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THE BEARABLE LIGHTNESS OF INTERFIRM STRATEGIC ALLIANCES: RESOURCE-
BASED AND PROCEDURAL CONTRACTING *

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Abstract

This paper inquires into how contracts can regulate the complex and uncertain matters on which strategic alliances get formed. It highlights that contracts can be ‘light’ without being mistakenly incomplete. It is argued that the contracts constituting and regulating strategic alliances are composed by an associational core, focused on resource commitments and on the specification of property rights, broadly intended; and of a belt of contractual clauses incorporating a variety of coordination mechanisms (including, and actually privileging, joint decision making procedures). The interpretive power of the framework is illustrated through the analysis of three alliance contracts.

Introduction

Alliances and networks have been analyzed along many dimensions and through a variety of theoretical lenses³. Nevertheless, a precise characterization of the ‘ingredients’ of that broad class of governance solutions is still missing. In fact, most analyses of networks and alliances, being disciplinary bounded, typically consider only a limited set of governance mechanisms. As shown in the reviews mentioned, some studies only concern themselves with broad legal forms (albeit

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'extended' to various types of contracting modes, as obligational and relational contracting); some others with specific juridically-defined contractual schemes (e.g. joint-ventures, franchising, licensing etc.); others more, with structures defined simply on property rights (e.g. equity/non equity alliances), on the organizational mechanisms sustaining cooperation and exchange (brokers, liaison roles, joint decision making, arbitration, programs etc.), or on the social mechanisms that embed and affect economic transactions. These 'partial analyses', useful as they are, cannot but overlook the importance of the *combinations* between mechanisms of different nature in effective governance. In previous work, we have opted for a combinative analysis of legal, economic and organizational mechanisms as a way for characterizing and assessing network forms more precisely (Grandori 1997), arguing that forms of network and alliance can be specified according to the partition and differentiated allocation of property rights, complemented by a selection of coordination mechanisms. On that track, the present work takes a step further, inquiring into the mode of formalizing and enforcing those combinations into both private and public documents or 'contracts'.

The specific focus of the analysis is that of alliances that are strategic and project-based, as a sub-class of interfirm networks of special interest in a 'combinative' analysis perspective. In fact, we do not want to deny that there are interfirm collaborations that are almost entirely regulated by some homogeneous sub-class of mechanisms, such as merely social and informal ties (as, say, long-term supply relationships in industrial districts) or merely formal and legal means (as, say, some forms of licensing). But the nature of the most important, 'strategic', collaborations, precisely because they are broad-ranging, is typically not entirely captured in those partial perspectives, as they involve a nexus of legal, organizational and social mechanisms. In addition, strategic alliances are often complex to regulate because they are neither of the long, open-ended, repeated game, highly socially embedded, routine-helped variety (like long-term marketing and purchasing networks); nor of the short term, market-like, highly obligational, largely court-enforceable variety (like license and concession contracts). Hence, strategic alliances are typically not well framed

along the most familiar ‘continua’ of hierarchy versus market mechanisms, and of relational versus obligational contracting. Finally, strategic alliances – especially in innovative, knowledge-intensive, strategic industries – are quite often project-based. Therefore they entail truly contrasting demands – such as task complexity limiting extensive formalization, high levels of risk demanding proper guarantees, needs for ‘swift’ establishment of agreements and common interests with distant or new partners, eventually long time horizons but also the awareness that an end or a ‘completion’ stage has to be reached – which can be governed only by using a wide range of mechanisms.

Another distinguishing feature of the approach taken here in analyzing the contractual foundations of alliances is to acknowledge that almost any coordination mechanism can be agreed upon and formalized into contracts. In other terms, contracts are not necessarily coordination devices that are close, similar, or consubstantial to markets. The use of authority, democracy, plans, rules and procedures can be stipulated by explicit, court-enforceable contracts, as much as prices are.⁴ Hence, contracts can and do contribute to define and protect important features of organizational configurations (both intra- and inter-firm).

This paper contributes a framework for analyzing contracts in this perspective, and applies it to characterize the contractual bases of strategic, project-based alliances. A result of our analysis will be to give a response to the puzzling question: how can complex matters be regulated by ‘light’ contracts, as it is, in fact, observed?

Dimensions and antecedents of contractual configurations

According to juridical definitions, contracts are ‘agreements that institute or modify reciprocal obligations between parties’. Hence, understanding contract variety entails understanding to what extent and by what means obligations are instituted and enforced: whether formal or informal, self-enforceable or externally enforced, a definitional feature of a contract is the extent to which it institutes obligations, the degree or intensity of its obligational effect. Some more

operational attributes of contracts, that substantiate their obligational intensity, have also been identified.

The most commonly employed dimension is the degree of *formalization*: to what extent contracts are written as a basis for third party enforceability or they are kept informal and enforced by some other, ‘relational’ mechanism. Formalization is undoubtedly an important first attribute, but it does not capture, per se, the ‘extension’ of the regulated matters, nor their type.⁵

Another important dimension of contracts, therefore, is their *complexity*, i.e. their articulation and detail on a larger rather than smaller number of matters (Ariño and Reuer 2004). A higher degree of articulation and detail of organization (either formal or informal) involves a specification of actions and behaviors to be constrained in their most operative and particular rather than general features (Grandori 2001a). As applied to contracts, though, complexity is often not distinguished from, and even considered an indicator of, ‘completeness’ (Ryall and Sampson, 2003).⁶ We depart from this view and highlight that *completeness* is a different concept: actually complete contracts can be very ‘simple’, rather than very long and detailed. Complete contracts constrain action unequivocally (Bernheim and Winston 1998). Hence when there is uncertainty, what may make a contract complete under uncertainty, i.e. under lack of knowledge of possible relevant alternatives and relevant states of the world, can never be, by definition, a complete description of ‘all possible actions and states of the world’. However, this does not mean that complete contracting is impossible, as it is usually concluded. The way out is to devise clauses specifying a procedure for selecting action ‘no matter what’, or ‘in any *non* considered contingency’ (Grandori 2005). Hence, if there are uncertainties, and a list of actions cannot be completely specified, what may make a contract complete is a contract on a procedure through which selecting actions in unforeseen contingencies, through entitlement of some parties to decide (being it a private joint-decision system, a private authority or a public court) or by means of reference to impersonal rules and norms to be applied. So, we can have both very articulated and very simple complete contracts.

Fourth, the dimension of completeness is linked to the *type* of matters or actions on which a contract is stipulated. On this ground the relevant distinction is between rights and obligation over *behaviors* (tasks or services to be delivered) – the most obvious elements on which contracts can be stipulated – and rights and obligations over the *resources* that generate behaviors and services. Associational contracting over resource commitments, we submit, defines a ‘constitutional order’ or ‘core’ of alliance contracts. As a dimension, we can conceive of a degree of *associativeness* of a contract. Contracts need not be only about actions and tasks to be performed and prices and compensations to be corresponded in exchange. Actually both task and price specifications are difficult, when dealing with complex and uncertain matters. As a response, a shift of the matter of contracting to something that is capable of generating actions and setting terms of exchange is both possible and empirically observed (Grandori 2005): resource commitments (and the property right allocations that define and protect them), and decision procedures and rights that state ways of selecting actions, rather than specifying which action should be carried out under what circumstances. This possibility stays at the core of the explanation offered here of why contracts on complex matters can be ‘light’ rather than ‘heavy’, ‘simple’ rather than ‘complex’ .

What other elements do we expect to be applied, as complements of the associational core, and when? To what extent will they be built into contracts, or will they be kept as extra-contractual elements? There is a wide array of coordination mechanisms that have been defined in general terms. They include: price-like coordination; governance by teams, communities and democratic voting; brokers, intermediaries and integrators; hierarchy (both authority-based and agency-based); rules and procedures; plans, programs, and job descriptions. All of them can be applied not only to intrafirm but also to interfirm governance (Grandori 1997) and, we especially highlight here, all of them can also be incorporated into contracts. The specific collection of coordination mechanisms that complements an associational contract (and their degree of inclusion in the contract itself) defines some further important features of the mode of governance.

The conditions under which each specific mechanism is relatively more effective and efficient are now reasonably well understood both in general terms and as applied to interfirm coordination.⁷ Synthesizing and stylizing, which coordination mechanism is superior (least cost, both in terms of opportunity cost and process cost) depends on the degree of *uncertainty* and of *conflict of interests*. Higher levels of uncertainty and conflict potential are expected to call for ‘higher-powered’ integration devices, with higher mutual adjustment capacity (more information exchange devices and more conflict resolution devices). Hence, we expect the associational contract instituting an alliance be complemented by a selection of coordination mechanisms that respond to those conditions.

To what extent do we expect to find them formalized into the contract(s) regulating the alliance? Again both information complexity and conflict of interests are expected to affect the formalization of agreements into contracts. Complex tasks coordination needs formal supports because the number of elements that can be memorized and agreed upon mentally is limited, as in the case of the extensive ‘technical specifications’ included in the contracts for large industrial projects. The coordination of action is sustainable without the formalization of authorities and task descriptions, or of rules and procedures, only if the best actions to take are known and if the advantages of taking them are superior to those of not cooperating. Finally, the joint exposure of resource investments to risk demands reciprocal protection from withdrawal and protection of the rights to recover investments, whatever the type of resources invested. Hence, in general, in strategic alliances, we expect to find contracts that formalize property rights, but also, to a good average extent, complementary coordination mechanisms.

Evidence from R&D project based alliances

In what follows we shall examine the content of a few successful project-based alliance contracts. The purpose of this investigation is to provide preliminary evidence on the predictive power of our framework. These alliances proxy conditions of high uncertainty about the possible

results of the collaboration. Hence we expect highly formal, highly associational contracting over resources and resource commitments. The three cases varies, however as to task complexity and conflict between interests on tasks. Hence, around the core associational clauses, we expect different belts of coordination mechanisms: democratic and team-like, whenever activities are particularly research-intensive; price-like when activities are well defined and uncertainty only relates to different levels or quantities to be exchanged; more hierarchy and rules intensive for intermediate uncertainty levels. To explore these variations, we consider some R&D contracts, as well as some alliances where collaboration was contracted over more downstream tasks.

*3M and Polycom Inc*⁸

The objective of this collaboration was the development of an improved version of Polycom's communicating overhead projection system. Polycom contributed hardware and software design capabilities directly related to the focal product, while 3M had technologies suitable for certain subsystems of the product and greater experience in manufacturing. Contingent clauses are almost completely absent from the contract. By far the largest part of the agreement deals with the allocation of rights to the parties and with the creation of procedures for decision and action, rather than with the prescription of specific actions. Without pretense of being exhaustive the following recaps a few of the covenant in the contract that express such features.

RESOURCE COMMITMENT OBLIGATIONS

- *Polycom agrees to annually expend funds for research and development of the [Product] in an amount meeting or exceeding [Amount]*

DECISION AND CONTROL PROCEDURES

- *Mutual agreement of the Parties shall be required for Engineering Changes In the event that the combined demand for [Product] (...) should exceed such*

manufacturer's manufacturing capacity in any given month, Polycom and 3M agree to allocate the available capacity between them pro rata

- In order to allow the Parties to assess whether adequate manufacturing capacity will be available (...) each Party agrees to provide the other, by the first day of each calendar quarter, with a non-binding, written forecast of its anticipated requirements
- To resolve any disputes among the Parties, 3M or Polycom must first provide written notice to the other (...). If the dispute is not then resolved, there shall follow (...) a meeting (...) to discuss and negotiate in good faith
- Should the procedure outlined above not bring about a resolution of the dispute, then (...) the Party first sending the notice shall initiate a voluntary, nonbinding mediation conducted at a mutually-agreed location (...) by a mutually-agreed mediator

While the contract is rife with associational elements, it contains some obligational contracting features as well. Indeed certain clauses articulate in somewhat more specific terms the duties of the parties, namely, the technical areas to which the parties have to contribute technical and support staff and the amount and timing of payment of 3M's financial support to product development.

As to the contingencies considered in the contract, they tend to be related to the parties' behavior, rather than to the environment:

- *FAILSAFE PRODUCTION.* In the event that Polycom (i) suspends for more than [Period], or terminates its dataconferencing business, (ii) becomes subject to any bankruptcy or insolvency proceeding (...) or (iii) becomes insolvent (...) 3M shall have the right to have [Product] manufactured by a party of its choosing
- *ENHANCEMENTS* (...) should Polycom fail to meet its funding commitment for research and development in any given year, the Parties agree to meet (...) to review the actual level of Polycom's funding and to reduce the amount of 3M's future royalty and/or future sales volume commitment accordingly. With respect to

the royalty requirement for the then current calendar year, the royalty shall be reduced to a percentage determined by multiplying (...)

and usually they concern the parties' actual or potential *contribution of resources* to the relationship, rather than specific actions.

Finally, the agreement offers us a clear example that before being a sensible theoretical model of contracting, the idea that a pooling of resources and effort can be beneficial, regardless of specific contingencies, indeed reflects the way the parties themselves perceive the problem:

- FURTHER BUSINESS ARRANGEMENTS. The Parties recognize that the market for audioconferencing (...) is not fully developed at this time, and that their respective areas of technological expertise and marketing abilities suggest that collaboration in the further development of Conferencing Products (...) could prove to be mutually beneficial. Therefore, the Parties agree to reasonably cooperate with each other in exploring the possible advantages of additional business arrangements.

From the contract, some fundamental traits of the profile of organizational coordination can also be reconstructed. The coordination mechanisms are centered on decision-right sharing and guarantees that no party can go alone, but communication obligations and fair conflict resolution procedures, based on negotiated joint decision making, are also specified.

Lucent Technologies Inc. and Broadband Technologies (BBT)⁹

Technically this contract is a Master Agreement, regulating a stream of future projects, each of which requires Project Letters for actual implementation. The relationship is a 'fee for services' one, whereby the researching party (BBT) offers specialist expertise that the commissioning party lacks, but which is available from a number of competing suppliers.

The contract has a strong associational tone. The specific task to be carried out by the research partner is described in very general terms. The agreement establishes a procedure for determining task content:

- As soon as practicable (...)the Parties shall agree on a preliminary list of possible Projects, and associated fees (...) The Parties recognize that the list of potential Projects on such list is subject to additions and deletions, by mutual agreement, and shall not bind either Party until an appropriate Project Letter for any given Project is executed by both Parties (...)

and envisages a process of progressive discovery and specification.¹⁰

However, despite the fact that at the time of drafting the agreement the tasks can be specified only in very general terms, the parties already commit to each other rather forcefully.¹¹ Overall, the agreement is configured as Lucent ‘hiring’ the development firm, for a still vague technical purpose, basing on a prior assessment that BBT will be able to deliver what Lucent will detail in due time.

While the associational elements dominate, this agreement also includes clauses that establish bilateral governance devices to ease disengagement from the relationship upon a change of circumstances, thus acknowledging that at times the expected benefits may not justify continuing cooperation.¹² To deal with such case, that implies an increase in the conflict of interests, the parties envisage a change in the type of contract, with the logic of exchange and obligational contracting superseding the logic of associational and relational contracting.

Around the association contract, a thin belt of organizational mechanism is provided for. These consist essentially of team-like governance, complemented by the assignment of some authority to one of the parties.¹³ Paragraphs 2.02 and 2.03 provide that each Project Letter shall specify “the name [one per party] (...) of the Lucent's and BBT's representatives assigned to administer the Project” and assign the representatives action rights, decision rights on operational matters, and reporting duties, thereby configuring them as liaison roles. Hence, consistently with our framework, the Lucent-BBT associational contract is complemented by somewhat more bureaucratic mechanisms, in accordance with the more exchange-like and less joint research intensive type of cooperation.

*ISS Inc (Owner) and I.S.T. Partners, Ltd (Representative)*¹⁴

This agreement was entered by Integrated Security Systems, a producer of industrial security and traffic control products, and an unaffiliated partner, to fund the Owner's Intelli-Site software sales and marketing efforts. Reporting from ISS indicates that both resource constraint and uncertainty about market acceptance of Intelli-Site stood in the way of ISS effecting its own investment in Intelli-Site's market development.

With this agreement the parties created a situation of strong bilateral dependence. On one side ISS granted exclusive worldwide sales and marketing rights to the Representative (i.e. the licensor agreed that he could not exploit the product himself). On the other side, the Representative agreed to provide various engineering services and application development for the sake of improving marketability, and to automatically assign to Owner all rights in enhancements and inventions that he might do.

The agreement described the task of the parties very concisely and in quite general terms. The associational character of the agreement was further strengthened through a clause establishing the duty for the Owner to supplement the Representative's own funds to accomplish large projects:

- PROJECT INDEMNIFICATION. Owner agrees that if the aggregate capital accounts of I.S.T.Partners, Ltd. are not sufficient to complete any project or sales contract relating to the Code or Documentation, that Owner has the sole and exclusive obligation to meet any additional funding obligations to complete the project for sales contract.

While the parties expected that the pooling of some of their assets and capabilities would be beneficial, at the same time they expressly circumscribed the collaboration to the particular transaction and, through a no-joint-venture clause, they explicitly underscored the limited depth of their relationship:

- INDEPENDENT CONTRACTOR STATUS. Sales Representative is an independent contractor under this Agreement, and nothing herein shall be construed to create a partnership, joint venture or agency relationship between the parties hereto.

In short, it is clear that what made the agreement viable was not the planning for contingencies, but the fact that it aptly allocated rights and incentives. The Representative was made an almost full residual claimant (he was allocated 85 per cent of the sales revenues) after “renting” the job (he agreed to pay upfront a non-refundable amount of \$250,000 for existing contracts). In other terms, the association contract is here complemented by price-like mechanisms, in accordance with the actions to be taken, uncertain mostly in terms of realized amounts of sales.

The agreement proved successful. After the capabilities and market acceptance of the product became clear, IIS decided to increase its own investment in market development and accelerated the termination of the agreement through the repurchase of the worldwide sales and marketing rights of the product.

Conclusions

The expectations based on our framework were broadly supported by the three case studies. Differently from what the usual ‘market + hierarchy’ notion of hybrids implies, an analysis of the content of alliance contracts confirms that they are not, emphatically, a mixture of price-like and authority-based coordination, although these mechanisms are sometimes employed. If there is a chief coordination mechanism always found to complement the associational contracts constituting alliances, that is multi-party ‘democratic’ decision making (through voting, negotiation and specification of discretion areas). This is prominent in the first case, which arguably entails the higher uncertainty. Bureaucratic mechanisms are more present in the second, and market-like in the third contract.

The contracts constituting and regulating strategic alliances are composed by an associational core, focused on resource commitments and on the specification of property rights, broadly intended; and of a belt of contractual clauses incorporating coordination mechanisms of various kinds. We have also specified that associational and procedural contracting is the way in

which formal contracts can deal with conditions of high uncertainty. We have also made precise in which sense proprietary alliance contracts are more ‘firm-like’ than the interfirm contracts. Not because they make more use of hierarchy – which in fact is not the case – but because they are associational and procedural contracts (Grandori 2005) instituting a ‘continued associations among co-specialized, dedicated assets, coordinated by conscious direction’ (Demsetz 1991).

Hence, our discussion on alliance contracts here, as well as our previous inquiries into extra-contractual coordination mechanisms employed between and within firms (Grandori 2001b), conclude that internal and external forms of organization seem not to be so ‘discrete’ and fundamentally different ‘in kind’ as it is usually assumed. Contracting on resources rather than on tasks provide a foundation for any ‘proprietary association’, of which a firm may be seen as a particular case.

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Notes

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³ See Grandori and Soda (1995), Oliver and Ebers (1998) for reviews of network literature enlightening that feature.

⁴ In this direction, see Stinchcombe (1985), Sobrero and Schrader (1998).

⁵ Nor, actually, whether formalization is private or court-enforceable.

⁶ This view descends from Williamson's idea that as uncertainty increases contracts are expected to become more and more contingent and articulated, in order to take into account as many contingencies as possible, and, where that is no longer possible or it is too costly, to be complemented by extra-contractual mechanisms such as authority or norms.

⁷ This synthesis of the antecedents of coordination forms is based on the wider treatments offered in Grandori 1997 and 2001a.

⁸ This and the other contracts discussed were obtained from the EDGAR database, maintained by the SEC. The contract is dated March 28, 1997.

⁹ Contract dated February 4, 1998.

¹⁰ In fact the contract requires that the project letters at a minimum include a detailed description of the project and a statement defining all deliverables, milestones and their associated due dates.

¹¹ For instance, the agreement establishes an obligation for Lucent to pay BBT a certain amount, which cannot be waived even in the case that Lucent deems it appropriate to purchase the agreed deliverables from alternative sources. Additionally, the agreement states that Lucent can refuse delivery of a deliverable that meets specifications only if delivery delay extends for more than six

months. This is indeed not a trivial period, in view of the fact that the collaboration is expected to last about three years, and is an implicit acknowledgement of the uncertainty of the tasks.

¹² For instance, the agreement establishes that for each project a “reusability value” of the project deliverables to BBT be negotiated. Such value would be an input to a formula and would help reduce the amount due by Lucent in case of earlier termination of the agreement.

¹³ Various clauses establish that decisions at the strategic as well as the organizational and operational levels of the alliance will be taken ‘by mutual agreement’.

¹⁴Contract dated September 1, 1996