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Trust and Learning in International
Strategic Alliances

WP 8 - 2001

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Although trust has been given much attention in alliance literature as an explanatory factor, little research has been devoted to defining and operationalizing trust. Trust is more or less seen as a magic ingredient, poorly understood much like the concept of luck, and usually attributed ex post; successful alliances seem to involve trust; unsuccessful alliances do not. The extant literature has treated trust as a residual term for the complex social-psychological processes necessary for social action to occur. Since trust is a social phenomenon, both national culture and institutional arrangements have an impact on trust and the perception of trust. Hence, this paper develops a conceptual model, based on a structural equation approach, for empirically exploring the role played by trust in the process of learning in international strategic alliances. The model distinguishes between pre-alliance formation factors and post-alliance formation factors in an attempt to respond to calls for research examining the evolution of trust and its impact on international collaborative relationships. The determinants of trust in international strategic alliances are examined and a series of testable propositions are derived to guide future empirical investigation.

Keywords: Trust, Strategic Alliances, Learning

Note: The author wish to thank Kate Stovel for her suggestions and comments. This research is funded in part by the Tuborg Research Grant. This version is a draft. Please do not quote or make reference to this paper without a written consent from the author.

During the last three decades, the globalization of markets, the convergence of and rapid shifts in technologies, and regulatory and institutional changes within the United States, Asia and Europe, has led to new opportunities for interfirm collaboration, across institutional and national borders. It is somewhat of a paradox that in order to be an effective competitor in the “New Economy” a firm needs to be a trusted cooperator in some network. Research on strategic collaboration between firms has received increasing attention in the literature during the last two decades, reflecting the increasing frequency and importance of strategic alliances in business practice. Two main streams, in terms of focus, in this literature can be identified; one stream is mainly concerned with examining the underlying conditions favoring alliance formation (motivation for alliance formation and contractual, or structural, structures used in these alliances) (Harrigan, 1985; Contractor & Lorange, 1988; Hennart, 1988; Oliver, 1990; Williamson, 1991), the other stream is occupied with investigating alliance outcomes and the impact of alliances on the partner firms (Kogut, 1989; Blodgett, 1992; Dussage & Garette, 1995; Doz, 1996). This study aims at combining elements from these two streams of research in an attempt to shed light on the role of trust in interfirm learning.

Despite the apparent importance and frequency of international strategic partnerships, many of these report only limited success (Adler et al., 1992). Hence, it seems that research into the determining factors of alliance performance is of most importance. The literature suggests that one of the most critical factors determining alliance performance is the degree of trust between the partners (Bleeke and Ernst, 1993; Buckley, 1992; Spekman, 1988). Trust has been shown to increase cooperation, improve flexibility, lowering the cost of coordinating activities, and increasing the level of knowledge transfer and potential for learning (Smith, Carroll and Ashford, 1995; Simonin, 1999). If, as noted by Williamson (1985: 19), “transaction costs are the economic equivalent of friction in physical systems”, then we may conceptualize trust as the behavioral lubricant that can improve a system’s (an alliance’s) operating efficiency. However, according to Sherman (1992: 78), ‘the biggest stumbling block to the success of alliances is the lack of trust’.

Although trust has been given much attention in alliance literature as an explanatory factor, little research has been devoted to defining and operationalizing trust. Trust is more or less seen as a magic ingredient, poorly understood much like the concept of luck, and usually attributed *ex post*; successful alliances seem to involve trust; unsuccessful alliances do not (Koza and Lewin, 1998). Trust among partners in alliances is obviously important, as it is in all relationships, however, in the extant literature, trust is treated as a residual term for the complex social-psychological processes necessary for social action to occur (Koza and Lewin, 1998). Moreover, scholars have paid limited attention to the role of social context. For instance, researchers of personality assume that the foundational nature of trust transcends context (Rotter, 1971; Stack, 1988), whereas research within the social-psychological tradition considers the organizational context as the central condition, thereby limiting the relevance of the social/emotional/relational element of trust relationships (McAllister, 1995). Hence, applying a single definition of trust is unlikely to capture the complexity of this concept, which might be the reason why useful measures of trust are lacking in the literature. Recognizing the problems of trust as a useful concept in terms of research, some authors have attempted to develop non-trust explanations for non-opportunistic behavior in strategic alliances, arguing that trust is nothing more than an emergent and epiphenomenal property of successful alliances (Madhok and Tallman, 1998). Despite these difficulties of defining and operationalizing trust, the importance of this factor, as it relates to learning in international strategic alliances, is evident, because it promises to create preferred economic outcomes (e.g. lower transaction costs or enhanced learning) for the firms engaged in the cooperation. Consequently, while empirical confusion still exists in terms of defining trust and sources of trust, the extant literature seems to agree that trust has a positive, albeit limited and indirect, impact on performance (cf. Smith & Barclay, 1997; Jap, 1999).

No single agreed-upon interpretation of trust exists in the literature. Whereas some scholars tend to view trust in broad terms as one's belief and expectation about the likelihood of having a desirable action performed by the trustee (Deutsch, 1973; Sitkin and Roth, 1993), others tend to

define trust in terms of one's assessment of others' goodwill and reliability in a risky exchange situation (Ring and Van de Ven, 1994; Sabel, 1993). According to Becker (1996: 47), authors of this rational predictive account of trust (see Lewis and Weigert, 1985 for a detailed description of rational prediction) 'appear to eliminate what they say they describe', thereby removing core elements of trust and reducing it to pure prediction. In the extant literature, trust has been treated as either a *feature* or an aspect of relationship quality (Dwyer et al., 1987) or as a *determinant* of relationship quality (Anderson and Narus, 1990, Mohr and Nevin, 1990). For instance, Anderson *et al.* (1987) view trust as a *feature* of relationships, in addition to power, communications, and goal compatibility. Anderson and Narus (1990), on the other hand, view trust as a *determinant* of the amount of cooperation and the functionality of conflict between parties. Consistent with this perception of trust, Mohr and Nevin (1990) model trust as a *determinant* of communication between parties.

Trust, as it relates to learning in international strategic alliances, is highly complex. Recognizing this complexity, this paper adopts both views of trust (i.e. as a central *determinant* of relationships and as a *feature* of relationship outcome) and treats trust as underlying latent constructs (mediating variables). Thus, trust in this paper, is divided into two temporally separate constructs. Consequently, it seeks to define a number of underlying conditions (antecedents) of trust as it relates to learning in international strategic alliances. Hence, this paper develops a conceptual model, based on a structural equation approach, for exploring the role played by trust in the process of learning in international strategic alliances. The model distinguishes between pre-alliance formation factors and post-alliance formation factors, leading to different types of trust, in an attempt to respond to calls for research examining the evolution of trust and its impact on international collaborative relationships (e.g. Smith et al., 1995). The determinants of trust at different stages in the evolution of international strategic alliances are examined and a series of testable propositions are derived to guide future empirical investigation.

THEORETICAL MODEL AND PROPOSITIONS

Trust and Learning in International Strategic Alliances

Strategic alliances refer to the cooperation between two or more distinct corporate entities (firms) in the pursuit of mutual goals. The willingness to act in conjunction with another firm in order to pursue mutually compatible interests in the alliance rather than act opportunistically is the essence of strategic interfirm collaboration (Doz, 1996). For any strategic alliance to be formed and function, a minimum of interfirm trust must exist. In fact, as argued by Arrow (1972: 357): ‘Virtually every commercial transaction conducted has within itself an element of trust’. This seems certainly true for any transaction conducted over a period of time and across organizational and national boundaries, where the level of complexity makes it virtually impossible to monitor in detail all aspects of exchange. The benefits from interfirm trust range from lowering agency and transaction costs and inducing desirable behavior (Gulati, 1995) - via reduction of the extent of formal contracts (Larson, 1992) and improvement of firms’ ability to adapt to environmental complexity and change (McAllister, 1995) - to facilitation of dispute resolution (Ring and Van de Ven, 1994). Other scholars have linked trust to knowledge ambiguity (Simonin, 1999) and knowledge embeddedness (Nielsen, 2001) in the pursuit of effective knowledge transfer, synergies and learning.

Empirical evidence for the relationship between trust and learning ranges from Dodgson’s (1993) work on trust, showing that trust between people encourages learning to Kale *et al.*’s (2000) work on inter-organizational alliances, reporting a significant positive effect of relational capital (of which trust is a major part) on learning. Uzzi (1996) reported from his field study that trust acted as the governance mechanisms of embedded relationships and as such facilitated the exchange of especially tacit knowledge related capabilities and information. In other words, trust promotes voluntary, non-obligating exchanges of assets and services between actors. Consequently, a significant outcome of trust is that it facilitates tighter social relationships and hence reduces uncertainty in transactions. Trust is particularly important in the process of

learning in international strategic alliances, since it serves as the very foundation on which interaction takes place. International joint ventures involve not only learning by individual joint venture partner firms but also inter-partner joint learning. Joint ventures forge new knowledge transfer pathways, across both technologically and traditionally linked positions. Therefore, learning in international joint ventures should be assessed from multiple perspectives.

Because trust is highly personal and disposes one to interpret favorably another's intentions and actions, it counters uncertainty stemming from the assumption of opportunism. In international strategic alliances, firms rely on external relationships to acquire, process, transfer, and utilize knowledge gained in one context to another. Hence, organizational routines for learning must be developed and institutionalized. However, developing routines for learning does not necessarily entail formalization, since formalization may inhibit learning. On the other hand, informal mechanisms may preclude wide dissemination of knowledge. This paradox suggests that the process of developing regular avenues for informal transmission channels in a way, which allows for flexible knowledge seeking, creation, and transfer, may lead to the greatest potential for interfirm learning. It follows, then, that trust is an important precursor to interfirm learning because it increases a firm's access to external knowledge and strengthens its ability to- in conjunction with its network partner- create new innovative ways of combining existing knowledge related capabilities and resources. Hence, the following main relationship can be hypothesized:

Proposition 1: Trust is positively related to alliance learning

March (1991) and Pisano (1989) suggested that organizational learning is a systems-level concept that becomes relevant only when its component parts are thoroughly understood down to the operational level. Trust is one such component and multiple factors determine the level of trust in the process of interfirm learning among partners in international strategic alliances. As

illustrated in figure 1, at least 8 factors are hypothesized to affect the level of trust – at different stages during the relationship development - among partners in international strategic alliances: prior experience, partner reputation, transparency, risk, protectiveness, interdependence, longevity, and cultural distance. While the individual importance of most of these variables has long been recognized in both strategic alliance and social exchange literature, their simultaneous effects have thus far been ignored. Trust is modeled at two different stages during the evolution of the alliance and is hypothesized to be a full mediator of these effects on interfirm learning. Furthermore, a number of factors are proposed to moderate these effects. Thus, the aim of this study is to develop a theoretical process model, which allows for an empirical examination of the simultaneous effects of these antecedents of trust in an attempt to more precisely articulate the process of learning in international strategic alliances.

FIGURE 1 ABOUT HERE

ANTECEDENTS OF TRUST IN THE PROCESS OF LEARNING IN INTERNATIONAL STRATEGIC ALLIANCES

Social exchange theory has a long history of examining the effects of different exchange structures (networks of various shapes) on patterns of interaction, but very little research has investigated the emergence of these networks. Within a given network structure, researchers have sometimes examined the likelihood of trade among particular pairs of actors (e.g. Cook et al., 1983; Bienenstock & Bonacich, 1993), but rarely are these predictions coupled with observations about path-dependency and changes over time. As noted by Howarth et al. (1995), trust is a social phenomenon, which occurs between individuals and not organizations. Furthermore, trust is path-dependent and evolves over time, depending, among other things, on the social, institutional and national context. In other words, trust exists in context and is shaped by dynamics specific to

particular social settings – that is trust is socially embedded (Granovetter, 1985). Inter-organizational collaboration, especially across national borders, is also path-dependent and continuously changing over time. Hence, since trust is a dynamic and continuous variable, which can vary substantially both within and across relationships, as well as over time, it is conceptually important to distinguish between factors determining trust at the outset of an international strategic alliance and factors determining the ongoing development of trust in the relationship. Consequently, consistent with figure 1, the following discussion of the antecedents of trust in the process of learning in international strategic alliances is separated into two categories: pre-alliance formation factors and post-alliance formation factors. Accordingly, trust is conceived as two distinct temporal constructs, trust₁ and trust₂, in order to capture the evolution of trust over time. Trust₁ refers to the *initial* relational trust at the outset of the alliance that is the degree to which the partners engage in a trusting way in the building (i.e. negotiation) of the alliance. This type of *initial* trust is important for later phases in the development of the alliance relationship because it acts as a determinant of the level and quality of cooperation possible between the parties, much like the concept of “first impressions last” often determines the quality of personal relationships. Trust₂ refers to *continuous* relational trust, which evolves dynamically throughout the duration of the relationship. Hence, trust₂ refers to later stages in the development process of the dyadic relationship and as such has a more direct mediating effect on learning than does trust₁.

BUILDING TRUST: PRE-ALLIANCE FORMATION FACTORS

Prior Experience with Partner

According to transaction cost economics (TCE), in a world without transaction costs all activities would be carried out as exchanges between units, and it is due to the failure of markets to allow for many exchanges without prohibitively high transaction costs that firms come to exist (Williamson, 1985, 1991). In addition to concerns about the emergence of firms as a response to

transaction costs, TCE also deals with the choice of organizational form and how this may vary according to the specific types of exchange activities encompassed. Alliances blend elements of the two extremes of market and hierarchy. Following this, it seems logical that firms would enter such collaborative arrangements when the transaction costs associated with an exchange are intermediate and not high enough to justify vertical integration (Williamson, 1985). Hence, the application of TCE to the formation and management of international strategic alliances seems obvious. Recently, however, researchers have been critical of TCE's treatment of each transaction between firms as an independent event (Ring & Van de Ven, 1992). This assumption is particularly inappropriate in situations where firms repeatedly enter into relationships of transactions with each other, since an important cause (and perhaps consequence) of repeat alliances among firms is the emergence of interfirm trust. The desire and willingness to expend resources in the development of trust and long-term relationships is closely linked to a firm's prior experiences with that partner and the extent to which positive or negative expectancies have been fulfilled (Larson, 1992). Trust earned from prior engagement serves as evidence to justify subsequent risky steps beyond the accumulated evidence (Das and Teng, 1998). That is, faced with a situation in which one can be taken advantage of, a natural response is to restrict one's transactions to those who have shown themselves to be trustworthy. Therefore, deeply rooted in historical engagement, trust is more likely to be the accumulation of prior satisfactory experiences (Gulati, 1995). Hence, it can be expected that the extent to which the firms (or essentially the individuals) forming the alliance have a history of trust and cooperation significantly will influence the degree of initial trust in the alliance (Park and Ungson, 1997):

Proposition 2: Positive prior experience with a partner is positively related to trust₁.

Transparency

According to Hamel (1991), transparency is the openness and willingness of the partner firm to share its embedded knowledge. In the international strategic alliance context, transparency is

clearly important, since without the opportunity to observe partner skill discrepancies there is no fuel for learning. Open and honest communication at the outset of any relationship is important and in terms of forming a complex business relationship even more so. Formation of an alliance involves a search and identification process in order to find the right partner, where differences and complementarities need to be recognized and articulated. Different perspectives and expectations do not necessarily lead to conflict and subsequent poor performance, however, the probability of this occurring is, all other things being equal, higher when there is a lack of transparency between the parties involved. Moreover, transparency is crucial to interfirm learning, since much of what the parties are trying to learn from each other is often tacit and embedded in a firm's practices and culture. Tacit knowledge can be regarded as knowledge that is nonverbalizable, intuitive, and unarticulated (Polanyi, 1962) - knowledge that has not yet been abstracted from practice (Spender, 1996). The fact that tacit knowledge is so hard to codify and transfer supports the role of (close) collaboration and trust in the process of interfirm learning, because the very tacitness of knowledge may impede learning unless a shared understanding of the underlying relational contextual premises is created. Whereas transparency can be argued to be beneficial at all times in interfirm relations, it is especially important in the pre-alliance formation stage because this is where the foundation (both formally through contracting and informally through social perceptions) for the relationship is laid. Hence, openness between individuals involved in the pre-alliance formation process can strongly influence development of trust, suggesting the following relationship:

Proposition 3: Transparency is positively related to trust₁.

Partner Reputation

Reputation refers, in this study, to the knowledge held by individuals about the potential partner in terms of this partner's behavior in prior network relationships in addition to more traditional attributes of reputation, such as innovativeness, quality of management, employee

talent, financial soundness, use of corporate assets, social responsibility, quality of product/services etc. Among the biggest concerns of firms entering into alliances is the predictability of their partner's behavior. In lack of prior experience with a particular partner, the next logical step is to rely on the reputation of that firm, which is a direct consequence of prior relational behavior (Granovetter, 1985). Research suggests that most firms are embedded in a social network of prior alliances through which they are connected with one another either directly or indirectly (Kogut et al., 1993). The concept of structural embeddedness focuses on the informational role of the position an organization occupies in the overall structure of the network (Gulati, 1998; Uzzi, 1996). Thus, the type of network in which a firm is embedded defines the opportunities potentially available; its relative position in this structure and the types of interfirm ties it maintains defines its access to those opportunities (Uzzi, 1996). Within such a dense social network, reputational considerations play an important role in a firm's potential for future alliances, because these social affiliations determine the firm's perceived status and serve as a source of legitimacy. Hence, as argued by Granovetter (1985: 490-491): 'Social relations, rather than institutionalized arrangements or generalized morality, are mainly responsible for the production of trust in economic life'. This is especially true for firms entering new markets or industries or collaborating across organizational and national boundaries, where affiliation with a known firm might signal quality and trustworthiness and thereby serve as a foundation for a favorable evaluation by a potential partner.

While the development of trust between alliance partners is a slow process, it can be destroyed very easily (Fukuyama, 1995). A firm with a reputation of being honest, fair, and trustworthy gives one the first piece of evidence to take some initial risk (Barney and Hansen, 1994). Alternatively, once a firm has acquired a reputation for not being trustworthy in collaborative relationships or in general¹, future partners will perceive this firm as a greater

¹ Trust is often considered a dichotomous variable, where one is either trustworthy or not, however, recent research suggests that different levels and degrees of trust might exist or even co-exist. Some authors even point to the existence of optimal trust, which is a match between trust

liability in terms of interfirm collaboration. This is consistent with Kollock's (1994) empirical finding that reputation and trust are correlated and that ongoing interaction can lead to an increase in trust. Hence, following Burt and Knez's (1996) argument, I conclude that particularly the historical trustworthiness of parties in previous interaction with others is important, and that it is the social context (e.g. networks) that makes reputational effects possible. Therefore, locating a partner with a good reputation seems to be an effective and logical starting point for building trust.

Proposition 4: A favorable reputation is positively related to trust_t.

SUSTAINING TRUST: POST-ALLIANCE FORMATION FACTORS

Risk of Opportunism

An important limitation in current work within social exchange theory is the neglect of deceit and opportunism in exchange relations. That is, in the typical exchange experiment actors bargain over the price of their goods, but there is never the possibility of lying about the value of the good, receiving a good without paying the agreed price, or backing out of a contract after it has been agreed upon (Kollock, 1994). The concept of opportunistic behavior emanates from the transaction cost literature and is defined as 'self-interest seeking with guile' (Williamson, 1975: 6), however, empirical research indicates that human behavior may not be so Machiavellian after all, particularly in long-term relationships (John, 1984). Hence, incorporating trust in models of inter-firm relationships provides a unique vantage point for treating opportunism as an explanatory variable (Dwyer et al., 1987).

Vertical integration, hostages, and offsetting investments are well-established safeguards against opportunistic behavior when specific assets are involved. However, despite Kogut's (1988) observation that joint ventures can be regarded a response to the existence of asset specificity, collaboration does not constitute a foolproof safeguard against opportunism. Hence,

and interdependence levels (Wicks et al., 1999). For a good discussion of different levels of trust

the importance of developing high levels of trust between partners in order to ensure effective interfirm links is evident (Dodgson, 1996), since the knowledge being exchanged may be not only tacit but also proprietorial (specific), and as such constitute important elements of a firm's competence and competitiveness (Simonin, 1999). Trust counters uncertainty stemming from the assumption of opportunism and it helps reduce the complexity of the exchange. From a "rational prediction" point of view, agents focus on collecting and processing information to project likely outcomes of certain future events (Lewis and Weigert, 1985). From this perspective, agents are perceived to think about trust in a highly calculative and risk-oriented fashion (e.g. Barney and Hansen, 1994; Williamson, 1985). Hence, conditions of trust arise when parties have something at risk and trust can be seen as cooperation in a prisoner's dilemma game (Lewis and Weigert, 1985). There seems to be evidence of general agreement across disciplines (e.g. psychology, sociology, and economics) that risk is essential in conceptualizing trust (Rousseau et al., 1998).

The path-dependent connection between trust and risk-taking arises from a reciprocal relationship, where risk creates an opportunity for trust, which in turn (if the desired behavior materializes) leads to more risk taking. Although risk-taking breeds trust, firms do not blindly take unjustified risks in the hope of developing a trustful relationship. Evidence suggests that firms adopt an incremental approach, in which the initial investment is small (Larson, 1992). Consistent with the argument above regarding reputation and prior experience, trust is more likely to be an accumulation of prior satisfactory experiences (Gulati, 1995). Hence, when selecting a partner for a strategic alliance and negotiating structural and contractual elements repeatedly during the evolution of the alliance, the risk of opportunistic behavior will be evaluated and re-evaluated and one would expect the following relationship between risk of opportunism and trust:

Proposition 5: Risk of opportunism is negatively related to trust₂.

see AMR, Special Topic Forum on Trust in and between Organizations, July, 1998.

Protectiveness

As mentioned earlier, TCE assumes that agents are opportunistic, demonstrating self-interest and guile. Williamson (1985) asserts that opportunism does not pose the same difficulties for transactions within firms as it does for transactions between firms. He provides three reasons: 1) common ownership of assets limits incentives for individuals within firms to be opportunistic, 2) internal organization is able to use authority to direct behavior, and 3) individuals within firms are likely to be better informed about conditions or be better able to monitor behavior than those in different firms. Hence, the lesson of opportunism, Williamson maintains, is that contracts must recognize conditions, which promote opportunism and provide appropriate safeguards, such that contractual commitments become credible (Williamson, 1993). Strategic collaboration has been advanced - from a traditional Williamson-like transaction cost standpoint – as an intermediate form between market and hierarchy, in order to explain the existence and economic justification of these networks. As mentioned above, knowledge exchanged in a collaborative arrangement may be proprietary and thus provide important elements of a firm's defining competence and competitiveness. Therefore, consistent with the resource-based view of the firm, knowledge protectiveness is often seen as an appropriate safeguard against opportunistic behavior in strategic alliances.

In her study of high technology alliances Norman (2000) found a negative relationship between trust and knowledge protection suggesting that as the level of knowledge protectiveness increases the propensity of trust decreases. As argued by Doz, Hamel, and Prahalad (1986), the transparency or permeability of the organizational membrane between partners can be regulated through the adoption of strict policies or the development of shielding mechanisms, such as “walling off” (Baughn *et al.*, 1997) proprietary technology. In addition, gatekeepers can be assigned to filter information access and disclosure across organizational boundaries. However, the ability to learn through joint ventures does not simply rest on the firm's internal absorptive

capability and willingness to learn; it also depends on the willingness of external sources to cooperate (i.e. minimize protectiveness) (Pisano, 1988). Simonin (1999) found in his study of knowledge transfer in strategic alliances that protectiveness is positively related to ambiguity, and hence negatively related to knowledge transfer, suggesting that knowledge protectiveness acts as a barrier to effective knowledge exchange. This argument is supported by Madhok & Tallman (1998), who argue that safeguarding may hinder learning in strategic alliances. Lyles and Salk (1996) furthermore suggest that when disruptive to the operation of the alliance, protectiveness will contribute to the escalation of cross-cultural and other conflicts between partners. Protectiveness, then, hinders the level of trust, suggesting that in order for effective exchange of knowledge (and hence learning) to take place in international strategic alliances, the level of protectiveness should be at its lowest.

Proposition 6: Protectiveness is negatively related to trust₂.

Interdependence

Interdependence is used in the management literature to suggest the presence of mutual dependencies between two parties (Calton and Lad, 1995; Oliver, 1990). Trust is closely related to interdependence in international strategic alliances, since the interest (in relation to the alliance) of one partner cannot be achieved without reliance upon the other partner. The level of interdependence may vary according to the specific nature of the relationship. Sheppard and Sherman (1998) distinguish between (1) shallow interdependence, which involves the risk of poor coordination and lack of consistency in exchanges, and (2) deep interdependence, which might lead to misinterpretation and conflict. Institutional mechanisms for building trust (and countering these risks) range from developing communication and information systems via employing cross-organizational teams to engaging in shared strategizing and development of common incentives. Powell (1996) argues that four distinct types of collaborative networks exist, each with unique sources of trust. In industrial districts, trust is linked to ties to place and kinship. In R&D

networks, trust is based on common membership in a professional community. The third network type is business groups, where shared historical experiences play a dominant role in trust building. Finally, Powell (1996) examines strategic alliances and concludes that trust emerges from mutual dependencies. Other scholars argue that optimal trust exists when trust and interdependence levels are appropriately matched (Wicks et al., 1999).

Learning (performance) in dyadic relationships is closely linked to the (implicit and explicit) motivational intent of each partner and the presence of appropriate integrative resources. A strategic partner is likely to measure the level of importance attached to the alliance based on the level of resources committed to the relationship and the level of commitment demonstrated by senior managers. The motivational intent is manifested in the level of resources (personnel and financial) allocated to the dyadic relationship, which in turn influences the level of interdependence. Trust plays an important role in the evolution of a strategic alliance and the motivational intent might change over time as a function of interdependence – and vice versa. This, in turn, will influence the level of resources dedicated to the relationship and the power balance among partners. As interdependence increases so too does the potential need for trust. Similarly, as argued by resource dependence theorists (Pfeffer and Salancik, 1978), firms depend on access to (external) resources critical to firm performance and competitive advantage. Hence, interdependence provides not only a useful connection to trust, but it underlines trust as an effective mechanism to gain access to – and utilize external knowledge in order to improve performance (learning). Thus, the following relationship between interdependence and *continuous* trust can be derived:

Proposition 7: Interdependence is positively related to trust₂.

Longevity

Research on knowledge ambiguity, knowledge transfer, and knowledge conversion suggest that there are some limitations and possible boundaries to the existence of learning curves

(Simonin, 1999; Nonaka, 1994; Reed and DeFilippi, 1990). For strategic alliances, this suggests that resource allocation should not be approached as a one-time deal but rather on a continuous basis in order to match the evolution of technology and the partner's actions. Since firms involved in international strategic alliances develop close bonds over time and, if the alliance is successful, form positive attitudes regarding each other's reliability, the level of trust is likely to improve over time. In terms of performance, as empirically shown by Meschi (1997), one would expect that 'all cultural differences in an international joint venture, regardless of their nature and intensity, will ultimately recede over time'. Although intuitively appealing, in reality there will always be cultural and organizational distance in dyadic relationships – particularly relationships spanning national boundaries; however, some studies suggest a positive correlation between on one hand duration and trust and on the other trust and learning in relation to strategic alliances (e.g. Norman, 2000). As with many of the factors investigated in the proposed model causality is hard to determine, since one could argue that trust is a precursor as well as a consequence of longevity. As mentioned earlier, however, learning involves social exchange and understanding of tacit knowledge and trust is a vehicle for developing strong social relationships. Trust is to a certain degree a trial-and-error process, and in the absence of prior experience with the partner, time serves as a mechanism for embeddedness and trust development. Madhok (1995) notes that sustained interaction is a crucial mechanism for holding the partners together. Similarly, Kollock (1994) found a strong relationship between commitment and trust. Hence, through repeated interaction and information exchange, partners should identify and develop more commonalities, which in turn would reinforce a sense of trust. Thus, one would expect longevity to be positively related to *continuous* trust:

Proposition 8: Longevity is positively related to trust₂.

Cultural Distance

As illustrated through the above antecedents of trust, international strategic alliances are complex to manage. Pre-alliance formation issues of especially partner reputation and transparency together with post-alliance issues of risk and protectiveness are all potentially damaging effects to effective and efficient collaboration. In international strategic alliances, cultural differences produce additional difficulties, which have been well documented in the literature (see Mjoen and Tallman, 1997). For instance, Killing (1983) found that joint ventures, where one partner is from a developing country and the other from a developed country, are more likely to lead to decision impasses due to divergent attitudes. Moreover, Beamish (1985) showed that such joint ventures have a higher rate of failure than those formed between two firms both originating in developed countries. In fact, as argued by Meschi (1997), most problems encountered in international joint ventures can be traced back to cultural factors, be they national or organizational. Lyles and Salk (1996) report that not only conflicts but also cultural misunderstandings rooted in cultural differences can minimize flows of information and learning. Hence, the partner's national or organizational culture has the potential to affect in depth all aspects of the collaboration, including the development of trust. Similarly, Mowery *et al.* (1996) found that distance and cultural differences were key obstacles to interfirm collaboration for U.S. firms engaged in international alliances compared to firms engaged in domestic alliances. Moreover, cultural asymmetry (Hamel, 1991) can sometimes lead to an unbalanced situation between partners in their attempt to decode, transfer, and interpret knowledge. Thus, language, cultural heritage, and alignment play a key role in creating difficulties for identifying market opportunities and raises barriers to communication between partners. Furthermore, trust in international strategic alliances is closely related to norms and values because it involves an investment in a social relationship, which might potentially be damaging to economic performance. Hence, the extent to which partners have beliefs in common about what behaviors, goals, and policies are important or unimportant, appropriate or inappropriate will influence the level (and speed) of trust development (Dwyer *et al.*, 1987). Misinterpretations due to cultural

distance or the lack of cross-cultural understanding for a partner are likely to impair both the ability to learn and the development of trust in alliances, suggesting that:

Proposition 9: Cultural distance is negatively related to trust₂.

MODERATING EFFECTS

The previously hypothesized relationships between learning, trust, and its antecedents are likely to be further moderated by at least four important, interrelated variables affecting both trust and learning. Rather than explicitly formulating detailed propositions on the nature and direction of these moderating effects, an exploratory approach is advocated. Hence, this section briefly describes these moderating effects and how they might influence the model.

Control/Coordination

Some scholars view trust as a specific type of control mechanism that governs economic transactions. Accordingly, it is argued that social knowledge can be viewed as a social control mechanism that can substitute certain formal control mechanisms, such as majority equity ownership in joint ventures (Sohn, 1994). Social knowledge (i.e. the ability to understand and predict other's behavior) is not the same as trust; however, one could argue that trust is a substitute for hierarchical control in organizations (e.g. Zaheer and Venkatraman, 1995). That is, trust is not in and by itself a control mechanism, but it might be viewed as a reason not to use objective controls. Ring and Van de Ven (1994) support this argument in their discussion of the relationship between formal legal contract (control) and psychological contract (trust) in interfirm cooperation. Others suggest that managing opportunism and relying on trust are two managerial alternatives in relation to interfirm collaboration (Madhok, 1995). As mentioned earlier, international joint ventures operate in an environment characterized by high levels of uncertainty and risk. Control and coordination come into play only when adequate trust is not present.

According to TCE, the uncertainty of exchange is reduced if it can be brought into an organized group of people with a framework of rationality and organizational mechanisms to dissuade opportunism (Williamson, 1985). Consistent with this view, Uzzi (1996) found that joint problem-solving arrangements that enable actors to coordinate functions and work out problems, provide more rapid explicit feedback than do market-based mechanisms. These coordinating arrangements enable firms to work through problems and to accelerate learning and problem correction. Along the same lines, Kale and Dyer (2000) found that firms that invest in creating a dedicated alliance function (with the intent of strategically coordinating alliance activity and capturing/disseminating alliance-related knowledge) realize greater success with alliances. This suggests that setting up an explicit organizing mechanism for coordinating alliance related activities might increase the level of trust and learning by developing significant tacit knowledge about alliance management, thereby providing a focal point for knowledge sharing and learning. Conversely, trust is needed for any coordinating mechanisms to work and control mechanisms can be viewed as responses to lack of trust. Hence, both control and coordination is likely to influence the relationship between trust and learning and vice versa.

Communication

Communication can be described as the glue that holds together a channel of exchange. In this sense, communication can be broadly defined as ‘the formal as well as the informal sharing of meaningful and timely information between firms’ (Anderson and Narus, 1990: 44).

Communication fosters trust by assisting in resolving disputes and aligning perceptions and expectations (Etgar, 1979) and it would be impossible to theorize about trust and learning in international strategic alliances without paying due attention to communication. The notion of timely communication is, however, important and Anderson and Narus (1990) note that past communication is an antecedent of trust. By the same token, these authors mention that ‘in

subsequent periods...this accumulation of trust leads to better communication, suggesting that communication and trust are interrelated and likely to affect each other depending on the period in time one is focusing on (Anderson and Narus, 1990).

Absorptive Capacity

Absorptive capacity refers to the capacity of an organization to internalize the knowledge transferred to it (Cohen and Levinthal, 1990). The level of prior related knowledge and the organizational form are considered the main determinants of absorptive capacity. In terms of knowledge and learning, Szulanski (1996) found absorptive capacity to be one of the most important origins of stickiness. Similarly, Hamel (1991) introduces the notion of 'receptivity' as the capacity of organizations to learn from their partner. Lyles and Salk (1996) argue that the capacity to learn (measured by the joint venture flexibility, creativity, and knowledge about employees) significantly influences the level of knowledge acquisition. Absorptive capacity (or learning capacity), then, may be best described as creating the space, opening up for developing the capability of "learning to learn". By the same token, a firm with a greater absorptive and integrative capacity is also able to contribute more to a partnership and thus a dynamic network can serve double functions by providing access to new, external knowledge and resources, and testing and internalizing generated knowledge and capabilities thereby allowing for a spiral effect of continuous learning and knowledge creation for both partners. Given that trust is a vehicle for (and perhaps a product of) developing strong social relationships and thereby enhancing the ability to develop a shared understanding of the knowledge exchanged, it seems relevant to acknowledge the impact of absorptive capacity on the relationships proposed in figure 1.

Collaborative Know-How

Collaborative know-how can also be expected to influence the model, since prior experience at cooperating is essential to the management of a diverse portfolio of collaborative ties as well as

to accumulate the capability to benefit from the resulting interdependencies (Powell et al., 1996). The importance of collaborative know-how in relation to alliance performance is evidenced by Lei and Slocum (1992), who attribute alliance failure to lack of collaborative experience and understanding. Moreover, Simonin (1997) empirically found support for the emergence of a distinct form of collaborative know-how, which emerges from past experience, and which helps achieve greater benefits in subsequent alliances. As suggested by Simonin (1997) and others, this collaborative know-how affects the ability of firms, engaged in strategic alliances, to understand and adopt proper procedures and mechanisms for knowledge accumulation, transfer, interpretation, and diffusion – and ultimately learning. Hence, prior understanding of collaborative processes is likely to increase the level of learning within the dyadic relationship by eliminating many of the sources of uncertainty and disruptive noise involved in cooperation. This seems especially true for cross-cultural collaboration.

LIMITATIONS OF MODEL

The proposed model has obvious limitations and additional theorizing is needed. The focus of this study is on the antecedents of trust in relation to interfirm learning across national boundaries, however, there may be a number of other variables that could be used to theorize about trust in international strategic alliances. Indeed, there may exist a range of other factors, which could be modeled in a more useful framework that would help managers and researcher more accurately and consistently understand the nature of trust in relation to learning in international strategic alliances. Moreover, this paper has employed a specific (and somewhat narrow) definition or understanding of trust as, on the one hand, a determinant of initial relationships and, on the other, a feature of the continuous relationship with particular emphasis on creating conditions for learning, however, other meanings of the concept of trust – for instance with a focus on optimal trust as a mixture of trust and distrust (Wicks et al., 1999, Lewicki et al., 1998) – may be useful in developing a deeper understanding of the relationship between trust and

learning. Additionally, this model assumes trust to be fully mediating the relationships between variables such as prior experience with partner, reputation, transparency, risk, protectiveness, interdependence, longevity, and cultural distance and interfirm learning, however, additional paths might add explanatory power. Hence, conceptualizing and testing of competing models, in which trust is treated as partially mediating these relationships, allowing for direct effects for some antecedents is suggested. For instance, adding direct paths from protectiveness and cultural distance to learning might provide a more complete picture of the role of trust and its antecedents in the process of interfirm learning. Furthermore, it seems likely that some of the factors in the model may be strongly correlated (for instance interdependence and reputation). Hence, a confirmatory factor analysis is advocated in order to determine the adequacy of factor loadings and the patterns of inter-correlations among factors.

IMPLICATIONS AND DIRECTIONS FOR FUTURE RESEARCH

Most practitioners and researchers agree that trust is one of the main concerns for partners in strategic alliances and a core concept in the development of a formal theory of international joint ventures (Parkhe, 1993). In spite of this, the emerging literature has paid insufficient attention to the creation and dynamic role of trust in relation to learning in interfirm strategic relationships. As mentioned earlier, trust is more or less seen as a “magic ingredient”, usually attributed *ex post*. That is successful alliances seem to involve trust whereas unsuccessful alliances do not. Trust among partners in international strategic alliances is obviously important, however, in the extant literature, trust is treated as a residual term for the complex social-psychological processes necessary for social action to occur. This article attempts to contribute to the understanding of how trust is created and managed in international strategic alliances by exposing the “magic ingredient” of trust. Rather than treating trust as a static concept, this paper proposes a conceptual model that allows for trust to be treated as a dynamic and continuous variable at different stages in the development process of the dyadic relationship. By directing the spotlight to trust as the

full mediator of interfirm learning in international strategic alliances, a deeper appreciation for the complex nature of this construct can be achieved.

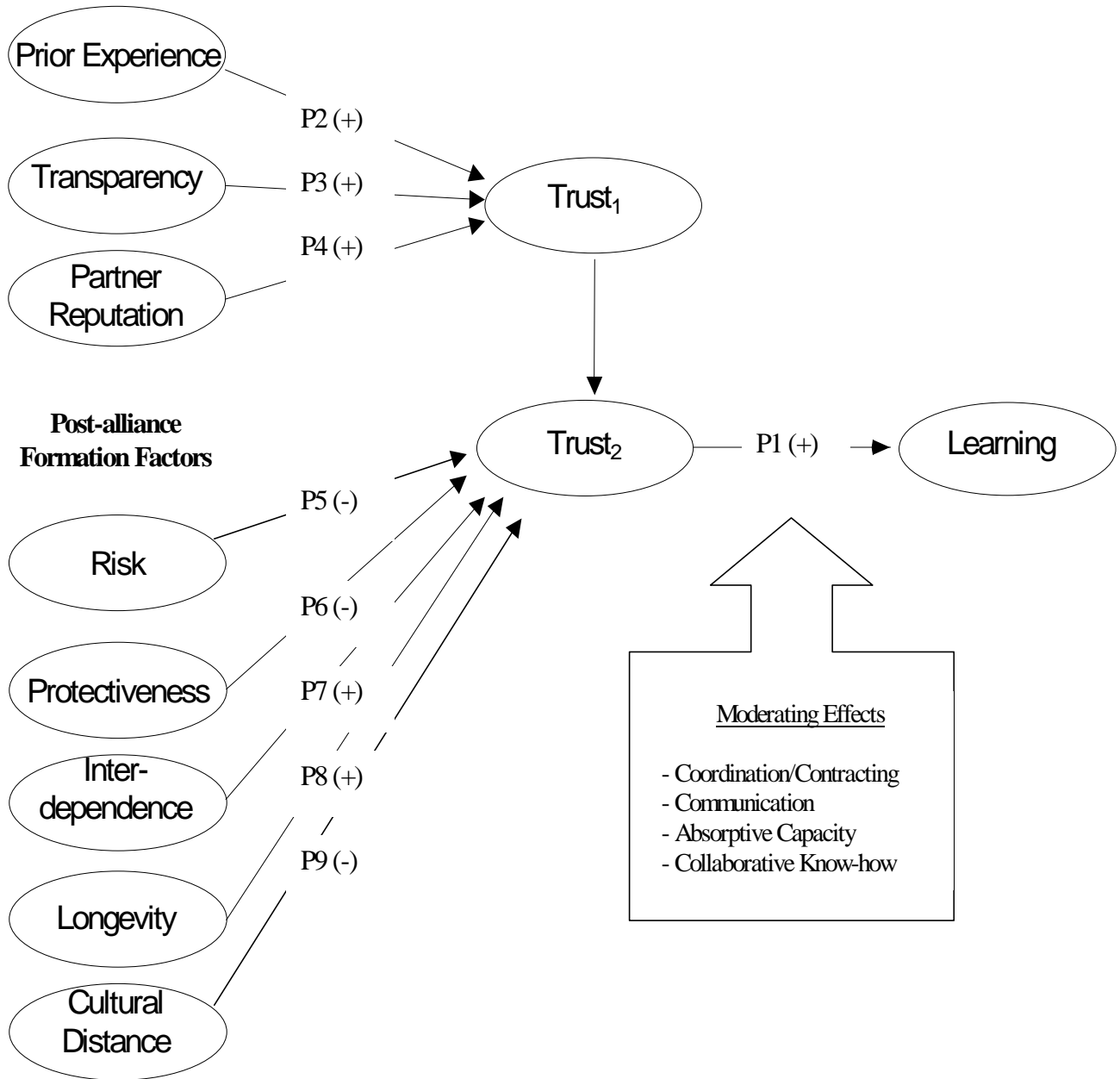
This article has made a conceptual case for the predicted relationships between the antecedents of trust and trust, and between trust and learning in international strategic alliances. Although the individual importance of most of the variables examined in the model has long been recognized in both strategic alliance and social exchange literature, their simultaneous effects on alliance performance and learning have thus far been ignored. Furthermore, extant empirical support for these relationships is minimal. Thus, the next logical step is to empirically test the proposed model. Most of the underlying factors of trust have been identified and studied independently and acceptable scales have been developed. Adopting (and modifying) these scales would allow for the testing of the research propositions in order to establish the fit of the proposed theoretical model.

Due to the high complexity of international joint ventures and the interrelations between trust and other concepts, a longitudinal study of systems of interrelationships among clusters of variables would be of great value (Mintzberg, 1977). Such a study would, however, necessitate revisiting the ontological and epistemological bases of knowledge and understanding. Methodologically, case studies, direct involvement in organizations, and the use of human senses to interpret the phenomena might lead to a deeper appreciation for the highly complex nature of trust as it relates to international strategic alliances.

While previous research has set the stage, this article offers a specific avenue for systematically investigating the nature and role of trust as it relates to interfirm learning across national boundaries.

**Pre-alliance
Formation Factors**

Figure 1: Conceptual Model



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