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Discussion paper

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ABSTRACT

Learning from the partner is considered to be one of the most crucial processes in a joint venture context. Simultaneously numerous advantages of joint venture relationships characterized by trust between partners have been identified. This paper investigates the role of trust in knowledge transfer and assimilation, jointly leading to the learning outcome in an interorganizational context. Propositions linking sources of trust to the processes of knowledge transfer and assimilation in joint ventures are formulated.

The growth in the number of strategic alliances since the beginning of the 90's has exceeded 25 percent annually (Inkpen, 1998). Among these alliances, joint ventures occupy a prominent position. Learning between partners is a crucial aspect of inter-firm cooperation in such form (Hamel 1991; Kogut 1988), whether it is perceived as an opportunity or a liability. The existing literature points to trust as an important variable in interorganizational cooperation. More specifically, a trusting relationship between partners has been suggested to have a positive influence on organizational learning processes (Kostova, 1999). In general, the notion of trust emerges as an important factor for understanding human nature and exchange relationships of market participants, while the notion of universal opportunism, posited by transaction cost economics (Williamson, 1985), is subjected to much criticism (Ghoshal & Moran, 1996; Noorderhaven 1995). However, no comprehensive model of the role of trust in interorganizational learning in JVs has thus far been developed. This paper aims to fill the gap. Understanding the role of trust in interorganizational learning in JVs is pivotal for explaining the success or failure of JVs, which hitherto still largely remains in the dark (Yan & Zeng, 1999). Furthermore, understanding how trust influences learning in JVs is of practical importance, as the level of trust is not necessarily a given, but can be influenced by managers' actions (Parkhe, 1998a,b).

The role of trust in interorganizational learning has received scant attention in the literature. Some authors, nevertheless, implicitly point to its importance. Makhija & Ganesh (1997) advance that more informal control mechanisms (e.g. meetings and organized personnel contacts, transfers of managers) will be required to achieve the transfer of tacit knowledge across organizational boundaries. Similarly Kale et al. (2000) state that "learning, especially the acquisition of difficult-to-codify competencies, is best achieved through wide-ranging, continuous contact between individual members of the alliance partners". Arguably, the effectiveness of such mechanisms is contingent on the level of trust between the parties.

Other authors, moreover, point to the importance of trust for knowledge sharing, albeit in an intraorganizational context. Kostova (1999) suggests a positive effect of trust on the success of strategic practice transfers a result of reduced uncertainty about the value of the practice and the motives behind the transfer, as well as increased perceived reliability of the source (Kostova, 1999). In the same vein, Szulanski (1996) argues that low reliability of the source, as perceived by the knowledge acquirer, is likely to result in resistance to the advice and example it renders. Reliability, understood as the readiness to forego self-interested behavior, is strongly associated with trust, as it reflects the perceived level of trustworthiness of the source. While applicability of Kostova's argument to the interorganizational learning is quite apparent (transfer of knowledge between subsidiaries of an MNE, thus distinct organizational units), it is less so with Szulanski's argument, which applies to the intraorganizational context in the strict sense of the word. Nevertheless, in both contexts it is the individual who is the agent of learning, and thus we accept, though cautiously, the argument.

The set-up of the paper is as follows. First, the issue of inter-partner learning in joint ventures is explored. Second, subprocesses of interorganizational learning are related to trust at both the organizational and the individual levels. Third, propositions concerning the different sources of trust and subprocesses of interorganizational learning are formulated. Conclusions follow.

LEARNING BETWEEN JOINT VENTURE PARTNERS

Strategic alliances are hardly a homogenous category. Based on partners' capital involvement, equity alliances may be distinguished from non-equity alliances (Das & Teng, 1998). Further, under equity alliances joint ventures and minority equity alliances may be identified. Harrigan (1988) considers creation of a separate entity to be the distinguishing

feature of JVs. We follow her lead. Our subsequent reasoning is equally applicable to minority equity alliances, but our propositions will be focused on the JV as a separate entity.

Various rationales for joint venture formation have been identified in the literature. The main three perspectives on the issue, transaction costs, strategic behavior and organizational learning are distinct, yet not mutually exclusive (Kogut, 1988). While it is disputable whether some JVs are formed for the sole purpose of acquiring knowledge from the partner a consensus seems to emerge with respect to the fact that they do offer opportunity for learning between partners.

The resource-based approach (Barney, 1991) views bundles of idiosyncratic resources as the source of a company's competitive advantage. For the advantage to be sustained, it is essential for new resources to be acquired and for the existing ones to be further developed and exploited (Kogut & Zander, 1992). Collaboration is often the only way of survival and growth for businesses that would otherwise not be able to create all the necessary resources on their own (Dussauge, Garrette & Mitchel, 2000). This is especially true of tacit, knowledge-based resources embedded in other organizations (Hall, 1992). Hamel, Doz & Prahalad (1989) argue that it should be the aim of a company involved in a strategic alliance to emerge from it "more competitive than it entered". Such an outcome may be partly attributed to the inter-partner learning, the importance of which has frequently been stressed in the context of alliances (e.g. Hamel et al., 1989; Inkpen, 1998).

Knowledge may be explicit or tacit (Polanyi, 1962). The former is systematic, formalized and can be transferred without loss of integrity (Kogut & Zander, 1992; Polanyi, 1962). The latter embodies knowledge that is nonverbalizable, intuitive and unarticulated, and thus cannot be easily transferred (Kale, Singh & Perlmutter, 2000; Polanyi, 1962). Szulanski (1996) argues that success of tacit knowledge exchanges will strongly depend on the quality of communication between the partners and their "intimacy" level. Due to the high level of

intimacy and intensity of interactions that they offer, joint ventures are argued to be especially suitable for transferring organizationally embedded knowledge, highly ambiguous and tacit in nature (Lane & Lubatkin, 1998). Representatives of the transaction cost paradigm posit that the market for tacit knowledge is likely to fail, as its value cannot be reliably evaluated before its transfer (Hennart, 1988). Compared to contract-based agreements equity joint ventures, combining features of the markets and hierarchies should be superior conduits for the transfer of difficult to grasp, company-specific, experiential knowledge (Gulati, 1995; Kogut, 1988; Mowery, Oxley & Silverman, 1996).

INDIVIDUAL-LEVEL AND ORGANIZATIONAL-LEVEL TRUST

The concept of trust may be framed as an expectation of partner's reliability with regard to his obligations, predictably of behavior, and fairness in actions and negotiations while faced with the possibility to behave opportunistically (Zaheer, McEvily & Perrone, 1998). In analyzing trust, some authors emphasize its psychological aspect (e.g. Rousseau, Sitkin, Burt & Camerer, 1998), while others point to the behavioral one (e.g. McAllister, 1995). We opt for inclusion of both (cf. Sarkar, Cavusgil & Evirgen, 1997) where a trusting cognitive attitude toward someone, in order to be relevant, must be accompanied by the intent or actual report of acting on it.

In considering organizational learning one needs to account both for the acquisition *and* internalization of the strategically important capability possessed by a partner (Kale et al., 2000). No organizational learning can take place without the knowledge being acquired first. Similarly, not until the acquired knowledge has been assimilated, can the learning be said to be complete. The focus of this paper is thus on the acquisition of knowledge (from an outside party) and its subsequent assimilation within an organization. Hence, we investigate the link between trust and the interorganizational transfer of knowledge as well as that between trust

and assimilation of the knowledge. We argue that organizational-level trust conditions the amount of knowledge transferred between two organizations, while the subsequent assimilation of the knowledge is affected primarily by the individual-level trust between interacting organizational members.

Trust affects various attitudinal and perceptual constructs in an organizational setting (Dirks & Ferrin, 2001). Therefore, as we reason subsequently, trust at the organizational and individual levels through the mediating role of the partners' intent to learn and transparency (Hamel, 1991), will positively affect knowledge transfer and assimilation, respectively. We focus specifically on these two determinants of learning, since they are related to the learning parties, which can be subject and object of trust.

Knowledge Transfer and Organizational-level Trust

Knowledge transfer between organizations depends on how much knowledge the partners are willing to make accessible to each other and how intent each of the organizations is on appropriating it. Starting with the latter, since learning happens only by intention and hardly ever by default (Hamel, 1991), strategic intent is an "essential ingredient in the commitment to learning" (Hamel et al., 1989). Bhatt (2000) argues that, "if the source is not trustworthy and its intentions are perceived as 'less than clear', receivers need to check the authenticity and the veracity of the knowledge communicated". Thus, more trust in the partner organization's perceived competence (competence trust) will result in higher intent to acquire knowledge from that organization and thus, all else constant, positively affect the amount of knowledge transferred. Higher perceived trustworthiness of the partner will also result in higher openness to its knowledge and more susceptibility to its influence on the focal organization's part. Thus, since trust between partner organizations positively influences

their intent to acquire knowledge from each other, higher interorganizational trust can be expected to lead to more knowledge transfer.

Secondly, the more transparent the partners are, the more learning is possible (Hamel, 1991; Kale et al., 2000). Transparency reflects the level of partners' openness and accessibility and is negatively correlated with the degree of protectiveness that each of them elevates vis-à-vis the other (Hamel, 1991). Our concept of transparency encompasses therefore both the attitude and the structural outcomes, which result from it. The risk of losing critical information or know-how due to accidental leakage or opportunistic behavior of the partner is particularly high for firms that enter into strategic alliances and thus they are bound to be more protective (Kale et al., 2000). The attitude will be stronger where the competitive overlap between the partners is high (Inkpen, 1998). Trust helps to curb the motivation of the partners to behave opportunistically and allows to make the organizational interface more leakage-proof (Kale et al., 2000). Therefore, governance based on trust provides partners with proper incentives to share information and know-how with each other (Dyer & Nobeoka, 2000; Dyer & Singh, 1998). In other words, trust is a "lubricant for potentially useful and important information to travel quickly and accurately through the network" (Kale et al., 2000). More trust between partnering organizations should therefore foster higher transparency, which in turn would result in more knowledge transferred between them. Summarizing, since the transparency of the partners and their intent to acquire knowledge from each other depend on the level of trust between them, we conclude that higher interorganizational trust will result in more efficient knowledge transfer.

An important issue that needs to be considered here is whether it is justified to speak of trust between organizations. Organizations do not have the ability to experience an attitude, which is after all an inherently individual-level phenomenon (Dyer & Chu, 2000). While it is conceptually consistent to view an individual both as an origin and object of trust, the same is

not true of an organization (Zaheer et al., 1998). Nevertheless, it is individuals who make up and manage organizations (Aulakh, Kotabe & Sahay, 1996), and it is through them that the inter-firm relations come into effect (Inkpen & Currall, 1997; Nooteboom, Berger & Noorderhaven, 1997). Therefore it seems justified to conceptualize interorganizational trust as the attitude held collectively by members of a focal organization towards the other company (Zaheer et al., 1998).

Knowledge Assimilation and Individual-level Trust

Once the knowledge transfer has taken place the knowledge resides at first in an individual organization member. To have any use for the organization as a whole this knowledge needs to be “transformed from individual to collective state” whereby organizational knowledge is created (Nonaka & Takeuchi, 1995). This is accomplished through the process of dissemination where organizational members share the knowledge with each other and gradually internalize it. When individually held knowledge is “amplified and internalized as part of the organization’s knowledge base” (Nonaka, 1994) the assimilation process has taken place and only then can the learning process be said to be complete. Thus, knowledge assimilation implies its dissemination throughout the organization and internalization by its members. This suggests that the process of internal dissemination will depend on how efficiently the acquired knowledge is shared between the organization’s members, units and levels. It seems plausible to expect, therefore, that a higher level of individual-level trust between interacting actors will be conducive to superior knowledge assimilation. Similarly as at the organizational level both intent to learn and transparency have a pivotal role in that process.

Organizational members’ intent to learn will be an important factor in knowledge dissemination. Ambiguity of intentions vis-à-vis a knowledge source is often reflected in

resistance to internalize its knowledge, which may surface due to the not-invented-here syndrome (Szulanski, 1996). This resistance can be partially overcome if the source of knowledge is perceived as trustworthy. According to Porter (1997), “people who trust, accept more influence from others in selection of goals, in choice of methods, and in evaluation of progress”. In the JV context, perceived expertise of the partner’s boundary spanners’ should, by increasing competence-based trust, positively affect the willingness to internalize knowledge they provide and the speed of its dissemination. Another outcome of trust in the source of knowledge is susceptibility to the influence it exerts (Chiles & McMackin, 1996). Based on the above, we conclude that higher (competence) trust between the learning individuals, through its effect on their intent to learn, should lead to more knowledge efficient internalization and dissemination.

Secondly, knowledge dissemination is strongly dependant on individual transparency. Individuals who view knowledge as a source of power may resist sharing it (Kim & Mauborgne, 1998; Szulanski, 1996) or even erect barriers to prevent its incidental leakage. Unwillingness to share knowledge with the partner will clearly constitute an obstacle to its transfer (Szulanski, 1996). Trust between partners may foster free exchange of information, as they do not feel the need to guard themselves against opportunistic behavior of the other party (Jarillo, 1988). “From an organizational learning point of view, trust can be seen as a decision to place resources (i.e. knowledge) at other’s disposal” (Edmondson & Moingeon, 1999). If one party trusts the other, it perceives less risk in divulging relevant, comprehensive, accurate and timely or proprietary information to the other (Chiles & MacMackin, 1996). In contractual relationships lacking in trust, on the other hand, information exchanged may be inaccurate, incomprehensive and untimely (Chiles & McMackin, 1996; Zand, 1972). Summarizing, higher trust endowed on the knowledge-seeking individual will result in more openness and diligence in disclosing one’s knowledge, thus increasing the individual level

transparency. Taken together, higher individual-level trust should result in more efficient dissemination and assimilation of individually embedded knowledge.

Before proceeding with the analysis of the role of trust in interorganizational learning, it is important to mention that the effect should be viewed as bi-directional. Generous knowledge sharing on the part of partners demonstrates their commitment towards each other and is likely to reinforce trust between them (Gulati, Khanna & Nohria, 1994). Learning and trust between the partners are thus mutually reinforcing mechanisms. Nevertheless, we take the learning to be one of the objectives of a collaborative venture and view trust as the condition that is conducive to its achievement. Additionally, it seems plausible to assume that some initial expenditure of trust towards the partner, no matter how insignificant it would be, must come before any learning can take place and not vice versa. From that perspective trust can be viewed as an antecedent of learning rather than the other way around. In the next section we formulate a number of propositions pertaining to the relationships discussed above, in a way that attempts to tackle the methodological issues related to measurement of trust.

SOURCES OF TRUST AND LEARNING BETWEEN JV PARTNERS

Building on the concepts discussed in the previous sections, we now develop a model of interorganizational learning in the context of a JV. We focus on the following situation: two companies, A and B, set up a JV (see Figure 1). Firm A transfers knowledge to the JV, some of it in codified and some in tacit, uncodified form (for simplicity we incorporate unidirectional learning only). We assume that the tacit, uncodified knowledge in the form of know-how is brought into the JV embedded in personnel delegated (for various duration) from firm A to the JV and vice versa. This transfer of knowledge from A to the JV is “Knowledge Transfer 1” in Figure 1. The transfer of both codified and tacit knowledge is to

be expected. In our model, however, we focus on learning associated with tacit knowledge since the transfer of codified knowledge may be assumed to be more clearly contractually based, and hence less dependent on trust. In order to be put to work, this codified knowledge often needs to be combined with tacit knowledge (Prahalad and Lieberthal, 1998). As argued before, we expect the extent of this type of knowledge transfer to be crucially conditioned by the level of trust between the two parent companies, A and B. The trust between the parent companies will also, at least initially, be the most important determinant of the parent companies' trust in the JV itself.

As stated previously, the amount of interorganizational learning depends not only on knowledge transfer, but also on knowledge assimilation. In the context of a JV we interpret the assimilation ("Knowledge Assimilation" in Figure 1) as the gradual internalization of firm A's knowledge by personnel originating from firm B. It is accomplished in the process of their interactions with representatives of Firm A. In line with the above argument, we expect this assimilation process to be influenced by the level of trust between JV employees originating from parent A and parent B. We consider knowledge assimilation in our model to be an inter-organizational process since firm A's knowledge is exposed to representatives of Firm B and internalized by them in the JV context. This is not the case for "Knowledge Transfer 2" in Figure 1, where no such cross-exposure takes place. This is why we consider this to be an intraorganizational learning issue, a topic, which is beyond the scope of this paper. Nevertheless, for learning between company A and B to be complete, the knowledge assimilated by firm B representatives in the JV needs to be transferred back to the parents organization and assimilated there. But for reasons mentioned above, we do not formulate propositions concerning this issue here.

Insert Figure 1 about here

Although several measures of the overall level of trust have been developed (see, e.g. Cummings & Bromiley, 1996; Mohr & Spekman, 1994; Zaheer & Venkatraman, 1995), the trust reported by respondents is likely to have various sources, which may have quite different consequences for the interorganizational learning. Additionally, any direct measurement of trust is bound to be strongly subjective due to interpretational biases of the individuals reporting it. For these reasons, in capturing the effect of trust on learning between partners we choose to focus on the sources of trust rather than trust itself. Consequently, we evaluate the effect of those sources on the learning outcomes directly, without the mediating effect of the all-encompassing construct of trust. We believe it is justified to link sources of trust directly to the effects of trust as the various types of trust (based on different sources) tend to get conflated in the intermediate concept of overall experienced trust. It would not be very helpful or informative to determine that an overall high level of trust facilitates interorganizational learning, without knowing which factors influence this level.

Sources of Trust

Numerous sources of trust have been identified in the literature. We proceed to discuss those which in our view are most likely to be encountered in the context of JVs and to be conducive to interorganizational learning. We believe that these sources are equally relevant for organizational-level and individual-level trust, an assumption central to the propositions we develop later on.

Source: calculation. The essence of calculus-based trust lies in the conviction that “individuals will do what they say because they fear the consequences of not doing what they say” (Lewicki & Bunker, 1994). Calculus-based trust considers not only punishments (deterrence) but also potential rewards flowing from its preservation (Lewicki & Bunker, 1994), although it has been argued that trust based on coercion and self-interest should not be

treated as trust at all (Nooteboom et al., 1997; Rousseau et al., 1998). However, since, as was mentioned before, we focus on trust as a behavioral aspect as well as attitudinal, it would be difficult to separate out calculus-based trust from trust based on other sources. Hence, it makes sense not to exclude calculative choice as a potential source of trusting behavior.

Source: knowledge. Knowledge-based trust reflects the degree to which a partner's behavior is known to be predictable. It may be based on partners' own past encounters with each other (experience based) or on another party's former encounters with one of them (reputation). In case of experience-based trust, perceived predictability is grounded in knowing the other and has its source in the repeated interactions between partners (Rousseau et al., 1998). Its growth requires time (Aulakh et al., 1996) and is a cumulative process (Lewicki & Bunker, 1994). Past experiences with the other become a basis for positive expectations about his cooperative behavior.

Ability, benevolence and integrity are the three qualities of the partner which if discovered are likely to produce trust (Mayer, Davis, & Schoorman (1995). In the development of experience-based trust, partners build up conviction about each other's ability to perform in line with the intentions and expectations of the relationship (Nooteboom et al., 1997). Willingness to behave in line with partner's expectations becomes irrelevant when the ability to do so is lacking. Benevolence is "the extent to which a trustee is believed to want to do good to the trustor, aside from the egocentric profit motive" (Mayer et al., 1995), and finds reflection in trustee's commitment. Benevolence and commitment are built over time as parties come to recognize and understand each other's desires and intentions (Lewicki & Bunker, 1995). By its nature, this type of trust exhibits behavioral variance across different relationships as it is only natural that human beings do not behave in an equally trustworthy manner in relationships characterized by different levels of proximity (Noorderhaven, 1996). Partner's integrity involves the "perception that the trustee adheres to a set of principles that

the trustor finds acceptable” (Mayer et al., 1995). Values and principles that guide one’s behavior are based on trustee’s intrinsic trustworthiness, which is expected to be robust over situational changes and to remain largely unaltered by the interaction process in a relationship (Noorderhaven, 1996). However, since the true character of an individual is not readily evident, it is only through experience gained in repeated interactions that a reliable assessment can take place.

Reputation effects allow for confident expectations about the other’s behavior based on third party experiences. Reputation in this context may be equated with the “cumulative record of past behaviors” (Parkhe, 1998a). Since firms are embedded in dense social networks, reputation is likely to affect their ability to find potential alliance partners (Dollinger, Golden & Saxton, 1997; Gulati, 1995). Reputation-based trust is also likely to have a positive initial effect on the openness of partners in the interaction process within the JV venture.

Source: similarity. Being alike leads to attraction and evokes positive attitudes (Parkhe, 1991), and so is likely to produce trust (Brewer, 1981; Burt, 1992; Porter, 1997). In the interorganizational context, similarity “can generate homogenous expectations and common assumptions regarding a partner and partnership” and thus lead to trust and cooperative success (Parkhe, 1998b). Organizational distance or diversity, as an inverse metric of similarity, represents discrepancies in companies’ business practices, institutional heritage, corporate culture (Simonin, 1999a,b), strategic directions (Parkhe, 1991) and the language used in doing business (Marschan, Welch & Welch, 1997).

Source: institutions. Institutions at the micro and macro level may support risk taking and trusting behavior at both the organizational and the societal levels (Hagen & Choe, 1998; Rousseau et al., 1998). At the societal level, Kostova (1999) elaborates on the construct of country institutional profile (CIP), which encompasses among other things the regulatory

framework of national laws and rules. The effectiveness and the transparency of the legal system and of regulatory frameworks differ between countries (Fukuyama, 1995). Parkhe (1998b) cites institutions that issue public statements concerning an entity's qualifications and reliability as formal social trust-evoking structures. The stronger these institutions, the easier it will be for business partners to rely on trust as part of the perceived potential for opportunistic behaviors of the partners vis-à-vis each other is safeguarded by the environmental institutions (Mudambi & Navarra, 2002).

At the level of interacting individuals, intraorganizational rules and procedures which foster the perception of fairness in decision making have been indicated to lead to trust and commitment in an organization (Kim & Mauborgne, 1998; Kumar, 1996) in a way comparable to that of the institutional environment at the organizational level. Favorable perceptions of procedural justice by organizational members lead them to “display a high level of voluntary cooperation based on their attitudes of trust and commitment” (Kim & Mauborgne, 1998). Lack of intrafirm mechanisms for consistent treatment of employees, for example, has been shown to lead to weakened trust between subordinates and supervisors compared to companies where such mechanisms were in place (Pearce, Branyiczki & Bigley, 2000).

Propositions

Knowledge transfer, in the context of this paper, involves the flow of know-how from a JV partner to the JV organization itself. As we have argued, the amount of knowledge transferred from a parent company to the JV will be influenced by the level of trust between the two parent companies. As discussed, four sources of trust can meaningfully be distinguished: calculation, knowledge, similarity, and institutions. Our first set of propositions pertains to the relationships between these four sources of trust (with regard to the

relationship between the parent companies) and the transfer of knowledge from a parent to the JV.

Calculus-based trust implies that if the goals of the partners concerning the JV are compatible, either in terms of similarity or complementarity. Thus it is in the partners' best interest to make the JV a success. Parkhe (1991) posits that in evaluating compatibility partners assess the "probable areas of conflict due to overlapping interests in present markets or future geographic and product expansion plans". Therefore, compatibility of partner strategic goals should find reflection in alliance longevity (Parkhe, 1991) or success otherwise defined, as partners abstain from opportunistic behavior that would endanger the quality of the relationship within the JV (Sarkar et al., 1997). Hence, if the strategies of the partners with respect to the JV are perceived to be congruent, there will be fewer impediments to the transfer of knowledge to the JV.

Proposition 1: The level of perceived goal congruence (similarity or complementarity) between the partner firms will positively affect the transfer of knowledge to the JV.

In the context of empirical research, strategic compatibility may be operationalized as the partners' perceived congruence of each others' goals and rationales for engaging in JV cooperation.

Knowledge-based trust has two distinct sources. One is the reputation of the other parent firm. As stated earlier, it is expected to boost the mutual attractiveness of the partners, and hence increase the likelihood of their entering into a JV. But it may also be expected that reputation-based trust is of influence on the initial willingness of the partners to disclose and to absorb information.

Proposition 2a: A positive reputation of the partner firms will positively affect the transfer of knowledge to the JV.

In measuring reputation empirically it is important to distinguish it from the positive experience-based impressions gained through interaction with the partner. Hence, an operationalization of reputation would measure the strength of the general reputation of a company in the industry, rather than expressed by the JV partner.

The other source of knowledge-based trust is partners' own experience with each other. Trust is not a static phenomenon; it builds up, reaches stability and dissolves (Rousseau et al, 1998). Its formation is a slow and time-consuming process (Madhok, 1995). The upshot is that due to the gradual nature of trust formation, duration of the relationship is crucial (Noorderhaven, 1996). Despite the high plausibility of the argument, some authors found no support for the hypothesized positive relationship between the length of prior relationship and the level of trust (Inkpen & Currall, 1997). This may be due to the fact that it is the interaction between length of interaction and its intensity (Dyer & Chu, 2000), and/or riskiness that contributes to trust formation, rather than duration alone (Krishnan & Noorderhaven, 2001). Intensity is reflected in the level of communication between partners and the depth of their involvement in the interaction (Noorderhaven, 1996). The riskiness of an interaction process is associated with opportunities for partners to demonstrate that they are trustworthy. Responses given to such "critical incidents" influence the further development of the relationship (Ring & Van de Ven, 1994). In the proposition below, we assume, of course, that the opportunity to demonstrate trustworthiness has been seized. Untrustworthy behavior would have the opposite effect.

Proposition 2b: Lengthy intensive and/or risky interaction processes between parent firms will positively affect the transfer of knowledge to the JV.

The characteristics of the interaction processes associated with length, riskiness and intensity can be measured using items gauging the actual duration of the JV (Meschi, 1997; Simonin, 1999a,b), the frequency, informality and density of communication between the partners, and

the occurrence of critical events and the partners' reactions to them (e.g., based on Arino & De la Torre, 1998).

Thirdly, we expect knowledge transfer to be positively influenced by similarity-based trust. Partners in an alliance will have to bridge the differences between their firms stemming from their distinct organizational and national cultures, as well as from business practices and operational mechanisms (Simonin, 1999a,b). More similar firms have smaller corporate distances to bridge, co-operation is facilitated and trust is more likely to develop. It is important to mention here that from the point of view of the learning objectives, it is at the intermediate levels of similarity, in terms of knowledge bases, that most learning is possible.

Like in the case of reputation-based trust, we have to make sure that similarity-based trust and experience-based trust do not conflate. Over time, as partners learn to know each other, distances are bridged, and differences may become less perceptible. Meschi (1997) found that the longer the partners to an international JV cooperate, the smaller the cultural distance tends to become. Therefore, to avoid the confounding effect of experience based trust, we focus on the initial similarity of the partners.

Proposition 3: The level of initial similarity of the parent firms will positively affect the transfer of knowledge to the JV.

Trust-inducing similarity of partner firms may be operationalized as the differences in organizational cultures, for which perceptual measures may be used (Simonin, 1999a,b). However, the danger of conflation with experience-based trust looms large unless such a measure would be used prior to or at the moment of starting the cooperation. Therefore the use of SIC codes and size as proxies is to be preferred (Krishnan & Noorderhaven, 2001). In the case of international JVs, differences in national cultures have to be included as well. These can be operationalized using scores on Hofstede's (1980; 2001) well-known indices (see, e.g., Kogut & Singh, 1988).

The fourth type of trust is based on institutions and hence it may be expected to differ between institutional environments. Here we may think of different national institutional environments, in the case of international JVs. But also within one country, the institutional environments may differ between industries, due to different legislations and private ordering arrangements.

Proposition 4: The level of trust-inducing institutionalization in the environment of the JV will positively affect the transfer of knowledge to the JV.

International differences in trust-inducing institutionalization may be operationalized using published indices of the effectiveness of the judicial system, the reliability of bureaucratic processes, and the like (Gwartney, Lawson & Block, 1996). Such indices do not exist for differences in institutionalization between industries (within a country). Proxies could be found in the membership density of industry associations, or by qualitatively comparing and rating arbitration arrangements within industries.

We proceed to formulate propositions pertaining to the relationships between various sources of trust and knowledge assimilation. As for calculus-based trust, for representatives of parent companies who interact with each other in the JV, a very relevant issue is whether the career goals of the counterpart are linked to his or her parent company or rather to the JV as such. If the earlier is true his or her calculation of self-interest will put the interests of the parent company above those of the JV. If this is true for both boundary spanners, the level of calculus-based trust between them is likely to be very low. However, if both managers identify with the JV, rather than with their respective parent companies, the level of calculus-based trust can be high, as they share an interest in making the JV a success.

Proposition 5: The level of identification with the JV of the employees originating from both parent firms will positively affect the assimilation within the JV of knowledge coming from one of the parent firms.

Identification with the JV (as opposed to parent firm) as a source of trust can be operationalized by asking partner boundary spanners within the JV about their expectation as to the length of their involvement with the JV and the extent to which they expect their further career to depend on the success of the venture.

As far as knowledge-based trust is concerned, it does not seem to be meaningful to formulate a separate proposition pertaining to reputation at the level of individuals interacting in the JV. The reputation of the parent company, on which Proposition 2a focuses, will to a certain extent be projected onto the individual employees of both partners working in the JV, however, this is not an independent effect that should be subject to a separate proposition. In contrast, interpersonal interaction processes within the JV may be regarded as relatively independent of those between the parent companies, despite their mutual influences (see, e.g., Doz, 1996; Arino & De la Torre, 1998). The same dimensions of interaction processes as at the interorganizational level may be assumed to be relevant at the managerial level, hence:

Proposition 6: Lengthy intensive and/or risky interaction processes between JV employees originating from the parent firms over time will positively affect the assimilation within the JV of knowledge coming from one of the parent firms.

In the case of a JV, the role of managers and others staff originating from different parent companies comes to focus. The number of expatriate managers delegated to IJV has been found to be positively related to the amount of knowledge acquired by the locals (Lyles & Salk, 1996). Moreover, it has been argued that expatriates serving in the IJV over time may support the creation of context of trust and information sharing (Hedlund, 1994). For the operationalization issue we refer to the discussion following Proposition 2b.

In case of similarity-based trust, at the level of individual boundary spanners an argumentation comparable to that at the level of the parent organizations is valid. The more

similar individuals are, in terms of demographic characteristics and personality, educational backgrounds or positions they hold in their respective organizations, the more positive attitudes and thus favorable outcomes are going to follow (McGuire, 1968). Hence, the more in common they have, the more similarity-based trust between personnel originating from the parent companies interacting in the JV can be expected.

Proposition 7: The level of similarity of key JV employees originating from both parent firms will positively affect the assimilation within the JV of knowledge coming from one of the parent firms.

In terms of operationalization, demographic characteristics can easily be measured and may for that reason be preferred over personality characteristics.

Finally, institution-based trust within the JV finds expression in confidence in conflict resolution procedures and equity of decision-making processes. These are expected to promote procedural justice, the fairness of procedures and policies for dealing with the partner (Kumar, 1996). Research on procedural justice has found that it has a positive impact on higher-order attitudes (Kim & Mauborgne, 1998); trust in particular (Konovsky & Pugh, 1994). Sullivan, Peterson, Kameda & Shimada. (1981) found the way in which conflicts are settled to be related to trust. If the partner delegates to the JV believe that good conflict resolution procedures exist, it will be easier for them to engage in trusting behavior in their interactions. For conflict procedures to be relied upon, they must be institutionalized within the JV as the correct and standard way to deal with conflicts.

Proposition 8: Institutionalized procedural justice procedures within the JV will positively affect the assimilation within the JV of knowledge coming from one of the parent firms.

The institutionalization of procedural justice in the JV can be gauged with items adapted from the procedural justice literature (Kim & Mauborgne, 1998; Konovsky & Folger, 1991).

The two sets of propositions, those pertaining to the transfer of knowledge and those pertaining to the assimilation of knowledge, can be linked, as assimilation of knowledge only then may be assumed to take place when there, in fact, is something to be assimilated. If no knowledge gets transferred from one of the parent firms to the JV, trust between JV managers will have no effect on knowledge assimilation. Hence:

Proposition 9: The extent of knowledge transfer from the parent companies to the JV, ceteris paribus, positively influences the knowledge assimilation within the JV.

Figure 2 summarizes the conjectures of this paper.

Insert Figure 2 about here

Application of the model

The propositions developed in this paper can be tested on a sample of joint ventures, preferably in an international context, in order to generate variation in institutional environments. The operationalization of the dependent variable, organizational learning, may pose problems in empirical research, as it is debatable whether this is an observable phenomenon, that is, whether learning always finds reflection in organizational change. Two distinct approaches to the relationship of learning and organizational change seem to be pronounced in the literature. The first implies that learning constitutes an increase in the stock of knowledge that will be activated whenever it becomes necessary (e.g. Huber, 1996; Villinger, 1996). Thus, though learning might have taken place, no change in behavior may be observed. According to Argyris & Schon (1996) learning can be qualified as such when it is “accompanied by changes in behavior that signify changes in organizational theory-in-use and when they are embodied in the individual images that store organizational knowledge”. The first element can be observed, while the latter not readily so.

In the second approach learning is assumed to find reflection in improved actions and modified routines through enhanced knowledge and understanding every time it takes place (Fiol & Lyles, 1985; Levitt & March, 1996). Greve (1998) argues that “an organization learns when its experience results in behavioral changes”. Thus this approach assumes the learning to be demonstrated in a behavioral change. We propose that the latter approach is adopted as a basis for operationalizing organizational learning as a change in the organization’s actions.

We have argued that the learning process is composed of knowledge transfer and assimilation, and consequently developed propositions concerning the effect of different sources of trust on each of the subprocesses. To test the validity of the propositions, therefore, it is necessary to find appropriate proxies for each of the subprocesses. This is not an easy task. For each process both objective and perceptual measures can possibly be used. However, developing objective proxies poses a challenge. This is especially the case for knowledge assimilation. For knowledge transfer, however, ideas for some objective measures may be inferred from the literature. Lyles & Salk (1996) found a strong support for the hypothesis that training programs constitute an efficient mechanism of knowledge acquisition. Also, the degree to which the knowledge contributions of the parents are explicitly ex ante specified is likely to lead to more knowledge transfer (Lyles & Salk, 1996). Knowledge transfer can also be measured with the technological input of the foreign partner into the JV, like for example the number of product licenses. As for the contribution of the local partner, the knowledge transfer into the IJV could be proxied with the extent to which the IJV relies on the local partner’s distribution network. Similarly, the number of marketing or sales staff delegated into the IJV from the local parent company is likely to affect the amount of knowledge transferred into the IJV.

CONCLUSIONS

It was our aim to conceptually analyze the role of trust in interorganizational learning in strategic alliances. Our basic argument is that trust has a significant effect on learning between partnering organizations. We argue that trust, through its influence on intent to learn and transparency will be a significant underlying variable affecting the learning outcome in a JV context. Within the interorganizational learning process we delineate the sub-processes of knowledge transfer and knowledge assimilation and relate them to trust at the organizational and individual levels respectively. Rather than on the overall level of trust, we concentrate on the relationship between different sources of trust and the knowledge transfer and assimilation rather than between the overall level of trust and the learning outcome.

The practical implications of our work point to the importance of fostering and preserving trust between JV partners, with the purpose of achieving the desired learning outcome. In specific, we pinpoint sources of trust that are likely to affect the learning. Moreover, we make suggestions as to the possible operationalizations of the relevant variables. Future research should endeavor to test the precepts of the paper empirically. If support for the propositions were provided the managerial implications of the current work would gain in significance and robustness.

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FIGURE 1

Interorganizational Learning Within JVs

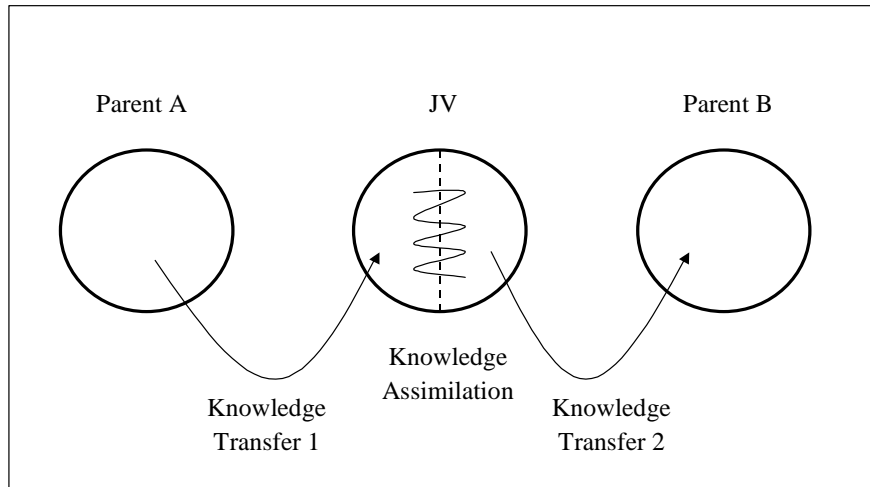


FIGURE 2

Knowledge Transfer and Assimilation Within JVs

