

ROLES PLAYED BY RELATIONAL TRUST  
IN STRATEGIC ALLIANCES

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## **ROLES PLAYED BY RELATIONAL TRUST IN STRATEGIC ALLIANCES**

### **Abstract**

In this paper we develop the concept of relational quality as a proxy for relational trust. Exploration of data from 67 alliances confirms that relational quality is composed of three elements: initial conditions, partner interactions, and external events. We offer propositions on the relative importance these elements take depending on the different roles relational trust may play in strategic alliances: the role of a control mechanism, of a governance mechanism, or as an enabler of high risk initiatives.

## **ROLES PLAYED BY RELATIONAL TRUST IN STRATEGIC ALLIANCES**

### **Introduction**

Koza and Lewin (1998:261) have observed that “It is clear that research on trust needs to advance beyond a catch-all residual in the unexplained random error term.” This paper heeds their call for “systemic research on the role of trust in alliances” (1998:261). By specifically providing “empirical evidence to substantiate [some of] the multiple theories that have emerged” in explaining trust. As Bigley and Pearce (1998:415) note, “theoretical debate and empirical testing [related to trust] are especially warranted on problems emphasizing transactions between firms.”

Our objective is to explore the relational quality that underlies cooperative efforts (Ariño and de la Torre, 1998). In this paper we argue that the parties to an exchange in which past experiences and the shadow of the future loom large project themselves into that future by focusing on the relational quality of exchanges. In so doing, the parties may rely on relational trust and also lay a basis for enhancing those initial levels of relational trust. In relying on relational trust, they may substitute it for a variety of formal controls (Rousseau, Sitkin, Burt and Camerer, 1998: 399) — or supplement formal controls with reliance on trust (Das and Teng, 1998). Reliance on relational trust may also take the place of formal, contractual governance (Ring and Van de Ven, 1992; Barney and Hansen, 1994). Finally, reliance on relational trust also may enable the parties to undertake cooperative relationships (Coleman, 1990; Ghoshal and Moran, 1996).

We begin by defining what we mean by a strategic alliance. Next, we explore the research on trust, setting the stage for a discussion of our construct of “relational quality” as a proxy for relational trust. We will argue that relational quality is composed of three elements: initial conditions, partner interactions, and external events that occur outside the relationship but have an effect on it (Ariño and de la Torre, 1998). We then explore the explanatory power of these elements empirically in a sample of 67 alliances. Thereafter we elaborate on the roles of relational trust in strategic alliances and offer propositions on the relative importance of these elements in predicting the different roles that reliance on relational trust may play in strategic alliances. The paper concludes with a discussion of the implications of our findings for future research and for managers interested in the roles that relational trust can play in inter or intra-firm contexts.

## Strategic Alliances Defined

In practice, strategic alliances have been employed in virtually every form of value creation activity. They provide platforms for basic research, procurement, new product development, logistics management, manufacturing, distribution, after sales services, and training, to name but a few of the kinds of activities alliances have been used to undertake. Their sheer number grows each year, and they add significant value to organizations that rely on them (1).

We define a strategic alliance as a formal agreement between two or more business organizations to pursue a set of private and common interests (Ariño, 1995) through the sharing of resources (physical assets, intellectual properties, people, capital, and/or organizational capabilities) in contexts involving contested markets and uncertainty over outcomes. An alliance is strategic when it is the means by which a firm seeks to implement, in part or in whole, elements of management's strategic intent (Hamel and Prahalad, 1989) (2).

The composition of alliances may be bilateral or multilateral. The relationships of parties to strategic alliances may be dyadic or multilateral in nature. One company may be involved in more than one strategic alliance at a time, and it may choose to manage them as portfolios, webs, or networks (Doz and Hamel, 1998). Strategic alliances may be formally governed in many ways — equity joint ventures, non-equity collaborative arrangements, licensing or franchising agreements, management contracts, and long-term supply contracts, among others (see Yoshino and Rangan, 1995, for a fuller treatment of all options).

Regardless of the size, form, or objectives underlying reliance on a strategic alliance, we believe that one factor that serves to distinguish them from other forms of inter-firm behavior is the need to establish relationships between the parties that make up strategic alliances. Although it is an empirical question for which too little data exists, we assume that many transacting firms do form the kinds of bonds or attachments (Seabright, Levinthal and Fichman, 1992) that are characteristic of a "relationship" as that term is generally employed. Trust, undoubtedly, is involved in the formation and/or sustenance of such relationships. The quality of the relationship enjoyed by the parties may be a function of the degree to which they have come to rely on trust in their dealings.

Whether the roles played by reliance on trust, or the types of trust that exist between parties, is a function of the number of parties to an alliance is another empirical question for which we have little data. The developmental objectives of our research have led us to focus our empirical efforts on dyads. We recognize that adjustments are likely to be required in generalizing to alliances composed of larger numbers of participants. Although it is an empirical issue, we believe that the nature of relational quality in multilateral contexts is likely to be more complex than is permitted by our initial formulation in dyadic contexts.

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- (1) Booz-Allen & Hamilton has built a data base of more than 20,000 such structures formed worldwide in 1995-97 as reported in J.R. Harbison and P. Pekar Jr., *Smart Alliances: A Practical Guide to Repeatable Success*, (San Francisco: Jossey-Bass, Inc., 1998). Andersen Consulting reports that alliances and partnerships will represent between \$25 and \$40 trillion in value by 2004, and that the average large company has now in excess of 30 alliances. Some companies such as Corning Glass are well known for their alliance strategies. Oracle is reported to have over 15,000 alliances, whereas IBM and AT&T have each more than \$30 billion worth of alliances, most of them concluded in the late 1990s (*Business Week*, 10/25/99, 72).
  - (2) An alliance not considered by us to be strategic, for example, would be one oriented towards divesting or harvesting a business (see Hamel, Doz and Prahalad, 1989). We leave open the question of whether collaborative forms of inter-firm behavior such as industry associations, trade associations, lobbying and other forms of political action are strategic in nature (and thus should be considered strategic alliances).

## Relational Trust Defined

There is a general acceptance among most management scholars that trust is an important element in the success of inter-organizational relationships (e.g., Zaheer, McEvily, and Perrone, 1998). Trust is said to operate at inter-personal (McAllister, 1995) and inter-organizational levels (Ring and Van de Ven, 1992). It may be calculated, relational or institution based (Rousseau *et al.*, 1998). Some level of institutional trust may be essential to the emergence of calculated or relational trust at the interpersonal level (Pearce and Brzensky, 2000).

The literature on trust suggests that the term has been subjected to many adjectives. More specific to our purposes, Sako (1992) identifies three dimensions to the concept of trust, tied respectively to contractual (ethical), competence (technical) and attitude (goodwill) considerations. Barney and Hansen (1994) discuss weak, semi-strong and strong forms of trust, whereas Ring (1996) describes fragile and resilient trust. In all three of these approaches, reliance on trust entails a dynamic and evolutionary element in which it becomes less calculated and more relational based as the quality of the relationship between the parties deepens. As will become clear, our view of relational trust also is generally compatible with arguments made by Sheppard and Sherman (1998:427) that trust is “a *manageable* act of faith in people, *relationships* and social institutions” (emphasis added).

Conceptual/theoretical treatments of trust abound. It is not our objective to synthesize the research in this paper (see, e.g., Special Issue of *Academy of Management Review*, 1998). Our review of extant empirical quantitative work suggests that it tends to be cross-sectional and to explore dyadic relationships (e.g., McAllister, 1995; Nooteboom, Berger and Noorderhaven, 1997; Zaheer *et al.*, 1998). There are notable exceptions that explore roles played by trust in multilateral relationships (e.g., Burt and Knez, 1995). Qualitative empirical work has provided more dynamic insights, but also has tended to do so within contexts that are fundamentally dyadic (e.g., Larson, 1992; Ring, 1997a). Browning, Beyer and Shelter’s (1995) study of the SEMATECH Consortium is a notable exception in which roles played by trust are explored in a multilateral context.

Three facets characterize the concept of relational trust underlying our framework. First, relational trust is contingent on the presence of both risk and interdependence (Ring and Van de Ven, 1992; Koza and Lewin, 1998; Sheppard and Sherman, 1998). Considered on their own, neither condition requires the existence of relational trust for deals to happen (Dasgupta, 1988; Gambetta, 1988), but they do provide incentives for developing relationships in which an ability to rely on trust in a number of roles may become an element of success. Second, our framework assumes that in business the issue is not whether some people are more or less predisposed to trust other people, nor whether people are “trustworthy.” Our focus assumes that people, and more importantly firms, may choose to rely on trust as a form of governance. We also assume that they view reliance on relational trust as a substitute for or supplement to “regular” control mechanisms in their business dealings (Dore, 1983; Madhok and Tallman, 1998), or as an enabler of high risk deals (Ring and Van de Ven, 1992). Finally, as Koza and Lewin (1998) have pointed out, we assume that economic actors are no more likely to “suspend self-interest” in strategic alliances than in other contexts.

As will become evident in subsequent sections of the paper, we also assume that reliance on relational trust has a dynamic quality. There is clear theoretical support for this assumption in the work of Barney and Hansen (1994), Das and Teng (1998), Lewicki and Bunker (1996), Ring and Van de Ven (1994), Ring (1996) and Sheppard and Sherman (1998),

among others. More recently, Jeffries and Reed (2000) make a strong case that the dynamic nature of trust can produce both good and bad results (in the form of reduced motivations for those negotiating inter-firm relationships) (3).

We also assume that reliance on relational trust is a somewhat more probabilistic decision than a simple act of faith (Madhok, 1995). Our framework is designed to make it easier for managers or researchers to consider both interdependence and risk in their decisions to rely on relational trust as a mechanism for governance, as well as to make explicit the implications of the multi-dimensionality of relational trust. These multiple dimensions may emerge not only as a function of prior partner interactions, but also during the evolution of a strategic alliance (Koza and Lewin, 1998). Further, strategic alliances are a part of an organization's portfolio of on-going relationships that evolve over time (Larsson *et al.*, 1998). Dimensions of relational trust may also emerge from the evolution of this broader set of inter-organizational relationships.

As we have indicated above, we believe that relational trust may play three different roles in alliances. The first role of relational trust is that of a control mechanism that leads to confidence in partner cooperation (Das and Teng, 1998). We do not enter the general discussion on whether trust is a control mechanism in itself or whether it acts as a complement to control mechanisms. Rather, it is enough for our purpose to acknowledge that both relational trust and many control mechanisms may play that same role. The second role of relational trust is that of a governance mechanism (Ring and Van de Ven, 1992). Along with price and authority, what we describe as relational trust is a mechanism to organize economic transactions (Bradach and Eccles, 1989). Finally, relational trust plays a role as an enabler. In this sense, parties that trust each other may undertake joint activities that would not be undertaken by other parties.

## **The Relational View**

Macneil (1974) describes economic exchanges as being of two types: transactional and relational (4). Transactional exchanges are characterized as those which involve relatively discrete exchanges of goods or services in which the parties act with little or no regard for the impact of the transaction (or their behavior in it) on future exchanges. The parties view themselves as independent, autonomous economic actors, and they view the transaction as being unrelated to all other exchanges, past, present, or future. In Macneil's terms, the transaction is "sharp in-sharp out."

In contrast, relational exchanges assume that the parties may have had a past (one that is known and remembered), and may be associated with each other in the future. Any previous associations are likely to be relevant to the decision to undertake the current exchange; and the parties will conduct themselves with an eye towards the future. In short, past experiences as well as the shadow of the future (Axelrod, 1984) constitute important factors in the ways the parties conduct themselves in relational exchanges. This consideration of both the shadow of the past and the shadow of the future (Larsson *et al.*, 1998) provide the basis for a dynamic rather than a static view of trust.

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- (3) They point out, however, that this is another of those areas about the role of trust in business relationships for which there is no empirical support.
  - (4) His views have been embraced within transaction cost economics, embeddedness theory, the resource based theory of the firm, within the marketing literature, and by social psychologists among other research streams. It is a view of economic exchange that truly is inherently multi-disciplinary in nature.

In fact, a close look at the relational perspective of inter-organizational relationships points towards the need to further understand the dynamics of trust formation and destruction. Ring and Van de Ven (1992) analyze relational contracting as an alternative governance choice for multiple parties transacting repeatedly in deals that are high risk. Their analysis implies that the emergence of relational contracts is a dynamic process. Zajac and Olsen (1993) propose a framework for analyzing inter-organizational strategies that addresses the processes by which exchange partners create and appropriate value. In this view, trust is a subset of the relational norms that evolve with the alliance. Ring and Van de Ven (1994) conceive alliance evolution as sequences of negotiation, commitment, and execution stages in which reliance on distinct informal processes are considered essential to the emergence and evolution of successful, trust-based relationships. Zaheer and Venkatraman (1995) conceptualize relational governance in terms of structural and processual dimensions, and show that there is a dynamic link between these two dimensions, and between them and reliance on trust. Doz (1996) explores the evolution of cooperation in strategic alliances as related to the learning processes that occur between initial conditions and outcomes. Learning processes are seen as determinants of self-adjustment and adaptation of on-going relationships. Building on Ring and Van de Ven (1994) and on Doz (1996), Ariño and de la Torre (1998) develop a model of the evolution of the collaboration process. Their model is based on the analysis of the interactions between the partners, and outlines the components of relational quality. Rousseau and her colleagues (1998) suggest that information available from within the relationship itself forms the basis of relational trust. Positive or negative interactions will lead to an expansion or a contraction of relational trust. Dyer and Singh (1998) discuss effective governance as an element of a relational view. The benefits from governance alignment are seen not only in efficiency considerations, but also in reduced transactions costs or in additional incentives for cooperative efforts designed to produce new value-creation.

### **Relational Quality: Conceptual Elements**

Ariño, de la Torre and Ring (2000) offer a framework that helps explain the dynamics of relational trust formation and destruction, by elaborating on the concept of relational quality. This concept is composed of three elements: initial conditions, partner interactions, and external events.

First, it is important to consider the circumstances related to the initial conditions present when a strategic alliance is formed (Doz, 1996). All partners approach a negotiation process with a set of a priori expectations of the standards of behavior the other party will hold to, and the probability that it will abide by those standards. The bases for these expectations are to be found in what Meyerson, Weick and Kramer (1996:167) describe as “traditional” sources of trust: “familiarity, shared experience, reciprocal disclosure, threats and deterrents, fulfilled promises, and demonstrations of non-exploitation of vulnerability.” Most of these expectations require a prior relationship between the parties. Similarly, Zucker (1986) defines trust as a set of shared expectations “taken for granted” as part of a “world known in common” among certain members of society. She relates these expectations to three sources, two of which — person-based and institution-based — derive their legitimacy from characteristics inherent to the individuals (e.g., similar culture or family background) or the institutions (e.g., professional or corporate affiliation) involved in the transaction. Zucker’s third source of trust — process-based — relates to a history of past experiences. In this sense, national differences in values, social context and institutions could be expected to have a significant impact on relational trust formation and the rate of change in relational quality (Dore, 1983; Fukujama, 1995; Doney, Cannon and Mullen, 1998; Hagen and Choe, 1998).

We believe further that the negotiating process leading to the creation of a strategic alliance will either cement or distort the initial assessments of trustworthiness derived from such generic sources (Ring, 1997a). Prejudices and tolerances present in a party's initial judgement of its counterpart will be confirmed or questioned by this experience, thus modifying the so-called starting conditions.

*Partner interactions* constitute the second element of relational quality. Meyerson, Weick and Kramer (1996) argue that trust plays a critical role in managing issues of vulnerability, uncertainty, risk and expectations that surface in economic exchanges. Managers make decisions regarding these four issues in the course of defining the initial conditions of their exchange relationship. But all these issues will be subjected to review as the collaboration process evolves (Doz, 1996; Ariño and de la Torre, 1998).

The experience of the partners in dealing with adversity or changed conditions (both external or internal to the venture) will allow a party to modify its probability distribution on the counterpart acting contrary to that party's expectations. Furthermore, as shown in Ariño and de la Torre (1998), these interactions will also affect the quality of the relationship between the partners. They will either become more tolerant of small deviations from plan as their relationship improves, or will increase their suspicions of duplicity and undertake unilateral actions that may worsen the relationship even further. Our sense here is of a constantly evolving relationship in which the tests of loyalty and fidelity occur periodically and with different intensity and transparency. The partners constantly adjust to this new state of affairs, either by resolving conflicts and solidifying their relationship, or by withholding resources unilaterally and dooming the alliance to failure in the long run (Ariño and Doz, 2000).

Finally, there may occur a number of *external events* unrelated to the relationship which, nonetheless, have an impact on the partners' perceptions of each other's trustworthiness. These external events are likely to be of three types: 1) *systemic*, such as environmental changes that affect all parties simultaneously and equally; 2) *corporate*, wherein one of the partners is involved in matters that affect its reputation for fair dealing in other circumstances or with other partners; and 3) *individual*, where one or more individuals who are directly involved in the partner interface are involved in matters that affect either their own or their firm's reputation for fair dealing in circumstances foreign to the relationship.

Burt and Knez (1995) describe a phenomenon related to reliance on trust in networks as "third-party gossip." This involves information about one partner that comes to the other's attention through a third party. They argue that third-party gossip amplifies both the positive and the negative aspects of a relationship, and provide evidence that different sources of third-party gossip will have differential effects on the trustworthiness associated with the focus of the gossip.

### **Relational Quality: An Empirical Exploration**

Our exploration of the extent to which relational quality is actually composed of the elements suggested above relied on data available to us from a study previously conducted by one of the authors (Ariño, 1995). The Appendix offers a brief description of the sample and data collection procedures.



Table 1 contains a description of the variables used in the study. *Relational quality* is our *dependent variable*. A high level of relational quality implies that a firm is satisfied with its relationship with its partner (and vice versa). The firm (and its partner) perceives that it is getting what it wanted individually — its private goals — in terms of efficiency, effectiveness and adaptiveness, and what both wanted collectively — their common goals — and that the partner's behavior is consistent with the firm's expectations (and vice versa). Therefore, a measure of overall performance satisfaction captures the fact that the alliance outcomes include the firm's assessment of the relationship based on the partner's behavior (Ariño and de la Torre, 1998).

**Table 1. Operationalization of the variables**

VARIABLE	OPERATIONALIZATION
<b>Dependent variable</b> Relational quality	Extent to which the firm is satisfied with the alliance's overall performance (5-point scale)
<b>Independent variables</b> <i>Initial conditions</i> Differential asset-specificity  European partner Other country partner Prior relationships	Difference between the firm's and the partner's asset specificity (Firm's/Partner's asset specificity: firm's/partner's level of investment in assets specific to the venture; 2-item 5-point scale; alpha = 0.75; 0.70 respectively) Dummy variable: 1 = partner from a country in the EU other than Spain Dummy variable: 1 = partner from a country outside the EU Dummy variable: 1 = firm had prior relationships with the partner
<i>Partner interactions</i> Differential relational investment  Information exchange  Differential cooperative behavior	Difference between the firm's and the partner's adjustment effort or mutual orientation (Firm's/Partner's adjustment effort: firm's/partner's effort to adjust to the partner's/firm's style; 2-item 5-point scale; alpha = 0.80; 0.76 respectively) Degree to which the firm discloses information that may facilitate the activities of the alliance's management team (3-item 5-point scale; alpha = 0.69) Difference between the focal firm's and the partner's level of cooperative behavior (Firm's/Partner's level of cooperative behavior: extent to which the firm/partner adapts its behavior to the partner's/firm's needs; 11-item 5-point scale; alpha = 0.74; 0.85 respectively)
<i>External events</i> Third-party gossip	Importance reputation may have on the partner's possibilities of setting up future alliances (5-point scale)
<b>Control variables</b> Environmental change Strategic change	Dummy variable: 1 = there were changes in environmental context that substantially affected the alliance Dummy variable: 1 = there were changes in the strategy of the firm or the partner that substantially affected the venture

We have three sets of *independent variables*. The first set relates to *initial conditions*. First, a firm will be willing to engage in a relationship with a partner to the extent that initial conditions make it reasonable for the firm to expect that the partner will execute its commitments under the proposed arrangement (Ring and Van de Ven, 1994). This assumes, of course, that the business and economic logic of the proposed venture stands up to scrutiny. For example, the partner is likely to do so to the extent that interest-aligning mechanisms exist. Taking a mutual hostage position by investing in assets that are highly specific to the venture (Williamson, 1985; Parkhe, 1993) also may serve as such a mechanism. Secondly, the partner may live up to its commitments in fulfillment of a social expectation to do so (Gouldner, 1959; Ouchi, 1980). The consequences to one's reputation of not fulfilling these expectations may be greater in a domestic context than in an international one (Gerlach, 1992). Thus, there may be differences in the risk profile for non-compliance between a firm transacting with a domestic partner and one venturing with a foreign partner. Third, knowledge about the partner's likely behavior is bound to be better when the firm has had prior relationships with the partner than if not. Our variables *Differential asset specificity*,

*European partner*, *Other country partner*, and *Prior relationships* are meant to capture the effect of the three initial conditions we just discussed.

The second set of independent variables refers to *partner interactions*. As the venture unfolds, the firm and its partner interact and gain experience with each other, observing the opposite's behavior under varying circumstances. Based on these experiences and observations, the firm evaluates whether the partner's behavior is consistent with the firm's expectations, and compares it to the firm's own behavior. Cumulatively, these experiences refine the firm's assessments of the partner's "fidelity," and determine the level of relational quality in their exchanges. Our variables *Differential relational investment*, *Information exchange*, and *Differential cooperative behavior* are meant to capture partner interactions.

Finally, a third set of independent variables concerns *external events*. Information regarding the partner's behavior in other contexts may influence the firm's expectations about the consistency of this behavior with the firm's expectations of its partner. Within the constraints of the data available to us, and in the absence of direct information on what companies have heard about their partners from third parties, we used as a proxy the influence that the partner's behavior today can have on its possibilities to form other ventures in the future. This acts as a shadow of the future on today's behavior. We call this variable *Third-party gossip* (5).

The quality of a relationship may be affected by changes exogenous to the alliance that alter the context in which it is embedded, particularly in so far as they impact either the efficiency or the effectiveness of the relationship as a means to achieve the parties' intent. These may include changes in the environment, as well as changes in the strategy of either party (Ariño and de la Torre, 1998), which may also affect the ability of the parties to adapt, another important measure of success in alliances (Doz, 1996). Thus, we controlled for these effects by including *Environmental change* and *Strategic change* as control variables.

Table 2 shows the means, standard deviations and correlation matrix of the independent variables. Table 3 contains the results of the regression analyses, exploring four models of relational quality. These include a model with only initial conditions, one testing for partner interaction, another including the influence of external events, and a fourth model integrating all variables. Table 3 also exhibits the variance decomposition of relational quality in the integrated model.

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(5) This measure is not ideal for testing the nature of third-party gossip or its sources. However, the exploratory nature of this research and the constraints imposed by the available data set suggested this compromise. Our discussion of implications takes this into consideration.

**Table 2. Means, standard deviations, and correlation matrix**

Variables	Means	S.D.	1	2	3	4	5	6	7	8	9	10
1. Differential asset specificity	0.43	1.27	1									
2. European partner	0.48	0.50	-0.04	1								
3. Other country partner	0.21	0.41	-0.03	-0.49	1							
4. Prior relationships	0.36	0.48	-0.19	-0.15	0.08	1						
5. Differential Relational Investment	0.18	0.59	0.10	-0.11	0.25	-0.02	1					
6. Information exchange	3.58	0.79	0.10	0.05	-0.01	-0.04	0.01	1				
7. Differential Cooperative Behavior	0.31	0.45	0.25	-0.07	0.17	-0.09	-0.01	0.11	1			
8. Third-party gossip	3.08	0.91	-0.11	-0.08	0.00	0.15	0.09	0.08	-0.35	1		
9. Environmental change	0.21	0.41	0.26	-0.05	0.01	-0.08	0.00	0.18	0.04	-0.16	1	
10. Strategic change	0.27	0.45	-0.02	0.03	0.02	-0.31	0.02	0.11	0.09	-0.16	0.35	1

**Table 3. Regression results on relational quality and variance decomposition**

Variables	Initial conditions model	Partner interaction model	External events model	Integrated model
Initial conditions				
Differential asset specificity	0.10			0.19 **
European partner	-0.08			-0.10
Other country partner	0.28			0.55 **
Prior relationships	0.40			0.33 *
Partner interactions				
Differential relational investment		-0.09		-0.26 *
Information exchange		0.68 ****		0.65 ****
Differential cooperative behavior		-0.85 ****		-0.92 ****
External events				
Third-party gossip			0.38 ***	0.18 *
Controls				
Environmental changes	0.52	0.43 *	0.75 **	0.29
Strategic changes	-0.62 **	-0.78 ***	-0.70 **	-0.54 **
R <sup>2</sup>	0.182	0.483	0.236	0.618
Adjusted R <sup>2</sup>	0.101	0.44	0.199	0.55
F	2.23 *	11.38 ****	6.47 ****	9.06 ****

n = 67

Significance levels:

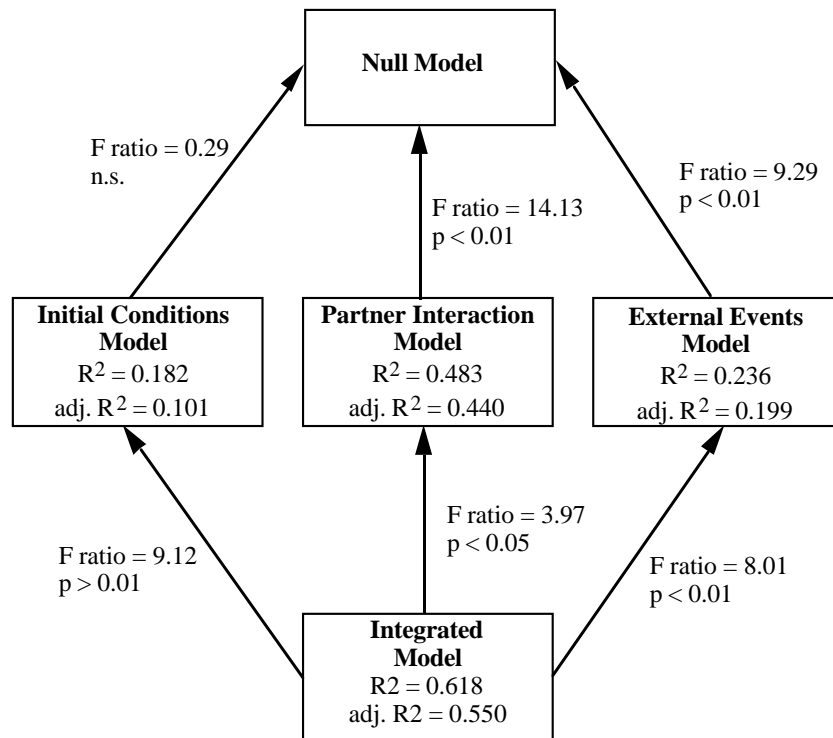
- \* = p < 0.10
- \*\* = p < 0.05
- \*\*\* = p < 0.01
- \*\*\*\* = p < 0.001

Variance decomposition: Initial conditions: 18.2%  
Partner interactions: 48.3%  
External events: 23.6%  
Multicollinearity: -28.3%  
Adjustment: -6.8%  
Error: 45.0%  
Total: 100%

The least-squares estimation for the initial conditions model is marginally significant only, and none of the initial conditions variables' coefficients are significant. The partner interaction model, however, is highly significant, although *Differential relational investment* has no significant influence on relational quality. This model explains a substantial amount of the variation in relational quality (adjusted  $R^2 = .44$ ). Finally, a model based on external events is highly significant, as is the coefficient for the *Third-party gossip* variable. As for the influence of the control variables, both *Environmental changes* and *Strategic changes* appear to be significant in most cases.

The integrated model of relational quality is also highly significant. In contrast to the initial conditions model, most of the variables capturing this effect turn out to be significant. Also, all of the partner interaction variables and the influence of *Third-party gossip* remain significant. As for the control variables, only *Strategic changes* is significant. It is worth noting that the adjusted  $R^2$  of this model is substantial (0.55). However, it is about 25 percent smaller than the sum of the adjusted  $R^2$  values of the three partial models. This indicates that the variables are not totally independent, a point that we now explore in more detail.

To decompose the relational quality variance we started with the integrated model and used F-tests to see if there were significant differences in the amount of explained variance if we included one group of variables at a time. The analysis, illustrated in Figure 1, starts at the bottom with the integrated model and then reports the significance of the F-test between the integrated model and the three partial models, and then between these and the null model with only the control variables in it.



**Figure 1. Tests of differences among models of relational quality**

The combined effect of initial conditions, partner interaction, and *Third-party gossip* is significant and explains an important amount of the observed variance in relational quality in our sample. While partner interaction and external events have a significant influence on relational quality by themselves, the contribution of initial conditions is not significant in explaining the observed variance in relational quality. Partner interaction factors explain more than twice as much variance as does the external events factor, and the proportion is even higher when compared to the initial conditions factors (see Table 3 for the incremental contributions to  $R^2$  for each of the partial models). The models are not totally independent. Additional analysis not reported here shows that most interdependence comes from the association between partner interactions and external events, whereas the interdependence between these two sets of factors and initial conditions is rather low.

**Relational Quality: Expanding the Framework**

Exploration of the data supports our contention that the role of relational trust in economic exchanges can be appropriately thought of as a dynamic force, one that appears to be composed of three distinct elements, each subject to different influences and rates of formation and/or decay. Consistent with assertions made by McKnight, Cummings and Chervany (1998), the results of our analysis of the integrated model of relational quality suggest that at a certain level of trust a willingness to rely on relational trust exists as a result of characteristics inherent in the parties' history and demographics. This "inherited" level of relational trust is then affected by the processes the parties employ to negotiate their agreement. The outcome is a level of relational trust that exists between the parties as they commence implementation of a strategic alliance, what we call "relational quality at initial conditions."

The foregoing discussion raises the question of how the influence of these elements of relational quality varies with the role relational trust plays in economic exchanges in general, and in strategic alliances in particular. Table 4 synthesizes our discussion on the issue, to which we turn now. When reliance on relational trust plays a control mechanism role, initial conditions will set the stage for determining the control mechanisms and control scope that will be defined by governance, and those that will be left for partner interactions. As a consequence, partner interactions become critical, as the actual decision on which control issues will remain open is dependent on those interactions. The occurrence of external events brought to the firm's attention will influence when to change control mechanisms and scope. Therefore, we suggest:

*Proposition 1: When reliance on relational trust plays the role of a control mechanism, partner interactions are the most influential element of relational quality, and initial conditions are the least influential.*

**Table 4. Relative importance of relational quality elements by role of trust**

		Role of trust		
		Control mechanism	Governance mechanism	Enabler of new transactions
Elements of relational quality	Initial conditions	Low	High	High
	Partner interactions	High	Medium	Low
	External events	Medium	Low	Medium

When reliance on relational trust acts as a governance mechanism, the venture negotiation process becomes the salient initial condition leading to a choice of relying on more or less formal governance. As the partners begin to interact, positive experiences can lead to less formal governance in case a re-negotiation is needed. Conversely, negative experiences in partner interaction are likely to lead to termination (Ariño and Doz, 2000). Finally, external events that affect perceptions about the counterpart's trustworthiness may be considered if re-negotiation is undertaken for other reasons; however, they will not force a re-negotiation of the terms of alliance governance.

*Proposition 2: When reliance on relational trust plays the role of a governance mechanism, initial conditions are the most influential element of relational quality, and external events the least influential.*

For relational trust to appear as an enabler of new, high-risk transactions initial conditions are deemed to be critical. The influence of initial conditions is so strong that negative partner interactions have to be really abrogating to have an influence on levels of relational trust. Positive partner interactions will reinforce existing levels of relational trust. Finally, external events that come to the firm's notice will be dismissed if those events were prior to the alliance formation, as the relational trust based on the initial conditions is so strong that past behaviors will not change it substantially. Conversely, if those external events occur post-formation, they will affect the level of trust according to the importance attributed to such events. External events of a corporate nature will have a greater influence than those of an individual nature, while reactions to systemic events will be the least influential.

*Proposition 3: When relational trust acts as an enabler of new transactions, initial conditions are the most influential element of relational quality, while the influence of partner interactions is the least influential.*

## **Implications**

The extant literature on trust tends to explore its dimensions from a static perspective. Does trust exist? Is a firm trustworthy? Does trust substitute for other control mechanisms? These are frequently explored issues. Understood less well are answers to

questions such as: does trust build more rapidly than distrust (Burt & Knez, 1995)? Thus, our objective with this paper was to determine whether it is possible to offer a framework by which a more dynamic view of trust in economic exchange might be explored. Theory, case studies, and our own exploration of data all provide support for such a framework and a basis for the propositions we have developed in this paper. Quite obviously much work remains to be done, and it is to this issue that we now turn.

Our framework provides support for Doz's (1996) contention that initial conditions are an important element in establishing a basic level of trust between parties in an economic exchange. Our analysis did not explore the impact of different initial conditions (e.g., how well the parties knew each other, how many successful or unsuccessful transactions they had conducted with each other in the past). The results suggest that managers need to consider how their conduct in one exchange will impact the perceptions of potential partners about their trustworthiness. Conduct in any one relationship is something over which firms can exercise a great deal of control. Knowing that their behavior casts a long shadow into the future also means that the parties also work to project appropriate perceptions to third parties about the meaning of their behavior. Another implication of these results is that they provide a basis for distinguishing between the effects of reputation or legitimacy in strategic alliances and the separate role of relational trust. For example, reputation or legitimacy may be more directly related to reliance on calculus-based trust than relational trust in the very early stages of economic exchange.

Our findings on the contributions of initial conditions to relational quality also mean that economic actors may be able to rely more heavily on trust in the conduct of their negotiations. Ring (1997b) offers support for the proposition that the parties can use these negotiation processes to build on existing levels of trust, be more open with each other, share information of a proprietary nature, etc. Thus, preservation of reputations that produce higher levels of initial calculus-based trust may serve as substitutes for more formal alternative control measures during negotiations, such as confidentiality and non-disclosure agreements, and result in more equitable and efficient agreements. In contrast, bad-faith bargaining by a party in one instance can impact its ability to enter into future negotiations relying on relational trust.

The foregoing discussion leads us to suggest that the kind of trust that is associated with initial conditions is likely to be complex and multi-dimensional. This should act as a spur to researchers to provide a more fine-grained picture of these evolutionary pathways (Doz, Olk, and Ring, 2000). The work of Lane and her colleagues (Lane and Bachmann, 1996) is consistent with our findings, and provides a basis for further investigations of how factors such as contract regimes or culture will affect the initial perceptions that parties have regarding each other's trustworthiness.

The results of our exploration of the role that partner interaction has in explaining variance in relational quality provide a solid foundation for further work on how relational trust might substitute for more formal controls during the life of a strategic alliance. The ability to build high levels of relational trust during initial conditions opens up the opportunity to draw from that reservoir during the course of implementation. The inherent degree of risk in an exchange will condition the degrees of freedom open to managers relying on trust (Das and Teng, 1998) as their relationship evolves. Finally, our findings add support to the need to conduct much more research into the question of how parties actually use reliance on trust (relational or otherwise) as a substitute for more formal organizational controls as well as a supplement for safeguards in their contracts.

The data on the impact that external events may have on levels of relational trust imply that managers cannot view exchanges in isolation. Moreover, if they wish to guard against opportunistic behavior, they need to “monitor” not only their partner but also what other stakeholders are saying, i.e., pay attention to third-party gossip. Our research did not permit us to explore differences in the sources of third-party gossip as Burt and Knez (1995) have done. Managers are in a position to control sources of third-party gossip on which they might rely for sense-making processes, and this appears to be important to their perceptions of the continued trustworthiness of their partners.

Finally, our framework helps us to understand the interplay between the different roles trust may take in alliances. At the very first transaction undertaken jointly by two partners, trust may act as an enabler. The risk involved in this first deal may not be substantial in absolute terms, but it is risky enough for the partners not to undertake it unless there is a minimum level of trust. As the alliance starts its operations, partner interactions will determine the extent to which reliance on trust serves as a control mechanism. If interactions are positive, the level of trust is likely to increase. We already discussed that in this case, if alliance re-negotiation is deemed necessary, the partners are more likely to rely more heavily on relational trust as a governance mechanism. But, also, an increased level of relational trust is likely to produce a heavier reliance on trust as a governance mechanism if partners decide to form a new alliance (Gulati, 1995). In turn, this relational or resilient trust will enable partners to undertake increasingly riskier transactions, and these are likely to rely more heavily on trust as substitutes for control mechanisms, thereby feeding back to the process.

To conclude, we believe that our framework demonstrates that the role of relational trust, or better yet, relational quality, in inter-organizational alliances is dynamic. Left as an error term in explaining outcomes in economic exchange, trust hides a multitude of potential explanations of variance in those outcomes. We have sought to reveal some of the ways that relational trust might affect outcomes, and serve as a substitute for other forms of control of opportunistic behavior. We believe that our framework also points to ways in which relational trust might serve as a substitute for controls embedded in governance mechanisms in general, as well as an enabler of new transactions that would not take place in the absence of an ability to rely on relational trust.



## Appendix

**Sample and data collection**

The sample for this study was drawn from Spanish firms that appeared in Funk and Scott's Countries Index - Europe (1986-1992) as having announced their engagement in venturing activities, beginning with Spain's accession to the European Community (1986) and concluding with the establishment of the Single European Market (1992). This is a period that can be expected, a priori, to include high venturing activity, especially if we take into account that the international exposure of Spanish firms was low at that time. Target industries included those with a higher number of collaborative ventures (energy, chemicals, machinery except electrical, electronic equipment, transportation equipment, transportation, financial services, and other services).

The target informant in each firm was the person most directly related to the alliance. Of the 189 mailed questionnaires, 91 (48%) were returned. We attribute this rather high response rate to the care taken in identifying the target respondent and in the follow-up process (Dillman, 1978). More than 63% of the informants had personally participated in the negotiation of their firm's alliance, and on average they had been involved with the alliance for 4.9 years. For the purpose of this study, 20 of the returned questionnaires were incomplete. In four cases, we received answers from each side of the alliance. To insure independent data points we dropped out one of the parties, selecting it randomly by the flip of a coin. This left a final sample of 67 questionnaires for this study. A full description of the questionnaire items is available from the authors (1).

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(1) See Ariño (1995) for more detail in terms of sampling methods, a description of the questionnaire and other methodological information.

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