Research Policy xxx (xxxx) xxx–xxx

Contents lists available at ScienceDirect

Research Policy

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

Contractual governance and the choice of dispute-resolution mechanisms: Evidence on technology licensing

Valérie Duplat[a,*], Régis Coeurderoy[b,c], John Hagedoorn[d,e]

[a] Vrije Universiteit Amsterdam, School of Business and Economics, De Boelelaan 1105, 1081 HV Amsterdam, The Netherlands
[b] ESCP Europe, Avenue de la République 79, 75543 Paris Cedex 11, France
[c] Université catholique de Louvain, Louvain-la-Neuve, Belgium
[d] Royal Holloway University of London, School of Management, TW20 0EX Egham (Surrey), United Kingdom
[e] UNU-MERIT, Maastricht University, Boschstraat 24, 6211 AX Maastricht, The Netherlands

ARTICLE INFO

JEL classification:
L 24
L14
O 32
K12
D 86

Keywords:
Arbitration
Technology licensing
Contract design
Dispute

ABSTRACT

In fast-paced and knowledge-intensive environments, licensing partnerships can be powerful levers for market expansion. Research on the management of technology-oriented licenses has nonetheless pointed out the risks of corrosive disputes caused by conflicting interests or misunderstandings among licensing partners. The choice made *ex ante* on mechanisms for resolving potential disputes is of prime importance in the execution of licensing exchanges. Although the legal literature has widely emphasized the advantages of arbitration towards litigation, public ordering remains the "default" option in managers' eyes. By adopting a transaction cost economics logic, our study explores the conditions under which licensing partners may prefer arbitration over public ordering during the contractual-design phase. In accordance with our theoretical arguments, findings show that the occurrence of arbitration provisions increases when the coordination orientation adopted by licensing partners is extensive. In situations where both monitoring and coordination orientations are simultaneously extensive, results reveal a greater propensity to prefer arbitration over public ordering. Our research therefore supports the view that corporate decision-makers tend to favor the conciliatory stance and compromising awards typically associated with arbitration, only when exchanges are expected to be highly coordinative. Their preference for arbitration over litigation is magnified when the coordination orientation develops alongside the monitoring orientation.

1. Introduction

Due to the risks of knowledge misappropriation (Arora and Fosfuri, 2000; Oxley, 1997; Teece, 1986) and the uncertainties surrounding the commercialization and implementation of non-proprietary technology (Nelson and Winter, 1982; Pisano, 1989), managing licensing exchanges requires anticipation of conflicting interests and of potential corrosive disputes. It is essential to craft appropriate remedies for mitigating those disputes. In this regard, the choice of dispute-resolution mechanisms made at the outset of licensing exchanges can play a key strategic role in the governance of the partnership by disciplining licensing partners' behavior and enforcing their contractual commitments. Scholars in law have highlighted the numerous advantages of referring disputes, and especially disputes on technological matters, to arbitration rather than public courts (*e.g.*, Arnold et al., 1991; Mills, 1996). Despite the various advantages of arbitration, prior empirical studies have provided evidence that arbitration provisions are not systematically included in inter-firm partnerships (Drahozal and Hylton, 2003; Eisenberg and Miller, 2007; Hagedoorn and Hesen, 2009). Managers do not seem to consider this private mechanism as a "default" option and tend instead to favor public litigation (Hylton, 2005; Stipanowich, 2014).

Our study primarily aims at understanding this paradox by examining managers' rationality and their decision criteria when assessing alternative ordering systems. We develop and propose a systematic and empirical framework, grounded in the transaction cost perspective, which predicts the conditions under which the advantages of public courts overcome those of arbitration from a managerial point of view. In technology-oriented licensing, partners are torn between safeguarding the appropriation value and openly collaborating. They face these same contradicting imperatives when assessing the ordering systems. On the one hand, the expectation of severe damages and coercive awards is essential for disciplining the exchange and sanctioning deviation from contractual obligations. On the other hand, more nuanced

* Corresponding author.
E-mail address: v.duplat@vu.nl (V. Duplat).

https://doi.org/10.1016/j.respol.2018.03.015
Received 25 November 2016; Received in revised form 19 March 2018; Accepted 19 March 2018

settlements and a win-win stance signal a willingness to "work things out" and to foster realignment of each party's actions and interests beyond disputes (Lumineau and Oxley, 2012). Although arbitration can be valuable because it enables partners to accommodate adaptation *ex post* in an amicable way (Friedman, 1965; Williamson, 1979), it may be perceived as ill-suited and not coercive enough in managers' eyes due to its conciliatory approach (Drahozal and Ware, 2010; Stipanowich and Lamare, 2014). To unravel how partners balance the features of public ordering and arbitration, we therefore endeavor to disentangle control concerns from coordination concerns. We appraise the threat of opportunism as perceived by decision-makers through the inclusion of monitoring provisions in licensing contracts. Requirements for collaboration and interdependent actions *ex post* are evaluated based on the extent of coordination provisions included in those contracts.

We contend that, from a managerial point of view, public courts may be perceived as more suitable in situations where moral hazards and risks of knowledge and asset misappropriation are salient. Judges' awards tend to be more severe than arbitrators' awards (Macneil, 1974, 1978; Williamson, 1985). Legal scholars and practitioners acknowledge the conciliatory and win-win stance usually adopted by arbitrators (Friedman, 1965; Stipanowich and Lamare, 2014). Such a stance may not be favorable or suitable in situations where concerns for opportunism prevail. It can however be sought when the licensing partnership involves significant inter-partner coordination over time. To test our arguments, we assembled a detailed survey sample of technology licensing exchanges for which we collected data on technology-based and exchange attributes, contract design and the selected dispute-resolution mechanism. Our empirical findings reveal first that arbitration is favored in the presence of an extensive coordination orientation that reflects the need for joint efforts and interdependencies. In contrast, our findings do not provide evidence of a direct impact of a monitoring orientation on firms' preference for public courts. However, as expected we do find that the willingness to "work things out" amicably and to benefit from the expertise of arbitral judges overcomes possible needs for severe sanctions when licensing contracts are simultaneously characterized by significant monitoring and coordination orientations. Stated differently, in highly collaborative licensing exchanges, the monitoring provisions tend to magnify rather than inhibit partners' preferences for arbitration over litigation.

Our study first contributes to the remarkably scant research on dispute-resolution choices in the managerial and organizational literature. Lumineau and Malhotra (2011), Malhotra and Lumineau (2011) and Lumineau and Oxley (2012) examined actual dispute-resolution choices once disputes surface. By focusing on decisions made *ex ante*, it is possible to study the extent to which partner firms perceive either public courts or arbitration as more suitable for inducing appropriate behaviors *ex post*, and for handling conflicts that could arise along the way.

We also contribute to research that distinguishes the control functions of contractual agreements from the coordination functions (*e.g.*, Gulati and Singh, 1998). Our study explores their joint influence, in particular. We show that contracts with an arbitration provision are projected to be of a "coordinative" nature *ex post*, while those referring exclusively to public courts are simple exchanges, typically executed under the shadow of severe possible sanctions in case of non-compliance. We explore a case of "trilateral governance" (*i.e.*, the licensor, the licensee, and the arbitrator) as introduced by Williamson (1979). Since the evocation of third parties by Williamson (1979), the contribution provided by those parties in exchanges has received extremely limited attention (Nooteboom, 1999). Our study expands on the proposition that arbitrators act as gap fillers and help to ensure continuation of the exchange beyond disputes.

2. Theory and hypotheses

2.1. Why include an arbitration provision in partnership contracts? A review of key arguments for the selection of the dispute-resolution mechanism

Public courts and contract law are key institutions that allow voluntary exchanges to take place. They provide general rules that shape post-contractual behaviors and they induce parties to credibly commit to their contractual obligations by imposing legal sanctions (Cooter and Rubinfeld, 1989; Llewellyn, 1931). Despite the support offered by public institutions, transaction cost economics disputes the assertion that public ordering is efficacious in empowering any contract. Under certain conditions, contracting parties may prefer arbitration. Arbitration has long been recognized as a private resolution mechanism that may temper tensions when disputes arise (Bonn, 1972). The arbitral forum is essentially outside the public legal system (Friedman, 1965), and it provides an alternative set of rules and enforcement procedures (Hylton, 2005).

Arbitrators are selected on the basis of their expertise in the focal subject matter (Bernstein, 2001; Bonn, 1972; Sternlight and Resnik, 2005), as well as their reputation for integrity and fairness (Stipanowich and Lamare, 2014). Parties can also decide on the site of dispute resolution, the laws that will govern their dispute, the number of arbitrators, and the process by which arbitrators are appointed (Leeson, 2008). Arbitrators are not bound by the usual courtroom rules of evidence nor by legal precedent. They often reach a decision regarding a particular dispute based on the norms of fair commercial practice and trade customs (Bonn, 1972).

Arbitration is therefore typically characterized as more flexible than the public system (Coulson, 1965). Parties voluntarily decide to refer their dispute to at least one impartial third person and agree to be bound by the decision of that person. A losing party has little leeway to appeal (Bonn, 1972). Given the limited possibility of appeal, arbitration tends to compare favorably with public court litigation in terms of speed and economy (Bonn, 1972; Drahozal, 2008; Pinkham and Peng, 2017).[1] In addition, as arbitration is a private process, it makes unfavorable publicity less likely.

In contractual exchanges, tensions and disputes can emanate from two main categories of impediments: opportunistic behaviors (Williamson, 1985), or misunderstandings and collaboration failures (Gulati et al., 2005). In terms of alleviating opportunism *ex post*, partners may perceive the public system as more dissuasive than arbitration. Indeed, public judges tend to adopt a more adversarial position and to deliver severe punitive damages (Cooter and Rubinfeld, 1989). The adversarial mindset, in which each party tries to win as much of the stakes as possible, prevails in trials. The efficacy of public systems in allocating the responsibility for performance shortfalls depends however on judges' abilities to verify the information related to the exchange and to ascertain whether the disputing parties have acted in accordance with the contractual terms (Greif, 2005; Williamson, 1985). The information required for making such a judgment may not be readily accessible in public courts.

Although the threat of adjudicating possible disputes through public courts can discipline behaviors and mitigate the occurrence of disputes overall (Shavell, 1995), litigation may not be perceived as suitable for exchanges calling for fruitful and smooth collaboration beyond disputes. In this regard Macneil (1962, p. 525) noted that "arbitration is often a more satisfactory system for handling alleged breaches if the contractual relations of the parties are of a continuing nature." Arbitrators have a tendency to evenly allocate responsibilities for damages rather than offering total victory to one party. Also, given the expertise

[1] Speed and cost effectiveness are also explained by the fact that arbitrators have different incentives from judges when resolving disputes (Drahozal and Hylton, 2003).