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an empirical exploration of learning to contract in buyer-supplier relationships

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**LEARNING BARRIERS IN CONTRACTING: AN EMPIRICAL EXPLORATION OF  
LEARNING TO CONTRACT IN BUYER-SUPPLIER RELATIONSHIPS**

*Working Paper*

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# LEARNING BARRIERS IN CONTRACTING: AN EMPIRICAL EXPLORATION OF LEARNING TO CONTRACT IN BUYER-SUPPLIER RELATIONSHIPS

## ABSTRACT

Under what conditions do firms in buyer-supplier relationships learn to contract? The development of contracting capabilities is typically understood as a function of experiential learning from past contracts. However, learning to contract is also likely affected by the organizational and institutional conditions under which contracts are entered. Based on five inductive case studies of buyer-supplier relationships in different industries, we explore the potential learning barriers that are likely to affect the development of contracting capabilities. We find that contractual learning in the studied firms was modest in terms of significant contractual change and development. Learning was inhibited by strong functional differentiation in the contracting process, a regulatory focus on promoting positive relational dynamics rather than improving contractual design, and a strong reliance on contractual templates. Overall, our empirical findings highlight important barriers to experiential learning in contractual relationships, which suggest that the development of contracting capabilities is more likely to be driven by deliberate managerial and strategic initiatives than by local experiential learning.

**Keywords:** Contracting capabilities, Interorganizational relationships, Learning to contract

## INTRODUCTION

Under what conditions do firms in buyer-supplier relationships learn to contract? According to previous research on learning to contract, firms over time learn to govern contractual relationships in a more efficient way by developing contracting capabilities (knowing “how much and what kind of detail to include in a contract”), which allow them to incrementally achieve a better match between transaction attributes and the chosen contractual design (Argyres & Mayer, 2007: 1060). Previous research shows that contractual learning is typically incremental and local, more pronounced for technical than for legal terms, and largely a function of the amount of previous contractual experience (Argyres, Bercovitz, and Mayer, 2007; Arino et al., 2014; Faems et al., 2008; Lumineau, Frechet, & Puthod, 2011; Mayer & Argyres, 2004; Vanneste & Puranam, 2010; Weber, 2017; Xing et al., 2021). This raises a series of important questions concerning the magnitude and type of learning to contract that is likely to occur under different organizational and institutional conditions. Organizational learning processes are typically described as incomplete, myopic, and superstitious; and involving a multitude of biases and barriers to learning (March & Olsen, 1975; Schilling & Kluge, 2008; Levitt & March, 1988; Levinthal & March, 1993). It is thus likely that contractual learning is not only a function of the amount of experience, but also by a host of other conditions (see Argote, Lee, & Park, 2021). Hence, based on five inductive case studies of contractual changes in buyer-supplier relationships, we explore what potential *contractual learning barriers* that may prevent or impede learning to contract and the development of contracting capabilities.

The selected industries deliberately span a broad range, including medical devices, engineering, education, consumer products, and research. Generally, our findings support previous research showing that contractual learning is incremental and slow (e.g., Mayer & Argyres, 2004). The limited contractual learning exhibited by the studied firms was a result of particular learning barriers. The studied firms operated contracting processes with low levels

of integration between the different units or functions involved in the process. This disabled relevant feedback mechanisms between different activities or phases of the process; such as between the technical specification, commercial negotiation, contractual design, and contractual governance, which limited the firms' ability articulate and codify potential knowledge from past experiences. In addition, key respondents in the studied firms expressed strong support for relational rather formal contracting and downplayed the role of contract design in favor of relational factors. This increased the relative importance of other forms of communication and documentation beyond the formal contract for managing relationships with other firms. Last, the studied firms relied on standardized contractual templates that significantly increased the cost of incrementally incorporating new insights into contracts because such changes would typically involve top management approval and broader negotiations with a wider range of contractual partners.

Based on these findings, we make three contributions to the literature. First, we suggest that models of contractual learning should include an organizational design-perspective (Galbraith, 1973; March & Simon, 1958; Tushman & Nadler, 1978). In relation to previous research on the role of different categories of employees in contracting (e.g., Argyres & Mayer, 2007), our observations suggest that structural differentiation between different units in the contractual process, such as between commercial, technical, and legal units, is likely to significantly reduce contractual learning (see Gilbert, 2005; Jansen et al., 2009; Lawrence & Lorsch, 1967). Second, we also contribute to research on how the psychological framing of contractual relationships and relational dynamics interact with learning (Weber, 2017; Weber & Bauman, 2019; Lumineau, 2017). We specifically identify patterns linking organizational design choices to psychological framing and contractual learning, which enables a better understanding of the potential substitution between formal contracts and relational governance in interorganizational relationships (Abdi & Aulakh, 2017; Poppo, Zhou, & Zenger, 2008).

Third, we highlight an important tension between the retention and development of new contractual knowledge. While knowledge retention may be facilitated by the reliance on templates (Fiedler & Welpel, 2010; Mayer & Argyres, 2004), we suggest that templates significantly raise the cost of locally revising and updating individual contractual terms because changes in the template must be approved by top management and consistently applied across partners. Hence, contractual templates represent an important aspect of interorganizational routines (see Zollo, Reuer, & Singh, 2002), which may resist change because of how they balance the interests of different internal and external stakeholders (Zbaracki & Bergen, 2010).

### **THEORETICAL BACKGROUND**

Interorganizational relationships between buyers and suppliers for the exchange of goods and services are typically regulated by some form of contract that in a verifiable and legally binding way state the parties' obligations in relation each other. For relationships that extend in time and build on some level of dependency between the parties, the function of contracts is typically to facilitate planning and coordination, and to handle disputes (MacNeil, 1978). Selecting the right contractual design may require significant discretion by the parties in terms of identifying the right level of detail, the relevant contingencies, and dispute resolution mechanisms.

#### **Learning, Organization, and Contractual Design**

Transaction cost economics (TCE) predicts that decision-makers will be farsighted and hardheaded enough to anticipate the contractual hazards that are associated with a particular transaction and chose the contractual design that is comparatively most efficient in terms of preventing opportunism. This process of "assigning transactions (which differ in their attributes) to governance structures (which are the organizational frameworks within which the integrity of a contractual relation is decided) in a discriminating way" is referred to as the *dual alignment principle*, and it represents the main causal mechanisms in the TCE for explaining contractual design (Williamson, 1985:41). For example, firms are likely to choose more

extensive contracts with greater formal safeguards in relationships involving high levels of bilateral dependence (asset specificity, uncertainty). Hence, according to the TCE, decision-makers will in a farsighted and hardheaded manner, make comparatively efficient choices concerning contractual design based on the attributes of the transaction (Williamson, 1991). The logic of the dual alignment principle has to date been empirically applied across a wide range of different contractual situations to explain the design of decision and control rights (Malhotra & Lumineau, 2011; Reuer & Arino, 2007; Weber, Mayer, & Macher, 2011), roles and responsibilities (Argyres & Mayer, 2007), contractual duration (Crocker & Masten, 1988; Joskow, 1987), form of payment (Kalnis & Mayer, 2004), methods for communication (Mayer & Argyres, 2004), dispute resolution clauses (Vanneste & Puranam, 2010; Ryall & Sampson, 2009), and contingency planning (Mayer & Bercovitz, 2008).

The strong emphasis on calculative rationality in the TCE has been questioned by scholars who suggest alternative mechanisms for explaining contractual design and development. A growing stream of empirical studies show that contracts change incrementally in response to experiential learning in a way that may be independent of changes in underlying transaction attributes (e.g., Argyres, Bercovitz, and Mayer, 2007; Arino et al., 2014; Faems et al., 2008; Lumineau, Frechet, & Puthod, 2011; Mayer & Argyres, 2004; Vanneste & Puranam, 2010; Xing et al., 2021). A key insight from this literature is that contractual change may not only result from exogenous sources, such as transaction attributes, but also from endogenous factors, such as new experiences and insights made by employees in the contracting organizations. Studies demonstrate that learning to contract typically results in the use of more specific and detailed contractual terms, which is associated with a more efficient contractual design; but that this learning is incremental and local, with limited foresight and little knowledge spillovers between individual contracts, which function as knowledge repositories that mainly codify project-specific experiences (Mayer & Argyres, 2004). Other studies show

that contractual processes may involve different types of learning (Lumineau et al., 2011) and that learning outcomes are likely to be sensitive to relational dynamics, negotiations, and shifts in bargaining power (Feams et al., 2008). Hence, there is a variety of factors that may interact to shape the magnitude of contractual learning and in what specific areas firms learn to contract. For example, studies show that firms' learning is typically stronger for technical terms (e.g., task description) than for legal clauses (e.g., contingency planning) (Vanneste and Puranam, 2010). Such differences may depend on the costs and benefits of standardizing particular elements of the contract versus engaging in more extensive search for new contractual solutions (March, 1991). The decision to standardize certain contractual terms will, in turn, likely be affected by organizational factors, such as the knowledge and objectives of different actors or units and the firm's routines for coordinating contractual tasks and allocating responsibilities in the contractual process (March & Simon, 1958; Nelson & Winter, 1982; Zbaracki & Bergen, 2010).

Hence, a better understanding of when and how firms learn to contract is likely to involve the development of theory concerning how firms organize their contractual processes. According to Argyres and Mayer (2007), the knowledge about how to manage the tradeoffs involved in designing effective contracts resides differentially in managers, engineers, and lawyers. For example, managers and engineers are more important repositories of contractual knowledge when designing clauses related to the parties' *roles/responsibilities* and their *communication* (coordination-oriented terms), whereas lawyers constitute a more important repository when designing clauses related to *decision/control rights*, *dispute resolution*, and *contingency planning* (control-oriented terms). This indicates that the specialization of certain employees or departments on particular contractual issues play an important role for contractual learning. However, it also raises important questions concerning how these different employees



are organized across different units and the internal organizational structure that governs how these different units interact.

Learning to contract and the development of contracting capabilities is likely to be most pronounced when firms are faced with complex transactions that require more extensive contracts that draw on knowledge that is dispersed across different groups or departments (see Nickerson & Zenger, 2004). In such cases, contracting presents an organizational challenge to firms in terms of specialization and coordination between specialized units (Kogut & Zander, 1992). A key challenge in the development of contracting capabilities is thus likely to revolve around how structural differentiation between different units is balanced with appropriate integration mechanisms that facilitate coordination and feedback (Galbraith, 1973; Lawrence & Lorsch, 1967; Tushman & Nadler, 1978). In the contracting process, structural differentiation may be represented by the departmentalization and specialization of technical functions (e.g., production, quality), commercial functions (e.g., sales, procurement), and legal functions (e.g., legal department/legal counsel, lawyers). Integration mechanisms, on the other hand, may include different measures taken in the managerial hierarchy and organizational structure to connect different units or functions in the contractual process, such as the design of cross-functional interfaces (e.g., project organization), social integration (e.g., proximity), and the set-up of the managerial hierarchy (e.g., reporting structure) (see Jansen et al., 2009).

While research on the relationship between organization and contractual learning is relatively sparse, there is a rich literature on how contractual design interact with trust and relational factors (e.g., Faems et al., 2008; Lumineau, 2017; Malhotra & Lumineau, 2011; Mayer, Xing, Mondal, 2022; Mellewigt, Madhok, & Weibel, 2007; Poppo & Zenger, 2002; Poppo, Zhou, & Zenger, 2008; Reuer & Arino, 2007; Vanneste, Puranam, & Kretschmer, 2014). On a general level, these different studies indicate that that high levels of trust and positive relational dynamics tends to lessen the perceived need for strong control-oriented

contracts, while simultaneously increasing the parties' incentives to develop more detailed coordination-oriented terms. Hence, the type of contractual frame and regulatory focus that employees apply in interorganizational relationships is likely to affect the type of learning that will occur over repeated exchanges (Weber, 2017). A firm that regularly engages in prevention contracts (focus on vigorous or strict contractual behavior towards the attainment of minimal goals) is more likely to excel in the development formal contractual safeguards (control-oriented terms), whereas as a firm that applies a promotion frame (focus on attainment of ideal maximum goals) may be more likely to excel in the development of coordination-oriented terms. Interestingly, previous research suggests that the use of prevention and promotion frames depends on the extent to which legal specialists are involved in the contractual process, where greater legal involvement has been linked to the application of a prevention frame (Weber & Mayer, 2011; Weber, 2017). This, in turn, suggests a potential relationship between organizational structure, the application of particular contractual frames (e.g., prevention/promotion) and the emergence of certain relational patterns, and the type of learning that is likely to occur in repeated transactions (e.g., control/coordination-oriented).

### **Organizational Learning and Its Barriers**

Organizational learning may be defined as “a change in the organization that occurs as the organization acquires experience” (Argote & Miron-Spektor, 2011:1124). Much of the organizational learning literature builds on mechanisms similar the ones typically found in the contracting literature. Choices are viewed as fundamentally forward-looking and based on the individual's expectations concerning future outcomes. However, whereas contracting research building on the TCE places most of the explanatory burden on foresight, the organizational learning literature emphasize the important role of experiential feedback (March & Olsen, 1975). In an adaptive organizational system, the links between different elements of the learning process, such as individual belief, individual action, organizational action, and environmental

feedback, are more or less frictionless. However, the connections between elements are typically attenuated by particular learning barriers. Such learning barriers may, for example, include the formation of false beliefs based on environmental feedback. Levitt and March (1988: 325) refer to this form of *superstitious learning* as a situation in which the “subjective experience of learning is compelling, but the connections between actions and outcomes are misspecified.” In complex multifunctional activities, such as contracting, this type of causal ambiguity is likely to be significant, and firms are not only likely to find it difficult to identify which action caused a particular outcome, but also to properly understand and evaluate the nature of specific outcomes (Zollo, 2009).

Two organizational mechanisms that are commonly used to facilitate learning in organizations are specialization and simplification (Levinthal & March, 1993). Specialization refers to the narrowing of attention and competences of specific organizational actors in order to increase their adaptiveness with regards to particular tasks or problems. Simplification, in turn, refers to organizational structures and practices that seek to reduce the difficulties associated with interpreting complex experiences by decomposing them into more or less autonomous domains. Specialization and simplification are typically present in contractual processes in terms of the assignment of particular contractual tasks to specialized employees (Argyres & Mayer, 2007) and the use of previous contracts and templates as knowledge repositories to simplify contractual design choices (Mayer & Argyres, 2004). The benefits of these contractual practices are relatively straightforward in terms of facilitating steeper learning curves in the performance of specialized tasks (Bunderson & Boumgarden, 2010) and better knowledge retention through standardization (Fiedler & Welppe, 2010). However, studies also identify different forms of contractual learning barriers associated with specialization and simplification, such as local learning and low levels of knowledge spillover across projects (Mayer & Argyres, 2004), and learning that is biased in terms of what type of contractual

knowledge that is developed (Vanneste & Puranam, 2010). Hence, while some level of specialization and simplification may be unavoidable and is likely to improve adaptiveness when facing certain types of contractual problems and executing specialized tasks, these practices also imply a move away from a more tightly coupled and integrated decision structure, which introduce limitations on learning, such as a tendency of ignoring the long-run (e.g., local contractual learning), disregarding the larger picture (e.g., disregarding how technical and legal terms interact), and basing lessons learned on successful cases rather than failures (e.g., standardizing legal terms based on a limited set of previous transactions) (Levinthal & March, 1993).

Previous research on contractual learning has primarily focused on the nature of the individual knowledge held by managers, engineers, and lawyers (Argyres & Mayer, 2007), and the role played by contracts as repositories for contractual knowledge (Mayer & Argyres, 2004). In this paper, we broaden the perspective on contractual learning to also include a wider set of organizational and institutional factors that may impact the development and retention of contractual knowledge. The organizational learning literature suggests that individual experiential learning may result in the development of organizational capabilities when the accumulated experience is articulated and codified in a such a way that the firm retains the ability to perform certain tasks or produce output of particular type in a stable and routinized way (Winter, 2003; Zollo & Winter, 2002). This involves imbedding individual knowledge in a “supra-individual repository, such as a routine, so that the knowledge would persist in the organization even if the individual were to depart” (Argote, Lee, & Park, 2021: 5403). The development of contracting capability is thus not only the result of experience accumulation, as manifested in written contracts and individual knowledge, but also more deliberate efforts on behalf of decision-makers within the firm to facilitate the articulation and codification of contractual experiences in routines and organizational structures that may be applied across a

wider range of transactions and relationships. Hence, while the locus of contractual learning is likely to initially be individual, turning this into organizational knowledge will involve a process of articulation, aggregation and codification that largely operates on an organizational level (e.g., departmental routines, management practices, organizational structure). Hence, in this paper, we examine the nature of the specific learning barriers associated with contracting and the development of contracting capabilities. This involves studying how new experiences made in the contractual process are filtered through different levels, such as the individual, the group/department, and the organization (Crossan et al., 1999; Schilling & Kluge, 2009). We specifically focus on how contractual learning is affected by organizational design, contractual framing, and contractual templates

## **METHOD**

The study follows an inductive case study design (Eisenhardt, 1989; Yin, 2003) of five buyer-supplier relationships in different industries. The five cases in the study were selected following a broader inquiry into suitable cases for studying learning in buyer-supplier relationships where advice from third parties set researchers in contact with relevant decision-makers in the different organizations. Once contact had been established, explorative interviews with company representatives were set up to evaluate the suitability of the cases. A key concern when selecting cases was that they represented contractual revisions and renegotiations within an established buyer-supplier relationship. Hence, respondents in the explorative interviews were asked to identify relationships that had undergone some form of significant contractual change. Cases in a multiple case study design should ideally be selected so that they either produce similar results for predictable reasons (literal replication), or contrasting results, for predictable reasons (theoretical replication) (Yin, 2003). The five cases selected for this study represent a wide variety of organizations and industries. This was expected to give rise to differential types of contractual learning and also showcase a broad variety of barriers in the

contracting process that might affect learning. The relevant dimension on which the cases vary include the age of studied firms, the exchange of services and products, ongoing and project-based exchange, different technologies, and differences in industry structure. However, all five cases were selected based on that they shared the attributes of being long-term buyer-seller relationships, involved significant bilateral dependency, the exchange of complex products and services, and having been subject to at least one contractual revision or renegotiation during the time frame of the study. Because of anonymity agreements, respondents and the organizations are presented using the pseudonyms ConComp/Alfa, MedComp/Beta, ManComp/Gamma, EduComp/Delta, and ResComp/Epsilon. The studied cases are described in Table 1.

--- Insert Table 1 ---

### **Data collection procedures**

Data was collected retrospectively for all four studied cases based on semi-structured interviews, internal documentation, and observations during visits to company sites. The case studies were conducted according to a case-study protocol (see Appendix 1) that specified data collection procedures, data sources (interviews, documents), and the type of questions that the collected data should answer (Yin, 2003). A total of 42 longer semi-structured interviews were conducted with the employees most closely involved in the studied relationships. A key priority when selecting respondents was to gain a wide range of different perspectives on the case so that both policy and more day-to-day concerns would be captured in the interviews (e.g., managers, sales/procurement officers, engineers, and legal counsels/lawyers). Internal documentation in the form of contracts and internal reports/presentations also played an important role in the data collection. This documentation allowed researcher to validate information given in the interviews and get a more detailed sense of how contracts were structured. The researchers also spend time at the company sites. Although not a primary data

source, this allowed the researchers to get a sense of the physical environment and the natural interaction between employees involved in the studied cases.

### **Data analysis**

Data analysis procedures were based on case study research (Yin, 2003; Eisenhardt, 1989) and the method of constant comparison (Glaser & Strauss, 1967; Strauss & Corbin, 1998). The interviews were first transcribed and then read through several times while noting themes identified in the text in a separate document and marking the text in the transcript that the particular theme referred to (open coding). By iterative comparison of the text sorted under different themes, the number of themes was reduced and individual themes were delimited so that a consistent classification was accomplished. Themes were then given definitions that captured the content of the quotations included under the themes. A case-description was then written based on the outlined structure (chronology). Each case-description described the case in terms of outlining the buyer and seller, the technological conditions underlying the transaction, contract design and type of governance, organization and processes, and learning outcomes. Once the individual cases had been compiled a comparison was made between the cases in order to identify theoretical patterns concerning the link between organizational/environmental factors and learning (cross-case analysis). The final step in the data analysis involved matching the pattern emerging from the cross-case analysis with prior studies on learning to contract in order to identify the specific theoretical and practical contribution of the study (see Yin, 2003).

### **BARRIERS TO CONTRACTUAL LEARNING**

In this section, we introduce the studied cases and provide an account of the different forms of contractual learning (changes to contracts) that we observed along with an empirical analysis of the learning barriers that we identified in the study. Table 2 provides a summary and overview of key observation in the five cases.

--- Insert Table 2 ---

## **Introduction to the Studied Cases**

**ConComp and Supplier Alpha.** ConComp is a large European consumer goods firm and Alpha is one its oldest component suppliers. ConComp manages its supplier contracts through a standalone procurement organization, which is organized in small cross-functional business development teams (consisting of a business developer, production engineer, supply planner) specialized towards certain product categories. ConComp have for several decades been using standardized contractual template for its suppliers that is designed by their centralized corporate legal unit. There have been no changes to the basic structure of the template during this time. The contract with Alpha has two parts: one ongoing standard supplier contract with five months' notice of termination and one long-term contract (capacity agreement), specifically for strategic suppliers, such as Alpha, that stipulate future purchase volumes, prices, and raw material hedges. Long-term contracts are not standardized to the same extent as the standard supplier contracts and can vary across suppliers in terms of their duration (normally 4-10 years), contracted volumes, price reductions, and raw material cost adjustments. Due to a large capacity increase in Alpha's operations that also involved significant relationship-specific investments for the production of customized components, ConComp and Alpha chose to renegotiate their long-term contract. The renegotiated contract was unprecedented in ConComp's history in terms of its extended duration and large contracted volume.

**MedComp and Contract Manufacturer Beta.** MedComp develops and manufactures mechanical medical equipment for a global market of hospitals and other medical providers. MedComp has since its founding remained a small company with about 20 employees organized across six departments, including Operations, Marketing, Clinical marketing, R&D, Finance, and Quality. The business model is oriented towards R&D and marketing where



MedComp's operations relies on a network of component suppliers and the contract manufacturer Beta. The relationship with Beta is primarily managed by the heads of Operations and Quality, with input from the head of R&D in conjunction with the release of new products (specifications) and by the CEO on major decisions. The overall structure of the contract between MedComp and Beta has remained similar over the duration of the relationship and it has only has undergone one major revision and renegotiation. This was a response to increasing MedComp sales volume where the parties chose limit the commercial scope of the manufacturing contract, effectively giving MedComp a wider responsibility for strategic component suppliers.

**ManComp and Customer Gamma.** ManComp is a division of a large engineering firm that sells customized industrial products. Gamma is one of ManComp's most long-standing customers in the energy sector and the relationship between the firms range several decades and projects. New projects are initiated by ManComp's market department which is responsible for negotiating commercial conditions with the customer's procurement department. Contracts are negotiated with the support of the corporate legal department based on a standardized contractual template that is provided by the customer. After the agreement is signed, the market department hands the project over to the production unit, and a project coordinator at the unit takes over the coordination responsibility for execution of the project. The studied Gamma project was characterized by a number of problems linked to unclear quality requirements and misunderstandings concerning how different technical standards should be applied. This led to a contractual revision and renegotiation where the original product specification had to be changed after ManComp failed a quality test.

**EduComp and Property Developer Delta.** EduComp is a division of a European education firm that runs a large number of schools across Europe. The property developer Delta is a privately owned company that develops, owns and manages properties specialized for

education. EduComp and Delta have worked together in many projects during the last decade and respondents at EduComp describes Delta as one of their most trusted suppliers of school properties and property management. The construction and management of a school property is typically regulated by a 15 years construction and rental contract, consisting of a standardized generic rental template and six appendixes developed by Delta specifically for the construction and management of school properties. The appendixes are structured according to a template provided by Delta, and give a more detailed account of the conditions for the construction and management of the property. The most important appendixes are the room function program and the contractual boundary list, which specifies the intended use and design of the property, and the respective responsibilities of the parties when the school is up and running. Contractual changes in the last Delta project concerned the design of the room function program and boundary list where the parties' utilized experiences from working together to expand and improve the specification of the parties' roles and responsibilities in managing the property.

**ResComp and Supplier Epsilon.** ResComp is a large European research organization founded as a limited liability company. The research at ResComp require customized and advanced technical equipment. For this purpose, ResComp entered a contract with Epsilon, a European engineering company, to install a key technical system. The project with Epsilon was managed in close collaboration between the responsible technical unit at ResComp; and the procurement department, which is responsible for developing the economic aspects of the sourcing of new systems, and supporting contract management from a legal perspective. The contractual template for the Epsilon project was originally provided by an external law and then adapted to fit the specific circumstances and technical specification of the project. The contract included extensive liquidated damages clauses in the case of delays. Early in the project, coordination-problems started to materialize in the form of delayed delivery and installation of the system. The situation was complicated because although Epsilon was contractually

responsible for delivering and installing components on time, part of coordination problems originated with adaptations initiated by ResComp. As a result, the original contract was revised and renegotiated to eliminate ResComp's substantial claims for liquidated damages. ResComp's motivation for accepting these changes was a realization that the extensive penalties in the original contract would likely negatively impact the remaining installation work and maintenance by Epsilon.

### **Learning and Contractual Changes**

Contractual learning may be defined as a change that occurs in the organization as it acquires contractual experience (see Argote & Miron-Spektor, 2011). Contractual experience refers here to individuals actively participating in the process of designing and governing (new) contracts. Changes may involve the acquisition of new individual perceptions, skills and knowledge, changes in group dynamics and routines, changes in the formal organizational structure and business processes, and changes in written artifacts, such as contracts.<sup>1</sup> Observations in the five studied cases show that contractual learning was slow and incremental in terms of enacting significant changes of contractual templates and/or the tasks performed by key employees in the contractual process. This was primarily a result of the involved firms having established a template format for their contracts that was associated with the specialized roles and responsibilities of the different employees that were involved in the contracting process, which largely followed the functional division of tasks between commercial, technical and legal units. Experiential contractual learning was typically downplayed by respondents who instead emphasized relational factors, the consistency of contractual templates and functional routines,

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<sup>1</sup> Learning thus involves a sequential process across individuals (intuiting, interpreting), groups (integrating), and organizations (institutionalizing) (Crossan et al., 1999), which can also be described in terms of experience accumulation, knowledge articulation, and knowledge codification (Zollo & Winter, 2002). Although including micro-level findings, our analysis will primarily focus on observable signs of contractual learning that involve changes to the design of contracts (see Mayer & Argyres, 2004).

and the adequacy of their functional expertise for handling new contractual situations within their specialized role.

The contracts regulating the studied relationships had all been subject to at least one significant change or revision. The contractual changes involved contractual duration (CON), commercial scope (MED), quality specifications (MAN), technical specification of responsibilities (EDU), and liquidated damages clauses (RES). In two of the studied cases, the contractual changes were directly associated with changing transaction attributes (termed exogeneous change). This involved the renegotiation of the contract between ConComp and Alpha where the duration of the contract was significantly extended to protect the supplier following an increase in Alpha's dedicated capacity and relationship-specific investments. In the case of MedComp's relationship with its contract manufacturer Beta, the contract was renegotiated in order to reduce the scope of the outsourcing contract (insourcing) following an increase in MedComp's sales volume (frequency).

Contractual changes in the cases of ManComp, EduComp, and ResComp followed a different pattern involving changes that were driven by new insights concerning contract design gained by the parties during the relationship (termed endogenous change). In the case of ManComp and Gamma, a contractual renegotiation and amendment was made concerning the specification of quality requirements. This was largely driven by new insights made during the project concerning customer expectations and the applicability of technical standards. In the case of EduComp and their property developer Delta, contractual changes were made concerning property management in order to fine tune the roles and responsibilities of the parties (room function program and boundary list) based on experiences in previous projects.<sup>2</sup> Finally, the project between ResComp and Epsilon involved a contractual renegotiation of

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<sup>2</sup> The room function program and boundary list are technical appendixes to the commercial contract that state the design and intended use of different rooms in the property and the parties' respective roles and responsibilities when operating the property

liquidated damages clauses and how they should be applied in the case of delays and coordination-problems. This change was based on new insights made by the parties during the project concerning the technical, relational, and economic consequences of the original penalty clauses.

Hence, two of the contractual changes involved endogenously driven revisions of what we term coordination-oriented terms (EDU, MAN). However, as illustrated by ResComp's renegotiation of liquidated damages terms, control-oriented terms may also be subject to endogenously driven changes. In sum, the empirical observations lend some support for the notion that endogenous contractual change and learning are most closely associated with technical coordination-oriented terms, although the relationship appear to be far from perfect. These relationships are illustrated in Figure 3.

--- Insert Table 3 ---

### **Contractual Learning Barriers**

Contractual learning barriers refer to those factors that either prevent or impede contractual learning in firms (see Schilling & Kluge, 2008). Because previous research on learning barrier in contracting is rather limited, we relied on an inductive approach to identify and specify relevant instances of contractual learning barriers that may prevent or impeded contractual change and development. The factors we identified ranged over multiple levels of analysis (individual, group, organization) and involved different types of mechanisms (feedback possibilities, rules and procedures, focus and incentives). Some of the factors could be directly extracted from respondent statements (e.g., regulatory focus on relational factors, strict template rules), whereas other factors had to be derived from different factual statements (e.g., how feedback across units is affected by organizational design). The observed empirical categories and patterns are summarized in Table 4 along with a classification of each category in terms of level of analysis and mechanism.

--- Insert Table 4 ---

**Functional Silos and Sequential Decision Processes.** Reciprocal interaction between commercial and technical personnel in the contracting process is vital for setting up an adaptive response to contractual problems. Yet, commercial and technical functions are typically organized in separate departments that may differ significantly in terms of what tasks they perform in the contractual process. The pattern of interaction between commercial and technical units in the contractual process varied across the studied firms. MedComp stands out in this regard because of its small scale and informal organization, which allowed it to overcome many of the typical difficulties associated with technical-commercial interaction by simply, on an *ad hoc*-basis, involving all relevant department heads in contractual issues that affected the relationship with its contract manufacturer. In the larger organization ConComp, integration between commercial and technical employees in the management of supplier contracts had been more formally addressed by organizing procurement activity into smaller cross-functional procurement teams where each team included a commercial business developer and a production engineer.

In ManComp and EduComp, the lack of integration between commercial and technical units in the contractual process provided a more significant obstacle for learning. In both cases, projects were headed by a project coordinator from the technical unit that was deeply involved in questions concerning technical implementation and project governance, while the earlier phases of the contractual process leading up to contract signing, such as negotiating commercial terms, were managed by a separate commercial unit. Despite explicitly acknowledging this problem and having implemented some organizational initiatives to achieve higher levels of integration between commercial and technical units in the contractual process, there were a clear organizational and temporal divide between commercial and technical units in terms of what tasks each unit performed and how they saw their respective responsibilities. Respondents

from the commercial function actively distanced themselves from later technical and governance phases in the process, whereas respondents from the technical side distanced themselves from the early phases focused on commercial negotiation. As explained by a respondent:

Market has a lot of contact and negotiate with the customer. Actually, it's the toughest part. It's the negotiations before you sign the contract. That's where you need to be a fighter. Then when I get the contract, it's supposed to be pretty quiet, and then we usually have a much better relationship with the customer. So, our marketing department has a lot to do with their procurement department, the customer's buyers. But the customer's buyers keep on going. Some of our customers probably find it strange that Market steps back when the contract is signed. Their procurement department continues and is pretty much involved after I have taken over the contract. [...] At the production unit, it is a lot about the technology. From time to time, I can imagine that there is a kind of rivalry, or something like that. It's not pronounced, but, between production and market. [Project coordinator, ManComp]

Departmental differentiation and the temporal sequencing of commercial and technical tasks in the contractual process may prevent effective learning when early contract design choices are contingent on experiences made in activities later in the contractual process. This observation, which was most clearly illustrated by the cases of ManComp and EduComp, highlights an important dimension of contractual learning related to the interrelationship between contract design and contract governance: Firms learn how to design contracts through the concrete experiential feedback they get during operational activities, that is, during the contractual governance phase of the process. When asked about specific instances of contractual learning, respondents consistently highlighted experiences and new insights made during the technical implementation or governance phase, whereas experiences directly related to contract design were typically described as involving the negotiation of specific commercial variables (e.g., price) and the formality of selecting a contractual template. For example, in the case of ManComp and Gamma, the experiences that lead to the contractual revision were made when production and quality engineers realized that the original product specification did not meet the customer expectations on quality. In the case of EduComp and Delta, the experiences that lead to a revision of the room function program and boundary list was made during the

property management phase, not during the commercial negotiations where the contractual terms were agreed upon.

**Commercial-Legal Task-Interdependence.** Contractual design and governance involve a significant legal element related to the assessment of risks, and the verifiability and enforceability of the commitments made by the parties. However, turning the legal function into a proactive agent in commercial- and technical processes is challenging. In ConComp and ManComp, which were both larger and mature organizations, the inhouse legal function had a well-specified role in the contractual processes as a gatekeeper that developed templates and approved contractual drafts before they were signed (“legal signoff”). Hence, the legal function had a rather narrow role in the overall process with limited interaction with other functions beyond providing contractual templates and approving, and potentially revising contractual drafts. This was largely a result of the organizational set-up of the legal function operating as a corporate support function that was organizationally and geographically separated from commercial and technical units. For example, the role of ConComp’s legal function in the relationship with Alpha were twofold: First, it had full control of contractual templates. For the type of long-term contract that ConComp entered with Alpha, there were room for commercial discretion when negotiating and revising terms related to the duration of the contract, purchase volumes, raw materials, and price changes of the contracted period. However, the legal function was not involved in these negotiations and changes to the structure of the contract and other parameters were prohibited. Second, the legal function was responsible for formally approving supplier contracts after they had been negotiated, which respondents generally described as a formality.

The role of the legal function in ManComp was similar to the one at ConComp in that the legal function was set up as part of corporate support and organizationally separated from the relevant business and production units. Because of the practice of using customers’ contractual



templates, the legal function in ManComp did not play a significant role in the development of standardized templates. However, it did play an important role in advising the commercial unit and approving contracts draft. Similar to the set-up in ConComp, the legal function had limited involvement in projects after the contract was signed, and as a consequence, did not first-hand experience of potential problems in the governance/execution phase of projects unless these challenges were significant enough to warrant a contractual renegotiation, in which case, the role of the legal function would be similar to when approving the original contract.

Interestingly, MedComp and EduComp did not have an inhouse legal function that was involved in the studied relationships. In the case of MedComp, an external lawyer was used to check contracts with the contract manufacturer. However, the input from lawyers on the design of the contract and set-up of the relationship was very limited. As explained by MedComp's operations manager:

Lawyers make absolutely no difference. It has absolutely no importance. Not in a [European] context. They give some tips and advice. We had [a big law firm] to help us a little bit with supplier contracts and stuff, mostly to put it on a slightly more professional level and make sure we hadn't missed anything substantial. But then we never talked to them. There was never anything there. [Operations manager, MedComp]

A similar attitude towards the use of legal services was expressed by respondents at EduComp who also downplayed the need for legal competence in the contractual process with its property developers. In fact, in the studied property project with Delta, EduComp had not written any commercial/legal contract concerning the construction of the property (only a technical specification including room function program and boundary list, and a standardized rental agreement). According to the responsible project coordinator, there had been no perceived need for such a contract. The reason for why no contract had been entered was likely related to the organizational structure of EduComp where the sequential division of responsibilities between the technical and commercial units, and the lack of an internal legal unit, allowed responsibility for questions concerning contractual documentation and safeguards to fall between the cracks. As explained by the responsible project leader:

We have not written any [contract] for the latest projects with Delta. Why I don't really know. It hasn't been on my desk. But it has been so clear to me that we [EduComp and Delta] are the ones to do these projects. [Project coordinator, EduComp]

Compared to the other cases, ResComp stood out with respect to the extent that its legal function was directly involved throughout the contractual process with Epsilon (including initial tender, contract design, revisions, and project governance). This high level of engagement was made possible because of ResComp's organizational structure where legal counsels were formally and practically integrated into the commercial procurement unit. Interestingly, ResComp also stood out among the studied cases by being the only case in which the control-oriented terms of the contract (contingency planning/liquidated damages) were significantly renegotiated and revised in a way that was independent from significant changes in transaction attributes (what we call endogenous change).

As illustrated by the studied cases, there may be large variations across firms in terms of how astute they are at involving the legal function in the contractual process. The most extreme example of this was EduComp who did not involve any legal specialists in the process and who repeatedly entered construction and property management projects without contractual safeguards in place. This was a result of a lack of legal integration in the contracting process and that there were simply no one in the organization who perceived contractual issues to "be on their desk". Similar observations concerning the relatively low priority given to contractual safeguards were also made in the other cases: For example, ConComp's long-term supplier contracts were heavily oriented towards commercial terms (price, volumes, etc.) and did not include specific terms for contingency planning and penalties. Similarly, MedComp's contract manufacturing agreement did not include contingency planning and penalties, but instead relied on a simple mechanism of termination. In the case of ManComp, the contract did not extend to cover the type of contingencies related to quality assurance procedures, which later turned out to be problematic and which lead to the renegotiation of these terms.

## **Relational Dynamics**

Respondents typically expressed strong support for relational rather than formal contracting. This involved downplaying the tasks of designing contract and optimizing safeguards. The preference for relational governance was in some cases attributed to a national culture of trust and explicitly contrasted with other contractual traditions, such as the American, where contractual opportunism was perceived to play a greater role in buyer-supplier relationships (EDU). In other cases, the prominence of relational governance was attributed to the nature of the industry where, for example, a small number of buyers/sellers and repeated transactions created personal ties and a strong sense of trust and transparency between the parties (MAN).

Respondents distinguished between the development of contractual safeguards, which were viewed as formalities that in many cases could be standardized and handled by lawyers, and the technical terms, which were not viewed as limited to the letter of the contracts, but as providing a broader framework for what had been agreed between the parties that could also include other forms communication, such as emails, protocols, references in quality systems, standards, etc. This focus was typically manifested in the differential degrees of managerial attention allocated to the development of contractual safeguards and technical specifications, respectively.

For example, respondents at ConComp were very keen to emphasize that their supplier relationships are not managed through formal contracts, but rather, through trust, respect and developing a good relationship. Rather than viewing the contract as a means of proactively forming the behavior of contractual partners by preventing opportunism, the long-term contracts that it entered with prioritized suppliers were seen as an effect of an already well-functioning and trusting relationship where strategic alignment between the parties had been established prior to entering the contract. As explained by a commercial manager at ConComp:

It's not like we are managing supplier relationships through capacity commitments. Supplier relationships is something totally different [...] It's based on the relationship, trust, and respect. Also, that on both sides have the right people. We need to have the right people, competent people to talk to, a competent supplier. We need to understand them and they need to understand our needs. We have to have strategic alignment before we start to talk about a long-term contract. The capacity

commitment is more like a consequence of a good and professional relationship. You will not build a relationship with a capacity commitment. [Business developer manager, ConComp]

Respondents at MedComp and EduComp, also downplayed the role of their contracts as formal safeguards or governance-mechanisms in favor of a more relational approach where the contract is viewed as a framework establishing a common understanding between the parties. The primary function of the contract was not to provide formal safeguards that could be pointed to in the case of conflict. In fact, the Operations manager at MedComp had never been in a situation with a supplier where they had to go back to the wording in the contract in order to settle a dispute:

I've almost never been in a situation where you've had to go back to the contract. I've never been in a legal dispute with a supplier. You are supposed to be in agreement with your suppliers. You know the contract and you read what it says and then you realize that this is your starting point. You do not try to dispute your own contract and try to take some different route; you find a solution within the framework of the contract. It is a foundation, a framework for what we agree on. In an American context, and that is not this particular case [Beta], it's a completely different matter. I mean, there's going to be a lot more tough contractual negotiation. [Operations manager, MedComp]

Respondents in ManComp expressed similar sentiments as in MedComp and EduComp concerning the importance of establishing a positive relational dynamic with contractual partners. However, in the case of ManComp, this notion was much more grounded in the specific structure of the focal industry with only a few suppliers and buyers. Naturally, such industry conditions, not only elevates the importance of prior experiences and ties in shaping relational dynamics in current relationships, but also creates strong expectations of potential future projects that are also likely to push relationships away from a focus on formal contracting in the direction of relational governance. As explained a respondent at ManComp:

As far as possible, we must maintain a relationship with the customer. It is such a small industry, this one. There are not many customers. Everyone knows each other. We work with maybe five, ten companies in the world. It is a small industry. [...] So I mean, we have a very close relationship with the customer. It's not just about taking an order. It's very special. And we have a lot of repeat customers, of course. It's important how we treat the customer. The relationship with the customer is extremely important. [Project coordinator, ManComp]

Interestingly, ResComp stood out from the other studied cases in terms of being the only case in which respondents highlighted the development of formal contractual safeguards as

potentially more important than promoting positive relational dynamics. As explained by their legal counsel:

Most of the contracts we have are quite purchase-friendly and strict. They are probably not collaborative [...] But that's more because we are more interested in predictability and knowing what things cost and when things are to be delivered. It's often very time-critical here [...] There's not much room for error, so to speak. [Legal counsel, ResComp]

### **Contractual Templates**

All the studied firms relied on contractual templates for regulating buyer-supplier relationships. Contractual templates may be company- or industry specific, and originate from the focal firm, the partner, or an independent law firm. In the case of ConComp, there was a strong emphasis on cost efficiency, which the firm partly achieved through competitive and standardized supplier interfaces and a rigid application of firm-wide contractual templates. According to respondents, these templates had been used for decades and there was no internal flexibility in terms of locally adapting the text or structure of these documents. All variation across supplier contracts were thus limited to differences in certain prespecified parameters (price, volume, duration, etc.), where the commercial and technical organization had significant discretion in negotiations with individual suppliers. As explained by a commercial manager at ConComp:

These documents have been around for decades, at least for since the 1990s. It is a really old templates that we have. [...] They have been there for forever. [...] They are very strict concerning the templates that we have. They say if you want to have any special texts, these are the templates, this is what you have to use, so they are not allowing this to be changed [Business developer, ConComp]

The reliance on contractual templates was also strong in MedComp, however, for different reasons. MedComp had, partly because of resource-constraints associated with their small size, devoted little resources to designing the contract with Beta. The template that MedComp used was instead adopted from a publicly available industry template. Given the lack of legal involvement and limited attention from the CEO and Operations managers in this process, the template was never subject to a any greater scrutiny or critical reflection. This was also reflected in the type contractual change that was observed. The contractual changes

occurred within the basic structure of the original agreement and involved changes in the number of components that were covered by the agreement. As explained by a commercial manager:

I basically did that alone. It's usually that someone gets to produce some kind of draft. That's usually the case. Often, it's standardized headlines, so you know pretty much what it contains. Often it comes from a legal department at one of the companies. Or in our case, I'm the one who searched the internet and found it. There are some companies that offer and sell templates and there is also an industry template. You can download terms and conditions for different types of industries. There are standardized formats where you can pick parts of it. And I guess that's how I did it. So, I don't have a legal background, but that's how it was created [Operations manager, MedComp]

Both ManComp and EduComp relied on contractual templates that were supplied by their exchange partners and industry associations. ManComp's use of templates that were provided by Beta was, according to respondents, a matter of handling regulatory pressures in the buyers' home markets in a way that reduced frictions in the contractual process. The cost of relying on the customer's standardized contractual templates was in this case perceived as low because the template mainly concerned "legal terms" (what we term control-oriented terms) that are typically very similar across customers and different project (key technical terms of course varied between project depending on what the customer was buying). As explained by a respondent:

It is largely the customer who designs the [contract]. And we review them, and our lawyer also review them. And then we negotiate certain things. It could be things that we think should be included, that aren't there, or things we want to change [...] In general, they contain the same things, these contracts. There's a difference between customers, but I work a lot with Gamma contracts, and I think they look the same, because Gamma wants them in a special way, these purchase orders. And you learn to read them, you know where to find different things. But if you compare it to another customer, they include the same things [Project coordinator, ManComp]

Similarly, respondents at EduComp explained that regulating the relationship with Delta based on an industry association template (which in this case was provided via the property developer) was a good way to increase the transparency of the process and thus to reduce negotiation- and information costs in the relationship. As explained by a respondent:

It's their contracts. Unfortunately, we work very little with our own contracts [...] They use the Property Owners Association's template, i.e., this standard template. [...] There is clarity in that. It is easier to review those contracts than the property owners' own templates. [Business Developer, EduComp]

The case of ResComp once again stood out compared to the other cases in terms of how they relied on contractual templates in relation to Epsilon. While there was a template provided by an external law firm, ResComp devoted significant internal resources to adapting this template to the specific circumstances of the Epsilon project, which included careful consideration of what contractual safeguards to include in the contract (although they later decided not to enforce some of these safeguards). A legal counsel explains the origin of the contractual template in the following way:

The contract was drafted by my former head legal counsel, but I believe he got help from his former law firm. It was a former colleague of mine at the law firm who helped him with this [...] The contract wasn't really altered as such. According to the old contract, we had a claim against them that amounted to a certain sum. And then we chose not to enforce that right in exchange for something they gave us [...] It was more of a barter. To keep them interested [Legal counsel, ResComp]

## **DISCUSSION**

Our study shows how contractual revisions may result from changes in transaction attributes and from new insight made by the contracting parties during the relationship; and involve changes to technical coordination-oriented terms as well as changes to contractual safeguards and control-oriented terms. Overall, these results are consistent with prior research tracing contractual changes to shifting transaction attributes (Williamson, 1985) and to endogenously driven learning effects (Mayer & Argyres, 2004; Vanneste & Puranam, 2010).

### **Theoretical contribution**

Learning processes in organizations are typically fraught with sociocognitive, organizational, and institutional barriers that may prevent firms from adapting or changing in response to new events and experiences (Argote, Lee, & Park, 2021; Levinthal & March, 1993; March & Olsen, 1975). Learning barriers involve conditions that prevent individuals from receiving and properly interpreting new experiences and environmental feedback, as well as conditions that inhibit individual knowledge from being articulated on a group-level and codified or institutionalized in organizational structures and knowledge repositories (Crossan

et al., 1999; Schilling & Kluge, 2008). In order to counter the negative impact of learning barriers, firms typically develop specific functional and interfunctional structures that promote specialization and development of functional knowledge imbedded in departmental routines and processes (Chandler, 1962; Zollo & Winter, 2002). These functional structures operate across the individual, group and organizational levels to promote (and potentially discourage) certain forms of learning. This may include how individual attention is directed towards certain aspects of an activity, specific frameworks for interpreting and articulating individual experiences, intraorganizational ties through which employees can develop a shared understanding of events, and procedures for how to formally evaluate and potentially change processes when they do not meet organizational goals.

Interestingly, due to the multifunctional nature of the contractual process and a general lack of organizational ownership of questions pertaining to contract management, such supporting structures for managing and developing contracts were in many cases missing in the firms we studied. This had a significant negative effect on contractual learning by limiting reciprocal feedback across tasks performed by different unit, reducing the perceived importance and attention given to contractual safeguards, and encouraging a nonreflexive use of standardized contractual templates. Hence, on a more overarching level, our study contributes to research on the specific challenges involved in learning multifunctional tasks (e.g., Clement & Puranam, 2018; Fang, Lee, & Schilling, 2010; Jansen et al., 2009) by showing the importance of imposing a clear and deliberate structure that facilitate organizational learning (see Zollo & Winter, 2002). Beyond this more general contribution to the organizational learning literature, we also contribute specific insights on the effects of organizational design, contractual framing, and the standardization of templates.

**Organizational design and contractual learning.** Our findings indicate that strong functional differentiation between commercial, technical, and legal units in the contractual



process may constitute an important contractual learning barrier (see Gilbert, 2005; Jansen et al., 2009; Lawrence & Lorsch, 1967). Hence, we argue that models of contractual learning should incorporate an organizational design-perspective (Galbraith, 1973; March & Simon, 1958; Tushman & Nadler, 1978) to better account for how structural differentiation and integration between different units may impact different forms of contractual learning. Previous research shows that contractual learning is typically incremental and local with little knowledge spillover across different partners and projects (Mayer & Argyres, 2004). This finding is in line with a broader theory concerning how simplification and specialization in firms may limit learning (Levinthal & March, 1993). The primary way in which the firms we studied accomplished simplification and specialization in the contractual process was through functional differentiation and the specialization of distinctively commercial, technical, and legal organizational units. While this allows for a simple sequential contractual process where the involved functional units perform clearly defined tasks in a specified order, it also severely limits the search for new contractual designs and solutions to problems that involve interfunctional task-interdependencies.

This problem is particularly evident in the interaction between commercial and technical units, and between commercial and legal units. In the case of commercial-technical interaction, two of the studied cases (MAN, EDU) clearly illustrate a divide in responsibility between early commercially driven stages of the process (specifying partner need and negotiating terms of exchange) and later technologically oriented activities (production, project governance), which reduce contractual learning by limiting reciprocal feedback across the different units. This may, for example, involve commercial units not paying sufficient attention to technical specifications (e.g., quality assurance) and the coordination of operational activities (e.g., property management) when negotiating the overall structure of contracts. A fundamental problem is that coordination problems are typically only experienced during the later production and

operational activities managed by technical units, whereas the contractual design is typically negotiated in the early commercial phase of the process. We argue that this organizational and temporal divide between commercial and technical tasks in the contractual process significantly limit reciprocal feedback between commercial and technical units, which is associated with a more limited search for new contractual solutions and less contractual learning.

We also observed a similar pattern concerning commercial-legal interaction. Commercial and legal units naturally both play an important role in contractual design and learning in terms of holding complementary knowledge concerning the design of different types of terms and clauses (Argyres & Mayer, 2007). Research on the interaction patterns between legal specialists or lawyers and commercial personnel is, however, rather limited. For example, while Bagley (2008) calls for firms to aim for “legal astuteness” by more actively involving legal specialists in commercial decisions, Nelson and Nielson (2000) point out that the professional role of legal counsels and lawyers in large organizations is often limited to that of a formal gatekeeper with little actual integration between legal and commercial tasks. The role of the legal function in the firms we studied generally confirms the pattern observed by Nelson and Nielson (2000). In two of the studied cases, legal involvement in the contractual process were kept to a minimum (MED, EDU), whereas in two other cases (CON, MAN), the internal legal unit had been given specific and delimited tasks related to managing contractual templates and approving negotiated contractual drafts. In these latter cases, the professional role of legal counsels as gatekeepers in control of templates and the approval of contractual drafts were coupled with an organizational setup that placed the legal function in a geographically separated support function. While this organizational design is conducive to legal counsels preserving their integrity as gatekeepers, it will reduce the amount of feedback given across commercial and legal units, and thus also, the search for new contractual solutions that involve distinctively legal elements and contractual safeguards directly tailored to the commercial structure of relationship. In contrast, at

ResComp, where legal counsels were organizationally integrated into the relevant commercial procurement unit, questions concerning contract management was given more weight by technical and commercial employees because of the opportunity this organizational structure provided in terms of examining contractual design questions and the alignment of safeguards with the overall commercial scope of projects in a more integrated and reciprocal way.

**Relational dynamics and contractual learning.** The potential tradeoff between relational governance and formal contracting has been subject to extensive discussion and empirical study. Some researcher suggesting a primarily complementary relationship (e.g., Poppo & Zenger, 2002; Poppo, Zhou, & Zenger, 2008), whereas other suggest that the relationship is substitutive (e.g., Goshal & Moran, 1996; Macaulay, 1963). Other studies have indicated that the relationship between relational and formal governance may be contingent on environmental factors (Abdi & Aulakh, 2017), vary across different types of contractual terms (Mellewigt, Madhok, & Weibel, 2007), and depend on the specific regulatory focus and expectations of the involved actors (Weber & Mayer, 2011; Weber, 2017; Weber & Bauman, 2019; Lumineau, 2017). Generally, technical and commercial employees in the firms we studied voiced strong support of relational governance, which also involved downplaying the importance of formal contractual design and development. Trust and an active promotion of a positive relational dynamic were instead highlighted as the primary mechanism for managing and coordinating relationships. Formal contractual design, on the other hand, was largely viewed as a formality that could be handled by relying on standardized templates and, in some cases, a formal legal signoff at the end of the process. As expressed by one commercial manager, “we have to have strategic alignment before we start to talk about a long-term contract. The capacity commitment is more like a consequence of a good and professional relationship. You will not build a relationship with a capacity commitment”. We interpret this, and other types of similar statements by respondents, as indicating a widespread promotion-

oriented regulatory focus in contractual relationships, which involves primarily using the contract as a means of promoting positive relational outcomes and collaborative behavior, rather than as means to safeguard or prevent opportunistic behavior (see Weber & Mayer, 2011).

Interestingly, the extent to which contracts are framed in terms of promotion or prevention has been directly linked to the level of legal involvement in the contractual process, where it has been suggested that a strong involvement of lawyers in contractual design is associated with a regulatory focus on prevention, rather than promotion (Weber, 2017; Weber & Mayer, 2011). Our study generally supports this intuition. The firms we studied that exhibited limited legal involvement in the contractual process also approached their relationships with a promotion focus that emphasized trust and positive relational dynamics over safeguards and the prevention of opportunism. Once again, it was only in the case of ResComp, which had a markedly higher level of legal involvement in the contractual process, that respondents across different functions also pointed to formal contractual safeguards (prevention focus) as important for overall exchange performance. Hence, differences in regulatory focus on promotion and prevention is likely to affect the propensity for different types of contractual learning. More specifically, we argue that a promotion framing is likely to have a negative effect on learning concerning control-oriented terms by reducing regulatory focus on contractual safeguards.

**Templates and contractual learning.** The benefits of standardization are based on both internal efficiency-concerns and the need to establish commonly accepted mechanisms for coordination and incentive alignment with external actors. Internally, firms seek to establish standard operating procedures and routines in order to simplify decision-making, settle internal disputes, and minimize friction between competing internal interests (March & Simon, 1958; Nelson & Winter, 1982). Contractual templates support these processes by establishing an framework for how the firm transacts with external parties, where internal roles and

responsibilities are clearly defined (Zbaracki & Bergen, 2010). Externally, contractual templates provide related benefits in terms of reducing negotiation costs and uncertainty concerning the underlying transaction. In other words, the parties to the transaction know what to expect based on a contractual template that has stood the test of time, not only in transactions with a particular exchange partner, but also more generally across a wide range of firms and transactions. Contractual templates may thus be viewed as an element of interorganizational routines (see Zollo, Reuer, & Singh, 2002). However, despite their benefits, extensive reliance on standardized templates may also constitute an important barrier to local adaptation and learning in contracting. While standardized problem-solving often provide a significant benefit in terms of knowledge retention (Fiedler & Welpe, 2010); historically useful templates may also be associated with rigidity (Leonard-Barton, 1992).

Our study particularly highlights how standardized templates play an important role in contractual processes in terms of reducing uncertainty in relation to external partners, aligning different internal interests, and codifying insights made in previous transactions and relationships. However, an extensive reliance on contractual templates may also constrain contractual adaption by raising the cost of local and incremental adaptations. This may, for example, occur when changes to templates require top-management approval (CON), partner approval (MAN), and when responsible employees do not have sufficient knowledge concerning all elements of the template to evaluate and implement changes (MED, EDU). The development of coordination-oriented and control-oriented terms are, however, likely to be constrained in different ways by the use of contractual templates: Standardization of technical coordination-oriented clauses is desirable in cases where the nature of the exchanged good or service is identical across transactions and changes to these templates occur naturally when the nature of products and services change (e.g., due to product development). Control-oriented terms, such as contingency planning and penalties, are less dependent on the technical

characteristics of the exchange, which implies that they are more susceptible to generic and rigid standardization in templates (much as MedComp adopted generic “legal terms” from a trade association). Adapting these terms to fit the local commercial conditions of a particular transaction then involves overcoming more substantial hurdles in terms of renegotiating internal routines and aligning them with the differential interests of multiple external partners that may be affected by the change. Overall, this suggests that the negative impact of templates on contractual learning in terms of constraining local and incremental adaptation is likely to be more significant for control-oriented terms than for coordination-oriented terms.

### **Limitations and Future Research**

Organizational learning concerning inter-functional processes that do not follow the standard reporting structures in firms are likely to pose a serious challenge for many firms. In this study, respondents typically provided highly function-specific descriptions of relevant tasks in the contracting process. For legal counsels, contracting is very much centered on the task of writing up the contractual document, to a sales manager it instead centers on the broader commercial structure and negotiations, whereas for technical personnel, key contractual challenges revolve around product functionality, quality, and production. A key observation was thus that the answers provided by respondents vary significantly depending on the background and function of the person providing the answer. The lack of formal policies and structures for contract management is thus likely to increase the heterogeneity of perceptions across respondents and make evaluation of contractual practices and outcomes more complex. Among other things, this implies that that contractual learning may hard to measure with typical single-respondent survey methods and other measures that do not capture the often very different perceptions across different categories of employees. One way to handle this problem is through case studies.

We believe that future case studies should focus specifically on the nature, process and outcomes of distinctively non-trustful and antagonistic contractual relationships where parties act opportunistically and challenge contractual safeguards to gain advantages at the expense of a contractual partner. More case-studies and in-depth descriptions of such conditions would provide a valuable counter image to the extensive research on trust and relational governance, and thus, provide a better understanding of the control-aspect of contracts, which to date has taken a back-seat in many case-studies of contractual learning. However, there are also likely significant challenges with interview-based case studies of “the dark side” of contractual relationships (Oliveira & Lumineau, 2019). Sharing information about trustful relationships is arguable easier than sharing information about events characterized by opportunism, dispute, and legal formalism. One strategy for future research to overcome this obstacle is to rely on large-N studies of formal contracts (e.g., Lumineau & Malhotra, 2011), although data-availability is likely to pose a problem for this type of research.

## **CONCLUSION**

Under what conditions do firms in buyer-supplier relationships learn to contract? In this paper, we argue that contractual learning is subject to significant organizational and institutional learning barriers related to the functional differentiation of the units involved in contracting (technical, commercial, and legal), a preference for relational governance and a promotion-oriented regulatory focus, and a tendency towards relying on standardized contractual templates that resist local adaptation.

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TABLE 1

Description of Selected Cases

	<b>ConComp</b>	<b>MedComp</b>	<b>ManComp</b>	<b>EduComp</b>	<b>ResComp</b>
<b>Main form of data</b>	12 interviews (appr. 16 h)	5 interviews (appr. 7 hours)	11 interviews (appr. 11 hours)	8 interviews (approx. 10 hours)	6 interviews (approximately 6,5 hours)
<b>Industry of case company</b>	Consumer goods	Medical technical equipment	Engineering	Education	Research
<b>Studied relationship</b>	Major component supplier Alpha	Contract manufacturer Beta	Major customer Gamma	Supplying property developer Delta	Supplying engineering company Epsilon
<b>Transaction attributes and characteristics</b>	<p>Large scale and low value-added production</p> <p>Customized components</p> <p>Stable demand</p> <p>Bilateral dependency (machine capacity, location, knowledge)</p>	<p>Small scale and high added value production services</p> <p>Customized contract manufacturing</p> <p>Growing/uncertain demand</p> <p>Bilateral dependency (customized processes, knowledge)</p>	<p>Large scale project-based industrial production</p> <p>Customized components</p> <p>Bilateral dependency (knowledge, input/capacity investments)</p>	<p>Small scale project-based construction and management of property</p> <p>Customized properties</p> <p>Bilateral dependency (knowledge, property has specialized use)</p>	<p>Project-based engineering, manufacturing and assembly</p> <p>Customized technical system</p> <p>Bilateral dependency (design, component sourcing, manufacturing)</p>

TABLE 2

## SUMMARY OF EMPIRICAL FINDINGS

Category	CONComp	MEDComp	MANComp	EDUComp	RESComp
Firm and industry	Large European consumer goods company	Small European Medtech company	Large European engineering company	Large European education company	Large European research organization founded as a limited liability company
Contractual partner	Alpha is a one of ConComp's largest and oldest component suppliers	Beta is a mid-sized contract manufacturer that has been supplying MedComp from its founding	Gamma is a large European company in the energy sector and one of ManComp's oldest customers	Delta is a small property developer and long-term supplier of EduComp	Epsilon is large European engineering company and one of ResComp's key equipment suppliers
Contractual change	Contractual duration extended following large relationship-specific investments (exogenously driven change of control-oriented terms)	Reduced operational scope (insourcing) following increase in sales volume (exogenously driven change of coordination-oriented terms)	Revised quality specifications to align expectations concerning technical performance and the application of standards (endogenously driven change of coordination terms)	Refined technical specifications to include more details about property management (endogenously driven change of coordination terms)	Renegotiation of liquidated damages terms following delays and coordination problems (endogenously driven change of governance terms)
Organizational design	Relationship managed by integrated procurement teams including technical and commercial specialists  Legal specialists control contractual templates and approves final contract drafts. No engagement in contractual negotiations.	Relationship managed by integrated management team including technical and commercial managers  Ad hoc use of external law firm for checking contractual draft. No involvement of legal specialists in the design and negotiation of contract	Early activities are managed by commercial sales unit (specification of quotation, negotiations) and later activities by production unit (technical specification, production)  Separate legal unit supports commercial negotiations and approves final contract after commercial negotiations	Early activities are managed by commercial business development unit (specification of quotation, negotiations) and later activities by project coordinator in a technical unit (property specification and management)  Legal unit is not involved in the contractual process	Relationship managed by technical project group with support of procurement unit with integrated commercial and legal specialists  Legal counsels and procurement officers work together in integrated procurement department
Relational dynamics	Strong reliance on relational contracting, which reduced the perceived need of refining the formal contract and safeguards	Emphasis commercial and technical conditions beyond the formal contract, which are documented in non-formal ways (e.g., emails)	Repeated transactions, small number of industry incumbents, industry standards, and expected future deals reduced perceived need for formal contractual development and safeguards	Strong reliance on relational contracting and the promotion of positive relational dynamics, which reduced the perceived need of refining the formal contract and safeguards	Emphasis on the design of the formal contract, which involved both the development of contractual safeguards and technical specifications
Contractual templates	Rigid reliance on standardized contractual templates that are supplied and approved by separate and distant internal legal unit that is not involved contractual negotiations	Reliance on publicly available contractual templates from industry association	Customers supply contractual templates based on industry standards and the customer's internal procurement routines	Suppliers provide contractual template adopted from an industry association template. Technical part of contract is customized and adapted to fit property management requirements in education	Contractual template is provided by external law firm and adapted to fit the specific transaction by internal legal counsels



TABLE 3

ENDOGENOUSLY AND EXOGENOUSLY DRIVEN CHANGE OF CONTRACTUAL  
TERMS

	<b>Contractual change resulting from new insights developed in the relationship</b>	<b>Contractual change resulting from altered transaction characteristics and attributes</b>
<p><b>Coordination-oriented terms</b> (regulating the nature of the exchange and task-interdependencies between parties)</p>	<p>ManComp (refinement of quality specifications to better align technical expectations)</p> <p>EduComp (development of room function program and boundary list to incorporate more details about desired property management)</p>	<p>MedComp (the insourcing of operations activities following an increase in sales volume)</p>
<p><b>Control-oriented terms</b> (regulating the distribution of risk and payments)</p>	<p>ResComp (renegotiation of liquidated damages clauses after better understanding their consequences in the face of delay and coordination problems)</p>	<p>ConComp (extension of contractual duration following large relationship-specific investments)</p>

TABLE 4  
EMPIRICAL PATTERNS

Category	Level	Mechanism	Empirical pattern
<b>Contractual changes</b>	Organization	Adaptation (search)	<b>Exogenously and endogenously driven contractual change</b> Contractual changes had exogenous (CON, MED) and endogenous (MAN, EDU, RES) causes and involved changes to coordination (MED, MAN, EDU) and control (CON, RES) oriented contractual terms.
<b>Organizational Design</b>	Organization	Feedback across units	<b>Functional silos and sequential decision-processes</b> Strong differentiation between tasks performed by the technical and commercial functions and a sequential contractual process limited feedback between technically oriented contract governance activities and commercially oriented contract design activities (MAN, EDU). This barrier had been acknowledged and partially addressed by the creation of a team/project based organizational structure (CON, EDU, RES).  <b>Commercial-legal task-interdependence</b> Structural differentiation between commercial and legal units limited the possibility tailoring control-oriented terms and safeguards to the commercial structure of the transaction (CON, MED, MAN, EDU). This barrier was partially addressed by integrating commercial and legal employees in a multifunctional unit (RES).
<b>Promotion of positive relational dynamics</b>	Individual/ group	Regulatory focus	<b>Perceived prominence of relational factors</b> Respondents expressed a strong belief in trust and relational factors for promoting a positive relational dynamic, which significantly reduced the perceived need of improving the formal contract and optimizing contractual safeguards (CON, MED, MAN, EDU). Greater involvement of the legal function in contractual negotiations and governance was associated with a less strong orientation towards promoting relational dynamics and a stronger orientation towards refining the formal contract and contractual safeguards (RES)
<b>Contractual templates</b>	Organization	Exploration-exploitation	<b>Limited local and incremental adaptation of contracts</b> The widespread use of formal standardized contractual templates limited the possibility of incremental and local contractual adaptations that involved the overall structure of the contracts and/or contractual safeguards. Templates were provided by a separate legal unit not involved in contractual negotiations (CON), directly adopted from industry associations (MED), prescribed by the contractual partner (MAN, EDU), and provided by external law firm (RES).

## APPENDIX 1

### Case-Study Protocol

#### **General about the interviewee and contracting parties**

What is your role/position in the company?

Describe the overall organizational structure that you are working in.

What are the organizational units that are involved in managing the selected relationship?

Who are the key individuals within those units that are involved in managing the selected relationship?

In general terms, describe the selected external partner.

In general terms, describe your relationship with the selected external partner.

#### **Design of agreement/contract**

How do you design your agreements/contracts with external partners/suppliers?

How has the agreement/contract with the selected partner changed during the relationship?

What was the reason for the revision(s)?

Who in your organization negotiates revisions or changes in standard contracts or contractual templates?

How do these contractual negotiations normally look like?

How important are different types of terms and clauses in the contract for you?

How do different types of contractual terms and clauses affect the relationship?

Who in your organization are involved in developing contractual templates?

Have the contractual templates used by your organization changed over the last years?

#### **Technological and external conditions affecting the relationship**

What are the most important external factors or conditions that affect how external relationships are arranged and contracted?

Describe the product/service being transferred/bought/sold in the selected relationship?

What specific capital investments have been made by the parties in order to facilitate the relationship?

What is the annual or total volume/transaction value of the contract regulating the relationship?

What is the level of complexity and uncertainty associated with the product/service/relationship?

#### **Learning to contract**

If you look at the relevant knowledge that you had when starting working with the selected relationship and compare that knowledge with what you know today, how has that knowledge changed and what do you think that you have learned from the relationship?

Have you made any changes in how you organize (structure) for selecting and managing external relationships during the extent of the selected relationship?

Have you made any changes in your routines and processes for selecting and managing external relationships during the extent of the selected relationship?

How does your organization/company support learning concerning how relationships with external partners are managed?

#### **Organization and processes for contracting**

Describe your organization's current processes and competences in setting up and managing contractual relationships with external partners?

How have your organization's processes and competences in setting up and managing contractual relationships changed over time?

What key individuals within the organization hold relevant knowledge that support the process of setting up and managing contractual relationships with external partners?

What have been the most important drivers of the development of processes and competences in setting up and managing contractual relationships?