante as well as ex-post contracting.

Second, we caution against a tendency to treat isolation as inherently negative for inter-organizational relationships by, for example, emphasizing its negative effects on synergies and knowledge transfer. We also question a tendency to regard isolation as a strategy that emerges without, or runs counter to, managerial intervention (Mitra & Singhal, 2008; Trada & Goyal, 2020; Zimmermann, Raisch, & Cardinal, 2018). Our research suggests that isolation may represent an intended governance strategy that brings positive results; isolation may enable organizations to prevent counterparts from leveraging power while avoiding spillovers of negative experiences to other arenas in a relationship. In parallel, integration should not necessarily be understood as the ideal relationship strategy for which managers should always strive, e.g., to enable learning across arenas (Mitra & Singhal, 2008; Pagell, 2004; Paulraj & Chen, 2007; Power, 2005). Our study suggests that integration is often neither possible nor desirable; only in tandem with a certain measure of isolation can organizations simultaneously manage appropriation concerns and coordination costs.

Third, confirming previous research findings, we find that informal relational mechanisms can help firms effectively manage coordination costs (Dekker, 2004; Gulati & Singh, 1998). Intrusive formal governance mechanisms, such as contractual sanctions and audits, are used primarily to govern appropriation concerns, while other formal mechanisms, such as organizational hierarchy and relationship structure, help firms both achieve coordination and manage appropriation concerns. In yet other instances, formal and informal governance mechanisms work together in managing appropriation concerns and coordination costs through isolation and integration. While formal mechanisms can support trust-building when designed to achieve coordination (Malhotra & Lumineau, 2011; Roehrich et al., 2020), they may damage trust when designed to manage appropriation concerns (Weber & Mayer, 2011). Therefore, activities and functions are often formally separated to enable the local trust-building required for effective joint work, and operational work is partly separated from corporate-level intervention through a formal escalation process. Through integration and isolation, formal and relational governance mechanisms can thereby support each other. This approach can underpin trust-building (see, e.g., Roehrich et al., 2020; Malhotra & Lumineau, 2011), particularly in complex relationships.

Fourth, echoing work on *intra*-organizational governance (e.g., Zimmermann et al., 2018), recent studies relate organizational hierarchies to inter-organizational governance. While Stouthuysen et al. (2019) suggest that corporate management primarily addresses appropriation concerns while operating staff address coordination costs, Agndal and Nilsson (2019) found an opposite dynamic. Our findings, however, suggest that *both* the corporate and operating levels must be involved in managing appropriation concerns and coordination costs if organizations are to successfully pursue isolation and integration strategies.

To conclude, the need to manage appropriation concerns and coordination costs simultaneously through isolation and integration may be common in complex relationships. Achieving these ends simultaneously may, however, involve context-specific governance mechanisms. Future research should establish how factors such as industry practices and relationship characteristics affect the ways in which organizations achieve isolation and integration.

Data availability

The data that has been used is confidential.

Appendix 1. General interview guide

1. Respondent's background.
2. Background of inter-organizational relationship (e.g., history and developments).
3. Key activities in the relationship.
4. Structure of the relationship and governance structures incl. Elements of control.

5. Spillover.
6. Other people to talk to.

Appendix 2. Representative quotes, procedural documents and lower-order findings

Organizational level	Strategy	Mechanisms	Quotes, excepts from procedural documents, summary of case observations
Governance of appropriation concerns			
Corporate level	Integration	Reduce dependencies and vendor power through internal coordination	- Top management intervenes across categories to leverage power (F A, F B, F C) - "bi-weekly meetings with only the group managers where we discuss which suppliers should get approved or who to focus on or if we have escalated issues" (B1) - "We also have contacts with our supply chain coordinator in the factories and try to understand what is happening" (C3)
		Monitoring vendors and aligning interests through audits and action across categories	- "We have had a lot of problems with them now for several years. But now the sourcing 'hold' has been released and we now can start talking new business with them, they've been in limbo for like nearly two years now." (A3) - "Suppliers shall have effective management systems as defined by [the client] and 3rd-party auditing bodies" (F A) - "[The questionnaire] is a standardized tool developed […] to evaluate suppliers' overall performance" (PD C)
		Corporate-level intervention in operational activities (e.g., though escalation process)	- "I might talk to engineers or quality at the supplier too when, e.g., we need to do technical rationalizations that can help us save money" (A3) - "When they [engineering] have done their work and found five supplies for the spec, then it's up to you to negotiate" (B1) - "Issues regarding renegotiations or big issues will go to the management level where you can escalate in steps" (A4)
	Isolation	Reducing dependencies by partitioning categories	- Each category is managed as a separate business (F A, F B, F C) - "My principle point of contact is the KAM [but] I think it's sometimes quicker just to go to the source, and they know I do that, and I have the authority to do it" (A3)
		Reducing dependencies by limiting the total share of a supplier	- Introducing dual sourcing (F C) - "These two big suppliers, they each basically have 50 % of the business. But at one point one of the suppliers […] didn't perform that well [in a specific area], so we decided, on a strategy level, to take the business down a bit […] and deliberately lowered their impact on the total turnover" (B6)
		Aligning interests by subjecting vendor to pressure in certain areas	- "The supplier is required to fill in the full latest version of the […] self-assessment in English, in order to be considered for new business" (PD F) - "If the supplier is not able to fulfill the delivery demand, the supplier is obliged to inform [the client] without any delay" (PD F)
Operating level	Integration	Operational cost management across activities and transactions	- Strategic price discussions including expected price reductions and across transactions with same vendor (F A, F B, F C) - Several functions involved in budget process (F A, F C)
		Monitoring of transaction performance across activities	- Formal audits to ensure that standards are met in all activities relating to contract (F A) - Coordinated open-book accounting across activities (F A, F B, F C) - "Reviews are formal meetings where [the client] reviews supplier's […] plan. [the firms] and supplier check that the project at component [transaction] level is on track with respect to deadlines and results." (PD A)
		Coordination across functions to monitor suppliers	- Frequently takes place when there are problems (F C) - When there are "quantity issues or they need to change an ingoing component […] then the Operational buyer has daily contact with the engineering colleagues or the SQM." (B1) - "Operational buyers are very close especially with R&D, as much as several times a day" (C 4)
	Isolation	Reducing dependencies and supplier power	- Treating transactions with same vendor as separate business (F A, F B, F C) - "A rapid system of feedback must be implemented, and it must be designed to ensure that no information is excluded, i.e. individual faults, minor faults and failure tendencies must also be included" (PD E)
		Functional separation	- Separating R&D from commercial negotiations and quality discussions to avoid conflicts of interest (F A, F B, F C)
Governance of coordination costs			
Corporate level	Integration	Socialization/trust-building for improved communication and coordination	- "We had a situation where the collaboration was really poor between R&D and the supplier [. . .] and then me and the director from engineering triggered a collaboration workshop […] to get the people talking to each other" (B2) - "My aim is to try to sort it out since we have to live together" (A3) - Building trust to reduce need for formal communication (F A)
		Structuring communication and tasks	- Establish channels of communication between corporate and operational levels for efficient dissemination of information and reduce unnecessary contacts (F B) - "If it gets out of hand, there are clear steps. But then it has to jeopardize production, by not coming to terms" (A3) - "We challenge our suppliers to be best in class on quality, cost and delivery. Suppliers that meet this challenge will be rewarded with increasing business [awarded]. However, changes from the supplier cannot be implemented without approval as our processes are integrally connected." (PD A)
	Isolation	Eliminating unnecessary coordination across categories	- Removing the key supplier manager role (F A, F B, F C)

(*continued on next page*)

(*continued*)

Organizational level	Strategy	Mechanisms	Quotes, excepts from procedural documents, summary of case observations
Operating level	Integration	Limiting top management's involvement in operational communications and decisions	- Delegating decision-making to avoid involving top management in operational decisions (F A, F B, F C) - "I should not get involved in the day-to-day work" (A3) - "We try to say that the category buyer talks to the sales guy and if the group manager is involved then we talk to the local KAM or representative" (B3)
		Structuring tasks and communication	- "Co-operation between the supplier and [us] should be structured to permit matching of activities in design review meetings to [our] various engineering phases in development and engineering project" (PD E)
		Trust-building for integration	- "Two weeks ago [. . .] we were out with the supplier, and I was there as support and trying to understand some of the issues that we've been having on the plants. This was an SQM visit, but it turned out [to be] sort of a joint venture. We went in there with different issues, and we sorted them out" (B5)
		Structuring of communications to enable efficient diffusion of information across transactions	- Formal communication: "We have bi-weekly meetings with SQM group manager. Buyers have contact with SQM every week depending on the issue" (B1) - Informal communication: "even if it might be commercial issue, I still might call the SQM manager since we have a relationship from before and she can guide me [regarding] who to call" (B1)
		Structure tasks to enable value-creating work across transactions and activities	- Many functions are involved in post-contractual changes and supplier development (F A, F B, F C) - "The involvement of the supplier in prototype builds at [our] and subsequent verification, if required, should be agreed upon at the same time as the project plan is established. Lead times and the consequences of changes should also be firmly identified, evaluated, and agreed upon" (PD E)
	Isolation	Eliminate unnecessary communications between functions	- In software development, the R&D function interacts closely with the vendor's engineers, but no longer reports to the purchasing function (F B)
		Separating tasks and decision-making between strategic and operational buyers	- Purchasers do not report to top management, which frees time (F A, F B, F C) - "If the team cannot solve it on their level, then we usually try to understand what the real issue is and who can solve it and try to contact that person" (A6) - "some sales guy had [. . .] behaved very badly [but] it got resolved and didn't leave any traces behind [because top management were not informed]" (B2)

Notes: A/B/C[number] = quote from interviewee; F A/B/C = lower order findings from respective vendor relationship; PD[code] = excerpts from procedural document.

References

Adler, P., Goldoftas, B., & Levine, D. (1999). Flexibility versus efficiency? A case study of model changeovers in the Toyota production system. *Organization Science, 10*(1), 43–68.

Agndal, H., & Nilsson, U. (2008). Supply chain decision-making supported by an open books policy. *International Journal of Production Economics, 116*(1), 154–167.

Agndal, H., & Nilsson, U. (2009). Interorganizational cost management in the exchange process. *Management Accounting Research, 20*(2), 85–101.

Agndal, H., & Nilsson, U. (2010). Different open book accounting practices for different purchasing strategies. *Management Accounting Research, 21*(3), 147–166.

Agndal, H., & Nilsson, U. (2019). The fast and the furious: The role of entrainment in governed inter-organizational relationship transformation. *Management Accounting Research, 43*, 15–28.

Anderson, S. W., & Dekker, H. C. (2005). Management overnance for market transactions: The relation between transaction characteristics, incomplete contract design, and subsequent performance. *Management Science, 51*(12), 1734–1752.

Anderson, S. W., & Dekker, H. C. (2014). The role of management governances in transforming firm boundaries and sustaining hybrid organizational forms. *Foundations and Trends in Accounting, 8*(2), 76–141.

Anderson, S. W., Dekker, H. C., & Van Den Abbeele, A. (2017). Costly governance: An examination of the trade-off between governance investments and residual risk in interfirm transactions. *Management Sience, 63*(7), 2163–2180.

Arvidsson, A., & Melander, L. (2020). The multiple levels of trust when selecting suppliers – Insights from an automobile manufacturer. *Industrial Marketing Management, 87*, 138–149.

Arvidsson, A., Melander, L., & Agndal, H. (2022). Social cross-functional vendor selection in technologically uncertain sourcing situations. *Journal of Engineering and Technology Management, 65*, 101696.

Ashley Fulmer, C., Gelfand, M. J., Fulmer, A. C., & Gelfand, M. J. (2012). At what level (and in whom) we trust: Trust across multiple organizational levels. *Journal of Management, 38*(4), 1167–1230.

Batenburg, R. S., Raub, W., & Snijders, C. (2003). Contacts and contracts: Dyadic embeddedness and the contractual behaviour of firms. *Research in the Sociology of Organizations, 20*, 135–188.

Birnberg, J. G. (1998). Governance in interfirm co-operative relationships. *Journal of Management Studies, 35*(4), 421–428.

Brattström, A., & Richtnér, A. (2014). Good cop-bad cop: Trust, governance, and the lure of integration. *Journal of Product Innovation Management, 31*(3), 584–598.

Burns, T., & Stalker, G. M. (1961). *The management of innovation*. London: Tavistock.

Caniëls, M. C. J., Gelderman, C. J., & Vermeulen, N. P. (2012). The interplay of governance mechanisms in complex procurement projects. *Journal of Purchasing and Supply Management, 18*(2), 113–121.

Carlsson, B. (1989). Flexibility and the theory of the firm. *International Journal of Industrial Organization, 7*(2), 179–203.

Coletti, A. L., Sedatole, K. L., & Towry, K. L. (2005). The effect of governance systems on trust and cooperation in collaborative environments. *The Accounting Review, 80*(2), 477–500.

Cooper, R., & Slagmulder, R. (2004). Interorganizational cost management and relational context. *Accounting, Organizations and Society, 29*(1), 1–26.

Corbin, J., & Strauss, A. (2012). *Basics of qualitative research (3rd ed.): Techniques and procedures for developing grounded theory*.

Dekker, H. C. (2004). Governance of inter-organizational relationships: Evidence on appropriation concerns and coordination requirements. *Accounting, Organizations and Society, 29*(1), 27–49.

Dekker, H. C. (2008). Partner selection and governance design in interfirm relationships. *Accounting, Organizations and Society, 33*(7–8), 915–941.

Denzin, N., & Lincoln, Y. L. (2000). *Handbook of qualitative research*. Sage.

Drake, A., & Haka, S. (2008). Does ABC information exacerbate hold-up problems in buyer-supplier negotiations? *The Accounting Review, 83*(1), 29–60.

Drucker, P. (1985). *Innovation and entrepreneurship practices and principles*. New York: Harper & Row.

Easton, G. (2010). Case study research. A critical realistic approach. *Industrial Marketing Management, 39*(1), 118–128.

Ellram, L. M., & Murfield, M. L. U. (2019). Supply chain management in industrial marketing–relationships matter. *Industrial Marketing Management, 79*, 36–45.

Emsley, D., & Kidon, F. (2007). The relationship between trust and governance in international joint ventures: Evidence from the airline industry. *Contemporary Accounting Research, 24*(3).

Fang, C., Lee, J., & Schilling, M. A. (2010). Balancing exploration and exploitation through structural design: The isolation of subgroups and organizational learning. *Organization Science, 21*(3), 625–642.

Foerstl, K., Hartmann, E., Wynstra, F., & Moser, R. (2013). Cross-functional integration and functional coordination in purchasing and supply management antecedents and effects on purchasing and firm performance integration and coordination in PSM 689. *International Journal of Operations & Production Management, 33*(6), 144–3577.

Franke, H., & Foerstl, K. (2020). Understanding politics in PSM teams: A cross-disciplinary review and future research agenda. *Journal of Purchasing and Supply Management, 26*(3), 100608.

Frazier, G. L. (1999). Organizing and managing channels of distribution. *Journal of the Academy of Marketing Science, 27*(2), 226–240.

Galbraith, J. (1977). *Organization design*. Prentice Hall.

Gelderman, C. J., & Van Weele, A. J. (2005). Purchasing portfolio models: A critique and update. *Journal of Supply Chain Management, 41*(3), 19–28.

Gibson, C. B., & Birkinshaw, J. (2004). The antecedents, consequences, and mediating role of organizational ambidexterity. *Academy of Management Journal, 47*(2), 209–226.

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking qualitative rigor in inductive research: Notes on the Gioia methodology. *Organizational Research Methods, 16*(1), 15–31.
Gulati, R. (1995). Does familiarity breed trust? The implications of repeated ties for contractual choice in alliances. *Academy of Management Journal, 38*(1), 85–112.
Gulati, R., Lavie, D., & Singh, H. (2009). The nature of partnering experience and the gains from alliances. *Strategic Management Journal, 30*(11), 1213–1233.
Gulati, R., & Singh, H. (1998). The architecture of cooperation : Managing coordination costs and appropriation. *Administrative Science Quarterly, 43*(4), 781–814.
Håkansson, H., & Lind, J. (2004). Accounting and network coordination. *Accounting, Organizations and Society, 29*(1), 51–72.
Håkansson, H., & Snehota, I. (1995). *Developing relationships in business networks*. London: Routledge.
Halinen, A., & Törnroos, J.Å. (2005). Using case methods in the study of contemporary business networks. *Journal of Business Research, 58*(9), 1285–1297.
Hibbard, J. D., Kumar, N., & Stern, L. W. (2001). Examining the impact of destructive acts in marketing channel relationships. *Journal of Marketing Research, 38*(1), 45–61.
Johanson, J., & Mattsson, L.-G. (1987). Interorganizational relations in industrial systems: A network approach compared with the transaction-cost approach. *International Studies of Management & Organizations, 17*(1), 34–48.
Johnsen, T. E., Mikkelsen, O. S., & Wong, C. Y. (2019). Strategies for complex supply networks: Findings from the offshore wind power industry. *Supply Chain Management, 24*(6), 872–886.
Kajüter, P., & Kulmala, H. I. (2005). Open-book accounting in networks. Potential achievement and reasons for failures. *Management Accounting Research, 16*(2), 179–204.
Kale, P., & Singh, H. (2007). Building firm capabilities through learning: The role of the alliance learning process in alliance capability and firm-level alliance success. *Strategic Management Journal, 28*(10), 981–1000.
Kale, P., Singh, H., & Perlmutter, H. (2000). Learning and protection of proprietary assets in strategic alliances: Building relational capital. *Strategic Management Journal, 21*(3), 217–237.
Klein, B., Crawford, R. G., & Alchian, A. A. (1978). Vertical integration, appropriable rents, and the competitive contracting process. *The Journal of Law and Economics, 21*(2), 297–326.
Knight, L., Tu, Y. H., & Preston, J. (2014). Integrating skills profiling and purchasing portfolio management: An opportunity for building purchasing capability. *International Journal of Production Economics, 147*(PART B), 271–283.
Kraljic, P. (1983). Purchasing must become supply management. *Harvard Business Review, September–October*, 109–117.
Lambe, C. J., Wittmann, M., Spekman, R. E., & R. E.. (2001). Social exchange theory and research on business-to-business relational exchange. *Journal of Business-to-Business Marketing, 8*(3), 1–36.
Lawrence, P. R., & Lorsch, J. W. (1967). Differentiation and integration in complex organizations. *Administrative Science Quarterly, 12*(1), 1–47.
Litwak, E., & Hylton, L. F. (1962). Interorganizational analysis: A hypothesis on coordinating agencies. *Administrative Science Quarterly, 6*(4), 395–420.
Lovelace, K. (2001). Multidisciplinary top management teamwork: Effects on local health department performance. *Journal of Public Health Management and Practice, 7*(1), 21–29.
Malhotra, D., & Lumineau, F. (2011). Trust and collaboration in the aftermath of conflict: The effects of contract structure. *Academy of Management Journal, 54*(5), 981–998.
McDonough, E., & Leifer, R. (1983). Using simultaneous structures to cope with uncertainty. *Academy of Management Journal, 26*, 727–735.
Meredith, J. (1998). Building operations management theory through case and field research. *Journal of Operations Management, 16*(4), 441–454.
Meyer, M. W. (2011). Organizational research. In *Change in public bureaucracies*. Cambridge University Press.
Miles, M., & Huberman, A. (1994). *An expanded sourcebook: Qualitative data analysis* (2nd ed.). Sage Publications.
Mitra, S., & Singhal, V. (2008). Supply chain integration and shareholder value: Evidence from consortium based industry exchanges. *Journal of Operations Management, 26*(1), 96–114.
Mogre, R., Lindgreen, A., & Hingley, M. (2017). Tracing the evolution of purchasing research: Future trends and directions for purchasing practices. *Journal of Business & Industrial Marketing, 32*(2), 251–257.
Morgan, R. M., & Hunt, S. D. (1994). The commitment-trust theory of relationship marketing. *Journal of Marketing, 58*(3), 20–38.
Moses, A., & Åhlström, P. (2008). Dimensions of change in make or buy decision processes. *Strategic Outsourcing: An International Journal, 1*(3), 230–251.
Oh, J., & Rhee, S.-K. K. (2010). Influences of supplier capabilities and collaboration in new car development on competitive advantage of carmakers. *Management Decision, 48*(5), 756–774.
Pagell, M. (2004). Understanding the factors that enable and inhibit the integration of operations, purchasing and logistics. *Journal of Operations Management, 22*(5), 459–487.
Paulraj, A., & Chen, I. J. (2007). Strategic buyer-supplier relationships, information technology and external logistics integration. *Journal of Supply Chain Management, 43*(2), 2–14.
Pazirandeh, A., & Norrman, A. (2014). An interrelation model of power and purchasing strategies: A study of vaccine purchase for developing countries. *Journal of Purchasing and Supply Management, 20*(1), 41–53.
Pfeffer, J., & Salancik, G. R. (2003). *The external control of organizations: A resource dependence perspective*. Stanford University Press.
Power, D. (2005). Supply chain management integration and implementation: A literature review. *Supply Chain Management, 10*(4), 252–263.
Raisch, S., & Birkinshaw, J. (2008). Organizational ambidexterity: Antecedents, outcomes, and moderators. *Journal of Management, 34*(3), 375–409.
Reusen, E., & Stouthuysen, K. (2020). Trust transfer and partner selection in interfirm relationships. *Accounting, Organizations and Society, 81*, 101081.
Rindfleisch, A., & Heide, J. B. (1997). Transaction cost analysis: Past, present, and future applications. *Journal of Marketing, 61*(4), 30–54.
Roehrich, J., & Lewis, M. (2014). Procuring complex performance: Implications for exchange governance complexity. *International Journal of Operations & Production Management., 34*(2), 221–241.
Roehrich, J. K., Davies, A., Frederiksen, L., & Sergeeva, N. (2019). Management innovation in complex products and systems: The case of integrated project teams. *Industrial Marketing Management, 79*, 84–93.
Roehrich, J. K., Selviaridis, K., Kalra, J., van der Valk, W., & Fang, F. (2020). Inter-organizational governance: A review, conceptualization and extension. *Production, Planning and Control: The Management of Operations, 31*(6), 453–469.
Rozemeijer, F. A., van Weele, A., & Weggeman, M. (2003). Creating corporate advantage through purchasing: Toward a contingency model. *Journal of Supply Chain Management, 39*(4), 4–13.
Sands, S., Beverland, M., Campbell, C., & Pitt, L. (2020). Strategically releasing control: Navigating the complexities of enabling category captains. *Industrial Marketing Management, 90*, 181–193.
Simsek, Z. (2009). Organizational ambidexterity: Towards a multilevel understanding. *Journal of Management Studies, 46*(4), 597–624.
Stouthuysen, K., Van Den Abbeele, A., van der Meer-Kooistra, J., & Roodhooft, F. (2019). Management governance design in long-term buyer-supplier relationships: Unpacking the learning process. *Management Accounting Research, 45*.
Thompson, J. D. (2017). Organizations in action: Social science bases of administrative theory. In *Organizations in action: Social science bases of administrative theory*. Routledge: New York.
Tomkins, C. (2001). Interdependencies, trust and information in relationships, alliances and networks. *Accounting, Organizations and Society, 26*(2), 161–191.
Trada, S., & Goyal, V. (2020). Tripartite role of communications in channel relationships: Mitigating exchange hazards, reducing opportunism, and curtailing its ill effects on relationship performance. *Industrial Marketing Management, 85*, 281–294.
Van Weele, A. J. (2014). *Purchasing and supply chain management* (6th ed.). Cengage Learning EMEA.
Vélez, M. L., Sánchez, J. M., & Álvarez-Dardet, C. (2008). Management control systems as inter-organizational trust builders in evolving relationships: Evidence from a longitudinal case study. *Accounting, Organizations and Society, 33*(7–8), 968–994.
Weber, L., & Mayer, K. J. (2011). Designing effective contracts: Exploring the influence of framing and expectations. *Academy of Management Review, 36*(1), 53–75.
Williamson, O. E. (1981). The economics of organization: The transaction cost approach. *American Journal of Sociology, 87*(3), 548–577.
Williamson, O. E. (1987). Transaction cost economics. The comparative contracting perspective. *Journal of Economic Behavior and Organization, 8*(4), 617–625.
Williamson, O. E. (1991). Strategizing, economizing, and economic organization. *Strategic Management Journal, 12*(2), 75–94.
Wynstra, F., & Ten Pierick, E. (2000). Managing supplier involvement in new product development: A portfolio approach. *European Journal of Purchasing and Supply Management, 6*(1), 49–57.
Zimmermann, A., Raisch, S., & Cardinal, L. B. (2018). Managing persistent tensions on the frontline: A configurational perspective on ambidexterity. *Journal of Management Studies, 55*(5), 739–769.