



Asset specificity roles in interfirm cooperation: Reducing opportunistic behavior or increasing cooperative behavior? ☆

Steven S. Lui ^{a,*}, Yin-yee Wong ^b, Weiping Liu ^c

^a School of Organisation & Management, Australian School of Business, University of New South Wales, Sydney, Australia

^b Department of Management, Chinese University of Hong Kong, Hong Kong, China

^c Department of Management of Organizations, School of Business and Management, Hong Kong University of Science and Technology, Hong Kong, China

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ABSTRACT

Extant research offers two alternative mechanisms for relating the asset specificity of a cooperative relationship to partnership performance. Transaction cost economics argues that the specific assets invested in a partnership increase the hazards of opportunism. As firms select appropriate governance structures to reduce opportunistic behavior, performance increases. On the other hand, relational exchange theory suggests that asset specificity enhances the trust between partners, which in turn leads to more cooperative behavior and higher partnership performance. This paper tests both mechanisms simultaneously on a sample of procurement relationships between Hong Kong trading firms and their Chinese suppliers using SEM methods. Our results support the predictions of relational exchange theory more than those of transaction cost economics. The paper also discusses the role of the Chinese context on theory application.

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1. Introduction

Asset specificity is a key construct in interfirm cooperation research. Williamson (1985, p. 55) defines asset specificity as the “durable investments that are undertaken in support of particular transactions, the opportunity cost of which investments is much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated.” Cooperating partners invest in specific assets for a partnership out of task needs and goodwill. As asset specificity is a sunken commitment with little value outside a specific transaction, it is an important managerial decision that ultimately affects partnership performance.

The relationship between asset specificity and partnership performance is open to two interpretations. Transaction cost economics (TCE) claims that the specific assets invested in a partnership increase the hazards of opportunism and hence transaction costs (Heide and Stump, 1995; Parkhe, 1993). Based on the level of asset specificity, firms select an appropriate governance structure for the partnership to reduce the hazards of opportunism (David and Han, 2004; Ghosh and John, 2005; Rindfleisch and Heide, 1997). TCE

predicts that partnership performance will be maximized when opportunistic behavior on asset specificity is reduced.

On the other hand, relational exchange theory (RET) proposes a similar concept, a relation-specific asset, to capture the long-term investment in the people, assets, and procedures of a partnership (Anderson and Weitz, 1992; Ganesan, 1994; Gundlach et al., 1995; Morgan and Hunt, 1994). This study follows Dyer and Singh (1998) and Rokkan et al. (2003) in treating asset specificity and a relation-specific asset as interchangeable. In contrast to the TCE framework, RET argues that a relation-specific asset signals the desire to invest in an endured relationship. The investment increases the cooperative behavior and transaction value of the partnership (Dyer, 1997; Dyer and Singh, 1998; Saxton, 1997). RET therefore focuses on cooperative behavior to explain the relationship between asset specificity and partnership performance.

As researchers attempt to make sense of the arguments of TCE and RET (e.g., Klein Woolthuis et al., 2005; Lado et al., 2008; Rokkan et al., 2003; Young-Ybarra and Wiersema, 1999; Zaheer and Venkatraman, 1995), they very often relax some core assumptions of, or integrate RET variables into, the TCE framework. For example, Rokkan et al. (2003) include relationship extendedness and solidarity norms as two moderators in their basic TCE model to resolve the conflicting views on asset specificity. But doing so may reduce the uniqueness and simplicity of both theories. Unlike this line of research, TCE and RET reveal different aspects of asset specificity: while TCE focuses on the opportunistic behavior it causes, RET focuses on the cooperative behavior it generates. Reconciling their differences is not always needed.

This paper delineates and compares the predictions of the two theories on the asset specificity–performance relationship in a Chinese

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* Corresponding author. Tel.: +61 2 9385 7139; fax: +61 2 9662 8531.

E-mail address: steven.lui@unsw.edu.au (S.S. Lui).

context. As the two theories propose different mediating processes between asset specificity and performance, this study teases out these processes to see which is actually at work. The unique institutional setting of China in our sample presents a unique opportunity. We expect the institutional context of an emerging market to pose limitations on TCE and to favor RET. While China is rapidly changing towards a free market operation, rules and governance bodies have not been fully set up (Child and Tse, 2001; Hoskisson et al., 2000). Contracts are also difficult to enforce and are likely to be considered less appropriate in such a relation-rich context (Luo, 2002a; Xin and Pearce, 1996). If this is the case, formal contracts may play a lesser role in China. By clearly delineating the mediating processes the two theories propose, their applicability in a specific institutional setting is testable.

The remainder of this article is organized as follows. The next section proposes hypotheses as to how asset specificity affects partnership performance based on the differing logics of TCE and RET, respectively. Second, the article describes the Chinese institutional setting of the sample. Third, the article discusses the sample and the statistical methods that the study uses to test the hypotheses, followed by a discussion of the results. Finally, the article concludes by stating the limitations of this study and identifying some future directions.

2. Hypotheses development

2.1. Predictions by transaction cost economics (TCE)

2.1.1. Asset specificity and formal contracts

TCE proposes a unique mechanism to explain how the specialized asset of a cooperative relationship is related to its performance through formal contracts and opportunistic behavior. First, TCE predicts that exchange relationships with high asset specificity tend to use more formal contracts for governance when the transaction cannot be internalized. Contracts are formalized, legally binding agreements that explicitly stipulate promises or obligations, and the course of actions to be taken in the event of unforeseeable situations (Macneil, 1978). They thus provide a protective mechanism for governing business transactions (Lyons and Mehta, 1997; Parkhe, 1993).

Based on Williamson's (1985) view, asset specificity is centrally important in understanding why contracts are essential for economic exchange. Investment in specific assets would expose an exchange party to the potential opportunistic behavior by the other party (Carson et al., 2006; Ganesan, 1994; John and Weitz, 1989). This hazard is present because firm-specific investments are of less value in alternative uses. Exchange partners have "hold-up" or "opportunism" incentives to expropriate returns from these specialized investments using *ex post* bargaining or threats of termination (Klein et al., 1978). Under this circumstance, economic exchange requires a formal contract. As a formal contract states the terms and conditions for some set of future transactions *ex ante*, the contract provides a mechanism for guarding against *ex post* opportunistic problems. For example, a manufacturer can set down clearly in a contract the price, quantity, and quality of the product that it wants from its supplier from the outset (Joskow, 1987). Therefore, it is expected that when specific asset investments are high in procurement relationships, transaction partners will rely more on formal contracts to specify the terms and conditions of the transactions.

Previous research has shown that asset specificity is positively related to formal contracts in a partnership (Aulakh and Gencturk, 2008; Joskow, 1988; Poppo and Zenger, 2002). The prediction is that firms craft a more formal contract with their partners to safeguard their specific asset investments in the partnership.

H₁: In procurement relationships, asset specificity relates positively to formal contract.

2.1.2. Formal contracts and opportunistic behavior

TCE further argues that when formal contracts increase, partners will act less opportunistically. In the original TCE literature, opportunism is defined in general terms as "self-interest seeking with guile." In his subsequent work, Williamson (1985, p. 47) describes guile as "lying, stealing, cheating, and calculated efforts to mislead, distort, disguise, obfuscate, or otherwise confuse." In practice, opportunism involves a wide range of behaviors: (a) distortion of information, including overt behaviors such as lying, cheating, and stealing, as well as more subtle behaviors such as misrepresenting information by failing to make full disclosure, and (b) reneging on explicit or implicit commitments, such as shirking, or failing to fulfill, promises and obligations (Jap and Anderson, 2003).

TCE argues that a formal contract may reduce opportunism in several ways. First, because a formal contract states how different future situations will be handled, it provides formal rules and procedures to mitigate the opportunistic behavior of the partners and reduces uncertainty about behaviors and outcomes (Lusch and Brown, 1996). Second, as a formal contract specifies cheating occasions and related punishments in written form, it serves as a reference point to judge the extent of opportunism (Cavusgil et al., 2004). And third, as a formal contract clearly prescribes the nature of a transaction, partners can rely on this agreement to resolve conflicts arising from any disputes (Ring and Van de Ven, 1992).

In summary, a formal contract provides a monitoring mechanism for a partnership to reduce opportunistic behaviors. This mechanism not only reveals the degree to which the partner has complied with the agreed terms (Balakrishnan and Koza, 1993), but also motivates the partner to fulfill its responsibilities because deviations can result in penalties or termination of the exchange relationship (Lal, 1990). Empirical studies proclaim the effectiveness of formal contracts in reducing opportunism. Dahlstrom and Nygaard (1999) find that formalization reduces opportunism in franchisees. Carson et al. (2006) hypothesize contractual agreements to be an effective safeguard against opportunism under the condition of environmental ambiguity. Therefore, a formal contract is likely to reduce opportunistic behavior.

H₂: In procurement relationships, formal contract relates negatively to opportunistic behavior.

2.1.3. Opportunistic behavior and partnership performance

TCE also predicts that opportunistic behavior is negatively related to the performance of a cooperative relationship, because the success of a relationship and its competitive advantages rely on the joint efforts of the partners. If a party seeks its own unilateral gain and acts opportunistically by breaching the contract, withholding or distorting information, shirking obligations, or grafting joint earnings, the other party will suffer.

In addition, the suffered partner may cease to contribute valuable resources and information toward the exchange, and may hold back from the relationship because it does not want to be exploited again (Jap and Anderson, 2003; Luo, 2007). Under this circumstance, the partnership cannot generate the expected benefits or competitive advantage. Empirically, Luo (2007) analyzes a sample of foreign joint ventures and shows that opportunism impairs a joint venture's financial returns, sales growth, and overall performance. In light of this evidence, opportunism is expected to reduce partnership performance.

H₃: In a procurement relationship, opportunistic behavior relates negatively to partnership performance.

2.2. Predictions by relational exchange theory (RET)

2.2.1. Asset specificity and trust

Relational exchange theory suggests another mechanism for how asset specificity relates to partnership performance, namely, trust and cooperative behavior. RET argues that TCE research often overlooks the role of social-embeddedness represented by *trust* in an economic

exchange (Zaheer and Venkatraman, 1995). Trust is defined as the perception of reliability, creditability, and benevolence of a partner (Johnson et al., 1996; Morgan and Hunt, 1994). With high trust, one has confidence in and is willing to rely on an exchange partner.

Trust develops in a partnership when exchange partners act reliably and fairly, do not take advantage of each other, and are devoted to a mutual commitment and a long-term orientation (Dyer and Chu, 2003; Poppo and Zenger, 2002). This is also a self-reinforcing process: as commitment in assets generates trust in a partner, trust in turn encourages a firm to invest more in specific assets (Narayandas and Rangan, 2004). Trust becomes an effective governance safeguard for those specific assets. Moreover, an asset-specific investment is also a strategic tool that bonds partners together. With long-term bonding, partners are expected to behave in a trustworthy fashion (Ganesan, 1994; Lui et al., 2006).

Ganesan's (1994) study of retail buyers and vendors endorses the relationship between asset specificity and trust. He finds that a vendor's specific investment in people, lasting assets, and procedures increases a retailer's perception of the vendor's trustworthiness. Likewise, Yu et al. (2006) also find a positive relationship between transaction-specific investments and trust. Narayandas and Rangan (2004) examine the mutually reinforcing process between trust and commitment over time in three buyer–seller relationships. Thus, based on the logic of RET.

H₄: In a procurement relationship, asset specificity relates positively to trust.

2.2.2. Trust and cooperative behavior

RET further predicts that trust relates positively with cooperative behavior. Cooperation is defined as coordinated actions taken by exchange parties to achieve mutually beneficial behavior in terms of flexibility, information exchange, and shared problem solving (Anderson and Narus, 1990; Heide and Miner, 1992; Morgan and Hunt, 1994). Specifically, flexibility refers to the willingness of the parties to adjust their own behavior to accommodate each other's needs. Information exchange reflects both parties' willingness to share information and disclose it to each other. Shared problem solving indicates that the parties agree to share responsibility for dealing with problems and maintaining their relationship (Pearce, 2001).

High trust between partners leads to cooperative behavior. This is because confidence in and reliance on the other partner promote flexibility, solidarity, and information exchange between partners. Moreover, although behaving cooperatively exposes oneself to a partner and poses risks, these risks could be reduced when trust in the partner is high (Lui and Ngo, 2004; Poppo and Zenger, 2002).

The relationship between trust and cooperative behavior receives support empirically. Hewett and Bearden (2001) find that trust is positively related to cooperative behavior. They note that if the headquarters of a multinational is perceived as credible and concerned about the subsidiary's welfare, the subsidiary may be more likely to perceive objectives as mutually beneficial and may be more likely to cooperate. Morgan and Hunt (1994) also find that trust leads to cooperation in relationship marketing.

H₅: In a procurement relationship, trust relates positively to cooperative behavior.

2.2.3. Cooperative behavior and partnership performance

Finally, RET argues that cooperative behavior leads to better partnership performance. This outcome occurs because repeated instances of cooperation relate to the norm of reciprocity and self-enforced safeguards (Blau, 1964; Katz and Kahn, 1978; Luo, 2002b). Anderson and Narus (1990) further claim that when firms take similar or complementary coordinated actions in interdependent relationships, they are able to achieve mutually favorable outcomes.

Transaction value maximization is another important outcome of interfirm cooperation. Dyer (1997) explains that, in addition to

enjoying economies of scale and scope with an increasing volume of exchange, partners also have the substantial benefits of information sharing and the reduction of information asymmetry and potential for opportunism. This in turn minimizes transaction costs.

Cooperation also offers a platform for interorganizational learning (Dyer and Singh, 1998). For example, Von Hippel (1988) finds that most innovations can be traced back to suppliers. This suggests that a firm's alliance partners are the most important sources of new ideas and information that result in performance-enhancing technology and innovation. Some empirical studies support the positive relationship between interfirm cooperation and performance. For example, Luo (2002b) demonstrates that cooperation positively drives international joint venture performance. Thus,

H₆: In a procurement relationship, cooperative behavior relates positively to partnership performance.

3. The Chinese context

While both hypothesize a positive relationship between asset specificity and partnership performance, TCE and RET's logics differ. The specific institutional context of a partnership may lead one set of predictions to prevail over the other. In particular, the Chinese context of the study's sample likely limits the role of contracts in two ways. First, the Chinese setting tends to emphasize trust and personal relationships in managing business relationships (Child and Möller, 2003). Xin and Pearce (1996) find that Chinese managers draw on personal relationships as a substitute for formal institutional support. Similarly, Luo (2002b) finds that contractual governance contributes less to joint venture performance in China when it is not complemented by relational governance. Second, the development of institutional environment of contractual law and dispute resolution in China is still inadequate (Peng, 2002; Boisot and Child, 1996). Both Hoskisson et al. (2000) and Tsui et al. (2004) in their editorials point to this phenomenon as a general situation of emerging economies. Peng and Heath (1996) suggest that the institutional constraints in transition economies may limit the use of formal contractual governance and thus redirect the growth of a firm from expansion and acquisition to a network-based strategy. Thus, RET predictions should prevail over those of TCE in the sample.

4. Methods

4.1. Sample and data collection

The study tests the model using a sample of the procurement relationships between Hong Kong traders and their suppliers in China. Our sample consisted of trading firms listed in the Garment and Toy Trader Directories of the Trade Development Council of Hong Kong. The directories provided business information on the firms and the names of their contact persons, who were usually the owners or the top executives of the firms. We identified a total of 3149 firms and their corresponding contact persons (excluding firms with wrong addresses or no longer in the industry) in our sampling frame. Surveys were mailed to the contact persons in 2005. The survey asks respondents to answer the questions with respect to "a supplier that you have recently dealt with." This directed them to a particular partnership. The wide spectrum of partnerships reported allowed us to obtain needed variance in the study variables. To ensure that the survey was directed to appropriate respondents, we asked our respondents the extent to which they understood the procurement relationship with their suppliers. The result was 4.25 (S.D. 0.85) over a range from 1 (*not at all*) to 5 (*very knowledgeable*), indicating that they were well positioned to report on supplier-related activities.

The questionnaire was first written in English and then translated into Chinese using the conventional back translation process. The mailings were followed by a second survey and a telephone reminder.

Of the 3149 mailed surveys, we received a total of 311 responses, representing a 9.9% response rate. The low response rate is typical for mailed surveys to top executives (10–12%) (Hambrick et al., 1993). We compared the respondent and non-respondent firms on employee number and year of establishment, and found no significant differences between the two groups (F -values were 1.64 for employee number and 0.34 for year of establishment, *n.s.*), providing evidence of the representativeness of the responding firms.

Since the study collects data from a single informant in each firm, common method variance could pose a problem, which we tackled by following the suggestions of Podsakoff et al. (2003). First, for a test-retest reliability check, we sent a follow-up mini survey to those who had responded and asked them to provide information again on trust and partnership performance (cf. Luo 2005; Yli-Renko et al., 2001). This procedure yielded 87 respondents (28% of all respondents) from which both the first and second responses were received. We conducted a paired samples test and found no significant differences in the responses with respect to trust ($t = 1.319$, $df = 79$, *n.s.*) and partnership performance ($t = 0.634$, $df = 79$, *n.s.*). Second, we conducted a Harman single factor test. The results showed there were six factors with an eigenvalue larger than one. These six factors explained approximately 63% of the variance, while the first factor explained only 45%. Thus, we found no single factor explaining the variance of the major variables measured, suggesting that common method variance may not be a serious problem in this study.

4.2. Measures

This study measures all variables on 5-point Likert-type scales. The research questions required a scale based on both theories of TCE and RET to measure asset specificity. Hence, the study measures asset specificity using six items. Three items taken from the TCE literature assessed the efforts spent in developing the relationship and the non-replaceability of the supplier (Jap, 1999). Sample items included, “We have invested a lot of time and effort in building up our relationship with this supplier” and “If this partner were to switch to one of our competitors, it would be a big loss to us.” Three items assessing long-term idiosyncratic commitment were taken from the RET literature (Carson et al., 2006). Sample items included, “We do not have long-term plans for working with this supplier” (reverse coded) and “We see this supplier developing into a long-term partner.” Cronbach's alpha for this scale was 0.70.

Four items based on Johnson et al. (1996) measure trust. Sample items include, “We feel that this supplier cares about what happens to us” and “The supplier has always been frank and truthful in its dealings with us.” These items ask about the extent of trustworthy behavior exhibited by the supplier and thus measured a partner's credibility and benevolence. Cronbach's alpha for this scale was 0.82.

Four items based on the scale of legal bonds that Cannon and Perreault (1999) develop measure formal contract. Examples of the items were “We have formal agreements that detail the obligations of both parties” and “We do not have specific, well-detailed agreements with this vendor” (reverse coded). Cronbach's alpha for this scale was 0.57.

The study measures opportunistic behavior by four items (Skarmeas, Katsikeas, and Schlegelmilch, 2002). Sample items include, “Sometimes this supplier alters the facts slightly in order to get what they need” and “This supplier breaches formal or informal agreements to their benefit.” These items reflected the extent to which the partner committed explicitly forbidden acts or blatantly violated the contract and failed to fulfill implicit relational norms. Cronbach's alpha for this scale was 0.85.

The study measures cooperative behavior with eight items based on Pearce's (2001) scale. Sample items are “Flexibility in response to requests for changes is a characteristic of this relationship,” “Exchange of information in this relationship takes place frequently, informally,

and openly,” and “In most aspects of this relationship the parties are jointly responsible for getting things done.” Cronbach's alpha for this scale was 0.85.

Finally, partnership performance was measured by three items developed by Saxton (1997) to assess perceived relationship satisfaction. The items asked respondents whether they were satisfied with the performance of the relationship, whether the relationship's goals had been achieved, and whether the relationship had added to their capabilities and competitiveness. Cronbach's alpha for this scale was 0.91. Past research has shown that a manager's subjective satisfaction with a partnership is a good indicator of the partnership's objective performance (Geringer and Hebert, 1991; Walter et al., 2008).

4.3. Analysis

Data analyses include structural equation modeling via LISREL 8.53 (Jöreskog and Sörbom, 2002). Maximum-likelihood estimation methods were used, and the input for each analysis was the covariance matrix of the items. The models' goodness of fit was evaluated using absolute and relative indices. The absolute goodness-of-fit indices calculated were (a) the chi-square goodness-of-fit statistic, (b) the root-mean-square error of approximation (RMSEA), and (c) the goodness-of-fit index (GFI). The relative goodness-of-fit indices computed were (a) the comparative fit index (CFI) and (b) the incremental fit index (IFI).

The analysis includes confirmatory factor analysis to examine the unidimensionality and convergent validity of the constructs. The fit indexes indicated that the model fit the data well ($\chi^2_{(335, n=230)} = 592.93$, $p < .001$; CFI = .97; IFI = .97; RMSEA = .05) with the exception of GFI (.84), which was slightly below the conventional cutoff of .90. All items loaded on their respective constructs, and all loadings were significant at the 0.001 level. This supports the dimensionality of the constructs.

To assess the discriminant validity of each scale, we estimated a series of chi-square difference tests in which the correlation between a pair of constructs that was constrained to unity was compared with an unconstrained model (Gerbing and Anderson, 1988). The chi-square differences were all significant below the 0.05 level, showing that the unconstrained model fit significantly better than the constrained model and providing evidence of discriminant validity among the measures.

4.4. Results

Table 1 presents the means, standard deviations, Cronbach's alphas, and correlations among all study variables. As expected, partnership performance was negatively correlated with opportunistic behavior and positively correlated with cooperative behavior. Unexpectedly, asset specificity was not correlated with formal contract; however, it was positively correlated with trust.

Fig. 1 summarizes the results of the SEM analysis. The overall fit statistics indicate an adequate fit of the model to data ($\chi^2_{(344, n=230)} = 680.79$, $p < .001$; RMSEA = .06; CFI = .96; IFI = .96) with the

Table 1
Means and correlations of study variables.

Variable	Mean	SD	1	2	3	4	5	6
1 Asset specificity	3.6	.56	(.70)					
2 Formal contract	2.9	.65	-.08	(.57)				
3 Opportunistic behavior	2.9	.78	-.25**	-.01	(.85)			
4 Trust	3.4	.70	.56**	-.09	-.45**	(.82)		
5 Cooperative behavior	3.7	.50	.53**	-.10	-.21**	.63**	(.85)	
6 Partnership performance	3.7	.64	.57**	-.10	-.37**	.69**	.67**	(.91)

$N = 230$.

Reliabilities are in parentheses.

** Correlation is significant at the .01 level.

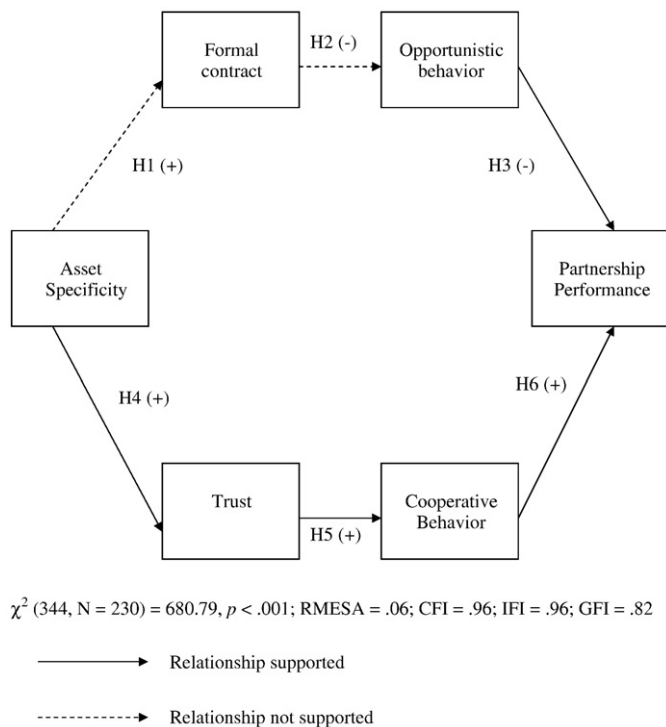


Fig. 1. Hypotheses and results of the study.

exception of GFI (.82). The overall model fit is acceptable because the GFI index may suffer from problems such as severe downward bias for large models and models with small sample size (Anderson and Gerbing, 1984; Gerbing and Anderson, 1992). The overall model fit confirms the structure of two distinctive paths linking asset specificity and partnership performance.

The study examines individual hypotheses, beginning with the TCE predictions. Contrary to our predictions, the results indicate that the relationship between asset specificity and formal contract ($\beta = -.20, p > .05$) and that between formal contract and opportunistic behavior ($\beta = .08, p > .05$) were insignificant. The findings do not support H1 and H2. On the other hand, the hypothesized relationship between opportunism and partnership performance was negative and significant ($\beta = -.19, p < .01$), in support of H3. Turning to the RET predictions, asset specificity had a significant and positive effect on trust ($\beta = .85, p < .01$), while trust had a significant and positive effect on cooperative behavior ($\beta = .82, p < .01$), in support of H4 and H5. Finally, cooperative behavior had a significant and positive effect on partnership performance ($\beta = .78, p < .01$), supporting H6.

5. Discussion and conclusion

This paper discusses two distinctive mechanisms linking the asset specificity and partnership performance of cooperative relationships based on the arguments of TCE and RET. We then test the two mechanisms in the unique setting of procurement relationships in the garment and toy trading industries of Hong Kong.

The article examines the predictions of the two theories in a Chinese context. Since the processes suggested by the two theories are not mutually exclusive, the paper examines which process will dominate in a context of weak institutions and rich business relationships. Our results suggest that asset specificity is related to partnership performance through generating cooperative behavior rather than reducing opportunistic behavior in our sample. Specific investments have a significantly and positive relationship with trust. In turn, trust facilitated cooperative behavior, which enhanced satisfaction in a partnership. Prior

research based on RET shows that the presence of trust is an important antecedent of interfirm cooperative behavior, which in turn brings firms considerable benefits in performance and satisfaction (Smith et al., 1995). The results here for China confirm this line of reasoning.

The results are less supportive of TCE arguments. The study finds only the hypothesized negative relationship between opportunism and partnership performance to be significant. The two other TCE predictions – the positive relationship between asset specificity and formal contract, and the negative relationship between formal contract and opportunistic behavior – were not found. Our results suggest that, contrary to TCE arguments, formal contracts play less of a role in China.

This paper contributes to the study of interfirm partnership in several ways. First, we use multiple theories to examine the performance of procurement relationships. Bringing multiple and competing perspectives to the study of organizational phenomena is important for management and strategy research (Meyer, 1991). The study identifies two paths by which asset specificity could be linked to partnership performance, one through engendering cooperative behavior and the other through reducing opportunistic behavior. These paths switch on or off depending on the specific institutional context. As the two paths reveal different aspects of interfirm governance, understanding them both is important.

Second, TCE's predictions concerning the role of contracts may not always hold (Choi et al., 1999; Heide, 1994). The results do not necessarily refute the TCE framework. The scope of TCE is much broader than what we have examined in this paper. TCE's core concerns of asset specificity, opportunism, and bounded rationality may have remained valid in our study. Chinese firms may have decided to deal with those core TCE concerns through means other than formal contracts. Research on emerging markets should therefore consider important institutional factors that may draw a theoretical boundary to the TCE framework (Chen et al., 2002; Hoskisson et al., 2000; Kelly and Worthley, 1981; Peng and Heath, 1996).

The results also have some practical implications for managers doing business in China. Investing in specific assets in a business partnership is risky for managers, since it makes them vulnerable to the partner's opportunistic behavior. On the other hand, such assets are needed to gain the most out of a partnership. Our study suggests that managers should focus on how to foster trust and cooperative behavior with specific asset investment in a partnership in order to improve partnership performance. Moreover, despite the notion of globalization suggesting a convergence of impersonalized business practices, trust and personal relationships still matter very much in an emerging business context. Managers should not ignore these issues while spending time-consuming efforts in drafting contracts with their business partners in China.

Weigh the results of this study with several caveats in mind. First, the cross-sectional sample design may constrain the capacity to arrive at causal explanations. While the study proposes that asset specificity induces partnership performance, the reverse can also occur. A higher partnership performance may generate trust and commitment, and, as a result, partners are more willing to invest in specific assets. Longitudinal data or experimental methods are needed to confirm the results in this study. Second, our study is limited by the low reliability in the measure of formal contracts. The scale's low reliability may stem from the fact that formal contracts have multiple dimensions rather than a single dimension as measured here (Luo, 2002b, 2007; Lusch and Brown, 1996) – that formal contracts may lack clear definitions in a relation-rich context is another reason. Future work should employ a more precise measure that would improve the reliability and validity of the measurement scale. Despite these limitations, this article contributes a small yet significant step in the study of procurement relationships. Building on the results of this paper, future research can explore the role of asset specificity in interfirm cooperation under a different business context to compare the applicability of various theories.

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