

CONCEPTUAL, OPERATIONAL, AND METHODOLOGICAL CONSIDERATIONS IN STUDYING THE TRUST-PERFORMANCE RELATIONSHIP IN INTERNATIONAL STRATEGIC ALLIANCES: A CRITICAL REVIEW OF EMPIRICAL RESEARCH IN 1994-2009

Abstract

Trust is one of the most widely researched but least understood and most contentious areas of international business. Since the mid 1990s, a growing number of empirical studies have investigated the role of trust in the performance of international strategic alliances (ISAs). The purpose of this study is to conduct a critical review of empirical research published between 1994 and 2009 on the performance effects of trust in international strategic alliances to investigate the trust-performance relationship (performance effects of trust) by evaluating the current conceptualization and operationalization of core constructs of trust and performance along with the methodologies used. The review of 20 selected studies confirms the positive effect of trust as a driving force in sound ISA performance. However empirical research on the trust-performance relationship is beset by differences in the conceptualization and operationalization of core constructs of trust and performance, and presents an equivocal (direct\indirect) trust-performance relationship. Several implications for future research are derived from this analysis. We suggest researchers concentrate on conceptual, operational, and methodological issues in studying trust-performance relations, and should go one step further to focus on the contingency view of the trust-performance link to investigate when or where the positive link between trust and performance will become stronger or weaker in the context of ISAs.

Keywords: International strategic alliances; Trust; Conceptualization; Operationalization; Performance

Type of paper: Competitive paper

Conceptual, operational, and methodological considerations in studying the trust-performance relationship in international strategic alliances: A critical review of empirical research in 1994-2009

INTRODUCTION

In the past decade, research on international strategic alliances (ISAs) has continued to attract the attention of international business scholars in light of the popularity of ISAs (Beamish & Killing, 1997; Contractor & Lorange, 2002; Reuer, 2004). ISAs refer to the inter-firm cooperative arrangements aimed at achieving the strategic objectives of the partners (Das & Teng, 2000). There are many types of strategic alliances, including horizontal alliances between competitors, vertical alliances between buyers and suppliers, and diagonal alliances between firms in different industries (Nootboom, 1999). Examples of ISA include outsourcing, franchises, joint ventures, joint product development, joint research and development, and joint marketing arrangements.

In spite of ISAs' popularity, there is consensus that the majority of these arrangements fail to achieve their set objectives, leading to premature dissolution (Kasuser & Shaw, 2004; Meschi & Riccio, 2008). In response to this unsatisfactory ISA performance, an increasing flow of contemporary research has asserted the importance of creating trust between ISA partners (Kausser & Shaw, 2004; Lin & Wang, 2008; Nielsen, 2007; Robson, Katsikeas & Bello, 2008).

Due to the importance of trust to ISA performance, the conceptualization and operationalization of trust and ISA performance, and their internal links are critical issues in IB research (Robson et al. 2008). Previous reviews (e.g., Robson, Skarmas & Spyropoulou, 2006; Zaheer & Harris, 2006) of

empirical work dealing with performance effects of trust attempt to gain insights into the nature of this link, but paradoxically, lack comprehensive evaluations of the conceptualization and operationalization of trust. Further, they largely ignore the performance measures employed in empirical research on performance effects of trust. There is a need to acquire a deeper grasp of the limited, but growing body of empirical work, to understand and take stock of the current state of the field.

In the light of the above reflections, this paper aims to provide a critical review of empirical research on the trust-performance relationship in ISAs. An additional goal is to critically analyze the conceptualization and operationalization of core constructs of trust and performance along with the methodologies used to direct the future research and theory development. By addressing these objectives, the paper offers a clear contribution to the present stock of knowledge on the performance effects of trust in international strategic alliances and directs future research and theoretical development. Key aspects of our contribution are noteworthy. First, unlike previous reviews, we focus simultaneously on the conceptualization and operationalization of core constructs of trust and alliance performance along with the methodologies used in studying the trust-performance relations. Second, our critical review covers the previous and current empirical research on trust-performance relations 1994-2009 to reflect the state-of-the-art in this field of research. Third, to make the study comprehensive, we not only identify the performance effects of unidimensional trust, but also performance effects across different levels and dimensions of trust.

To analyze the performance effects of trust, the structure of the paper is as follows. The second section focuses on a review of the approaches and methodologies used in the measurement of trust drawn from the pertinent research. In the third section, the

performance measures used are discussed. The fourth section provides an analysis of the performance effects of trust. Finally, the conclusion and directions for future research are presented in the fifth section.

A REVIEW OF APPROACHES AND METHODOLOGIES USED IN THE MEASUREMENT OF TRUST

The following sections provide a critical review of the results of 20 empirical studies published between 1994 and 2009 on trust in the context of ISAs. In order to provide a critical review of trust, a search and selection procedure had to be defined. We searched for articles in international journal databases (ABI\inform, Science Direct, EbscoHost, Emerald, and Jstor) and in edited books (Beamish & Killing, 1997a, 1997b, 1997c; Contractor & Lorange, 2002; Reuer, 2004; Bachmann & Zaheer, 2005; Arino & Reuer, 2006) published between 1994 and 2009. This direct search was combined with a snowball approach based on references and citations to find further significant and impactful studies, and led to a total of 109 articles. We used the timeframe of 1994-2009, because the mid 1990s saw a major shift toward empirical research focusing on trust-performance relationships in ISAs. Finally, we selected 20 empirical studies for deeper analysis. The selection criteria the studies were to meet were: (a) to be empirical in nature so that analysis is based on primary and/or secondary data along with a time line of 1994-2009; (b) to examine the performance effects of trust; (c) to exclusively focus on trust (in contrast to the vast number of studies treating trust as a broader part of relational capital); (d) to examine trust between organizations as opposed to trust inside an organization.

Although all studies reviewed meet the defined selection criteria, they differ considerably in their samples, applied methodologies, and the conceptualization and operationalization of trust in vertical

and horizontal business relationships, that is, in buyer-seller relationships, or cooperative and equity joint ventures (see table 1).

*INSERT TABLE 1 HERE FOR LOCATION CONTEXT, FOCAL ORGANIZATION PERSPECTIVES, INDUSTRY
CONTEXT, METHODOLOGY, AND ANALYSIS METHODS*

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Location context, focal organization perspective and cross-national trust variations

The home countries/regions most commonly studied in the trust-performance literature were the Triad Nations of developed countries (the U.S: 9 studies, Japan: 7 studies, the U.K: 4 studies). Most studies investigated inter-partner trust related decisions from the U.S (8 studies), Japan (6 studies), and the U.K (4 studies). Some studies have also investigated trust related decisions from other countries like Hong Kong, Denmark, or have focused on multiple countries worldwide (e.g. Luo, 2002).

The host countries and regions we found to be most commonly studied are China (6 studies) and Europe (4 studies), followed by the U.S (2 studies), and Japan (2 studies). Further most studies investigated inter-partner trust related decisions from China (5 studies), followed by the U.S and India. Studying the role of trust between ISA partners becomes important because of increasing environmental dynamics and cultural distances between these home and host countries or regions. Table 1 lists the location context and focal organization perspective of the reviewed studies.

Nine of the 20 studies (45 percent) were conducted on DC-DC with a focus on the three geographical regions of Asia, America, and Europe (5 studies), two regions of America and Asia (3 studies), and within Europe (Selnes & Sallis, 2003). Eight of the 20 studies

(40 percent) concentrated on DC-TE with focus on China (6 studies), India (Krishnan, Martin & Noorderhaven, 2006) and Hungary (Lane, Salk & Lyles, 2001).

Regarding the emerging interest in “cross-national trust variations”, Luo (2002) argued that cultures shape the development of trust. Aulakh, Kotabe and Sahay (1996) found that the U.S firms’ partnerships in Asia and Europe are characterised by higher levels of trust than those in Central or South America. Dyer and Chu (2003) found that supplier’s trust is significantly higher in Japan than in Korea or the United States. Sako's (1998) study of the buyer-customer relationships in the automotive industries of Japan, the U.S, and Europe depicts cultural context as giving rise to differences in the effects of trust, a finding echoed by Dyer and Chu (2003). Voss et al. (2006) found that goodwill-based trust has a stronger effect for Japanese relative to the U.S partners. Lin and Wang (2008) studied the Chinese IJVs of Western and Asian partner firms, and found that institutional, geographical, and cultural differences between regions give rise to differences in the constitution of trust and its effects. Wilson and Brennan (2009) found that the basis (contract versus personal trust) for trust varies between the U.K and China. In the context of foreign ISAs operating in US, Muthusamy, White and Carr (2007) found that for ISA managers from the U.S, goodwill-based trust is not significantly related to ISA performance. These works evidence, that cultural differences give rise to differences in trust conceptualization, which may hinder or support the building of a link between trust and performance.

These observed differences in the norms of trust across national cultures call for further studies on comparative inter-country research. To facilitate comparative inter-country research, to increase the generalizability and value of findings, and to compare the findings with the previous studies’ findings, the future research

should first replicate the trust measures from previous studies and then evaluate these measures in the context of the chosen countries through etic or derived etic approaches.

Industries studied

We identified the industries, most frequently investigated in trust-performance relations. The leading industry is the electronics industry, with six studies, followed by the chemicals (5 studies), computers (4 studies), and automobile (3 studies) industries. To strengthen confidence in the generalizability of findings, ten of 20 studies focus on multiple industries. Table 1 lists the industries studied in trust-performance relations.

These findings emphasize the fact that trust-performance studies have used a broad array of samples, thereby validating the importance of the trust construct across a wide variety of industries. These findings make trust an even more essential ingredient for ISA success from technology-intensive industries to more traditional industries. Future research should verify trust-performance relations in cross-industry comparisons between high-tech and low-tech industries based on perceived behavioural and environmental uncertainties in these industries.

Samples, data collection, and analysis methods

Study samples range from 20 up to 1415 alliances with an average sample of 266 cases. Three studies (Inkpen & Currall, 1997; Voss et al. 2006; Wilson & Brennan, 2009) use a relatively small sample (<100 cases), whereas in a great majority (17 of 20 studies) the sample size exceeds 100 cases. Studies using a small sample size beg the question of the generalizability of findings, as none of analyzed studies purely focused on the dynamic process of trust. The data for the studies was collected via mail surveys (3 studies),

field surveys (3 studies), mail survey and interviews (11 studies), interviews (2 studies), and web survey (1 study). The response rates for mail surveys varied from 18% to 70% with an average response rate of 37 percent. Further, 18 studies (90 percent) collected cross-sectional data, except two studies (Jap & Anderson, 2003; Lane et al. 2001), which collected quantitative data from more than one point in time. In all studies, primary data was collected for trust conceptualization. Given the difficulties associated with objective financial measures of ISA performance, only three studies use secondary data for performance measurement.

Twelve of the 20 studies collected data from one side of the alliance, six studies collected data from both partner organizations, one study (Lin & Wang, 2008) collected data from IJV managers, and one study (Ng, Lau & Nyaw, 2007) collected data from the IJV organization and Chinese partners of the alliance. Collecting data from both sides not only reduces common method variance caused by single source bias, but also provides more information with which to triangulate the findings.

The statistical methods most commonly used in trust-performance research are multiple regression analysis (7 studies), followed by structural equation modeling (6 studies). These types of analyses are logical for studies looking at trust-performance relations where trust dimensions can be treated as independent variables and performance as a dependent variable. Other statistical methods used are hierarchical regression analysis (5 studies) to study the effects of moderating variables and different levels of trust, OLS regression analysis (2 studies), Ordered probit regression (1 study), and ANCOVA (1 study). Table 1 lists the sample size, data collection instruments, focal organization perspective, and statistical methods used for data analysis.

Trust conceptualization

Trust has long been acknowledged in the disciplines of psychology, sociology, social psychology, and economics. Researchers from different disciplines occupying different turf have extended the conceptualization of trust into the context of strategic alliances. Economists tend to view trust as either calculative or institutional, psychologists commonly frame their assessment of trust in terms of the attributes of trustors and trustees and focus upon a host of internal cognitions that those personal attributes yield; sociologists often find trust in socially embedded properties of relationships between people or institutions (Zucker, 1986). Parkhe (1998) sheds light on the concept of trust and argues that in the context of alliances, trust is seen to have important psychological, sociological and economic properties simultaneously.

These “inter-disciplinary conceptualization of trust” concerns triggered research efforts to define trust, and operationalize it for empirical work. Usually, these efforts focused on developing different dimensions of trust, but a consensual definition of trust remained elusive. Table 2 shows that critical components in trust definitions are; expectations (7 studies), willingness (5 studies), vulnerability (8 studies), and implicitly expressed “uncertainty”. These findings confirm the earlier evidence of common elements in trust definitions provided by the reviews of Rousseau et al. (1998), and Li (2007). Li (2007) concludes that trust literature seems to converge towards two necessary conditions (uncertainty, vulnerability), and two functions (expectations of being trustworthy, willingness to trust) in most trust definitions. Further, there is no consensus on specific dimensions of trust. Table 2 validates this abundance. A recent review by Seppanen et al. (2007) also concludes that the number and content of trust dimensions is yet to be agreed upon.

Given the heterogeneity in trust conceptualization, a clear distinction can be made between those studies that took a unidimensional approach to the conceptualization of trust (13 of 20 studies), and those studies (7 of the 20 studies) that treat trust as multidimensional. Given the fact that trust is intrinsically complex and multifaceted (Lewicki & Bunker, 1996), research on trust in the context of inter-firm relationships has predominantly emphasised expectations regarding another's goodwill (8 studies), reliability (3 studies), competence (3 studies), integrity (2 studies), contractual trust (1 study), and extent that trust is calculative (1 studies).

Regarding the theoretical roots in trust-performance empirical work, TCE was used in 12 studies, followed by social exchange theory (8 of 20 studies). In five studies, TCE and SET (social exchange theory) were used together. These empirical attempts combining social exchange theory with TCE encourage researchers to grasp the richer more multidimensional nature of trust. Trust has not traditionally been a focal concept in transaction cost economics (Williamson, 1975). The central premise of transaction cost economics is minimization of transaction costs as performance criteria. The basic rationale behind using transaction cost theory in trust research is that trust potentially reduces transaction costs (Williamson, 1993) and increases benefits by lowering opportunism, uncertainty, bounded rationality, and asymmetric information. However, this economic approach to trust overlooks social elements, ethical norms and higher levels of trust, and merely emphasizes calculations (calculative trust). In turn, social exchange theory focuses on developing higher levels of trust in social exchange relationships where one party voluntarily provides a benefit to another, invoking an obligation of the other party to return the favour. Over time, trust between the two parties develops through reliable performance (i.e., by reciprocating benefits received from others) and through gradual expansion of exchanges (Blau, 1964). The basic rationale behind using social exchange

theory in trust research is that high levels of trust, that is, goodwill trust, competence trust, and integrity trust develop over time through reciprocity.

These two theories complement each other to grasp richer more multidimensional nature of trust. TCE minimizing the value of trust to mere calculation and a focus on market forces alone may not be adequate to study the effects of higher levels of trust on alliance performance, as a higher level of trust and its development has its roots in social exchange theory. As a result, combining these two theories provides an appropriate theoretical base for the analysis of the impact of multi-dimensional trust on the ISA performance, including the development of trust, and its antecedents.

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INSERT TABLE 2 HERE FOR THE THEORETICAL APPROACHES, CONCEPTUALIZATION, DIMENSIONS, LEVELS, AND OPERATIONALIZATION OF TRUST

Operationalization of trust

For all the diversity surrounding the conceptualization of trust, it is its operationalization that is of more importance to the generalizability of the studies. Trust-performance relations depend not only on fully understanding theoretical mechanisms but also on improving the way core constructs are measured (Robson et al. 2008). The studies analyzed present as many measures of trust as they have authors, which is partly due to the diverse conceptualizations of trust and differences in the theoretical bases chosen. With one exception (Lane et al. 2001), all studies have employed multiple-item measures to operationalize trust. Further, the construct of trust was measured in two ways in our sample of studies: integrated trust measures for a unidimensional trust construct, and separate trust measures for each dimension of trust. Thirteen studies developed integrated trust measures for a unidimensional construct of trust, which are narrow in scope to

simultaneously tap the pivotal facets of trust. In the remaining seven studies, separate measures for each dimension of trust were developed to capture the complex multifaceted nature of trust.

All studies operationalizing trust as a multi-dimensional construct originate after 1997, showing increased interest in developing separate measures for each dimension of trust. Further, studies have developed their own trust measures; no single study completely replicated the trust measures from previous studies. In table 2, three studies partially replicated trust measures from previous studies. Krishnan et al. (2006) borrowed two items from Aulakh et al. (1996) study and Luo (2002; 2008) borrowed trust items from Inkpen and Currall (1997) study.

To develop a more coherent theory of trust in ISAs, future studies should take a multidimensional approach to the conceptualization of trust, develop separate measures for each dimension of trust, and borrow the trust measures from previous studies by validating their applicability in the current context for comparisons of results across industries and across countries.

Level of analysis and key informants

The relevance of the distinction between inter-organizational trust measured at an individual level and at an organizational level is an important issue. The work of Zaheer et al. (1998) is a paradigm in this matter. They assess inter-personal trust and inter-organizational trust as distinct constructs having different consequences. Seventy five percent of studies (15 of the 20) measure trust on an inter-organizational level, ten percent (2 of the 20) studies measure trust on an inter-personal level, and three studies measure trust on both inter-personal and inter-organizational levels.

Further, all studies collected data from a single key informant, as

none of analyzed studies collected data from multiple informants. The use of a single key informant on the topic of inter-personal trust is justifiable, but use of a single key informant on questions of inter-organizational trust is obviously challenging. The reliance on a single key informant for inter-organizational trust can be problematic from the point of view of validity. An individual asked to give information about organizational level issues, may respond in terms of personal perceptions, opinions, and feelings, which may be subjectively considered commonly shared views, in other words the informant is making a subjective generalization. So, for inter-organizational trust, multiple informants should be used, and their competency and experience should be assessed thoroughly (Currall & Inkpen, 2002; Medlin & Quester, 2002). Further, all the studies analyzed collected data from upper management for inter-personal and inter-organizational trust, thus supporting Zaheer, Lofstrom and George's (2002) findings that trust is more important at the level of upper boundary-spanners than at lower hierarchical levels.

PERFORMANCE MEASUREMENT

There is a growing interest in building trust in terms of determining the performance effects of trust. If a company that is involved in a relationship wants to succeed, besides acknowledging the elements that will contribute to success, it has to know how to measure performance. The analyzed studies have used a variety of performance measures.

Subjective measures of performance

In view of the difficulties associated with financial and objective measures of ISA performance, several studies have advocated the use of subjective measures of performance. All the reviewed studies (see table 3) collected primary data for subjective measures of performance, and measured performance in the following three

ways 1) perceived performance\effectiveness assessment 2) satisfaction with ISA\partner firm 3) efficiency and responsiveness.

Perceived performance\effectiveness assessment

The most commonly used and most heterogeneous subjective performance measure in the studies is that of assessment of perceived performance and \ or effectiveness. It is the extent to which desired private or common ISA goals are achieved (Robson et al. 2008). The assumption underlying this measure is that partners join an ISA to achieve their strategic objectives by complementing each other's goals. When such goals clearly exist, measures such as overall satisfaction with alliance performance may be unable to accurately capture the success of an ISA.

Seventy percent (14 of 20) of the studies use a perceived effectiveness assessment. Aulakh et al. (1996) measure alliances perceived performance or effectiveness in terms of sales growth, and market share relative to competitors in the market. Sako (1998) measures supplier's perceived performance in terms of supplier's costs, profit margins, just in time delivery, and joint problem solving. Nielsen (2007) measures ISA perceived performance in terms of relational equity, financial performance, learning, and efficiency. Robson et al. (2008) measures ISA perceived performance along with the efficiency and responsiveness. Other studies (e.g., Inkpen & Currall, 1997; Jap & Anderson, 2003; Kauser & Shaw, 2004; Lane et al. 2001; Luo, 2008; Mohr & Spekman, 1994; Muthusamy et al. 2007; Ng et al. 2007; Selnes & Sallis, 2003; Voss et al. 2006) have also used perceived performance or effectiveness assessment as performance measure to cover the various objectives of the ISA parents.

Although this measure is the most commonly used measure in trust-performance relations in ISAs, a common criticism of parents'

different weighing of important goals, can be overcome by examining the evaluation of managers from both sides of the ISA, and also including newly formed organizations in the case of IJVs (e.g., Jap & Anderson, 2003; Luo, 2008; Ng et al. 2007; Selnes & Sallis, 2003).

Satisfaction with ISA\partner firm

Satisfaction is an important consequence of inter-firm exchange, and is based on the notion that success is determined, in part, by how well the partnership achieves the performance expectations set by the partners (Anderson & Narus, 1990). Partners' satisfaction with the ISA overall or the partner firm performance has been reviewed in six studies (30 percent). Mohr and Spekman (1994) consider the effects of dealers' trust in their manufacturer on the dealers' satisfaction with the manufacturer in terms of the manufacturer's support and profit. Luo (2001) study the effect of trust between IJV general managers on the satisfaction levels in the IJV along with the objectively measured financial performance of the IJV. Other studies (e.g., Kauser & Shaw, 2004; Krishnan et al. 2006; Lin & Wang, 2008; Wilson & Brennan, 2009) also use managers' subjective evaluation of ISA\partner firm performance.

Further, a common criticism that satisfaction might be differently perceived by different respondents can be overcome by simultaneously sampling multiple respondents, including managers from both partners. For example, two studies (Lin & Wang, 2008; Luo, 2001) collected data from both sides, but they did not collect it from multiple informants.

INSERT TABLE 3 HERE FOR PERFORMANCE MEASUREMENT, AND PERFORMANCE EFFECTS OF TRUST

Efficiency and responsiveness

Another advanced concept to gauge the level of ISA performance is

efficiency and responsiveness. Efficiency is the ratio of performance outcomes achieved to the resources consumed or the ratio of effective or efficient procedures to the lower operation costs (Nielsen, 2007), and responsiveness is the ability of the ISA to adapt to environmental change (Robson et al. 2008). The use of efficiency as a performance measure is a fine-grained approach, as the tendency of researchers to employ a general performance measure that asks the informant to make an overall assessment of the firm's satisfaction or perceived effectiveness of the ISA may not adequately accommodate efficiency (Robson et al. 2008).

In two studies (Nielsen, 2007; Selnes & Sallis, 2003) efficiency has been used, whereas in the work of Robson et al. (2008) both effectiveness and efficiency were used to measure ISA performance, thus giving breadth to the range of performance dimensions.

Objective measures of performance

Subjective measures of performance like learning; relational equity, honesty, and acquisition of managerial skills are less likely to be measured objectively, while financial outcomes are easily measured objectively. The following section discusses the objective financial outcomes used to assess ISA performance in the studies analyzed.

Financial outcomes

Financial outcomes are efficient measures of ISA performance. Given the deficiency of respondent biases in collecting primary data, the recent research has begun to collect secondary data to investigate the effects of trust on financial outcomes. Luo's (2002) study measured financial performance on ROI and SPA while linking them to trust. Dyer and Chu's (2003) study measured financial performance on ROA while linking it to trust. Lastly,

financial measures are not only used independently but also used along with the assessment of satisfaction with ISA performance (Luo 2001). Research exists that confirmed the high correlation of financial measures with assessment of satisfaction with ISA performance (e.g., Choi & Beamish 2004). Such integration increases the validity of these measurements and makes result robust.

PERFORMANCE EFFECTS OF TRUST

A growing body of research is concentrating on linking trust to performance. The precise form of the performance effects of trust varies quite considerably. Some researchers emphasize direct outcomes; others examine more complex, indirect effects (see table 3). Forty five percent of the studies (9 of the 20) find exclusively direct effects of trust on performance, forty percent (8 of the 20 studies) find exclusively indirect effects of trust on performance, and ten percent (2 of the 20 studies) find both direct and indirect effects of trust on performance.

The progress of specifying the different levels and dimensions of trust has promoted the current research investigating the performance effects across different levels and dimensions of trust. Of the 15 studies measuring trust on an inter-organizational level, eight studies find a direct, five studies find an indirect and two studies find both direct and indirect effects of inter-organization trust on alliance performance. In contrast, of the two studies measuring trust on an inter-personal level, one study finds a direct and one study finds an indirect effect of interpersonal trust on alliance performance. Further, almost two-thirds of the studies (13 of the 20) examine the unidimensional construct of trust's effect on performance, and one-third (7 of the 20) examine the multidimensional construct of trust's effect on performance.

Direct effects of trust

Research on trust in the context of an ISA has predominantly emphasized the direct positive effects of a unidimensional construct of trust on the number of performance outcomes, such as satisfaction with profit (Lin & Wang, 2008; Kauser & Shaw, 2004; Mohr & Spekman, 1994; Wilson & Brennan, 2009) and relational outcomes (Kauser & Shaw, 2004; Lin & Wang, 2008; Wilson & Brennan, 2009). Further direct effects of trust have been found on the achievement of financial objectives (Kauser & Shaw, 2004; Ng et al. 2007; Luo, 2008) and of non-financial objectives (Lane et al. 2001; Ng et al. 2007; Voss et al. 2006).

Given the fact that trust is intrinsically complex and multifaceted (Sako, 1998), this raises the important question of which dimensions of trust affect performance outcomes. In the following section, the positive direct effects of several trust dimensions (competence, goodwill, and identification-based trust) on performance are discussed in light of the subject studies.

Competence trust: Competence trust is whether the other party is capable of doing what it says it will do (Sako, 1998). This form of trust has also been referred to as ability-based trust (Muthusamy et al. 2007). The recent study by Muthusamy et al. (2007) finds that competence trust has a direct positive effect on the achievement of financial goals. Based on the fine-grained findings of this study, future research should further enrich the competence trust link to performance.

Goodwill trust: Goodwill trust is the extent that an exchange partner will look out for another's best interests (Sako, 1998). Variations of goodwill trust include normative trust, benevolence, effect-based trust, and relational trust. Sako (1998) found that goodwill trust has a direct effect on learning and continuous improvement. Nielsen

(2007) finds that goodwill trust is directly related to relational equity, financial performance, and efficiency. Findings of these two studies support the concept of goodwill as a dimension of trust that has a direct relationship with performance.

Identification-based trust: Identification-based trust refers to the confidence arising from the understanding that full internalization of each other's desires and intentions has been achieved. A shared identity, mutual understanding, and friendship are central to identification based trust (Lewicki & Bunker, 1996). Luo (2001) finds that personal attachment (identification based trust) has a direct positive association with international cooperative alliance (ICA) process performance and ROI. Additional research that clearly develops the construct of identification based trust (see e.g., McAllister, Lewicki & Chaturvedi, 2006) and explores its relations with performance would be valuable.

Indirect effects of trust

In addition to investigating the direct effects linking trust to performance, research has also investigated the more complex indirect relationship between trust and performance. Researchers have identified moderating and mediating variables that strengthen, or weaken the positive effect of trust on performance. Aulakh et al. (1996) discover that asset specificity moderates the relationship between inter-organizational trust and performance, suggesting a stronger trust-performance link when asset specificity increases. Jap and Anderson (2003) found that rising ex-post opportunism decreases the positive effects of inter-personal trust on ISA performance. Krishnan et al. (2006), in their study of 126 Indian SAs, find that benefits that alliances derive from inter-organizational trust diminish when environmental uncertainty is high, suggesting that at an extreme level of environmental uncertainty, trust may even have a detrimental effect on alliance

performance. Robson et al. (2008) discover that alliance size moderates the relationship between trust and performance, suggesting a stronger trust-performance link when alliance size is small than when it is large. In addition to moderating variables, researchers have also identified the mediating variables of trust-performance relations. Inkpen and Currall (1997) found that unidimensional trust has an indirect effect on performance mediated by forbearance. Voss et al. (2006) found that competence trust and goodwill trust have an indirect effect on performance when mediated by quality of information exchange. Regarding the moderating role of trust, Ng et al. (2007) found that inter-organizational trust increases the explanatory power of the local reliance variable of financial and non-financial goals.

Finally, although most of the studies reviewed indicated the performance enhancing effects of trust, trust does not always result in a positive outcome. Selnes and Sallis's (2003) study focused on a downside of inter-organizational trust in ISAs. They found that positive performance effects of relationship learning level off, and eventually diminish, under high levels of trust. Given the fact that most research focuses on the positive outcomes of trust, studying the downside of trust, including the lock-in from unproductive high-trust relationships is an important avenue for future research.

INSERT FIGURE 1 HERE FOR DIRECT AND INDIRECT EFFECTS OF TRUST ON PERFORMANCE

CONCLUSIONS AND DIRECTIONS FOR FUTURE RESEARCH

This paper provides a critical review of the empirical research on trust-performance relations in ISAs from 1994-2009 by focusing on the conceptualization and operationalization of trust and ISA performance. We have also identified trends in terms of the

theoretical approaches used, sample size and location, industries studied, and statistical methods used. The review confirms the positive effect of trust as a driving force behind sound ISA performance. Although most of the studies reviewed indicated, at least implicitly, the performance enhancing effects of trust, a few studies also discuss when and / or where trust enhances the performance of an alliance? (e.g., Aulakh et al. 1996; Luo, 2002; Krishnan et al. 2006; Selnes & Sallis, 2003). Conditions posed by contingency factors are crucial in determining whether or not the positive link between trust and performance will become stronger or weaker in the context of ISAs. Accordingly, more emphasis placed on the contingency view of the trust-performance link will substantially contribute to the trust-performance literature.

However, progress in specifying the trust-performance relationships depends not only on mere emphasis on a contingency perspective, but also on improving the way core constructs are conceptualized, operationalized, and the methodology applied. There are unresolved theoretical, conceptual, operational, and methodological issues hindering the development of a cumulative body of research on trust-performance relations. In the following, we conclude, and present some suggestions that can enrich trust-performance research by filling important gaps in the literature.

From the perspective of conceptualization: Firstly, research on trust in the broad alliance literature is fragmented and lacks cohesion, resulting in a variety of treatments such as unidimensional constructs, or multidimensional constructs. Future research should focus on using different dimensions of trust to grasp the intrinsically complex and multifaceted nature of trust. This shift in emphasis will help researchers to identify which dimensions of trust affect ISA performance. Secondly, there has been a shift towards combining and integrating theories, especially transaction cost economics and social exchange theory (e.g., Luo, 2008; Robson et

al. 2008; Sako, 1998). This is potentially encouraging researchers to grasp the multi-dimensional nature of trust. Thirdly, there is an emerging consensus about the two necessary conditions (uncertainty and vulnerability), and two functions (expectation and willingness) of trust in most trust definitions (see e.g., Li, 2007; Rousseau et al. 1998). Thus, as also referred e.g., Muthusamy et al. (2007) future research should include the referred dimensions of trust in their trust definition.

From the perspective of operationalization: Firstly, there has been a shift from developing integrated trust operational measures to looking at developing 'separate multiple operational measures' for each dimension of trust. This shift is encouraging a better understanding of the properties of each dimension of trust (see, e.g., Robson et al. 2008). Secondly, there seems to be a tendency for each researcher to develop fresh trust measures, as there are currently no globally operational measures of trust. However, to bring the previous studies' findings into the broader research stream for comparison with the current research findings, trust measures should be borrowed from previous studies, and their validity verified in the topical context through etic, or derived etic approaches. Thirdly, there seems to be scholarly interest in identifying whether trust conceptualization, constitution, and its effects are culturally specific or universal (see, e.g., Lin & Wang, 2008; Sako, 1998). To establish that, researchers should borrow trust measures from previous studies and assess whether emerging trust conceptualization, constitution, and its effects are unique to one culture, comparable across cultures, overlapping, or completely universal. Fourthly, there has been a shift from single levels of analysis to multiple levels, inspired by the realization that trust-performance relations are affected both by inter-personal and inter-organizational trust. So, future research should develop separate measures for each level of trust. Fifthly, recent research has started incorporating financial measures of ISA performance (e.g., Dyer &

Chu, 2003; Luo, 2001; 2002) along with the subjective measures of ISA performance (i.e. satisfaction with an ISA or partner firm, and perceived performance or effectiveness assessment). Future research should incorporate objective measures of ISA performance along with subjective measures not only to triangulate on the constructs and increase the validity of these measurements, but also to compare the trust impact on objective, and subjective variables.

From the perspective of methodology: Firstly, there has been a shift towards collecting data from both sides of the ISA partnership (see, e.g., Ng et al. 2007). Collecting data from both sides not only reduces common method variance caused by single source bias, but also provides more information with which to triangulate the findings. Secondly, using multiple key informants would appear to enrich the measurement of inter-organizational trust. Thirdly, there has featured a recommendation to shift the emphasis from a static to a dynamic analysis, inspired by the better evidence offered by longitudinal research when used to investigate how trust-performance relations unfold over time.

Beyond this, there are many avenues for future research: Theorists have pointed out the importance of studying the negative consequences of trust, including the lock-in from unproductive high-trust relationships (Gargiulo & Ertug, 2005). Future research should empirically investigate whether high trust leads to poor ISA performance. Further, scholars could investigate whether, in a scenario where one partner's trust is abused, trust can be rebuilt and just what the main antecedents of trust are. Another avenue of research is on the evolution of trust in IJVs (see e.g., Boersma, Buckley & Ghauri, 2003; Styles & Hersch, 2005). Examination of how evolving inter-partner trust effects IJV performance could be a promising area for upcoming research. There is also evidence (see Gomes-Casseres, 1987; Yan & Zeng 1999) that many successful joint ventures make structural changes to adapt to changing external

environments or the internal strategies of their parent firms. Future research exploring the role of trust in IJV structural stability and instability, then, would be warranted. Finally, due to the increasing interest in the study of cultural differences, an examination of how an IJV manager's trust might differ in a European context from an IJV manager's trust in a Chinese context, using a variable such as satisfaction with IJV performance, could help practitioners identify the important of trust for IJV performance in different countries.

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Table 1. Sample Location. Focal Organization Perspective. Industries Studied. Methodology. and Data Analysis

Studies	Sample location [Home country (HMC), Host country (HSC)]	Relationship type	Industries and sectors	Type of Data [primary(P), cross-section (C)]	Data collection instrument [Mail survey (MS), questionnaire(Q), focal org. perspective]	Key informants [single(SI), multiple (MI) informants]	Final Sample [Response rate (RP)]	Data analysis method
Mohr and Spekman (1994)	N. I.	Manufacturers-dealers partnerships	Computer industry	P,C	MS (Q) + interviews. Dealer organization	Managers of dealer org. (SI)	140/557 (25% RP). 124 Usable.	Multiple-regression analysis
Aulakh et al. (1996)	HMC: U.S. HSC: Asia, Europe, and Central/South America	Manufacturers-distributors/licensees relations	Chemicals, electronics, aerospace.	P,C	MS (Q). US manufacturers	Upper-management. (SI)	181 partnerships. 257/652 (39.4 % RP).	Multiple and hierarchical regression analyses
Inkpen and Currall (1997)	HMC: Japan HSC: North America	Manufacturing IJVs	Automotive	P,C	MS (Q) + 62 interviews. North American firms	Manages. (SI)	35/125 IJVs (28 % RP)	(LISREL), OLS regression analyses
Sako (1998)	HMC: Latin Catholic countries, Germany, UK, US, Japan HSC: N. I.	Supplier-buyer relations	Automotive	P,C	MS (Q). Suppliers from Japan, U.S., Europe	Upper-management. (SI)	1415 responses (US, 675, 55%; Japan, 472, 30%; EU, 268, 17 %)	Ordered probit regression
Lane et al. (2001)	HMC: Foreign firms HSC: Hungary	IJVs	Electronics, textile, and food processing	P, longitudinal	MS [(1993; 1996), Q] + interviews. Hungarian side	Upper-management. (SI)	201 IJVs in 1993 and remaining surveying 78 IJVs in 1996.	Multiple regression analyses
Luo (2001)	HMC: Foreign firms HSC: China	Equity manufacturing IJVs	-	P (for trust), secondary (for performance), C	MS (Q) + field interviews + archival sources. Both sides	IJV general managers. (SI)	282/800 responses (35.25 % RP)	Structural equation modeling
Luo (2002)	HMC: US, Europe, Japan, Asia, Canada, Australia HSC: China	Equity manufacturing ISAs	Manufacturing sector	P (for trust), secondary (for performance), C	MS (Q) + field interviews + archival sources. Both sides	IJV general managers. (SI)	255/800 ISAs (31.87 RP)	Moderated Hierarchical regression,
Dyer and Chu (2003)	HMC: United states, Japan, Korea HSC: N. I.	Supplier-automaker relations	Automobile	P (for trust), secondary (for performance), C	MS (Q) + interviews. Suppliers	Sales and engineering vice presidents. (SI)	344 relations (U.S. 135, 66 %); Japan, 101, 68 %; Korea, 108, 55 %)	Regression analysis
Selnes and Sallis (2003)	HMC: Sellers from Scandinavia HSC: Buyers from EU	Customer-supplier relations	Chemical industry	P,C	MS (Q) + 26 interviews. Both sides	Upper-management. (SI)	319/780 customer-supplier relations with RP of 40 %	Structural model
Jap and Anderson (2003)	N. I.	Customer-supplier relations	Photography, PC, chemical equipment, brewery	P, longitudinal	MS (Q) + interviews. Both sides	N. I.	Time 1: [buyers: 275/400 (69%); suppliers: 220/275 (80%)]. Time 2: [buyers: 167/275 (61%); suppliers: 154/220 (70%)].	LISREL, regression analysis
Kauser and Shaw (2004)	HMC: UK HSC: US, Europe, Japan	Equity and non-equity alliances	Financial sector	P,C	MS (Q). British firms	Manages. (SI)	114/450 alliances (25.3 % RP)	Regression analysis
Krishnan et al. (2006)	HMC: 21 countries HSC: India	ISAs (manufacture, jointly develop, or distribute products)	Industrial machinery, chemicals, electronics	P,C	MS (Q) + interviews + archival sources. Indian firms	MDS/chief executives. (SI)	126/700 ISAs (18 % RP)	Ordinary least squares regression analysis
Voss et al. (2006)	HMC: U.S HSC: Japan	Non-equity ISAs	Electronics, computers, and power supply	P,C	Field Survey (Q) + interviews. Both sides	Senior managers. (SI)	97/225 ISAs (43% RP)	Least squares regression analysis
Ng et al. (2007)	HMC: Hong Kong, US, Japan, and Taiwan HSC: China	Manufacturing IJVs	Manufacturing industries	P,C	Field survey (Q). IJV organization, and Chinese companies	IJV CEOs (foreigner, and Chinese firm managers (SI)	298/310 IJV responses, 178/210 responses from Chinese parents	Hierarchical regression analysis
Nielsen (2007)	HMC: Denmark HSC: Europe, North America, and Asia	ISAs (equity JVs, non-equity JVs)	Manufacturing, and service sector	P,C	Web survey (Q) + interviews. Danish firms	MDS or alliance managers. (SI)	120\364 (33 % RP; WE (70), North America (15), Asia (10), and etc.	Multiple regression analysis
Muthusamy et al. (2007)	HMC: Europe, India, China, Singapore, Malaysia HSC: US	ISAs (non-equity, minority equity, IJVs)	Biotech, computers, electronics	P,C	MS (Q) + interviews + archival sources. US firms	CEOs, VPs	156/610 (25.57 % RP). 144 usable	Regression analysis
Robson et al. (2008)	HMC: US, Western Europe, Far East HSC: UK	ISAs (non-equity, equity IJVs)	Manufacturing + service	P,C	Personal interviews. UK firms.	Directors, managers. (SI)	177\342 ISAs (52% RP).	SEM with EQS
Luo (2008)	HMC: US, Europe, Japan, Asia HSC: China	Manufacturing ISAs (equity JVs, contractual)	Manufacturing sector	P,C	MS (Q) + interviews + archival sources. ISA (both sides)	CEOs of ISAs.(SI)	224/650 (34.46 RP); 168/224 (75% RP).	SEM, Hierarchical moderated regression,
Lin and Wang (2008)	HMC: US, UK, Taiwan, Japan, Hong Kong HSC: China	IJVs	Manufacturing, service, retailing, trading	P,C	Field survey (Q). IJV managers (Chinese + Asian + Western)	Top level managers. (SI)	500 responses (China, 219; Western, 132; and Asia, 149)	ANCOVA
Wilson and Brennan (2009)	HMC: UK HSC: China	IJVs	Chemical, electronic, transportation	P,C	Semi-structured interviews + archival data. UK firms.	GMs. (SI)	24 interviews from 20 UK-Chinese JVs	Content analysis

N. I. = No information

Table 2. The Theoretical Approaches, Conceptualization, Dimensions, Levels, and Operationalization of Trust

Studies	Theoretical roots	Trust conceptualization	Dimensions of trust	Level of T	Trust operationalization
Mohr and Spekman (1994)	SET	The belief that a party's word is reliable and that party will fulfill its obligation in an exchange.	Not defined	OL	3 items: 1). We trust that the manufacturers decisions will be beneficial to our business 2). We feel that we do not get a fair deal from this manufacturer 3). This relationship is marked by a high degree of harmony.
Aulakh et al. (1996)	TCE, social control, relational norms	The degree of confidence the individual partners have on the reliability and integrity of each other (Morgan & Hunt, 1994).	Reliability, integrity	OL	3 items: 1). Our business relationship with the foreign partner is characterized by high levels of trust 2). Our firm and the partner firm generally trust that each will abide by the terms of the contracting. 3). We and our partner firm are generally skeptical of the information provided to the other.
Inkpen and Currall (1997)	TCE, SET	An individual's behavioral reliance on another person under a condition of risk.	Not defined	IL, OL	-15 items for trust in counterpart IJV manager: informal agreement (4 items), communication (3 items), task coordination (4 items), and surveillance (4 items). -3 items for trust in partner firm.
Sako (1998)	TCE, SET, and psychological perspectives	Expectation held by an agent that its trading partner will be- have in a mutually acceptable manner, including an expectation that neither party will exploit the other's vulnerability.	Goodwill, contractual, competence	OL	-Single item for each dimension of trust: 1. Contractual: We prefer to have everything spelt out in detail in our contract. 2. Competence: The advice our customer gives us is not always helpful. 3. Goodwill: We can rely on our customer to help us in ways not required by our agreement with them.
Lane et al. (2001)	Organizational learning theory	Trust entails having confidence that the other firm will refrain from exploiting your vulnerabilities.	Not defined	OL	Single item was used to operationalize trust.
Luo (2001)	TCE, SET	The degree to which boundary from each party are socially bound through having developed interpersonal relations and interpersonal learning.	Personal attachment (identification trust)	IL	4 items: 1). Extent to which interpersonal relations have been developed to date between each party's boundary spanners since the ICV was formed 2). Extent to which interpersonal relations have been developed between these boundary spanners through previous trade, investments, or negotiations before ICV was formed 3). The extent to which foreign boundary spanners have provided Chinese boundary spanners with needed personal skills and knowledge 4). Extent to which Chinese boundary spanners have provided foreign boundary spanners with needed personal skills and knowledge.
Luo (2002)	TCE, SET	A psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behavior of another (Rousseau et al. 1998).	Not defined	IL, OL	-8 items for interpersonal trust (Inkpen & Currall, 1997) -8 items for inter-organizational trust (Inkpen & Currall, 1997)
Dyer and Chu (2003)	TCE	Trust as one party's confidence that the other party in the exchange relationship will not exploit its vulnerabilities.	Reliability, fairness, goodwill	OL	3 items: 1). The extent to which the supplier trusts the manufacturer to treat the supplier fairly 2). The extent to which the automaker has reputation for trustworthiness in the general supplier community 3). If the given chance, the extent to which the supplier perceives that the automaker will take unfair advantage of the supplier.
Selnes and Sallis (2003)	Organizational learning theory	The perceived ability and willingness of the other party to behave in ways that considers the interest of both parties in the relationship.	Relational trust (high level of trust)	OL	5 items: 1). I believe the other organization will respond with understanding in the event of problems 2). I trust that the other organization is able to fulfill contractual agreements 3). We trust that the other organization is competent at what they are doing 4). There is general agreement in my organization that the other organization is trustworthy 5). There is general agreement in my organization that the contact people in the other organization are trustworthy.
Jap and Anderson (2003)	TCE, relationship marketing, Agency theory	Trust is the willingness of a party to be vulnerable to the actions of another party based on the expectation that other will perform a particular action important to the trustor, irrespective of the ability to monitor or control that other party.	Not defined	IL	5 items: 1). Our promises to each other are reliable, 2). We are very honest in dealing with each other, 3). we trust each other, 4). We would go out of our way to help each other out, 5). We consider each other's interests when problems arise. (Jap, 1999)
Kauser and Shaw (2004)	Resource dependence theory, TCE	Not defined	Not defined	OL	11 items: 1). Partner trusted to show loyalty 2). We can always rely on each other 3). Partner makes effort to keep commitments 4). Relationship marked by a high degree of harmony 5). Partner trusted to be supportive 6). Partner trusted to keep promises 7). Partner trusted to be sincere 8). Relationship open and informal 9). We do not take advantage of each other 10). We share work related problems 11). Close personal ties between us.
Krishnan et al. (2006)	TCE	Expectation held by one firm that another will not exploit its vulnerabilities when faced with the opportunity to do so. (Dyer & Chu, 2003).	Reliability, fairness, goodwill	OL	5 items (Aulakh et al. 1996).
Voss et al. (2006)	SET	-	Goodwill, competence	OL	-4 items for competence trust -4 items for goodwill trust
Ng et al. (2007)	TCE	Not defined	Not defined	OL	14 items
Nielsen (2007)	TCE, culture variables, RBV	Not defined	Relational trust	OL	3 items: 1). How do you relate the level of trust between the alliance partners? 2). We feel we can depend on our partner to move our joint projects forward 3). We feel confident that our partner will not take advantage of us.
Muthusamy et al. (2007)	SET	Trustworthiness based on skills, integrity, and benevolent attitudes of the partner as perceived by the focal firm.	Ability, integrity, benevolence	OL	-6 items for ability based trust -5 items for benevolence based trust -6 items for integrity based trust
Robson et al. (2008)	Literature from sociology, economics, organizational science	Willingness of venturing firm's management to accept vulnerability based on positive expectations about the counterpart's intentions or behavior.	Calculative, affective trust	OL	-4 items for affective trust -3 items for calculative trust -4 items for forbearance and 3 items for "influence acceptance".
Luo (2008)	Justice theory	A psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behavior of another (Rousseau et al. 1998).	Not defined	IL, OL	-8 items for interpersonal trust (Inkpen & Currall, 1997) -8 items for inter-organizational trust (Inkpen & Currall, 1997)
Lin and Wang (2008)	TCE, SET	Willingness to rely on a partner in whom one has confidence.	Not defined	OL	3 items: A party's perception of the other party's 1). Dependability, 2). Reliability in the obligation fulfillment, 3). Overall trustworthiness.
Wilson and Brennan (2009)	Relational capital	Willingness to rely on a JV partner and expect it to behave in a mutually acceptable manner.	Not defined	OL	Measurement of trust: We know our foreign partner will always deliver on time and is open regarding the sharing of technological information.

OL (organizational level); IL (inter-personal level)

Table 3. Performance Measurement and Performance Effects of Trust

Studies	Performance operationalization [Perceived Performance Assessment (PPA), Satisfaction (S): Financial Performance (FP)]	Trust-Performance relation [direct relation (DR), indirect relation (IR)]
Mohr and Spekman (1994)	Partnership success measured on perceived performance assessment (PPA) and satisfaction (S): PPA (Indicators: dyadic sales): 1). What is your approximate volume of sales of this manufacturer's product, on a monthly basis? 2). What are the total monthly sales of your dealership? 3). Of the total sales of your dealership, what percent comes from this manufacturer's product? S (Indicators: manufacturer support and profit): 1). Satisfaction with support from manufacturer 2). Satisfaction with profit and margins.	DR: Trust is significantly related to satisfaction with profit
Aulakh et al. (1996)	Partnership performance measured on perceived performance assessment (PPA): PPA (Indicators: sales growth, market share): 1). Relative to competitors in the foreign market, the performance of the partnership on the following dimensions: Sales growth, and market share.	IR: Asset specificity moderates the relationship between trust and partnership performance.
Inkpen and Currall (1997)	IJV performance measured on perceived performance assessment (PPA): PPA (Indicators: ROI, market share, ROE, customer satisfaction, sales growth, industry reputation, reduction of operation costs, cost position in industry, productivity gains, access to Japanese technology).	IR: Trust has indirect effect on IJV performance mediated by forbearance.
Sako (1998)	Suppliers' performance measured on perceived performance assessment (PPA): PPA (Indicators: suppliers' costs, just-in-time delivery, and joint problem solving).	DR: Good will trust has strong effect on JIT delivery, and learning and continuous improvement (joint problem solving, reducing costs).
Lane et al. (2001)	IJV performance measured on perceived performance assessment (PPA): PPA (Indicators for specific performance): competitive price, timeliness of delivery, high quality supply (Indicators for general performance): IJV overall performance from all three parties (both parent companies plus IJV)	DR: Trust is not related to learning, but is instead related to performance)
Luo (2001)	IJV performance measured on satisfaction (S), and financial performance (FP): S (Indicators: process performance measured on 10 items of: 1). Managing the venture 2). Developing technology 3). Product design 4). Quality control 5). Labor productivity 6). Marketing 7). Distribution 8). Customer service 9). Cost control 10). Organization reputation FP (Indicators: ROI)	DR: Identification based trust is positively and significantly associated with satisfaction with IJV process performance and return on investment.
Luo (2002)	ISA performance measured on financial performance (FP): FP (Indicators: ROI, sales per asset (SPA))	IR: positive relation between trust and performance (SPA, ROI) will be stronger when market uncertainty is higher, resource interdependency is stronger, risk sharing is more commensurate, or reciprocal commitment is greater. Further positive link between trust and profitability is stronger for younger alliances than for older alliances.
Dyer and Chu (2003)	Supplier's performance measured on financial performance (FP): FP (Indicators: ROA)	NO: Trust was strongly linked to low transaction costs, but did not link it to performance..
Selnes and Sallis (2003)	Relationship performance measured on perceived performance assessment (PPA) and efficiency : PPA, and Efficiency : (Indicators: lower logistic costs, increased flexibility in handling unforeseen fluctuations in demand, better product quality, synergies in sales and marketing, new product development skills improvement, efficient use of time and money, quick response to customers before competitors.	IR: Trust acts as moderator; the affect of relationship learning on performance is lower under conditions of high trust than under conditions of low trust.
Jap and Anderson (2003)	Relationship performances measured on perceived performance assessment (PPA) PPA (Indicators: evaluations of the counterpart's performance (4 items), the achievement of competitive advantages (4 items), joint profit performance (3 items), and expectations of relationship continuity (2 items).	IR: Trust has significant positive effect when opportunism is low; trust fails to uphold performance under high level of ex-post opportunism.
Kauser and Shaw (2004)	Alliance performance measured on perceived performance assessment (PPA), and satisfaction (S) PPA (Indicators: market share, profitability, sales growth) S (Indicators: alliance satisfaction (9 items), satisfaction with alliance performance on 3 items of: 1). Market share 2). Profitability 3). Sales growth	DR: Trust is positively related to ISA performance and managers' satisfaction, and is thus a good predictor of alliance success).
Krishnan et al. (2006)	Alliance Satisfaction measured on 5 items S (Indicators: 1). The extent to which the local partner is satisfied with the overall performance of its alliance 2). The extent to which the local partner perceives the foreign partner to be satisfied with the overall performance of the alliance 3). The partners' satisfaction with respect to the attainment of goals 4). The extent to which the local partner is satisfied with the financial performance of the alliance 5). The extent to which the local partner perceives its foreign partner to be satisfied with the financial performance of the alliance.	IR: Type of uncertainty moderates the positive relationship between trust and performance, with behavioral uncertainty strengthening, and environmental uncertainty weakening the relation.
Voss et al. (2006)	Alliance performance measured on perceived performance assessment (PPA): PPA (Indicators: penetration of new markets, commercialization of new technology, sales revenues, access to distribution channels, knowledge of competitors, competitive advantage gains, and preempting competition)	IR: Exchange of quality information is a significant mediator of the trust-performance relationship
Ng et al. (2007)	IJV performance measured on perceived performance assessment (PPA) PPA (Indicators: Financial achievements (profit, sales in local and foreign markets and market share), non financial achievements (product quality, the acquisition of management skills, technology transfer, and cooperation between the parties involved).	DR: Trust is found to be significant for both the financial and non financial goals. IR: Trust positively (moderates) increases the explanatory power of local reliance for financial and non-financial goals.
Nielsen (2007)	ISA performance measured on perceived performance assessment (PPA), and efficiency PPA (Indicators: Relational equity (marketing, distribution, customer service), financial performance (sales, market share, profitability), learning (knowledge transfer, knowledge development)], efficiency (efficient procedures, low operation cost)]	DR: Trust is positively related to relational equity, financial performance, and efficiency. Further, trust does not affect learning.
Muthusamy et al. (2007)	ISA performance measured on perceived performance assessment (PPA) PPA (Indicators: perceived alliance performance (5 items), and propensity to continue the alliance (5 items)	DR: Ability-based trust, and integrity-based trust are significantly related to alliance performance and propensity of the partner to continue the alliance, but benevolence-based trust is not significant in the relationship.
Robson et al. (2008)	ISA performance measured on perceived performance assessment (PPA), efficiency, and responsiveness PPA (Indicators: effectiveness (3 items)], efficiency (3 items), and responsiveness (4 items).	IR: 1: Trust-performance link is stronger when alliance size (as moderator) is small. 2: Trust also mediates the relationship between distributive fairness and performance.
Luo (2008)	ISA performance measured on perceived performance assessment (PPA) PPA (Indicators: Operational outcomes (labor productivity, quality control, technology development, customer service, and managerial efficiency), and financial return (profitability).	DR: Interpersonal and inter-organizational trust stimulates financial performance (trust also mediates the relationship between justice and financial performance).
Lin and Wang (2008)	IJV satisfaction was measured on 3 items: S (Indicators: 1). Financial performance, 2) Personal interaction, 3) General relationship	DR: Trust has direct relation with satisfaction of IJV performance in Chinese-Asian JVs. IR: Legalism moderates the relationship between trust, and satisfaction of IJV performance in Chinese-Western JVs).
Wilson and Brennan (2009)	IJV performance measured on satisfaction (S) of exchange process regarding S (Indicators: Informational, social, and financial)	DR: Trust is the most important of the relational factors on IJV performance, followed by commitment.

Figure 1. Model of Direct and Indirect Effects of Trust on Performance

