

Typology and Effects of Co-opetition in Buyer–Supplier Relationships: Evidence from the Chinese Home Appliance Industry

Yi Liu,¹ Yadong Luo,^{2,3} Pianpian Yang,⁴
and Vladislav Maksimov²

¹Shanghai Jiao Tong University, China, ²University of Miami, USA, ³Sun Yat-Sen University, China, and ⁴Chongqing University, China

ABSTRACT Building on the co-opetition perspective, this study takes a unified approach to examine relationship benefits and transaction costs in buyer–supplier relationships. We argue that buyer–supplier vertical dyads fall into one of four distinct co-opetition types based on their respective degrees of cooperation and competition. Each co-opetition situation then corresponds to unique levels of relationship benefits and transaction costs. A sample of 225 supplier–buyer dyads from the Chinese home appliance industry confirms that competition has a positive effect on transaction costs and a negative effect on relationship benefits, while cooperation stimulates greater relationship benefits but affects transaction costs mainly at low competition levels. The results advance prior research on buyer–supplier relationships and co-opetition and offer valuable avenues for future research.

KEYWORDS buyer–supplier relationships, co-opetition, relationship benefits, transaction costs

供应链关系中竞合分类及其影响：来自中国家电业的实证研究

摘要

基于竞合的观点，本文采用了一个整合的模型对供应链关系中的关系收益和交易成本进行了研究。本文认为，依据双方合作和竞争程度的不同，买卖双方的交易关系可以划分为四种不同的竞合关系类型，且每种竞合类型分别对应不同的关系收益和交易成本水平。利用来自中国家电行业225对买卖双方的配对样本，本文发现，买卖双方的竞争对交易成本有正向作用，对关系收益有负面影响；而双方方面的合作会促进关系收益的提高，但只在竞争水平较低时，合作才会对交易成本产生影响。本文研究发展了以往关于买卖双方关系和竞合的相关文献，并指明了有价值的未来研究发展方向。

关键词： 买卖关系，竞合，关系收益，交易成本

INTRODUCTION

Securing partnership benefits while reducing governance transaction costs is a persistent challenge in the management of buyer–supplier relationships (Cannon & Homburg, 2001; Dahlstrom & Nygaard, 1999; Kotabe, Martin, & Domoto, 2003). On one hand, firms seek to form vertical relationships in pursuit of economic rewards, knowledge transfer, and efficiency (Geyskens, Steenkamp, & Kumar, 1999; Jap, 1999; Terpend, Tyler, Krause, & Handfield, 2008). Achieving such benefits is enhanced by factors that stimulate information and knowledge exchange, such as relationship satisfaction (Gassenheimer & Ramsey, 1994), justice perceptions (Luo, 2007a), and relationship duration (Heide & Stump, 1995). On the other hand, vertical relationship partners are subject to multiple transaction costs associated with forming, monitoring, and evaluating partnerships (Buvik & Reve, 2001; Cannon & Homburg, 2001; Dahlstrom & Nygaard, 1999). Problems stem from behavioural or environmental uncertainties, as well as from the potential for building non-reciprocated relationship-specific capital, introducing dangerous lock-in or value appropriation by one partner at the expense of the other (Williamson, 1985).

Meanwhile, in an emerging line of research, scholars recognize that the broader challenge of managing both the generation of benefits and the reduction of costs in business relationships is often holistically captured by co-opetition – simultaneous cooperation and competition (Bengtsson & Kock, 2000; Chien, 2005; Gnyawali, He, & Madhavan, 2006; Gnyawali & Park, 2011; Luo, 2005, 2007b). The co-opetition framework has been increasingly applied to describe business relationships in a number of different contexts, such as among the subsidiaries of multinational enterprises (Luo, 2005), within business networks (Chien, 2005; Gnyawali & Madhavan, 2001; Håkansson & Ford, 2002), in global competition (Govindarajan & Gupta, 2001; Luo, 2007b), in strategic alliances (Afuah, 2000; Dyer & Singh, 1998; Khanna, Gulati, & Nohria, 1998), and in multifaceted relationships incorporating buyer–supplier transactions (Dowling, Roering, Carlin, & Wisniewski, 1996; Garcia & Velasco, 2002). In all cases, co-opetition emphasizes parties' interdependence in business relationships and corresponding syncretic rent-seeking, dynamically balanced behaviours (Lado, Boyd, & Hanlon, 1997) by uniting two seemingly incompatible phenomena. Whereas cooperation promotes the mutual pursuit of shared value-adding activities, competition emphasizes firms' independent actions to improve their individual performance, often at the expense of the firms with which they are cooperating (Luo, 2004).

We connect those two separate lines of research to examine how the relative levels of cooperation and competition affect relationship benefits and transaction costs in buyer (distributor)–supplier (manufacturer) relationships. To date, buyer–supplier relationships are seen as predominantly cooperative entities mainly in the areas of marketing and supply chain management (e.g., Anderson & Narus, 1990; Terpend et al., 2008). In their review of two decades of research on buyer–supplier

relationships, Terpend et al. (2008) concluded that firms in such settings seek to derive value mainly through cooperative means. That research has mainly focused on investigating cooperative mechanism effects for improving relationship benefits and reducing transaction costs (Dahlstrom & Nygaard, 1999; Heide & Miner, 1992; Jap, 1999). However, that line of research has overlooked competition as another dimension for analyzing and managing transaction costs and relationship benefits in buyer–supplier dyads.

Broadly, competition between buyers and suppliers in a dyad occurs over the makeup and distribution of the total gains from serving the same end markets and concerns their individually optimal approaches to serving particular market segments. The sociological view of competition sees it as a contest between entities over resources, position, prestige, awards, or status (e.g., Andersen & Taylor, 2012). The economic view sees competition more narrowly as the market-based efforts of independent sellers to secure the business of prospective buyers by offering the most favourable terms (e.g., Kasper, 2008; Kirzner, 1997). In business, the concept of competition is used more broadly to include economic competition, as well as sociological forms of competition that can occur within organizations (Birkinshaw, 2001; Luo, 2005) or in business networks (Bengtsson & Kock, 2000; Gnyawali & Madhavan, 2001). Our perspective is more closely aligned with this broader view of competition. We are concerned with the contest between buyers and suppliers in a dyad to directly increase their individual gains by undercutting gains for the other side.

To account for both cooperation and competition in buyer–supplier relationships, we adopt the co-opetition typology (Luo, 2007b), where *adapting* corresponds to high competition–high cooperation situations; *isolating* corresponds to low competition–low cooperation situations; *contending* corresponds to high competition–low cooperation situations; and *partnering* corresponds to low competition–high cooperation situations. We argue that buyer–supplier dyads are clustered within these four types of co-opetition. We then examine the effects of each type on relationship benefits and transaction costs in a sample of 225 supplier–buyer dyads from the Chinese home appliance industry.

By empirically validating Luo's (2007b) co-opetition typology, we make three main contributions to the literature. First, we offer a co-opetitive perspective to conceptualize buyer–supplier relationships. While prior research emphasizes the role of cooperation in this context, we offer an analytical platform permitting examination of dyadic behaviours along two dimensions – cooperation and competition. Second, we expand the range of possible contexts where co-opetition may apply. In addition to the common context of horizontal relationships, we apply co-opetition to vertical relationships. Third, the insights we derive from our approach allow us to enhance current knowledge about the relational perspective of business transactions and the related concepts of trust, reciprocity, and *guanxi* (Chen, Chen, & Huang, 2013; Luo, Huang, & Wang, 2012).

THEORETICAL BACKGROUND AND HYPOTHESES

Co-opetition in Buyer–Supplier Relationships

Buyers and suppliers engage in co-opetitive relationships when they simultaneously cooperate to create greater common value from selling manufacturers' products through distributors' networks while competing to extract more of the total gains from the sales. The co-opetitive perspective recognizes that buyers and suppliers can simultaneously pursue individual and common goals. Generally, organizations cooperate when they interact on the basis of a common interest structure (Dagnino & Padula, 2002), seeking mutual benefits by exploiting complementary resources (Anderson & Narus, 1990). Organizations compete when companies interact on the basis of conflicting interest structures, often exemplified by struggle to access a common pool of resources (Bengtsson & Kock, 2000).

The literature has well-documented the cooperative aspect of buyer–supplier relationships. Buyers and suppliers create vertical partnerships to exploit complementary resources corresponding to their respective upstream and downstream activities (Terpend et al., 2008). Buyers and suppliers enhance the cooperative aspect of their relationship through greater trust, improved communication, mutual experience, and shared problem solving (Anderson & Narus, 1990; Heide & Miner, 1992). Such cooperative efforts may increase common gains (Cannon & Homburg, 2001; Heide & Stump, 1995) and suppress differences and friction (Dahlstrom & Nygaard, 1999; Heide & Miner, 1992).

However, the competitive aspect of buyer–supplier relationships is less known. Distributors and manufacturers may continuously compete over the generation and division of gains from selling the manufacturer's products in the distributor's network. For the distributor, the gains depend on the total amount of sales revenues, the portion of the sales received, the fees collected from the manufacturer, and the individual cost of carrying and selling the manufacturer's products. For the manufacturer, the gains depend on the total amount of sales revenues, the portion of the sales received, their individual cost of selling products in the distributor's network, and all costs associated with manufacturing the products. Since the total gains are a function of the total sales revenues and the relationship-specific costs related to selling the products, competition may take place over each element.

The fundamental source of such competition is the difference in the parties' individually optimal strategies to serve the same end-market, including how the strategies fit with the other aspects of their business, such as the distributor's overall marketing and growth strategies, or the manufacturer's own stores or brand image. Although buyers and suppliers may try to settle their strategic differences with contractual provisions, few aspects of their relationship are fixed formally because of the complexity and specificity of each transaction. Such relative contract incompleteness may also provide a weaker institutional platform guiding the cooperation,

restraining opportunities for trust and reciprocity to nurture continuance and long-term payoffs (Luo, 2002).

Most commonly, manufacturers and distributors in the Chinese context agree on revenue distributions from single items, such as fixed final sales prices and fixed proportions. They agree on explicit costs for manufacturers to sell their products in the distributor's stores, such as annual allowances based on store position for the merchandise, shelving fees for booth/counter maintenance, fee for managing manufacturers' salespeople, and sponsor/promotion fees related to assistance in setting up new stores or during promotional events and campaigns. However, the agreements typically omit clauses about approaches to generating total sales revenue, are relatively broad in specific amounts, frequency, and types of fees, and are open with respect to other costs that can be created or modified such as payment time frames, inventory backlogs, after-sale services, or installation services. These circumstances give distributors and manufacturers numerous opportunities to manipulate their individual gains by influencing total sales revenue or transaction costs.

Because firms are heterogeneous, they may have incongruent strategies to extract value and achieve growth. The first broad area of incongruence may occur over how buyers and suppliers plan to generate current sales and expand future sales. Depending on their strategic positioning, parties may have various low-cost (lower margin and higher volume) or differentiation (higher margin and lower volume) approaches to serving the market. Differences in approaches may generate buyer-supplier competition over sales revenues. For example, the manufacturer may follow a differentiation approach, while the distributor may have a low-cost approach, with each pursuing a different optimal strategy.

For example, GOME, China's largest home appliance retailer, and Haier, China's largest white goods maker, have an agreement over the final sales price of Haier's products, but GOME often undertakes unilateral promotional campaigns to expand market share by lowering sales prices (Winshang, 2005). GOME, not the contract, determines the frequency and intensity of such campaigns. To obtain a greater share of the gains, GOME often demands the original share from the contractual final sales price although the goods might have sold for less, while Haier receives only the remaining portion of the actual sales price. However, because of its differentiation strategy, Haier prefers to obtain higher margins for its products to cover its higher costs. To show its displeasure at GOME's practice, Haier once temporarily withdrew its products from GOME's stores. On other, less extreme, occasions, Haier attempted to renegotiate aspects of its contract with GOME or lower some of its costs in the relationship.

Strategic conflict also may arise from the extent of vertical integration and mutual dependence. If the manufacturer has its own stores, it may be particularly sensitive to the loss of customers to the distributor's market penetration or expansion moves. For example, after Gree, China's leading air-conditioning unit

manufacturer, invested substantial resources in developing its own brand stores, it resisted GOME's price-cutting marketing initiatives (Guo, 2004). In addition, the relatively smaller Gree had to bear substantial costs from a smaller proportion from the sales price, after-sale service, and installation fee to sell its products in GOME's stores. After a period of complete secession, GOME and Gree restarted their relationship, but Gree imposed restrictions on GOME in terms of marketing, customer base, and overall costs within the relationship (Chen, 2007). Their prolonged competitive battle motivated other household electrical appliance manufacturers to build their own brand stores to reduce their dependence on large retailers and increase their gains from serving the same end market. Examples include TCL's 'Happy Tree' program, Konka's '1000 Stores in 1000 Counties' program, and Midea's 'One Hundred 4s Stores' program.

The second area of incongruence occurs over how buyers and suppliers manage and distribute the costs of selling the manufacturer's products in the distributor's chain of stores. Because contracts do not completely fix such costs, the parties can manipulate both the types and amounts of the costs. For example, distributors may add extra fees and manufacturers can refuse to bear costs or can renegotiate to eliminate or reduce some costs, as has happened often in the GOME, Haier, and Gree cases. In addition, even when a contract details the costs, vertical partners may see environmental changes as opportunities to transfer greater portions of costs to the other party. For example, in 2010, Master Kong, China's leading maker of instant noodles, tried to increase its prices in response to higher raw material costs (Xinhuanet, 2010). Carrefour, China's seventh largest chain store, was a Master Kong distributor, and it was facing higher operation costs. It demanded half of the additional price rather than the typical ten to fifteen percent proportion. Master Kong withdrew its products from Carrefour's stores until the two firms renewed their contractual agreement (Zhan, 2010).

Overall, the competition between buyers and suppliers can take opportunistic forms when self-interest compels partners to break contractual rules and coercive forms when one partner pressures the other to conform to demands that benefit one but disadvantage the other. As the examples have shown, over time the two sides can mix the competition forms. With higher strategic incongruence, competitive behaviour is more likely, regardless of the form of competition.

Co-opetition Typology

Within a co-opetitive framework, buyer–supplier relationships can experience various levels of co-opetitive intensity depending on the respective levels of cooperation and competition in a given dyad. For example, although intense competition characterizes the Haier–GOME and Gree–GOME dyads, high levels of cooperation also characterize the Haier–GOME dyad. We adopt the co-opetition typology

(Luo, 2007b) – partnering, adapting, isolating, and contending – to describe four situations that can have different behavioural and outcome implications.

Partnering. The partnering co-opetition type corresponds to high cooperation–low competition situations. A typical example is the relationship between Procter & Gamble and Walmart. Since the late 1980s, Procter & Gamble and Walmart have assisted each other in various functions such as finance, inventory, and production. In a specific instance, after they launched their production and marketing alliance, Procter & Gamble's diaper inventory turnover in Walmart increased by 70 percent and the sales by 50 percent. For buyer–supplier relationships, high cooperation means that both sides share common goals and interests, depend heavily on each other, and commit to the focal relationship (Heide & Miner, 1992), while low competition implies that they have little disagreement about the strategic approach to serving a particular end market.

Adapting. The adapting co-opetition type corresponds to high cooperation–high competition situations. For example, besides engaging in intense competition, since 2005, Haier and GOME have cooperated extensively in joint market expansion, bilateral information exchange, and combined sales promotion. As a result, Haier's colour TV sales through GOME's network have grown annually by a steady ten percent. Although the vertical partners have substantial incongruence in their individual approaches to serving the same end market, they continue to cooperate because of their mutual interdependence and relationship-specific investments.

Isolating. The isolating co-opetition type corresponds to low cooperation–low competition situations in which buyers and suppliers have unimportant exchange relationships with little or no interdependence. These may often be sporadic, such as the purchase of nonessential operation and office supplies. This situation characterizes a convenient, uninvolved, and transaction-based relationship (Wilkinson & Young, 1994).

Contending. The contending co-opetition type corresponds to low cooperation–high competition situations implying interest divergence, low interdependence, and substantial conflict and opportunistic behaviour (Luo, 2005). Buyers and suppliers have incentives to compete with each other because they substantially differ in their plans to extract maximum market value. In this situation, buyers and suppliers are more likely to use rigid contracts or coercive power to control transactions (Wilkinson & Young, 1994), and may experience more strained relationships (Young & Wilkinson, 1998). The GOME and Gree relationship, as mentioned, was historically dynamic because they had substantial strategic incongruence and low interdependence, and neither side had significant relationship-specific investments.

Relationship Benefits, Transaction Costs, and Co-opetition

Buyer–supplier relationships are subject to both benefits and costs. While substantial research attention has been paid to relationship benefits in dyadic business relationships, relatively fewer attempts have been made to analyze their inherent transaction costs (e.g., Noordewier, John, & Nevin, 1990). Nevertheless, reducing costs is important to creating value and a critical factor in relationship development and stability (Cannon & Homburg, 2001).

Co-opetitive relationships operating in the horizontal rival context have provided the mechanisms by which cooperation and competition affect relationship benefits and transaction costs. Prior developments in the area of co-opetition strongly suggest that cooperation and competition are mutually compounding factors. Simultaneous cooperation and competition exhibits syncretic rent-seeking behaviour benefitting both firms (Lado et al., 1997). Additionally, simultaneous competitive pressures and cooperative desires motivate global players to seek ‘the positive-sum, efficiency-enhancing effects of competition and cooperation’ (Luo, 2007b: 131).

In buyer–supplier relationships, cooperation and competition are additive factors and act in opposite directions. Unlike horizontal cases where firms are competitors by default, in buyer–supplier contexts the firms are fundamentally partners. Consequently, their relationship is much more strongly influenced by cooperative notions such as trust, reciprocity, communication, and justice perceptions than are relationships between industry rivals. Buyer–supplier behaviours based on self-interest are counterproductive and even destructive. In cases of embeddedness, the narrow pursuit of immediate economic gains is incompatible with the enrichment of relationships through trust and reciprocity (Uzzi, 1996). Cooperation inspires win–win solutions that promote relationship continuity while win–lose solutions are zero-sum and act in the opposite direction – unwillingness to extend the relationship beyond the focal transaction (Gupta, 2011: 21). In essence, when a buyer–supplier relationship is based on trust, communication, and reciprocity, acting in self-interest may reverse cooperation effects. Nevertheless, in some cases the relationship approach is subject to lock-in and power coercion, preventing mutually beneficial adaptation to environmental contingencies (Gupta, 2011: 22). In such circumstances, a transactional approach may reduce lock-in. Although we do not emphasize the latter dynamics in our analysis, we assert that the principle of additivity remains valid even in those situations.

Figure 1 illustrates the idea of additivity and opposite effects, where the levels of relationship benefits and transaction costs are presented as functions of cooperation and competition for each of the four co-opetitive situations. We assume that even in the *isolating* type where cooperation and competition are minimal, base levels of relationship benefits and transaction costs exist. Purely transactional relationships can be beneficial and preferred in many circumstances (Gupta, 2011),

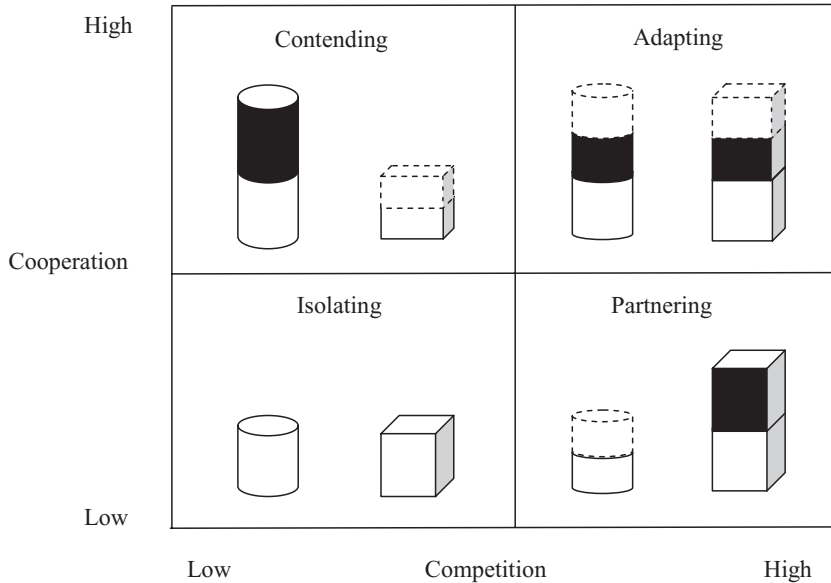


Figure 1. Relationship benefits and transaction costs in the co-opetition typology

^a Cylindrical shapes indicate relationship benefits; cubical shapes indicate transaction costs.

^b Shapes with only solid lines correspond to base levels; patterned shapes correspond to additions to base levels; and shapes with dashed lines are shallow corresponding to reductions in levels compared to other types.

but parties must safeguard against possible transaction costs and opportunism (Buvik & Reve, 2001; Liu, Luo, & Liu, 2009; Poppo & Zenger, 2002). When cooperation increases, relationship benefits increase and transaction costs decrease compared to these base levels (the *partnering* type). In contrast, when competition increases, relationship benefits decrease and transaction costs increase compared to the base levels (the *contending* type). Following the principles of additivity and opposite influences, when both cooperation and competition are high (the *adapting* type), the levels of relationship benefits will be higher than the base levels due to higher cooperation but lower than in the *partnering* type due to higher competition. Similarly, transaction cost levels will be higher than the base levels due to higher competition but lower than in the *contending* type due to higher cooperation. In the following sections, we apply that logic to derive our two hypotheses.

Relationship Benefits in Different Co-opetition Types

Based on the principles of additivity and opposite effects, each co-opetition type is associated with different relationship benefits. In the *isolating* type, buyers and suppliers achieve some increased economic performance pertaining to the complementary nature of their resources. However, the gains are likely to be limited because the interaction is sporadic and has low interdependence. Although the

vertical partners may be satisfied with their arms-length transaction, their insufficient social contact and communication contribute little to relationship-specific satisfaction or knowledge-sharing opportunities (Hansen, 1999).

Relationship benefits are likely to increase more substantially for the *partnering* type than for the other three types because buyers and suppliers willingly invest in the development of dyadic tangible and intangible transaction-specific assets in pursuit of their cooperative objectives (Morgan & Hunt, 1994). These assets serve as a bilateral bonding (Anderson & Weitz, 1992; Rokkan, Heide, & Wathne, 2003) to improve economic performance (Brown, Dev, & Lee, 2000; Jap, 1999) and act as an intermediary for partners' knowledge transfer and sharing. The benefits, along with frank and open communication, strengthen partner perceptions of fulfillment in relationship interactions (Mohr, Fisher, & Nevin, 1996).

Relationship benefits are likely to weaken for the *adapting* type because of high competition levels. Attrition in a relationship inhibits buyer–supplier communication and understanding of the other party's needs, problems, and resources (Inkpen & Tsang, 2005), hinders active problem solving, and obstructs bilateral trust (Sanzo, Santos, Vazquez, & Alvarez, 2003). The parties lose their generally positive evaluations of their partners (Anderson & Narus, 1990) so that it becomes more difficult to agree on decisions related to economic performance (Jap, 1999), and to share knowledge. Nevertheless, the relationship benefits remain sizably higher than those in the *isolating* type. While firms in adapting dyads suffer some attrition and obstruction of their already high levels of relationship benefits, firms in isolating dyads cannot construct relationship-specific benefits because transactions are short-lived and generic. The benefits from relationship-specific investments in the *adapting* type, even when diminished with intensified competition, remain higher than the benefits achieved without such investments.

Last, relationship benefits in the *contending* type are likely to be even lower than those in the *isolating* type, and thus lowest among all four types. Firms in this dyadic type not only invest in very limited relationship-specific capital, but they also pursue fundamentally divergent goals and regard their relationship as a zero-sum game, where each side seeks self-interest maximization at the other's expense (Jap & Anderson, 2003; Porter & Millar, 1985). Intense competition is conducive to conflicts, often resulting in disagreements and setbacks for the partners (Anderson & Narus, 1990), as well as negative affective conditions (Geyskens et al., 1999; Jap & Ganesan, 2000). In addition, partners may rigorously constrain the amount of shared information (Inkpen & Tsang, 2005) and limit their partner's access to know-how and core capabilities (Kale, Singh, & Perlmutter, 2000). Based on those comparisons, we hypothesize:

Hypothesis 1: In buyer–supplier dyads, relationship benefits will be significantly higher in the partnering type than in the adapting type, significantly higher in the adapting type than in the isolating type, and significantly higher in the isolating type than in the contending type.

Transaction Costs in Co-opetition Types

Because cooperation and competition in buyer–supplier relationships have an additive property and act in opposite directions, transaction costs will be different across the four co-opetition types. In the *isolating* type, low frequency and volume of transaction allow buyers and suppliers to adopt a standard contract template and facilitate a relatively easy contract evaluation process for addressing potential problems (Williamson, 1979). The low levels of interdependence and asset specificity are associated with low termination costs and limited asset appropriation risks, reducing the need to build relational governance mechanisms (Rindfleisch & Heide, 1997; Wilkinson & Young, 1994; Williamson, 1985). Nevertheless, even buyers and suppliers in the *isolating* type are subject to some transaction costs and opportunism stemming from behavioural or environmental uncertainties (Buvik & Reve, 2001; Liu et al., 2009; Poppo & Zenger, 2002).

Transaction costs are likely to increase substantially in the *contending* type, and be highest among all four types, because of substantial divergence in strategic approaches and interests, as well as low communication between buyers and suppliers. This situation burdens the process of reaching agreement on contract clauses, especially with regard to pricing and payment (Wilkinson & Young, 1994) and prevents accurate and timely information exchange about each side's fulfilment of contract obligations (Milgrom & Roberts, 1990). Furthermore, firms in such dyads turn to competition more than they do to cooperation, so the inevitable surge in conflicts and friction would discourage fulfilment of contract obligations (Wathne & Heide, 2000) and propagate the design and implementation of strict control mechanisms (Milgrom & Roberts, 1990). Moreover, the two parties may substitute long-term relationship orientation for immediate self-interest gains (Anderson & Weitz, 1992; Luo, 2006), permeating the exchange relationship with opportunism (Brown et al., 2000) that needs safeguarding.

Higher cooperation is likely to diminish transaction costs in the *adapting* type compared with those in the *contending* type. As the firms in the dyad become more interdependent and increasingly pursue mutual benefits, they have less anxiety regarding the fulfilment of contractual obligations and feel freer to exchange information and allow transparency (Lee & Cavusgil, 2006). In addition, as buyers and suppliers try hard to establish reliable relational norms and trust, they can more efficiently address problems arising from unforeseeable changes (Luo, 2007c), opportunism (Wathne & Heide, 2000), or challenges in executing contract obligations (Poppo & Zenger, 2002). Although higher cooperation reduces transaction costs in the *adapting* type compared with those in the *contending* type, the cost levels are likely to be higher than those in the *isolating* type. While the *isolating* type has limited sources of transaction costs due to a dearth of relationship-specific assets and low interdependence, high competition in the *adapting* type raises substantial potential problems from behavioural and environmental uncertainties.

The resulting transaction costs remain high, despite cooperation's mitigating influence.

Finally, transaction costs in the *partnering* type are likely to be even lower than those in the *isolating* type, and thus lowest among all four types. Buyers and suppliers in such dyads share common strategic approaches to serving the same end market. They focus on maximizing benefits and consider potential contract deficiencies of secondary importance (Poppo & Zenger, 2002). Partners expend little time and energy bargaining over the terms of the partnership agreement or monitoring the other side's partnership duties (Rindfleisch & Heide, 1997). Buyers and suppliers maintain flexibility about future contract modifications (Liu et al., 2009). Opportunism is extremely unlikely because partners expect that the payoffs from future exchange will exceed substantially the short-term gains from self-interest actions (Poppo & Zenger, 2002; Rokkan et al., 2003). Overall, these comparisons suggest that:

Hypothesis 2: In buyer–supplier dyads, transaction costs will be significantly higher in the isolating type than in the partnering type, significantly higher in the adapting type than in the isolating type, and significantly higher in the contending type than in the adapting type.

METHOD

Sample and Data Collection

We used matched survey data collected from manufacturers (suppliers) in China's home appliance industry and their distributors (buyers). The Chinese home appliance industry contributes to more than ten percent of global home appliance production each year since 1996. Some of the globally recognized participants include Haier, TCL, and Changhong, as well as the distributors Walmart, Suning, and GOME. Since we attempt to examine both relationship benefits and costs from a co-opetitive perspective, relying on a single industry in a single country is preferable because it helps to rule out the potentially complex effects of industry-level and country-level differences. In addition, because we focus on the within-partnership behaviour, selecting a single established industry helps to minimize the influence of environmental uncertainties on these outcomes. We conducted a nationwide survey and collected data from firms representing all regions and provinces in China.

We first contacted China's largest home appliance manufacturer, which is also the third largest worldwide, to obtain a list of national distributors. Then we mailed coded surveys to 900 distributors on the list, asking them to describe their relationship with their primary manufacturer. After three rounds of reminders via phone calls, site visits, emails, and re-sending our survey, we received 314 questionnaires; 251 were complete. Using the questionnaires, we compiled a list of 251 manufacturers that had major relationships with the distributors in our sample.

After mailing the paired questionnaires to these firms and using the same follow-up procedure, we received 238 questionnaires; 225 were complete. Thus, our final sample consists of 225 manufacturer–distributor dyads. On average, the reported buyer–supplier relationships are 5.8 years long. Overall, the sample has representative coverage in geographic location within China, firm size in terms of number of employees and annual sales, and ownership type.

We took careful steps to ensure that respondents were sufficiently knowledgeable about the business relationship they were reporting in the questionnaire. About 74.5 percent of our distributor informants and 73.6 percent of our manufacturer informants were senior managers responsible for the relationship. The other respondents were staff members directly involved in the partnership. The informants had occupied their position for an average of 4.7 years among distributors and 3.5 years among manufacturers. On a five-point Likert scale, the mean level of knowledge about the focal relationship was 4.21 (S.D. = 0.67) among respondents from distributor firms and 4.14 (S.D. = 0.83) among respondents from manufacturer firms.

To check for nonresponse bias in the survey data, we randomly selected 50 nonresponding distributors and 50 nonresponding manufacturers and inquired about their firm attributes such as size, sales volume, geographic location, type of ownership, and relationship duration with the focal partner. Corresponding *t*-statistics between the responding and the nonresponding firms were not significant. In addition, we conducted a factor analysis on measurement items associated with predicting and criterion variables for both manufacturers and distributors data. No single factor emerged and no one factor accounted for most of the covariance among the predicting and criterion variables. Besides this statistical post-hoc test, we adopted several procedural techniques to control for common method bias (Podsakoff & Organ, 1986). First, we used paired surveys from both distributors and manufacturers to reduce the possibility of single-side, single-informant common method variance bias. Second, we maintained full anonymity for all informants throughout the survey process. Third, we adopted recommendations to use more specific and less direct questions to reduce social desirability bias (Fisher, 1993). Also, in our cover letter we informed the respondents that the survey was designed for research only and that there were no correct or incorrect answers. Fourth, we carefully arranged the questionnaire to control for project priming and project nested effects.

Measurement and Validity

Since our constructs are at the level of a relationship dyad, we calculated the arithmetic mean value of the manufacturer score and the distributor score for the overall composite score within the dyad. We checked whether the manufacturer and the distributor within each dyad were in agreement about each of the con-

structs by conducting paired *t*-tests for every item. The results indicate no significant differences between the two sides in their responses to most of the items.

To operationalize the variables in our study we adapted multi-item scales developed in prior research. We focused on three relationship benefits – economic performance, knowledge sharing, and relationship satisfaction – and three transaction costs – negotiation and evaluation costs, contract enforcement costs, and protection costs. *Economic performance* refers to financial gains, such as increased sales volume, stronger market position, greater work efficiency, and higher quality of service support (Geyskens et al., 1999: 224). *Knowledge sharing* refers to the process in which buyers and suppliers mutually transfer and absorb knowledge about important aspects of their business, such as substitute products, competition, market needs, production, or marketing (Kotabe et al., 2003). *Relationship satisfaction* reflects ‘a positive affective state resulting from the appraisal of all aspects of a firm’s working relationship with another firm’ (Anderson & Narus, 1984: 66). The ex-ante *negotiation costs* of forming a contractual relationship and the ex-post *evaluation costs* of assessing contract implementation derive from the need for bargaining (Dahlstrom & Nygaard, 1999). *Contract enforcement costs* refer to the carrying out of post-negotiations and ensuring that both sides fulfill their contract obligations. The potential need for amendment contributes to *protection costs* to restrain or correct opportunistic behaviour.

In addition to the main variables of interest, we measured three control variables – transaction-specific investments, difference in firm size, and relationship duration. *Transaction-specific investments* guide buyer–supplier exchanges and reduce uncertainty by providing relationship-bound economic incentives to continue vertical partnerships (Kotabe et al., 2003) and serve as mutual credible commitments to the relationship (Anderson & Weitz, 1992), reducing transaction costs. *Differences in firm size* may cause differences in bargaining power, which could influence the distribution of joint returns and costs (Subramani & Venkatraman, 2003). *Relationship duration*, defined as the age of a buyer–supplier relationship, can improve working relationships (Brown, Lusch, & Nicholson, 1995) and lower friction from specific assets and holdup problems (Heide & Stump, 1995; Wever, Wognum, Trienekens, & Omta, 2012). Table 1 shows measurement items, reference sources, internal consistency, and factor loadings for each multi-item construct. All the Cronbach’s alphas and composite reliability scores are greater than .70, indicating satisfactory levels of reliability.

To examine convergent and discriminant validity, we used three approaches. First, we conducted exploratory factor analyses. All items loaded on the expected factors without significant cross-loadings. Second, we performed a confirmatory factor analysis using AMOS 4.01. The results indicated good fit for both the manufacturer data ($\chi^2/\text{d.f.} = 1.08$, RMSEA = 0.03, GFI = 0.89, AGFI = 0.84, NFI = 0.95, RFI = 0.93, IFI = 0.99) and the distributor data ($\chi^2/\text{d.f.} = 1.16$,

Table 1. Measurement items, construct reliability, and validity

<i>Construct</i>	α	<i>Factor loading</i>	<i>AVE</i>	<i>CR</i>
Competition (adapted from Luo (2005))	0.96	0.92	0.87	0.97
1. Our partner often gets our concession through deception.		0.94		
2. Our partner often gets our concession by exaggerating losses.		0.95		
3. Our partner often deceives us about critical information in order to benefit at our expense.		0.95		
4. Our partner would neglect its obligations to maintain sales and profits.		0.91		
5. Our partner would do anything to get a larger share of the gains from our relationship.		0.91		
Cooperation (adapted from Luo (2005))	0.92	0.87	0.78	0.95
1. We have built an effective sales team jointly with our partner.		0.79		
2. We and our partner appoint technical and administrative personnel to each other's staff.		0.93		
3. We and our partner actively share relevant information about products, technology, and markets.		0.91		
4. Our partner can obtain valuable knowledge by visiting and observing us.		0.90		
5. We train salespeople together with our partner.		0.90		
Economic performance (adapted from Geyskens et al. (1999))	0.93	0.86	0.78	0.95
1. The relationship with our partner has provided us with a dominant and profitable market position in our industry.		0.84		
2. The relationship with our partner is very attractive with respect to discounts.		0.90		
3. The relationship with our partner helps us increase sales volume.		0.91		
4. The marketing policy of our partner helps us improve work efficiency.		0.91		
5. Our partner provides us with high quality marketing and sales support.		0.91		
Knowledge sharing (adapted from Glazer (1991) and Kotabe et al. (2003))	0.93	0.84	0.78	0.95
1. We provide (gain) a lot of knowledge related to substitutes for (from) our partner.		0.91		
2. We provide (gain) a lot of knowledge related to customer preferences for (from) our partner.		0.91		
3. We provide (gain) a lot of knowledge related to this product's market share for (from) our partner.		0.90		
4. We provide (gain) a lot of knowledge related to this product's competitive advantage for (from) our partner.		0.86		
5. We provide (gain) a lot of knowledge related to market potential for (from) our partner.		0.90		
Relationship satisfaction (adapted from Geyskens et al. (1999))	0.93	0.90	0.78	0.95
1. We have a friendly relationship with our partner.		0.86		
2. Our partner is considerate when expressing criticism.		0.91		
3. This business relationship is characterized with mutual respect.		0.91		
4. Our partner always makes us aware of important issues.		0.91		
5. Our partner often explains the reasons behind relevant policies.		0.84		

Table 1. (cont.)

Construct	α	Factor loading	AVE	CR
Negotiation and evaluation costs (adapted from Arnt & Andersen (2002))	0.96		0.84	0.96
1. We face difficulty in getting the necessary certification of product performance and product cost from our partner.		0.96		
2. It is very difficult to come to agreement with our partner about the specifications of the products and services delivered to us.		0.97		
3. It is very difficult to negotiate prices and payment terms with our partner.		0.95		
Contract enforcement costs (adapted from Antia & Frazier (2001))	0.98		0.96	0.99
1. It is difficult to enforce the contract in the relationship with our partner.		0.99		
2. It is expensive to enforce the contract in the relationship with our partner.		0.98		
3. It is time consuming to enforce the contract in the relationship with our partner.		0.98		
Protection costs (adapted from Rokkan et al. (2003))	0.98		0.92	0.98
1. Our partner is deceptive when sharing critical information in order to extract a gain.		0.96		
2. Our partner tries to steal key resources from us.		0.97		
3. Our partner fails to invest in sales and human resources as required by our contract.		0.96		
4. Our partner often violates contractual terms about product sales and distribution.		0.97		
5. Our partner unilaterally terminates contracts without our agreement.		0.96		
6. Our partner often takes advantage of weaknesses in our contract to advance its own interests.		0.95		
7. Our partner sometimes violates contractual terms and conditions.		0.92		
Transaction-specific assets (adapted from Anderson & Weitz (1992))	0.90		0.84	0.94
1. We have made a substantial investment in personnel development dedicated to this relationship.		0.91		
2. We have invested substantially in building a cooperative relationship with our partner.		0.93		
3. We have made a substantial investment in facilities dedicated to this relationship.		0.91		
Differences in firm size (adapted from Barclay & Smith (1997))	0.96		0.98	0.96
Our partner's business routines and operational mechanisms are similar to ours.		0.98		
Our partner's corporate culture and management style is similar to ours.		0.98		
Relationship duration: We have been involved in this business relationship for _____ years				
Goodness-of-fit statistics				
χ^2/df				
RMSEA				
Distributor (Buyer) side			GFI	IFI
			0.91	0.97
Manufacturer (Supplier) side			0.84	0.99
			RFI	RFI
			0.94	0.93
			0.93	0.93

RMSEA = 0.03, GFI = 0.91, AGFI = 0.90, NFI = 0.94, RFI = 0.94, IFI = 0.97). All item-factor loadings in the manufacturer, distributor, and dyad data were significant and larger than 0.70, with the average variance extracted (AVE) value for each scale greater than 78 percent, suggesting adequate convergent validity. We examined the degree of discriminant validity through a series of nested confirmatory analyses (Bagozzi, Yi, & Phillips, 1991). The results suggest that for every pair of factors in the measurement model a two-factor solution fits better than a one-factor solution. Additionally, none of the 95 percent confidence intervals for the correlations between any two factors includes 1.0. Third, the AVE by any two latent variables is greater than their squared correlation, suggesting sufficient levels of discriminant validity (Fornell & Larcker, 1981). These analyses suggest that our data exhibit good convergent and discriminant validity.

RESULTS

Relationship Benefits and Transaction Costs

We used a number of different techniques including cluster analysis, ANOVA test of the differences among the four clusters, and canonical discriminant analysis. The results indicate that the data are best described by four clusters corresponding to the *isolating*, *partnering*, *contending*, *adapting* co-opetition types.

We carried out ANCOVA to test the hypotheses on differences in relationship benefits and transaction costs among the four co-opetition types. We treat the three types of relationship benefits and the three types of transaction costs as separate outcomes and we ran six independent models. Table 2 shows the results from these analyses. The analyses reveal no significant difference in economic performance between the *partnering* type (mean = 5.48) and the *adapting* type (mean = 5.43) and no significant difference in economic performance between the *isolating* type (mean = 4.93) and the *contending* type (mean = 4.76). However, the level of economic performance in the former two types is significantly higher than in the latter two types (F value = 6.867, $p < .001$). The weak competition effect may occur primarily because economic performance depends mainly on the extent of resource complementarity, which is affected little by the various frictions and conflicts caused by competition (Kim & Frazier, 1997).

Next, the ANCOVA results show that the level of knowledge sharing in buyer-supplier relationships is significantly higher in the *partnering* type (mean = 5.67) than in the *adapting* type (mean = 5.41), significantly higher in the *adapting* type (mean = 5.41) than in the *isolating* type (mean = 5.13), and significantly higher in the *isolating* type (mean = 5.13) than in the *contending* type (mean = 4.68), with a highly significant F value ($F = 8.664$, $p < 0.001$). For relationship satisfaction, the results reveal that it is significantly higher in the *partnering* type (mean = 5.97) than in the *adapting* type (mean = 5.69), significantly higher in the *adapting* type (mean = 5.69)

Table 2. ANCOVA: co-opetition types and relationship consequences

<i>Relationship consequences</i>	<i>Cluster 1 Partnering</i>	<i>Cluster 2 Adapting</i>	<i>Cluster 3 Isolating</i>	<i>Cluster 4 Contending</i>	
Economic performance	High	High	Low	Low	
Mean	5.48	5.43	4.93	4.76	$R^2 = 0.14$;
S.E.	0.88	0.56	0.81	0.70	$F = 6.87^{**}$
Difference between groups	3*, 4*	3*, 4*	1*, 2*	1*, 2*	
Knowledge sharing	Highest	High	Low	Lowest	
Mean	5.67	5.41	5.13	4.68	$R^2 = 0.17$;
S.E.	0.66	0.63	0.75	0.91	$F = 8.66^{**}$
Difference between groups	2*, 3*, 4*	1*, 3*, 4*	1*, 2*, 4	1*, 2*, 3*	
Relationship satisfaction	Highest	High	Low	Lowest	
Mean	5.97	5.69	5.31	4.75	$R^2 = 0.30$;
S.E.	0.57	0.60	0.70	0.73	$F = 18.69^{**}$
Difference between groups	2*, 3*, 4*	1*, 3*, 4*	1*, 2*, 4*	1*, 2*, 3*	
Negotiation and evaluation costs	Lowest	High	Low	High	
Mean	3.16	4.51	3.44	4.13	$R^2 = 0.24$;
S.E.	1.22	0.99	0.88	1.02	$F = 13.85^{**}$
Difference between groups	2*, 3*, 4*	1*, 3*	1*, 2*, 4*	1*, 3*	
Contract enforcement costs	Low	High	Low	High	
Mean	2.45	4.12	2.82	4.25	$R^2 = 0.26$;
S.E.	0.88	0.56	0.81	0.70	$F = 15.07^{**}$
Difference between groups	2*, 4*	1*, 3*	2*, 4*	1*, 3*	
Protection costs	Lowest	High	Low	High	
Mean	1.95	3.84	2.45	3.88	$R^2 = 0.39$;
S.E.	0.88	1.38	0.92	0.97	$F = 28.01^{**}$
Difference between groups	2*, 3*, 4*	1*, 3*	1*, 2*, 4*	1*, 3*	

than in the *isolating* type (mean = 5.31), and significantly higher in the *isolating* type (mean = 5.31) than in the *contending* type (mean = 4.75), where the level of significance is substantially high (F value is 18.687, $p < 0.001$). Overall, the results support Hypothesis 1.

Hypothesis 2 predicts differences in transaction costs across the four types. The ANCOVA results show no significant difference in the levels of negotiation and evaluation costs between the *adapting* type (mean = 4.51) and the *contending* type (mean = 4.13), but the level of these costs is significantly higher in the *adapting* type (mean = 4.51) than in the *isolating* type (mean = 3.44) and significantly higher in the *isolating* type (mean = 3.44) than in the *partnering* type (mean = 3.16), with a highly significant F value ($F = 13.851$, $p < 0.001$).

With respect to contract enforcement costs, the ANCOVA results demonstrate no significant difference between the *adapting* type (mean = 4.12) and the *contending* type (mean = 4.25), and no significant difference in contract enforcement costs between the *isolating* type (mean = 2.82) and the *partnering* type (mean = 2.45).

However, the mean contract enforcement costs in the former two types are significantly higher than the corresponding means in the latter two types (F value = 15.07, $p < 0.001$).

Next, the ANCOVA results show no significant difference in protection costs between the *adapting* type (mean = 3.84) and the *contending* type (mean = 3.88), but the level of the costs is significantly higher in the *adapting* type (mean = 3.84) than in the *isolating* type (mean = 2.45) and significantly higher in the *isolating* type (mean = 2.45) than in the *partnering* type (mean = 1.95), where the overall level of significance is very high (F value = 28.012, $p < 0.001$).

Since our data are continuous, the ANCOVA approach may ignore important data variance. To address this concern, we estimated a regression model, where competition and cooperation were entered as continuous predictors in six separate models, one for each of the relational outcomes of interest – relationship benefits and transaction costs (see Table 3). Following the method suggested by Baron and Kenny (1986), we also included the interaction term of competition and cooperation. The results from the regression analyses confirm the results from the ANCOVA analyses. In addition, the lack of significance for the interaction terms underscores the principles of additivity and opposite direction of the effects for cooperation and competition in buyer–supplier relationships. Therefore, the regression analyses provide evidence for the robustness of our ANCOVA results.

DISCUSSION

In this study, we apply co-opetition typology (Luo, 2007b) to explain differences in relationship benefits and transaction costs in 225 buyer–supplier relationships in the Chinese home appliance industry. Using dyadic manufacturer–distributor data, we find that the partnerships in our sample are of four distinct types: *partnering*, *adapting*, *isolating*, and *contending*. The four types exert different benefits to relationships in economic performance, knowledge sharing, and relationship satisfaction. They also generate three kinds of transaction costs: negotiation and evaluation costs, contract enforcement costs, and protection costs. The results suggest that both cooperation and competition strongly affect relationship benefits; competition affects transaction costs; and cooperation effects on transaction costs are most pronounced at low levels of competition. With increased competition intensity, transaction costs rise and relationship benefits drop. Although increased cooperation stimulates greater relationship benefits, it fails to affect transaction costs.

Introducing a co-opetitive view of buyer–supplier relationships expands and enriches prior research by allowing systematization and analysis of a wide range of behaviours occurring within dyads along two dimensions – cooperation and competition. While prior research has emphasized cooperation as the main mechanism to reduce transaction costs and increase relationship benefits, we assert that competition is also important for analyzing and managing outcomes. Our main

Table 3. Regression analysis: relationship benefits and transaction costs in buyer–supplier co-opetition

a) Relationship benefits						
Variables	Economic performance		Knowledge sharing		Relationship satisfaction	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Differences in firm size	0.21**	0.16**	0.07	−0.06	0.25**	0.18**
Relationship duration	0.08	0.09*	−0.13	−0.11	−0.09	−0.06
Transaction-specific investment	0.27**	0.14	0.24**	0.16*	0.26**	0.16**
Competition		−0.03		−0.18*		−0.21**
Cooperation		0.43**		0.36*		0.45**
Competition × Cooperation		0.05		0.02		−0.02
Model R^2	0.11*	0.27**	0.07*	0.22**	0.11*	0.37**
ΔR^2		0.16		0.15		0.26
d.f.	3,221	6,218	3,221	6,218	3,221	6,218

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.† $N = 225$.

b) Transaction costs

Variables	Negotiation and evaluation costs		Contract enforcement costs		Protection costs	
	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Differences in firm size	−0.26**	−0.24**	0.10	0.10	0.11*	−0.24**
Relationship duration	0.03	0.03	−0.18**	−0.23**	0.01	0.11*
Transaction-specific investment	0.36**	0.25**	0.31**	0.21**	0.19*	0.14**
Competition		0.52**		0.65**		0.68**
Cooperation		0.07		−0.04		0.01
Competition × Cooperation		0.12		−0.05		0.15**
Model R^2	0.19**	0.44**	0.14*	0.55**	0.13**	0.59**
ΔR^2		0.26		0.41		0.46
d.f.	3,221	6,218	3,221	6,218	3,221	6,218

* $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.† $N = 225$.

findings are particularly telling in this regard. While the overall results align with prior research in showing that relationship benefits are positively associated with cooperation and negatively with competition, new insights come from finding that transaction costs are positively affected by competition but not related to cooperation. Prior research has posited that cooperation should be positively associated with relationship benefits, negatively associated with transaction costs, and should also be the main driving force behind such outcomes in buyer–supplier relationships. Yet our results indicate that when the outcomes are analyzed along coopera-

tion and competition dimensions, competition may be even more instrumental in managing transaction costs. This insight suggests that answers to questions in this area may reside uniquely along the two separate dimensions. Therefore, future research may benefit substantially from incorporating a co-opetitive view of buyer–supplier relationships.

Furthermore, our findings add valuable insights to the co-opetition literature, which traditionally has suggested that cooperation and competition are complementary and increase common profits (Lado et al., 1997; Luo, 2007b). Our results reveal that cooperation and competition have only additive effects acting in opposite directions in buyer–supplier relationships. Therefore, extending co-opetition research to the context of buyer–supplier relationships adds new insights about interconnections between cooperation and competition.

Confirming that cooperation and competition in buyer–supplier relationships are additive and act in opposite directions is important for understanding the relational view of business transactions and the related concepts of trust and reciprocity. When a relationship is based on cooperation, the focus is on expanding common benefits. Behaviours that expand private benefits are counterproductive and even destructive to cooperation because trust and self-interest are incompatible in fundamentally cooperative relationships (Gupta, 2011; Uzzi, 1996). However, if relationships are competition-based, they are unlikely to improve through increased cooperation. Perceived as a zero-sum game, competition in buyer–supplier relationships breeds conflicts and friction that stifle inter-partner communication and instil negative psychological perceptions.

China provides the context for our study, so we could extrapolate these observations to *guanxi* as a form of relational capital (Luo et al., 2012). First, even in a setting where *guanxi* is so important, competitive behaviour is relatively widespread in cooperative entities such as buyer–supplier relationships. Chinese firms may exhibit a form of competitiveness and individual advantage found less frequently in the business practices of other Asian countries, such as Japan and Korea. Some aspects of the characteristic have been recently described in a framework examining aggressive competitive attacks between Chinese firms in international competition (Luo, Rui, & Maksimov, 2013). Second, buyer–supplier relationships that are fundamentally based on *guanxi* may be incompatible with competitive, self-interested behaviour. For this reason, responses to instances of such behaviour might be sharp, extreme, and destructive to *guanxi* as might be inferred from the examples about GOME, Haier, Gree, Master Kong, and Carrefour.

Limitations and Future Research

This study provides a brief analysis, leaving potential extensions of our framework to future research. Although we validate the co-opetition typology developed by Luo (2007b), we do not investigate sources of co-opetition, such as the nature and

extent of complementarity, inconsistencies in organizational culture, changes in strategic positioning and planning, or perceptions of imbalances in the dyad. Future research could also explore whether co-opetition has conditional effects. For example, in addition to advantages such as low transaction costs and win–win solutions, the relational approach also has lock-in limitations that may prevent adaptation in dynamic environments and result in idiosyncratic conflict resolution defined by power coercion or exploitation of the less powerful (Gupta, 2011: 22).

Similarly, there might be interactive effects. Although power asymmetries may enhance competition effects, we did not examine such effects. Another potential moderator could be firms' strategic orientation. If firms pursue differentiation strategies, they may be less interested in the distribution of profits from serving the same end market and more focused on the long-term expansion of benefits. If firms pursue cost-leadership strategies, they may face strong short-term pressures to maximize profits and thus be more likely to search for win–lose solutions. Furthermore, our measurement of competition could be improved to reflect not only opportunistic behaviours, but also coercive manifestations of competition.

Future research could improve the generalizability of our findings. As discussed earlier, contractual agreements between manufacturers and distributors in China have relatively low levels of completeness, providing multiple opportunities for competition. Competition might be weaker in contexts where buyer–supplier agreements are based on more complete contracts or have assumed predominantly cooperative forms over time. Nevertheless, competition is based on the discrepancy between the parties in their individually optimal approaches to serve a particular market segment, so contexts that contribute to such discrepancies, dependence, or power asymmetry between manufacturers and distributors could stimulate competition even under complete contracts. Although our approach holds promise in other national contexts, more research is needed to specify, modify, and augment the examination of benefits and costs in other co-opetitive settings.

CONCLUSION

Analyzing relationship benefits and costs in buyer–supplier relationships from a co-opetitive perspective offers a unified approach to understanding the complex dynamic of relationship management. Although prior research has focused on disentangling this complexity by examining the effects of individual cooperation-related factors on relationship benefits, and in a few instances on transaction costs, we integrate into a common framework four fundamental aspects of vertical relationships – relationship benefits, transaction costs, cooperation, and competition. We assert that the conditions and processes that affect relationship outcomes are fundamentally rooted in cooperative or competitive logics. A complete analysis of relationship outcomes in buyer–supplier relationships requires that both logics are considered. To this end, we introduce a unifying platform for the analysis of

behaviour, strategies, and outcomes in buyer–supplier relationships, providing the foundation for similar studies in other contexts.

NOTES

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Yi Liu (liuyi76@sjtu.edu.cn) received her Ph.D. from Xi’an Jiaotong University, and is a full professor at Antai College of Economics & Management, Shanghai Jiao Tong University. Her publications have appeared in refereed journals such as *Journal of Operations Management*, *Journal of the Academy of Marketing Science*, *Journal of Management Studies*, *Industrial Marketing Management*, *Journal of Business Research*, etc. Her current research interests include channel and supply chain relationship management, strategic orientation and innovation, strategic flexibility, and strategic marketing.

Yadong Luo (yadong@miami.edu) is the Emery Findley Distinguished Chair and Professor of Management at the University of Miami, School of Business. He also holds a distinguished honorary professorship at Sun Yat-Sen Business School. He received his Ph.D. from Temple University. He has authored over a dozen books and over 150 research articles in major refereed journals in management and business. His research focuses on global corporate strategy, foreign direct investment, international joint ventures, multinational corporations in emerging markets, and management in transition economies.

Pianpian Yang (yangpianpian@cqu.edu.cn) received her Ph.D. from Xi'an Jiaotong University, and is currently an Instructor at the School of Economics & Business Administration, Chongqing University. Her publications have appeared in *Journal of Product Innovation Management*, *Technology Analysis & Strategic Management* and other journals. Her research interests include channel relationship management, *guanxi* in the Chinese context, and innovation.

Vladislav Maksimov (vmaksimov@bus.miami.edu) is a doctoral student in international business and strategic management at the University of Miami, School of Business. He obtained his MBA degree from Ohio University. He has co-authored articles in major refereed journals in international business and management. His research focuses on the strategies and entrepreneurial approaches of firms in dynamic and uncertain contexts and includes topics on internationalization, innovation and capabilities, entrepreneurial orientation, and management of cooperation and competition.

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