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A Comparative Longitudinal Analysis of Theoretical Perspectives of Interorganizational Relationship Performance

Four theoretical perspectives currently dominate attempts to understand the drivers of successful interorganizational relationship performance: (1) commitment–trust, (2) dependence, (3) transaction cost economics, and (4) relational norms. Each perspective specifies a different set and distinct causal ordering of focal constructs as the most critical for understanding performance. Using four years of longitudinal data (N = 396), the authors compare the relative efficacy of these four perspectives for driving exchange performance and provide empirical insights into the causal ordering among key interorganizational constructs. The results demonstrate the parallel and equally important roles of commitment–trust and relationship-specific investments as immediate precursors to and key drivers of exchange performance. Building on the insights gleaned from tests of the four frameworks, the authors parsimoniously integrate these perspectives within a single model of interfirm relationship performance consistent with a resource-based view of an exchange. Managers may be able to increase performance by shifting resources from "relationship building" to specific investments targeted toward increasing the efficacy or effectiveness of the relationship itself to improve the relationship's ability to create value. Moderation analysis indicates that managers may find it productive to allocate more relationship marketing efforts and investments to exchanges in markets with higher levels of uncertainty.

Successful interorganizational relationships are critical to firms' financial performance because most firms must leverage other organizations' capabilities and resources to compete effectively. Not only do strong interfirm relationships directly enhance sales and profits (Palmatier et al. 2006), but because of higher levels of cooperation and reduced conflict, they can also improve innovation, expand markets, and reduce costs (Cannon and Homburg 2001; Rindfleisch and Moorman 2001). Marketers' and researchers' efforts to uncover the drivers of interorganizational relationship performance are well placed because managers can develop strategies to leverage these causal drivers only by understanding the precursors of performance. Thus, a key question is, What are the key drivers of interorganizational relationship performance? To investigate this question, researchers usually employ one or more of four theoretical perspectives: (1) commitment–

trust, (2) dependence, (3) transaction cost economics, and (4) relational norms (Heide and John 1990; Hibbard, Kumar, and Stern 2001; Morgan and Hunt 1994; Siguaw, Simpson, and Baker 1998).

Each of these perspectives suggests different key drivers of exchange performance. For example, Morgan and Hunt (1994, p. 22) propose that commitment and trust, "not power" or dependence, are "key" to promoting "efficiency, productivity, and effectiveness" in interorganizational exchanges; other researchers suggest that the exchange dependence structure determines performance (Bucklin and Sengupta 1993; Hibbard, Kumar, and Stern 2001); and still another school of thought argues for consideration of the direct effect of relational norms (Lusch and Brown 1996; Siguaw, Simpson, and Baker 1998). The perspective based on transaction cost economics (Williamson 1975) proposes that the level of transaction-specific investments and the need to manage opportunism influence governance structures and ultimate exchange performance (Heide and John 1990; Parkhe 1993; Wathne and Heide 2000). Each of these perspectives has received empirical support when tested separately, but the only way to evaluate their relative impact on performance is to compare the effects of each perspective's focal constructs across a common context (Hunt 2002). Therefore, a comparative analysis of the theoretical perspectives of interorganizational relationship performance is the primary focus of this research.

In addition to comparing the relative effects of key performance drivers, we address a second important question: How are key performance drivers causally related? Although each perspective promotes different performance

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drivers, interorganizational researchers often take a pragmatic approach and combine theoretical paradigms to explain performance (Ganesan 1994; Siguaw, Simpson, and Baker 1998). Thus, many studies include similar constructs but use different causal ordering, depending on the perspectives. For example, some researchers suggest that transaction-specific investments affect performance directly (Heide and John 1990; Parkhe 1993), whereas others argue that commitment (Anderson and Weitz 1992) or dependence (Ganesan 1994) mediates the effect. Moreover, an overwhelming majority of studies use cross-sectional data and therefore provide little empirical insight to help resolve nomological differences.

Alternatively, the effect of relational drivers may depend on external conditions; environmental uncertainty is the most critical contextual factor (Heide and John 1990; Noordewier, John, and Nevin 1990). This potential contextual contingency suggests still another important research question: When does each focal construct have the greatest impact on exchange performance? We investigate this issue by testing the moderating effect of two types of uncertainty (environmental dynamism and market diversity) on the relationship between focal constructs and performance outcomes across the four theoretical frameworks.

On the basis of the empirical findings, we develop and test a post hoc framework that integrates the four different perspectives into a single model of interorganizational relationship performance. The final model is consistent with a resource-based view (RBV) of the exchange and provides a parsimonious theoretical basis for our findings (Dyer 1996; Wernerfelt 1984). Applying RBV theory to an interfirm relationship parallels strategy research's focus on firm performance (Conner 1991, p. 121) in the sense that the "[RBV] may form the kernel of a unifying paradigm."

Therefore, our contribution focuses on four research questions aimed at enhancing the understanding of interfirm relationship performance (both financial and relational) by evaluating evidence from 396 interorganizational exchange dyads across four consecutive years. Specifically, we investigate *what* drives relationship performance, *how* the drivers are causally ordered, *when* each driver has the greatest impact, and *whether* these different drivers can be parsimoniously integrated into a single, unifying theoretical framework. Managers can develop and effectively implement performance-enhancing strategies only when they understand the what, how, and when of the drivers of relationship performance. In addition to comparing and synthesizing theoretical perspectives, we provide a platform for guiding future research efforts on interfirm relationships.

Theoretical Perspectives of Interorganizational Relationship Performance

Various theoretical perspectives from a wide range of disciplines have been applied to understand interfirm relationship performance. Using research from social psychology, sociology, and anthropology, social exchange theory provides a foundation for two prevalent marketing perspectives (Blau 1964; Cook and Emerson 1978). The first, the commitment–trust perspective (Morgan and Hunt 1994), argues that a party's commitment to and trust in its exchange partner determines relationship performance. The second perspective suggests that the dependence or power structure among exchange partners drives exchange performance and the level of interorganizational conflict (Gundlach and Cadotte 1994; Hibbard, Kumar, and Stern 2001).

Building on early work in social psychology (Thibaut and Kelley 1959) and integrating contract law (Macneil 1980), researchers have also investigated the importance of relational norms (Heide and John 1992; Siguaw, Simpson, and Baker 1998). This perspective suggests that the strength of relational norms in an exchange affects the level of cooperative behavior and relationship performance (Cannon, Achrol, and Gundlach 2000).

With its roots in economics (Williamson 1975), transaction cost economics argues that transaction-specific investments and opportunism influence exchange parties' relationship decisions and affect interorganizational performance (Heide and John 1990; Noordewier, John, and Nevin 1990). Although social network theory, game theory, the political economy perspective, the knowledge-based view of the firm, and analytical modeling represent other theoretical paradigms used to investigate interorganizational relationships, we do not compare these perspectives, because extant marketing research based on them is relatively limited (Anderson and Coughlan 2002; Johnson, Sohi, and Grewal 2004; Selnes and Sallis 2003).

Rather, extant interorganizational marketing literature predominantly uses (1) commitment–trust, (2) dependence, (3) transaction cost economics, and/or (4) relational norms perspectives to understand interfirm relationship performance (for a summary, see Table 1). We compare the key drivers of performance suggested by each framework by developing parallel conceptual models in which the focal performance drivers serve as immediate precursors of exchange outcomes. Each theoretical approach defines the focal or organizing constructs included in its model, but their antecedents vary widely across studies and often include constructs from other perspectives. To mirror the literature, aid in model comparison, and provide empirical insight into the actual causal ordering among constructs, we include the same constructs in each model but base the causal ordering and measurement period on the specific perspective.

More specifically, we measure constructs across four sequential years according to where each construct falls in the antecedents → mediators → outcomes framework for a specific perspective. For example, we measure dependence in the commitment–trust model during the first year because that framework models it as an antecedent (Morgan and Hunt 1994); in the dependence model, we measure it in the second year because that perspective considers dependence a mediator. In each framework, we measure the constructs modeled as antecedents in Year 1, mediators in Year 2, and outcomes in Years 3 and 4.

Financial metrics provide a universal measure by which to evaluate different perspectives, whereas other relationship performance measures may be linked more closely to a specific perspective. To provide a "fair" comparison and

TABLE 1
Summary of Theoretical Perspectives of Interorganizational Relationship Performance

Theoretical Perspectives	Key Performance Drivers (Focal Constructs)
Commitment–Trust Perspective Morgan and Hunt's (1994, p. 22) classic article builds on social exchange theory (Blau 1964; Cook and Emerson 1978) and proposes that commitment and trust, not power or dependence, are the key focal constructs for understanding interorganizational relationship performance. Consistent with their relationship marketing focus, they argue that commitment is the critical precursor to improving financial performance, and commitment and trust are both important for building strong relationships. These constructs, individually or together, positively influence performance and relational behaviors because customers act positively toward and in the best interest of committed, trusted sellers.	Commitment and trust
Dependence Perspective Building on social exchange theory, marketing researchers (e.g., Bucklin and Sengupta 1993; Hibbard, Kumar, and Stern 2001) argue that the exchange's dependence structure is crucial for understanding interorganizational relationship performance because it determines each partner's ability to influence the other. Many different approaches attempt to capture an exchange's dependence structure, but partners' interdependence usually affects performance positively because partners work to maintain their relationship and avoid destructive actions, whereas dependence asymmetry undermines the relationship through fewer structural barriers to the use of coercive power.	Interdependence and dependence asymmetry
Transaction Cost Economics Perspective Transaction cost analysis, the successor to traditional neoclassical economics (Williamson 1975), can predict interorganizational exchange governance and performance (Heide and John 1990; Noordewier, John, and Nevin 1990; Parkhe 1993). Exchanges occur in free markets without relational encumbrances or associated costs (Rindfleisch and Heide 1997), except when specific governance problems exist (e.g., safeguarding specific investments from opportunism, managing uncertainty). Thus, it suggests that the governance structure and ultimate performance of an exchange are influenced by the level of the exchange partners' specific investments and opportunistic behaviors.	Relationship- (transaction-) specific investments and opportunistic behaviors
Relational Norms Perspective Traceable to Macneil (1980), the relational exchange theory (Kaufmann and Dant 1992) focuses on contracting norms or shared expectations regarding transactional behavior, ranging from one-time discrete to ongoing relational exchanges. The latter category involves heightened perceptions of relational norms, which contribute to exchange partners' strategic ability to develop long-term, committed, trusting, value-creating associations that are difficult and costly to imitate. On the basis of this logic, researchers propose that strong relational norms positively affect exchange performance (Cannon, Achrol, and Gundlach 2000; Lusch and Brown 1996; Siguaw, Simpson, and Baker 1998).	Relational norms (solidarity, mutuality, and flexibility)
RBV Perspective The RBV of the firm counters industry structure as the focal unit of analysis for understanding firm performance; firms that have resources and capabilities that are rare, valuable, and difficult to duplicate or substitute earn superior competitive advantage and performance (Wernerfelt 1984). On the basis of a literature review, Conner (1991) cites the RBV as a potential unifying paradigm, and Dyer (1996) and Jap (1999) extend this framework to interfirm relationships. The RBV of an interorganizational exchange integrates focal constructs from other perspectives by proposing that superior performance occurs when relationship partners invest time, resources (assets), knowledge, and capabilities into a relationship and that they build an effective governance structure (Dyer and Singh 1998).	Idiosyncratic assets, resources, and capabilities (e.g., relationship-specific investments) and relational governance mechanism (e.g., commitment, trust)

identify any specific "strengths" among the different perspectives, we apply both financial and relational outcome measures. For financial performance, we consider objective sales growth measured over two years and overall financial performance, a composite perceptual measure of sales and profit growth, and overall profitability. These financial measures focus on the performance of the business-to-business exchange relationship (e.g., sales of a supplier's product by

a downstream partner) and do not reflect either partner's overall performance.

To indicate relationship performance, we use cooperation, or the coordinated and complementary actions between exchange partners to achieve mutual goals, and conflict, or the overall level of disagreement and ill will between exchange partners (Jap and Ganesan 2000). Therefore, all our conceptual models contain an identical set of

outcome measures, as we summarize in Figure 1. Next, we provide an overview of each theoretical perspective to establish the nomological net and causal ordering among the key constructs driving exchange performance in each framework.

Commitment–Trust Perspective

The commitment–trust perspective argues that a customer's trust in and/or commitment to a seller is the prime determinant of exchange performance (Morgan and Hunt 1994). Commitment is "an enduring desire to maintain a valued relationship" (Moorman, Zaltman, and Deshpandé 1992, p. 316), and trust is "confidence in an exchange partner's reliability and integrity" that directly and indirectly through commitment affects exchange outcomes (Morgan and Hunt 1994, p. 23). These constructs, individually or together, positively influence performance and relational behaviors because customers are more likely to act positively toward and in the best interest of committed, trusted sellers (Anderson and Weitz 1992; Hibbard et al. 2001).

Relationship-specific investments (RSIs) are an exchange partner's idiosyncratic investments that are specialized to a relationship and not easily recoverable (Ganesan 1994). Customer RSIs positively affect customer commitment to a seller (Gilliland and Bello 2002) through their positive impact on switching costs, which makes the relationship more important to the customer and increases the customer's desire to maintain the relationship (Anderson and Weitz 1992). Although empirical support is limited, customer RSIs may influence customers' trust in the seller negatively because they increase concerns about vulnerability to unilateral seller actions (Gassenheimer and Manolis 2001). The positive effect of seller RSIs on trust depends on the signal sent to the customer because it can offer "tangible evidence" that the seller can be "believed" and "cares" about the relationship (Ganesan 1994, p. 5). Seller opportunistic behavior, which has been defined as seeking to support self-interests with guile (Williamson 1975), negatively influences customers' trust in the seller because it leads customers to suspect the seller's benevolence.

Dependence refers to the need to maintain a relationship to achieve goals; researchers show that both interdependence, or the mutual dependence of both partners, and dependence asymmetry, or the imbalance between partners' dependence, are critical to understanding the impact of dependence in an exchange (Jap and Ganesan 2000). Kumar, Scheer, and Steenkamp (1995) indicate that interdependence positively affects commitment and trust through a reduction in relationship problems and convergence of interests, whereas dependence asymmetry undermines commitment and trust as partners' interests diverge and the structural barriers to the coercive use of power fall.

Relational norms have been investigated as both unique norms and a composite construct. The most commonly investigated norms are solidarity, or partners' belief in the importance of the relationship; mutuality, or the belief that success is a function of the partner's success and that partners should share benefits and costs; and flexibility, or the willingness of exchange partners to adapt to new conditions (Cannon, Achrol, and Gundlach 2000; Lusch and Brown 1996). Some researchers argue that specific norms affect a specific aspect of a relationship (e.g., solidarity → commitment, mutuality → trust), but most research employs a composite index of norms that positively affect relational bonds (Siguaw, Simpson, and Baker 1998). Finally, communication refers to the amount, frequency, and quality of information shared between exchange partners and positively affects customers' trust in and commitment to a seller (Mohr, Fisher, and Nevin 1996).

Dependence Perspective

Dependence has been widely studied as a critical determinant of interfirm relationship performance in terms of financial outcomes, cooperation, and conflict, especially in the channel context (Bucklin and Sengupta 1993; Kumar, Scheer, and Steenkamp 1995). Many aspects of an exchange's dependence structure appear in the literature, but most research accepts the premise that interdependence positively affects exchange performance because dependence increases both the partners' desire to maintain the relationship and the level of adaptation they undertake (Hallen, Johanson, and Seyed-Mohamed 1991; Hibbard, Kumar, and Stern 2001). Moreover, dependence asymmetry negatively influences performance by fostering the coercive use of power and reducing willingness to compromise (Gundlach and Cadotte 1994).
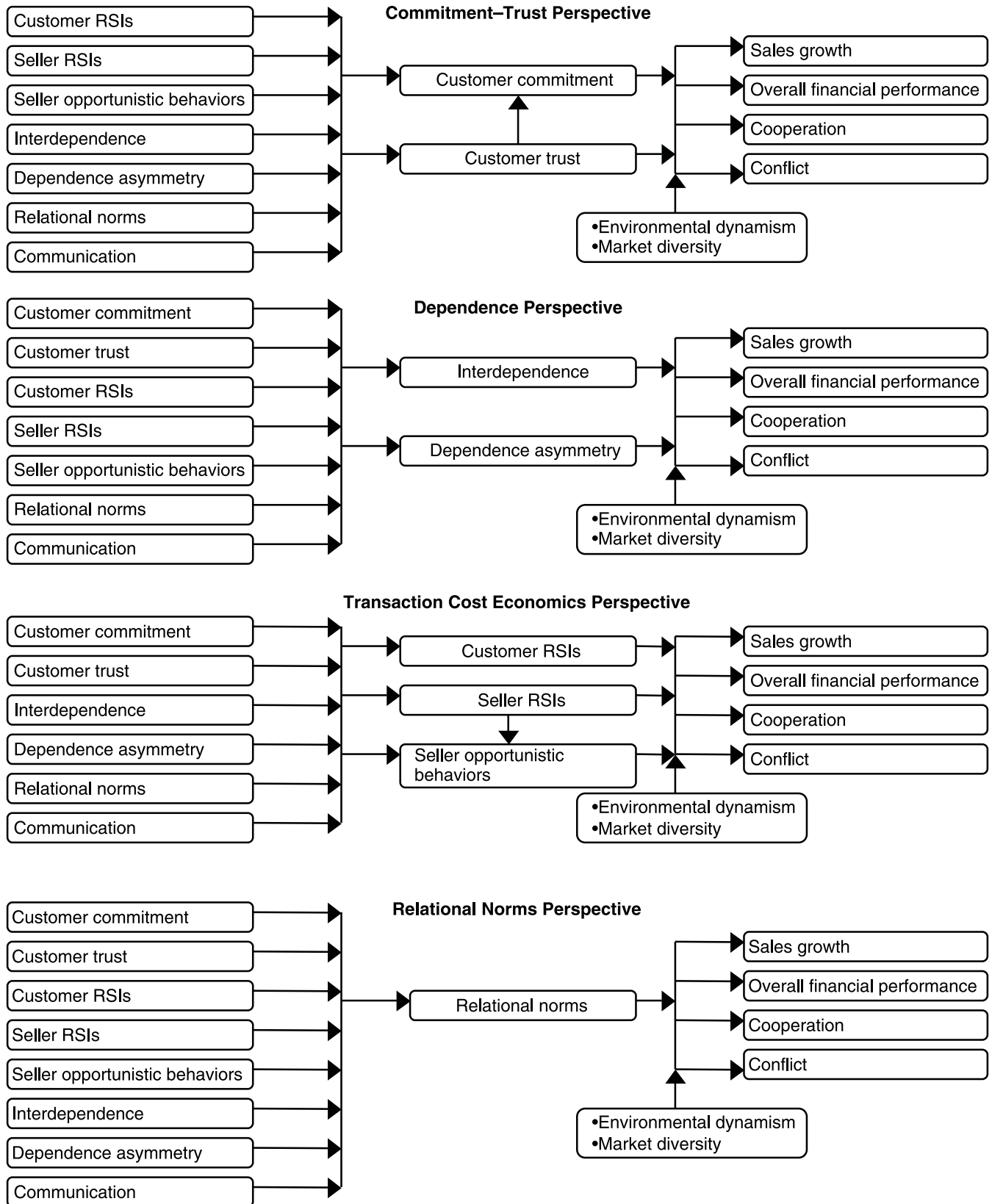
As customers invest time and effort to build relational governance structures, they become more dependent on their partner because duplicating relational bonds with a new partner would involve additional investments. Thus, commitment and trust in a partner increase interdependence (El-Ansary 1975). As partners commit RSIs, they grow more dependent, and switching threats are less credible (Ganesan 1994; Kim and Frazier 1997). Thus, RSIs should affect interdependence positively. Furthermore, potential partners may engage in opportunism, so to find a partner, firms must expend effort and search costs, which increases dependence on "safe" partners.

Building strong relational norms takes time and effort from both exchange partners. Because they are not easily replaced, strong relational norms should represent valuable, difficult-to-duplicate assets for both partners and should result in higher interdependence levels. Interdependence should also increase as the level of communication increases because information typically provides value to each party and is difficult to replace (Frazier 1983; Mohr and Nevin 1990). Few antecedents of dependence asymmetry appear in the literature, but because RSIs increase a partner's dependence, all else being equal, RSIs by one partner should increase its relative dependence, leading to a power imbalance (Kim and Frazier 1997).

Transaction Cost Economics Perspective

The transaction cost perspective (Williamson 1975), which focuses on the twin focal constructs of specific investments and opportunism to predict governance and exchange performance, has received consistent research attention (Heide and John 1990; Wathne and Heide 2000). Empirical studies (Rindfleisch and Heide 1997) have supported the normative claim of transaction cost analysis that firms should verti-

FIGURE 1
Four Theoretical Perspectives of Interorganizational Relationship Performance

Commitment–Trust Perspective

Customer RSIs
Seller RSIs
Seller opportunistic behaviors
Interdependence
Dependence asymmetry
Relational norms
Communication

Customer commitment
Customer trust

Sales growth
Overall financial performance
Cooperation
Conflict

•Environmental dynamism
•Market diversity

Dependence Perspective

Customer commitment
Customer trust
Customer RSIs
Seller RSIs
Seller opportunistic behaviors
Relational norms
Communication

Interdependence
Dependence asymmetry

Sales growth
Overall financial performance
Cooperation
Conflict

•Environmental dynamism
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Transaction Cost Economics Perspective

Customer commitment
Customer trust
Interdependence
Dependence asymmetry
Relational norms
Communication

Customer RSIs
Seller RSIs
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Sales growth
Overall financial performance
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Conflict

•Environmental dynamism
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Relational Norms Perspective

Customer commitment
Customer trust
Customer RSIs
Seller RSIs
Seller opportunistic behaviors
Interdependence
Dependence asymmetry
Communication

Relational norms

Sales growth
Overall financial performance
Cooperation
Conflict

•Environmental dynamism
•Market diversity

Notes: We measured all antecedents in Year 1, mediators in Year 2, and outcomes in Year 3, except for sales growth, which includes Years 3 and 4. We modeled exchange age as an antecedent of all mediators and exchange outcomes.

cally integrate when confronted with investments in idiosyncratic assets or suspicions of opportunistic behaviors by the exchange partner. In this sense, RSIs by an exchange partner simultaneously signal its intent and generate the need to safeguard investments. Because RSIs represent sunk, unredeployable assets in an exchange relationship, parties' RSIs reduce their motivation to behave opportunistically and the credibility of switching threats, which in turn minimizes the partner's need (and costs) to monitor performance or safeguard assets. With fewer opportunism concerns and lower monitoring and safeguarding costs, the exchange becomes more efficient and more prone to joint action and includes greater expectations of continuity, all of which contribute to enhanced performance (Heide and John 1990; Parkhe 1993; Smith and Barclay 1997). Thus, the transaction cost perspective suggests that performance is enhanced as the governance structure matches the level of relationship uncertainty or ambiguity. Researchers agree that opportunism has a negative impact on interfirm performance because it significantly increases the *ex post* costs associated with monitoring performance and safeguarding investments (Gassenheimer, Davis, and Dahlstrom 1998; Heide and John 1990).

Strong relationships cause partners to discount the possibility that their partner will appropriate their idiosyncratic investments, and relational bonds increase their willingness to make RSIs. We expect that interdependence has a positive effect on partners' RSIs because they are less concerned that the partner will appropriate them (Heide and John 1988). Interdependence should also reduce partners' tendency to behave opportunistically because they do not want to jeopardize a difficult-to-replace relationship. Conversely, dependence asymmetry should reduce the exchange partner's RSIs because of its concerns about coercive uses of power. Consistent with the literature (Parkhe 1993), seller RSIs suppress sellers' opportunist behaviors; sellers do not want to forfeit or undermine their nonrecoverable investments by engaging in relationship-damaging behaviors.

Research also suggests a positive influence of relational norms on RSIs, in that strong norms reduce concerns that either exchange partner will appropriate idiosyncratic investments (Heide and John 1992; Noordewier, John, and Nevin 1990). Moreover, because relational norms embody a promise of fair play and a mutually beneficial, long-term relationship, they provide pressure not to behave opportunistically and support RSIs that often pay returns only in the long run. Transaction cost analysis works on the presumption of bounded rationality (i.e., managers are constrained by limited cognitive capability and imperfect information) and thus posits that effective communication reduces the uncertainties associated with governance-related decisions and concerns of opportunism while increasing RSIs (Rindfleisch and Heide 1997).

Relational Norms Perspective

The relational norms perspective, drawn from relational exchange theory (Kaufmann and Dant 1992; Macneil 1980), often appears in conjunction with the commitment–trust perspective to explain the positive influence of relational marketing (Gundlach, Achrol, and Mentzer 1995; Jap

and Ganesan 2000; Siguaw, Simpson, and Baker 1998). Relational exchange theory rests on two key propositions. First, for contracts to function, a set of common contracting norms must exist (Kaufmann and Dant 1992). Second, in contrast to classical legal theory, which assumes that all transactions are discrete events, Macneil (1980) argues that transactions are immersed in the relationships that surround them, which may be described in terms of the relational norms of the exchange partners. Relational norms positively affect financial results and cooperative behaviors (Cannon, Achrol, and Gundlach 2000; Siguaw, Simpson, and Baker 1998) and reduce the level of conflict (Jap and Ganesan 2000). Exchanges characterized by high levels of relational norms enable exchange partners to respond more effectively to environmental contingencies, extend the time horizon for evaluating the outcomes of their relationships, and, ultimately, refrain from relationship-damaging behaviors (Kaufmann and Stern 1988). In other words, relationalism plays a significant role in structuring economically efficient exchange relationships under conditions of uncertainty and ambiguity and therefore should lead to improved financial performance (Heide and John 1992).

Commitment and trust promote the emergence of relational norms by fostering behaviors that support bilateral strategies to accomplish shared goals (Gundlach, Achrol, and Mentzer 1995). Similarly, RSIs positively affect relational perceptions (Bello and Gilliland 1997); idiosyncratic investments signify the importance a partner attaches to the partnership and have a positive impact on switching costs, which makes the relationship more important to the exchange partner and enhances its efforts to maintain it (Anderson and Weitz 1992).

Opportunistic behaviors have a negative impact on the emergence of relational sentiments (Gundlach, Achrol, and Mentzer 1995) because perceiving a partner as opportunistic undermines extant relational norms and raises the specter that the exchange partner is not concerned with the well-being or fairness of the exchange. Interdependence enhances relational sentiments, in that perceptions of dependence indicate significant stakes in the relationship and increase exchange partners' interest in maintaining the relationship (Ganesan 1994; Lusch and Brown 1996). Conversely, asymmetric dependence promotes the coercive use of power and undermines relational norms. Communication's effect on relational sentiments should be positive because "communication [is] the glue that holds together a channel of distribution" and helps create an atmosphere of mutual support and participative decision making (Mohr and Nevin 1990, p. 36).

Moderating Role of Environmental Uncertainty

Interfirm relationships occur within an external environment, so exogenous factors may moderate the effects of the focal constructs on performance. To provide a more robust comparison of the different frameworks, we evaluate contextual effects across theoretical perspectives. Environmental uncertainty, the most frequently studied exogenous factor, plays a key role in interorganizational relationships; the focal theories attempt to absorb or mitigate the effects of uncertainty firms face in an exchange (Ganesan 1994;

Heide 1994; Noordewier, John, and Nevin 1990). We investigate the moderating role of two sources of uncertainty: environmental dynamism, or the frequency of changes in market forces, and market diversity, or the degree of heterogeneity in the needs and preferences of end customers (Achrol and Stern 1988).

Social and relational exchange theories argue that relational-based exchanges outperform transactional-based exchanges because of their ability to adapt to new conditions and to increase confidence in partners' future actions, which support risk-taking and reciprocity-based behaviors (Cannon and Perreault 1999; Dahlstrom and Nygaard 1995). As environmental uncertainty increases, exchange partners need to adapt and require the enhanced flexibility and behavioral confidence of relational-based exchanges. In turn, higher levels of uncertainty should enhance the positive effect of commitment, trust, interdependence, and relational norms on exchange outcomes. Similarly, the ability of relational bonds to limit conflict should be more important in turbulent environments because of the higher likelihood of disagreements and need for negotiated solutions.

Empirical research, though limited, supports this premise. For example, Dahlstrom and Nygaard (1995) find partial support for their argument that as uncertainty increases, more formality and rigid structures between partners reduce performance. In support of the benefits of flexible, relational-based exchanges, Cannon, Achrol, and Gundlach (2000) note that relational norms enhance performance in high-uncertainty conditions.

Transaction cost economics portrays environmental uncertainty as debilitating for decision makers' information processing because of bounded rationality (Rindfleisch and Heide 1997). In an uncertain environment, there is an increased likelihood that critical information brought to the partnership can leverage RSIs' impact on performance. In a stable environment, RSIs cannot enhance performance as effectively by arbitraging a partner's asymmetric information because knowledge is homogeneously diffused (Dyer 1996). Moreover, partners become valuable resources, increasing cooperation and reducing actions that may lead to conflict. Thus, increases in environmental uncertainty should enhance the positive effect of customers' and sellers' RSIs on exchange outcomes but should reduce the effect on conflict as well as opportunism's negative effect on exchange outcomes.

Joshi and Stump (1999) find empirical support for their transaction cost–based hypothesis that decision-making uncertainty positively moderates the impact of specific investments on cooperation or joint action. Integrating both relational and transaction cost perspectives, Noordewier, John, and Nevin (1990) support their premise that relational governance's effect on performance depends on uncertainty.

Research Method

Sample and Data Collection Procedure

We draw the sample for this research from a longitudinal survey of business-to-business relationships between a major *Fortune* 500 company (seller) and its local distributor

agents (customers). The business relationships cover various products, including clothing, hardware, furniture, and appliances, so our sample minimizes any specific product-category effects. The relationships also include diverse business functions, such as generating demand, inventorying products, selling to consumers, and handling returns. Thus, this setting captures a range of business activities and provides an excellent context in which to test alternative theoretical perspectives.

We gathered the data in three successive annual mail surveys to the manager of each customer firm. The sampling frames for the three years were 1651, 1837, and 1965, and the corresponding completed questionnaires received were 984, 1004, and 1089. Thus, the response rates are 60%, 55%, and 55%; however, not every customer responded to all three surveys. Therefore, we base our analysis on 396 cases in which the same respondents completed the surveys in all three years, which represents a 24% response rate for the 1651 surveys mailed in Year 1.

We assess possible nonresponse bias in three ways. First, we conduct tests comparing early and late respondents for all three waves in terms of archival sales data, demographic information, and study constructs. The results indicate that early versus late respondents constitute the same population ($p > .05$). Second, we compare the retained sample of 396 with respondents excluded from the analysis because of their failure to complete surveys in all three years—588 in the first year, 608 in the second, and 693 in the third—across the study constructs using a series of multivariate analyses of variance and univariate analyses. These results are not significant ($p > .05$). Third, we compare the respondent pools in each year with the total sampling frames (e.g., 984 compared with 1651 in Year 1). Again, we find no significant differences ($p > .05$). The relatively high response rates and the results of these three tests suggest that nonresponse bias is not a concern.

Measures

We base our reflective measures on extant literature that has undergone prior psychometric scrutiny and adapt them to fit the context of our investigation. In all three years, we use identical measurement items; in the Appendix, we present the full battery of scales employed, item loadings, and principal literature sources.

For the measures of financial outcomes, we use a perceptual format reported by customers and average sales growth for Years 2–4 that the seller provided for each customer. Consistent with the literature (e.g., Cannon, Achrol, and Gundlach 2000; Gundlach, Achrol, and Mentzer 1995), we conceptualize relational norms as a composite construct using three items generated by averaging the items used to measure each of three specific norms (solidarity, mutuality, and flexibility). We verify the reliability of the scales for each norm and then average them to form the relational norm indicators in the measurement and structural models.

Following Jap and Ganesan (2000), we operationalize interdependence as the product of the customer's dependence on the seller and its perception of the seller's dependence on it, whereas dependence asymmetry is the seller's dependence less the customer's dependence. Note that other

operationalizations of dependence structure can be found in the literature (e.g., Ganesan 1994; Kumar, Scheer, and Steenkamp 1995). Exchange age, a control variable, serves as an antecedent for all mediators and outcomes.

Measurement Models

We estimate separate confirmatory measurement models for all latent constructs captured in each of the three data collection efforts (Years 1, 2, and 3). Thus, the first measurement model pertains to data collected in Year 1, including all antecedent and mediator constructs; the second duplicates this approach with Year 2 data; and the third model includes the three customer-reported latent outcome constructs measured during Year 3. Each item's loading is restricted to its a priori construct, and each construct is correlated with all other constructs. The measurement fit indexes for the first, second, and third models are as follows: Year 1: $\chi^2_{(395)} = 656.8$, $p < .01$; comparative fit index (CFI) = .96; Tucker–Lewis index (TLI) = .95; and root mean square error of approximation (RSMEA) = .04; Year 2: $\chi^2_{(395)} = 695.6$, $p < .01$; CFI = .96; TLI = .95; and RSMEA = .04; Year 3: $\chi^2_{(24)} = 34.5$, $p < .01$; CFI = .99; TLI = .99; and RSMEA = .03. Thus, the fit indexes for all three models are acceptable. All factor loadings are significant and in the predicted direction ($p < .001$), in support of convergent validity. Finally, all latent constructs' composite reliabilities are .67 or greater, indicating internal reliability. We provide the descriptive statistics and correlations for all measures in Table 2.

We confirm discriminant validity by comparing two nested models for each pair of latent constructs for each measurement year in which we either allow the correlation between two constructs to be free or restrict the correlation to 1. Discriminant validity is supported; the chi-square statistic is significantly lower ($p < .05$) in the unconstrained model than in the constrained model for all constructs. We find additional support for discriminant validity by verifying that the average variance extracted by each latent construct is greater than its shared variance (intercorrelation[2]) with other constructs. On the basis of these tests, we conclude that our measures are valid and reliable.

Analysis and Results

We test our conceptual models using structural path modeling with maximum likelihood criteria. We evaluate the main effects among key interfirm constructs according to the nomological framework suggested by each theoretical perspective (Figure 1) and perform mediation tests for the direct effect of each antecedent on each outcome variable. These tests provide key insights into the causal ordering among constructs and the primary drivers of performance. We report the results of proposed main effects in Table 3. On the basis of the results across these four models, we propose and test a fifth post hoc integrative model. The fit indexes across the five structural models are relatively stable, ranging from $\chi^2_{(762 \text{ to } 766)} = 1144.8$ to 1209.3, $p < .01$; CFI = .96 (all models); TLI = .95–.96; and RSMEA = .04 (all models), all of which indicate acceptable fit.

Results: Commitment–Trust Perspective

As we show in Table 3, building customer trust ($\beta = .53$, $p < .01$), increasing interdependence ($\beta = .12$, $p < .01$), and building stronger dyadic relational norms ($\beta = .27$, $p < .01$) lead to higher levels of customer commitment. Customer RSIs, dependence asymmetry, and communication are not significantly related to commitment. Customers trust sellers that make RSIs ($\beta = .21$, $p < .01$) and those involved in exchanges with high levels of relational norms ($\beta = .23$, $p < .01$) and communication ($\beta = .22$, $p < .01$). The premise that customers that make RSIs are concerned that they will be held hostage by these investments is supported by their lower levels of trust in the seller ($\beta = -.10$, $p < .05$). As we expected, seller opportunistic behaviors ($\beta = -.13$, $p < .05$) undermine customers' trust in the seller. However, neither interdependence nor dependence asymmetry has a significant influence on customer trust.

Commitment has a strong effect on all four outcomes: sales growth ($\beta = .18$, $p < .01$), overall financial performance ($\beta = .18$, $p < .01$), cooperation ($\beta = .30$, $p < .01$), and conflict ($\beta = -.21$, $p < .01$). Similarly, trust has a direct impact, in addition to its indirect impact, on cooperation ($\beta = .14$, $p < .05$) and conflict ($\beta = -.14$, $p < .05$), but its direct impact on sales growth and overall financial performance is not significant. The exchange age control variable has a negative effect on sales growth ($\beta = -.08$, $p < .05$), indicating that new partners grow faster than long-term partners.

To understand whether the effect of the antecedents on outcomes is fully mediated by each perspective's focal constructs and to generate insight into the causal ordering among the constructs, we perform a series of mediation tests for each antecedent on each outcome by comparing two nested models: the proposed full mediation model and a partial mediation model with an additional path from an antecedent to an outcome. If the new model provides significantly better fit, the antecedent's effect on the outcome is not fully mediated by the proposed focal constructs.[1] Our tests demonstrate that only customer and seller RSIs are not fully mediated by commitment and trust. Moreover, we compare mediation results across the four theoretical models and derive key insights into causal ordering. For example, neither trust's nor commitment's effect on outcomes is fully mediated when they serve as antecedents in other models. This finding provides additional support for the role of commitment and trust in driving performance. That is, commitment and trust mediate all constructs except for RSIs, and no other perspective mediates their effect on outcomes; therefore, commitment and trust are immediate precursors to exchange performance.

Results: Dependence Perspective

As customers' commitment ($\beta = .20$, $p < .05$) increases, as they make more RSIs ($\beta = .15$, $p < .05$), and as they have higher levels of relational norms ($\beta = .18$, $p < .05$), the level of interdependence increases. Contrary to our expectations,

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[1]Chi-square difference test statistics are available for all mediation tests on request.

TABLE 2
Descriptive Statistics and Correlations

Constructs	M	SD	α	M	SD	α	1	2	3	4	5	6	7	8	9	10	11	12	13	14
	Year 1			Year 2																
1. Customer commitment	4.38	.61	.88	4.40	.59	.88	N.A.	.61**	.18**	-.09	.24**	.45**	-.33**	.67**	.39**	.24**	.36**	-.29**	.00	.16**
2. Customer trust	4.24	.60	.90	4.26	.63	.92	.59**	N.A.	.06	-.08	.25**	.43**	-.41**	.63**	.45**	.23**	.32**	-.27**	.06	.10*
3. Interdependence	10.63	4.03	.72	10.78	3.98	.74	.28**	.08	N.A.	-.06	.17**	.12*	-.05	.21**	.05	.14**	.09	-.11**	-.06	-.02
4. Dependence asymmetry	.28	.98	.67	.23	1.02	.77	-.12**	-.10*	-.10	N.A.	-.07	-.05	.09	-.13**	-.08	.04	-.05	.08	-.02	.01
5. Customer RSIs	3.78	.61	.88	3.81	.57	.88	.19**	.23**	.24**	-.04	N.A.	.48**	-.17**	.32**	.29**	.14**	.18**	-.11*	.05	.11*
6. Seller RSIs	3.73	.69	.86	3.78	.67	.84	.41**	.41**	.16**	-.16**	.44**	N.A.	-.25**	.50**	.51**	.27**	.31**	-.20**	.10	.11*
7. Seller opportunistic behaviors	2.13	.72	.86	2.06	.73	.91	-.41**	-.45**	-.05	.11*	-.20**	-.28**	N.A.	-.35**	-.28**	-.12*	-.25**	.29**	-.00	-.05
8. Relational norms	3.90	.59	.83	3.92	.58	.82	.65**	.60**	.18**	-.12*	.32**	.43**	-.42**	N.A.	.47**	.25**	.32**	-.21**	-.02	.12*
9. Communication	3.88	.60	.87	3.93	.61	.90	.42**	.50**	.18**	-.14**	.29**	.52**	-.29**	.46**	N.A.	.18**	.30**	-.20**	.12*	.05
	Year 3																			
10. Overall financial performance	3.93	.66	.93	N.A.	N.A.	N.A.	.21**	.19**	.15**	.02	.18**	.17**	-.04	.17**	.16**	N.A.	.22**	-.13**	-.05	.10
11. Cooperation	4.15	.60	.91	N.A.	N.A.	N.A.	.23**	.30**	.10	-.04	.15**	.22**	-.22**	.25**	.26**	.22**	N.A.	-.47**	.03	.10*
12. Conflict	1.66	.68	.95	N.A.	N.A.	N.A.	-.15**	-.19**	-.12*	.02	-.04	-.12*	.19**	-.14**	-.23**	-.13**	-.47**	N.A.	.01	-.07
13. Exchange age (years)	8.61	6.98	N.A.	N.A.	N.A.	N.A.	.01	.05	-.11*	.02	.02	.06	-.05	-.01	.07	-.05	.03	.01	N.A.	-.08
	Years 3 and 4																			
14. Sales growth (%)	-1.30	6.62	N.A.	N.A.	N.A.	N.A.	.06	.10*	-.01	.03	.01	.09	-.06	.11*	.05	.10	.10*	-.07	-.08	N.A.

*p < .05.
**p < .01.
Notes: α refers to coefficient alphas. Correlations for Years 1, 3, and 4 appear below the diagonal, and correlations for Years 2, 3, and 4 appear above the diagonal. N.A. = not applicable.

TABLE 3
Results: Main Effects

Antecedents → Mediators	β	t-Value	Mediators → Outcomes	β	t-Value
Commitment–Trust Perspective					
Customer trust → customer commitment	.53	9.85**	Customer commitment → sales growth	.18	2.38**
Customer RSIs → customer commitment	−.07	−1.54	Customer commitment → overall financial performance	.18	2.33**
Interdependence → customer commitment	.12	2.40**	Customer commitment → cooperation	.30	3.94**
Dependence asymmetry → customer commitment	.02	.31	Customer commitment → conflict	−.21	−2.80**
Relational norms → customer commitment	.27	4.67**			
Communication → customer commitment	.04	.65	Customer trust → sales growth	−.01	−.16
Customer RSIs → customer trust	−.10	−1.74*	Customer trust → overall financial performance	.12	1.61
Seller RSIs → customer trust	.21	2.82**	Customer trust → cooperation	.14	1.90*
Seller opportunistic behaviors → customer trust	−.13	−2.30*	Customer trust → conflict	−.14	−1.87*
Interdependence → customer trust	.02	.28			
Dependence asymmetry → customer trust	.05	.84			
Relational norms → customer trust	.23	3.44**			
Communication → customer trust	.22	3.17**			

R^2: customer commitment = .54, trust = .33, sales growth = .04, overall financial performance = .08, cooperation = .17, and conflict = .11

Antecedents → Mediators	β	t-Value	Mediators → Outcomes	β	t-Value
Dependence Perspective					
Customer commitment → interdependence	.20	2.02*	Interdependence → sales growth	−.02	−.36
Customer trust → interdependence	−.26	−2.67**	Interdependence → overall financial performance	.16	2.74**
Customer RSIs → interdependence	.15	2.08*	Interdependence → cooperation	.10	1.72*
Seller RSIs → interdependence	−.11	−1.21	Interdependence → conflict	−.11	−1.91*
Seller opportunistic behaviors → interdependence	.18	2.48**			
Relational norms → interdependence	.18	1.83*	Dependence asymmetry → sales growth	.00	.72
Communication → interdependence	.12	1.43	Dependence asymmetry → overall financial performance	.05	.81
Customer RSIs → dependence asymmetry	−.07	−.96	Dependence asymmetry → cooperation	−.07	−1.11
Seller RSIs → dependence asymmetry	−.10	−1.27	Dependence asymmetry → conflict	.11	1.87*

R^2: interdependence = .11, dependence asymmetry = .02, sales growth = .01, overall financial performance = .03, cooperation = .02, and conflict = .03

Antecedents → Mediators	β	t-Value	Mediators → Outcomes	β	t-Value
Transaction Cost Economics Perspective					
Customer commitment → customer RSIs	.03	.34	Customer RSIs → sales growth	.12	2.36**
Customer trust → customer RSIs	.10	1.14	Customer RSIs → overall financial performance	.01	.11
Interdependence → customer RSIs	.13	2.77**	Customer RSIs → cooperation	.03	.67
Dependence asymmetry → customer RSIs	.02	.28	Customer RSIs → conflict	.01	.14
Relational norms → customer RSIs	.00	−.01			
Communication → customer RSIs	.08	1.12	Seller opportunistic behaviors → sales growth	−.00	−.04
Seller RSIs → seller opportunistic behaviors	−.18	−2.92**	Seller opportunistic behaviors → overall financial performance	−.03	−.61
Interdependence → seller opportunistic behaviors	−.04	−.68	Seller opportunistic behaviors → cooperation	−.17	−3.00**
Dependence asymmetry → seller opportunistic behaviors	−.01	−.17	Seller opportunistic behaviors → conflict	.26	4.76**
Relational norms → seller opportunistic behaviors	−.24	−3.90**			
Communication → seller opportunistic behaviors	−.08	−1.15	Seller RSIs → sales growth	.08	1.31
Interdependence → seller RSIs	.08	1.41	Seller RSIs → overall financial performance	.32	5.37**
Dependence asymmetry → seller RSIs	.01	.17	Seller RSIs → cooperation	.30	5.14**
Relational norms → seller RSIs	.19	2.96**	Seller RSIs → conflict	−.16	−2.85**
Communication → seller RSIs	.29	4.33**			

R^2: customer RSIs = .07, opportunistic behaviors = .17, seller RSIs = .21, sales growth = .03, overall financial performance = .11, cooperation = .15, and conflict = .12

TABLE 3
Continued

Antecedents → Mediators	β	t-Value	Mediators → Outcomes	β	t-Value
Relational Norms Perspective					
Customer commitment → relational norms	.24	3.20**	Relational norms → sales growth	.12	2.36**
Customer trust → relational norms	.23	2.99**	Relational norms → overall financial performance	.27	4.90**
Customer RSIs → relational norms	.05	.88	Relational norms → cooperation	.37	6.54**
Seller RSIs → relational norms	.08	1.10	Relational norms → conflict	-.25	-4.52**
Seller opportunistic behaviors → relational norms	-.07	-1.25			
Interdependence → relational norms	.08	1.43			
Dependence asymmetry → relational norms	.02	.35			
Communication → relational norms	.05	.76			
R²: relational norms = .35, sales growth = .02, overall financial performance = .07, cooperation = .14, and conflict = .06					

*p < .05 (one-sided).
**p < .01 (one-sided).
Notes: β represents the standardized path coefficient.

customer trust negatively ($\beta = -.26$, $p < .01$) and opportunism positively ($\beta = .18$, $p < .01$) affect interdependence. The customer's evaluation of the seller's reliability and self-interest may affect interdependence perceptions, in that if the seller sincerely stands by its word, the customer expects it to help minimize losses if the relationship were to end. A trusted, nonopportunistic seller is more likely to follow the letter and spirit of a contract regarding notification and termination payments, which would make the loss of the relationship less costly (lowering interdependence), whereas a less trusted, more opportunistic seller may provide a relatively lower level of transitional support. We offer this conjecture in the spirit of novel thinking; other conjectures are equally plausible.

Seller RSIs and communication are not significantly related to customer interdependence. Similarly, neither customer RSIs nor seller RSIs have a significant impact on dependence asymmetry. Interdependence has a positive influence on overall financial performance ($\beta = .16$, $p < .01$) and cooperation ($\beta = .10$, $p < .05$) and a negative influence on conflict ($\beta = -.11$, $p < .01$). Unbalanced relationships experience higher levels of conflict, but dependence asymmetry does not influence any of the other three outcomes. Exchange age has a negative effect on sales growth ($\beta = -.04$, $p < .05$).

Mediation tests demonstrate that all antecedents have direct effects on the outcome variables (i.e., no antecedents are fully mediated), though in the commitment–trust and transaction cost perspectives, dependence constructs are fully mediated. Therefore, we posit that interdependence and dependence asymmetry are not immediate precursors to performance, and the dependence structure of exchange partners represents a structural characteristic of an exchange that may provide an important context for other proximate performance drivers.

Results: Transaction Cost Economics Perspective

As interdependence increases, customers make larger RSIs ($\beta = .13$, $p < .01$). None of the other antecedents of customer RSIs are significant. Seller opportunism drops as a result of strong relational norms ($\beta = -.24$, $p < .01$) and high seller RSIs ($-.18$, $p < .01$). Similarly, seller RSIs are influenced positively by relational norms ($\beta = .19$, $p < .01$) and communication ($\beta = .29$, $p < .01$) but are unaffected by dependence. Customer RSIs have a positive effect only on sales growth ($\beta = .12$, $p < .01$), whereas seller opportunistic behavior affects both relationship outcomes, undermining cooperation ($\beta = -.17$, $p < .01$) and increasing conflict ($\beta = .26$, $p < .01$), but has no effect on financial outcomes. Thus, opportunistic behaviors do not appear to influence financial outcomes directly but rather indirectly through their impact on relational behaviors. Seller RSIs have significant effects on three outcomes: They improve overall financial performance ($\beta = .32$, $p < .01$) and cooperation ($\beta = .30$, $p < .01$) and decrease the level of conflict ($\beta = -.16$, $p < .01$). Exchange age has a positive effect on seller RSIs ($\beta = .11$, $p < .05$) but a negative effect on sales growth ($\beta = -.10$, $p < .05$) and financial performance ($\beta = -.09$, $p < .05$).

Mediation tests demonstrate that commitment, trust, relational norms, and communication are not fully mediated

in the transaction cost perspective, and customer and seller RSIs have direct effects on outcomes (i.e., not fully mediated) when tested in the three other perspectives. Thus, RSIs have a direct effect on outcomes across all models, so they should be considered immediate precursors of exchange outcomes. The failure of this perspective to mediate fully the effect of the relational constructs on outcomes supports the view that transaction cost economics cannot capture the relational aspect of an exchange.

Results: Relational Norms Perspective

Of the eight antecedents tested, only customer commitment ($\beta = .24$, $p < .01$) and trust ($\beta = .23$, $p < .01$) have significant effects on the level of relational norms. It is especially surprising that opportunistic behaviors and communication do not influence relational norms, but we posit that this finding may be due to the time lapse in our longitudinal data; one year between antecedent and mediator measures may be relatively short compared with the time needed for meaningful changes in norms. Relational norms have strong effects on all four outcomes: sales growth ($\beta = .12$, $p < .01$), financial performance ($\beta = .27$, $p < .01$), cooperation ($\beta = .37$, $p < .01$), and conflict ($\beta = -.25$, $p < .01$).

Relational norms fail to mediate fully commitment, trust, customer and seller RSIs, and communication, but they fully mediate dependence measures and opportunistic behaviors. The results from the other models' mediation tests show that relational norms are fully mediated in the commitment–trust perspective. In addition, only two of the eight antecedents of relational norms are significant in this model, whereas norms are significantly related to five of the six focal constructs across the other models. Therefore, we posit that relational norms provide an important backdrop for other focal performance drivers but are not an immediate precursor of exchange performance themselves.

Results: Moderating Role of Environmental Uncertainty

To evaluate whether environmental dynamism or market diversity moderates the effects of the focal constructs on outcomes across perspectives, we use multigroup structural model analysis and examine moderation effects on the basis of a median split (N = 198 in both groups). We use a chi-square difference test to compare models in which we constrain all structural paths to be equal across the two groups versus an unconstrained model in which we allow the path being tested to vary. If the free model has a significantly lower chi-square than the constrained model, the path is moderated. We perform an analysis for the effects of all mediators on each of the four outcomes for both environmental dynamism and market diversity across the four perspectives and summarize the results in Table 4.

Compelling evidence shows the enhanced impact of strong interfirm relationships (commitment, trust, and relational norms) on overall financial performance and cooperation as environmental uncertainty increases. Commitment's impact on overall financial performance ($\Delta\chi^2_{(1)} = 5.7$, $p < .05$) and cooperation ($\Delta\chi^2_{(1)} = 7.4$, $p < .01$) is significantly moderated by environmental dynamism, whereas commitment's impact on cooperation ($\Delta\chi^2_{(1)} = 11.2$, $p <$

TABLE 4
Results: Moderation Tests

Mediators → Outcomes	Environmental Dynamism			Market Diversity		
	β of Low Group	β of High Group	Δχ² (1 d.f.)	β of Low Group	β of High Group	Δχ² (1 d.f.)
Commitment–Trust Perspective						
Customer commitment → sales growth	.15	.18*	.1	.18*	.18*	.0
Customer commitment → overall financial performance	.05	.30**	5.7*	.08	.27**	3.0
Customer commitment → cooperation	.20*	.43**	7.4**	.17*	.46**	11.2**
Customer commitment → conflict	-.30**	-.22**	1.7	-.20**	-.29**	.6
Customer trust → sales growth	-.07	.05	1.3	.01	-.03	.1
Customer trust → overall financial performance	-.08	.27**	12.3**	-.02	.21**	4.6*
Customer trust → cooperation	.01	.22**	6.3**	.02	.27**	7.6**
Customer trust → conflict	-.23**	-.04	4.6*	-.09	-.19*	.9
Dependence Perspective						
Interdependence → sales growth	.03	-.08	.9	-.03	-.02	.0
Interdependence → overall financial performance	.16*	.15*	.1	-.05	.29**	6.1**
Interdependence → cooperation	.11	.11	.1	.06	.13*	.3
Interdependence → conflict	-.06	-.18*	.5	-.12	-.11	.3
Dependence asymmetry → sales growth	-.10	.07	2.2	-.10	.10	3.2
Dependence asymmetry → overall financial performance	.05	.05	.0	-.08	.15*	3.9*
Dependence asymmetry → cooperation	-.11	-.06	.2	-.07	-.08	.0
Dependence asymmetry → conflict	.18**	.06	2.4	.15*	.10	.5
Transaction Cost Economics Perspective						
Customer RSIs → sales growth	.06	.12	.3	.00	.23**	4.6*
Customer RSIs → overall financial performance	-.06	.05	1.3	-.04	.02	.4
Customer RSIs → cooperation	.02	.10	.8	.04	-.01	.3
Customer RSIs → conflict	.01	-.05	.3	.02	.00	.0
Seller opportunistic behaviors → sales growth	.06	-.03	.8	.05	-.03	.6
Seller opportunistic behaviors → overall financial performance	.03	-.10	1.6	-.01	-.09	.4
Seller opportunistic behaviors → cooperation	-.21**	-.15*	.3	-.13*	-.26**	1.0
Seller opportunistic behaviors → conflict	.26**	.27**	.2	.18**	.35**	1.2
Seller RSIs → sales growth	.18*	.01	2.5	.05	.11	.2
Seller RSIs → overall financial performance	.19*	.41**	4.2*	.23**	.37**	.8
Seller RSIs → cooperation	.23**	.33**	1.3	.20**	.38**	3.9*
Seller RSIs → conflict	-.22**	-.12	2.1	-.16*	-.18*	.0
Relational Norms Perspective						
Relational norms → sales growth	.06	.15*	.7	.12	.11	.1
Relational norms → overall financial performance	.14*	.38**	4.9*	.12	.37**	3.7
Relational norms → cooperation	.29**	.45**	3.4	.20**	.51**	11.3**
Relational norms → conflict	-.34**	-.21**	3.0	-.30**	-.24**	1.6

*$p < .05$.
**$p < .01$.
Notes: β represents the standardized path coefficient for that group, and Δχ² represents the difference in χ² between the constrained and the free models for the path being tested with 1 degree of freedom.

.01) is significantly moderated by market diversity. Even more compelling, trust's impact on overall financial performance ($\Delta\chi^2_{(1)} = 12.3$, $p < .01$; $\Delta\chi^2_{(1)} = 4.6$, $p < .05$) and cooperation ($\Delta\chi^2_{(1)} = 6.3$, $p < .01$; $\Delta\chi^2_{(1)} = 7.6$, $p < .01$) is significantly moderated by both environmental dynamism and market diversity. None of the effects of commitment or trust on sales growth or conflict are significantly moderated, except for the negative impact of trust on conflict ($\Delta\chi^2_{(1)} = 4.6$, $p < .05$).

We do not find support for the moderating role of uncertainty in the dependence perspective; only 2 of the 16 paths tested are significantly moderated, and only 1 is significantly moderated in the expected direction. Overall, the effect of an exchange's dependence structure on exchange outcomes does not appear to be sensitive to environmental uncertainty.

The moderating role of uncertainty on outcomes in the transaction cost perspective yields mixed results. None of the moderation tests are significant for the impact of opportunism on exchange outcomes. Although only 3 of the 12 paths between RSIs and sales growth, financial performance, and cooperation are significantly moderated, 10 are in the expected direction but with effect sizes too small to achieve significance. Specifically, the impact of customer RSIs on sales growth is greater for more diverse markets ($\Delta\chi^2_{(1)} = 4.6$, $p < .05$), whereas that of seller RSIs on overall financial performance is greater as environmental dynamism increases ($\Delta\chi^2_{(1)} = 4.2$, $p < .05$) and that on cooperation is greater in more diverse markets ($\Delta\chi^2_{(1)} = 3.9$, $p < .05$).

Relational norms' impact on overall financial performance is moderated by environmental dynamism ($\Delta\chi^2_{(1)} = 4.9$, $p < .05$; the effect on cooperation is moderated at $p < .10$), whereas the impact on cooperation is significantly moderated by market diversity ($\Delta\chi^2_{(1)} = 11.3$, $p < .01$; the effect on overall financial performance is moderated at $p < .10$). None of the other norm–outcome relationships are significantly moderated.

Results: RBV Perspective

On the basis of the results from the four theoretically "pure" models, we develop and test a post hoc integrative model that combines the theoretical perspectives according to the causal ordering indicated by our analysis. We offer a model consistent with the RBV (Dyer 1996; Wernerfelt 1984) that treats commitment, trust, and RSIs as immediate precursors of performance (mediators) and all other constructs as antecedents (Figure 2).

In Table 5, we show that building customer trust ($\beta = .53$, $p < .01$), increasing interdependence ($\beta = .11$, $p < .05$), and building stronger relational norms ($\beta = .26$, $p < .01$) lead to higher levels of customer commitment. Communication is not significantly related to commitment. Customers experience higher levels of trust in exchanges with more relational norms ($\beta = .27$, $p < .01$) and communication ($\beta = .30$, $p < .01$) and less opportunism ($\beta = -.13$, $p < .05$). The dependence structure has no significant influence on customer trust. Customers make larger RSIs when exchange interdependence ($\beta = .16$, $p < .05$) and communication ($\beta = .11$, $p < .05$) increase, but none of the other antecedents are

significant. Seller RSIs are positively affected by relational norms ($\beta = .21$, $p < .01$) and communication ($\beta = .28$, $p < .01$) but not by interdependence.

Customer commitment has a strong effect on three outcomes: sales growth ($\beta = .16$, $p < .05$), cooperation ($\beta = .24$, $p < .01$), and conflict ($\beta = -.19$, $p < .01$); customer trust has a direct impact on conflict only ($\beta = -.12$, $p < .05$); customer RSIs have a positive effect on sales growth ($\beta = .12$, $p < .01$); and seller RSIs affect financial performance ($\beta = .24$, $p < .01$) and cooperation ($\beta = .18$, $p < .01$). Exchange age has a positive effect on seller RSIs ($\beta = .11$, $p < .05$) and a negative effect on sales growth ($\beta = -.09$, $p < .05$) and financial performance ($\beta = -.09$, $p < .05$).

Moreover, the mediation tests demonstrate that the effects of antecedents on outcomes are all fully mediated, in support of our proposed model. Even with all four mediators modeled as influencing each outcome, each still affects at least one outcome; therefore, each mediator captures independent, performance-relevant information.

Moderation tests of the RBV model are consistent with the previous results (see Table 6). The same relationships between commitment, trust, customer RSIs, and seller RSIs and outcomes are significantly moderated as in each of the component perspectives (except for seller RSIs → cooperation, for which the significance level drops from $p < .05$ to $p < .10$).

Discussion

Most researchers investigating interorganizational relationship performance use one or more of the theoretical perspectives we address herein (Heide and John 1990; Lusch and Brown 1996; Morgan and Hunt 1994; Siguaw, Simpson, and Baker 1998). Each perspective offers different focal or organizing constructs and either explicitly or implicitly proposes a different nomological ordering of key constructs. Because interfirm research often uses a single theoretical perspective and employs cross-sectional data, even after decades of research, there is a lack of understanding of relative efficacy or how the focal constructs are causally related, and managers can develop effective strategies only if they understand the key drivers of performance. Moreover, resolving how these different theories are interrelated can support researchers' efforts to build a holistic view of interfirm performance. We structure our discussion and implications for research and practice around our four focal questions: (1) What drives relationship performance? (2) How are the drivers causally ordered? (3) When does each driver have the greatest impact? and (4) Can these different drivers be parsimoniously integrated into a single framework. We summarize the results and implications in Table 7.

Key Drivers of Interorganizational Relationship Performance

Evaluating the main effects of each perspective's focal constructs on the four outcomes shows that with a single theoretical lens, as is typically used, each perspective receives strong empirical support, which may provide misleading insight into its relative efficacy. Both financial outcomes

FIGURE 2
The RBV of Interorganizational Relationship Performance
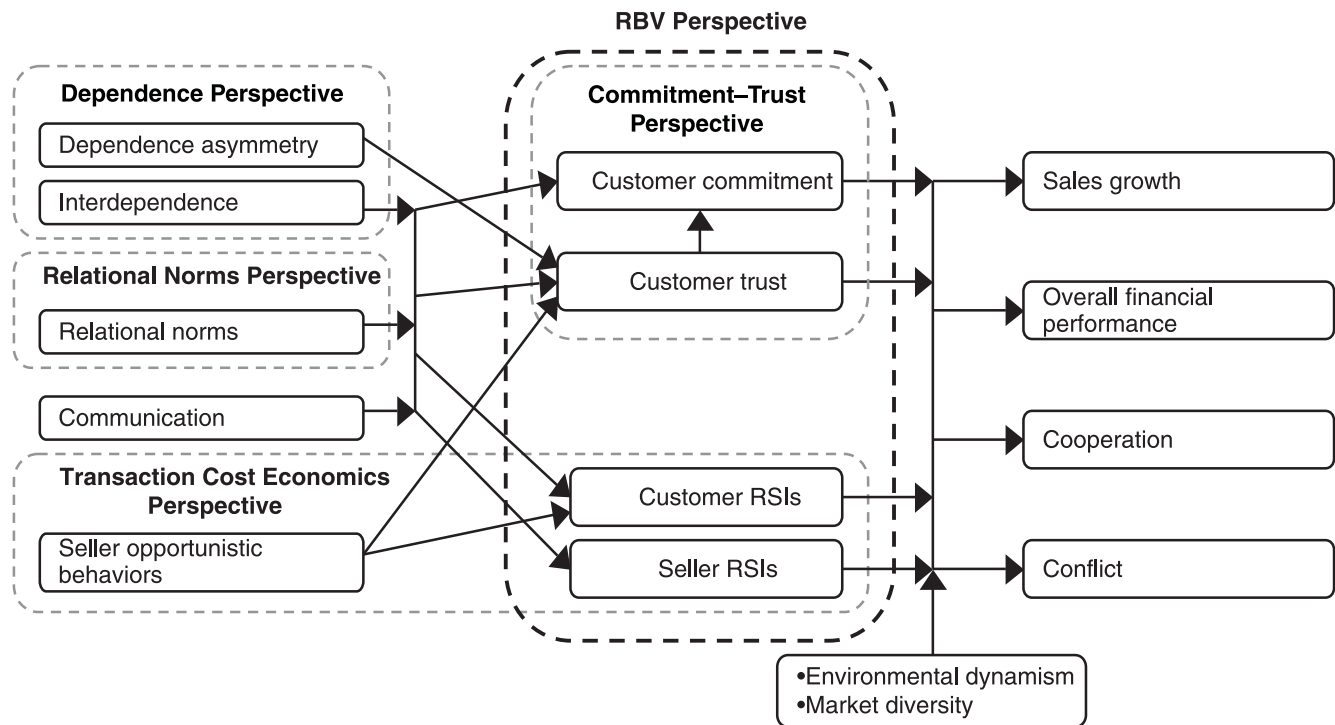
Notes: We measured all antecedents in Year 1, mediators in Year 2, and outcomes in Year 3, except for sales growth, which includes Years 3 and 4. We modeled exchange age as an antecedent of all mediators and exchange outcomes.

were affected by commitment, RSIs, and relational norms, whereas only commitment and RSIs had a direct effect on financial outcomes across all four models independent of measurement period or the inclusion of other focal constructs (i.e., during mediation tests). Thus, commitment and RSIs are key drivers of financial performance, whereas trust, opportunism, communication, relational norms, and dependence are not. All the focal constructs drive relational outcomes, but only the direct effects of trust, commitment, and RSIs remain across all measurement periods and perspectives. Thus, commitment, RSIs, and trust are key drivers of relational outcomes (i.e., cooperation and conflict), but opportunism, communication, relational norms, and dependence are not.

Therefore, previous research based solely on the dependence or relational norms perspectives likely overstates the impact of direct effects on performance. We find support for the role of commitment and trust on performance, but the equally strong and independent direct effect of RSIs on both financial and relational outcomes suggests that they should be considered as well. A recent meta-analysis (Palmatier et al. 2006, p. 150) reinforces this point by noting that "relationship investment has a large, direct effect on seller objective performance, in addition to its frequently hypothesized mediated effect." This meta-analysis also shows that RSIs' direct effect on objective performance is greater than that of relational mediators. Together, these results imply that rela-

tionship marketing should no longer model the effects of relational investments on outcomes as being fully mediated only by trust and commitment (e.g., Morgan and Hunt 1994); rather it should investigate RSIs' direct effect (Palmatier, Gopalakrishna, and Houston 2006) or other possible mediating mechanisms (e.g., reciprocity, exchange effectiveness, gratitude).

Management strategies must increase customers' motivation to maintain (commitment) and enable (e.g., trust, willingness to accept risk) the relationship, in addition to promoting investments by both partners to improve the efficacy and effectiveness of the interaction. Training programs, easier and more effective communication channels, and other specific assets could make the exchange more effective. Managers may want to provide incentives to push customers to make RSIs. For example, incentivizing customers to learn about products, using Web-based systems, or attending seller-funded seminars may pay higher dividends than additional "relationship-building events" targeted at improving customer–seller relational bonds.

The Causal Relation of Key Performance Drivers

Commitment, trust, and RSIs are not mediated by other constructs across different models and have consistent, direct effects on multiple outcomes across different perspectives; therefore, they are immediate precursors of per-

TABLE 5
Results: Main Effects of RBV of Interorganizational Exchange Performance

Antecedents → Mediators	β	t-Value	Mediators → Outcomes	β	t-Value
Customer trust → customer commitment	.53	9.67**	Customer commitment → sales growth	.16	2.13*
Interdependence → customer commitment	.11	2.28*	Customer commitment → overall financial performance	.10	1.28
Relational norms → customer commitment	.26	4.54**	Customer commitment → cooperation	.24	3.11**
Communication → customer commitment	.03	.46	Customer commitment → conflict	−.19	−2.41**
Seller opportunistic behaviors → customer trust	−.13	−2.28*	Customer trust → sales growth	−.03	−.44
Interdependence → customer trust	−.00	−.09	Customer trust → overall financial performance	.07	.87
Dependence asymmetry → customer trust	.03	.50	Customer trust → cooperation	.10	1.29
Relational norms → customer trust	.27	4.00**	Customer trust → conflict	−.12	−1.66*
Communication → customer trust	.30	4.84**			
Seller opportunistic behaviors → customer RSIs	.02	.29	Customer RSIs → sales growth	.12	2.38**
Interdependence → customer RSIs	.16	2.69**	Customer RSIs → overall financial performance	.01	.10
Relational norms → customer RSIs	.10	1.43	Customer RSIs → cooperation	.04	.71
Communication → customer RSIs	.11	1.65*	Customer RSIs → conflict	.00	.01
Interdependence → seller RSIs	.08	1.32	Seller RSIs → sales growth	.00	.05
Relational norms → seller RSIs	.21	3.10**	Seller RSIs → overall financial performance	.24	4.23**
Communication → seller RSIs	.28	4.09**	Seller RSIs → cooperation	.18	3.21**
			Seller RSIs → conflict	−.08	−1.43

R^2: customer commitment = .53, customer trust = .32, customer RSIs = .07, seller RSIs = .21, sales growth = .05, overall financial performance = .11, cooperation = .16, and conflict = .10

*$p < .05$ (one-sided).
**$p < .01$ (one-sided).
Notes: β represents the standardized path coefficient.

TABLE 6
Results: Moderation Tests of the RBV of Interorganizational Exchange Performance

Mediators → Outcomes	Environmental Dynamism			Market Diversity		
	β of Low Group	β of High Group	Δχ² (1 d.f.)	β of Low Group	β of High Group	Δχ² (1 d.f.)
Commitment–Trust Perspective						
Customer commitment → sales growth	.15	.15*	.0	.17*	.16*	.0
Customer commitment → overall financial performance	–.01	.21**	4.0*	.02	.19*	2.3
Customer commitment → cooperation	.16*	.37**	5.7*	.12	.41**	10.2**
Customer commitment → conflict	–.27**	–.18*	1.7	–.17*	–.26**	.6
Customer trust → sales growth	–.08	.02	.8	–.01	–.06	.2
Customer trust → overall financial performance	–.11	.21**	10.0**	–.06	.16*	4.2*
Customer trust → cooperation	–.02	.17*	4.6*	–.02	.24**	7.0**
Customer trust → conflict	–.21**	–.01	4.7*	–.07	–.18*	.9
Customer RSIs → sales growth	.06	.12	.3	.00	.23**	4.6*
Customer RSIs → overall financial performance	–.06	.05	1.2	–.04	.02	.3
Customer RSIs → cooperation	.03	.10	.6	.05	–.01	.4
Customer RSIs → conflict	–.01	–.04	.1	.00	–.01	.0
Seller RSIs → sales growth	.10	–.06	2.2	–.03	.04	.3
Seller RSIs → overall financial performance	.11	.35**	4.3*	.16*	.30**	.9
Seller RSIs → cooperation	.11	.23**	1.3	.07	.27**	3.6
Seller RSIs → conflict	–.13*	–.01	1.9	–.08	–.09	.0

*p < .05.
**p < .01.
Notes: β represents the standardized path coefficient for that group, and Δχ² represents the difference in χ² between the constrained and the free models for the path being tested with 1 degree of freedom.

formance (Table 7). Thus, what is the role of other focal interorganizational constructs?[2] The dependence structure of an exchange builds commitment and promotes RSIs, possibly by increasing switching costs and reducing concerns about appropriations. Contrary to extant research (Ganesan 1994; Kim and Frazier 1997), we find that RSIs' impact on performance does not function through their effect on the dependence structure. Furthermore, the effect of opportunistic behaviors on outcomes works through their influence on trust, and the role of communications in driving outcomes lies in their effect on trust and RSIs. Whereas researchers understand the communication–trust relationship, the connection between communication and RSIs is less familiar, though it may be an important vehicle for uncovering potential exchange-leveraging investment opportunities.

Relational norms appear to be important antecedents of all key drivers of performance, possibly because they provide key foundational rules (e.g., solidarity, mutuality, flexibility) and conformance pressures that prompt strong relational bonds and risky investments. Thus, if we assume that exchange partners typically adhere to relational norms, norms may be a necessary but insufficient condition for high-performance exchanges; that is, violating norms ensures underperformance, but following norms does not guarantee high performance. We find only a limited number of significant antecedents of relational norms, possibly because change in norms likely takes longer than one year to occur.

These findings support both the persistent calls for more longitudinal research to resolve differences in causal ordering among theoretical perspectives and a more integrated view. Moreover, we provide insight into the role of key interorganizational constructs. When developing financial strategies, managers should build commitment and promote RSIs; concerns about dependence, opportunism, norms, and communication are secondary and should be evaluated in terms of their impact on the key performance drivers.

The Greatest Impacts on Exchange Performance

Our moderation analyses show that the positive effects of commitment, trust, and relational norms on cooperation and financial performance increase as environmental uncertainty increases. Relational-based exchanges outperform transaction-based exchanges when environmental uncertainty is high, in support of the premise that greater adaptability and flexibility associated with relationally governed exchanges pay higher dividends in changing environments. The moderation effect on trust is especially notable; trust does not have a significant, direct effect on financial performance in the overall sample, but it has a significant effect in the high-uncertainty groups. Thus, in dynamic, diverse environments, trust enhances commitment and directly affects financial performance. Customers may reward trusted sellers in dynamic markets because they acknowledge the value of trust in this context with additional sales and higher prices.

Uncertainty moderates neither the effect of dependence nor that of opportunism on performance. In addition, RSIs have a stronger impact on exchange outcomes as uncertainty increases, so investments in exchange relationships (e.g., training, customization) may generate higher returns in dynamic, heterogeneous environments. Managers may find it productive to allocate more relationship marketing efforts and investments to exchanges in markets with higher levels of uncertainty. In dynamic markets, sellers may also want to take advantage of the enhanced impact of trust by increasing communication, minimizing signs of opportunism, and committing RSIs to increase the customer's perception of trustworthiness.

Integration in a Single Theoretical Framework

The previous sections focus on discrete theoretical perspectives, but many researchers already recognize their close interrelationships (e.g., Ganesan 1994; Siguaw, Simpson, and Baker 1998). Using causal insights gleaned from these different models, we parsimoniously integrate them within an RBV of interorganizational exchange, though many of our conjectures require additional support. The finding that the proximate drivers of both financial and relationship outcomes include commitment, trust, and RSIs is in line with Dyer and Singh's (1998, p. 662) premise that the RBV framework should extend to interfirm relationships, which generate superior performance when "partners combine, exchange, or invest in idiosyncratic assets, knowledge, and resources/capabilities, and/or they employ effective governance mechanism." In our post hoc RBV model, commitment and trust provide the relational governance structure; RSIs represent idiosyncratic resources that, when combined, can make the exchange valuable, rare, and difficult to duplicate, and they generate sustainable competitive advantage and superior outcomes (Wernerfelt 1984).

As we summarize in Figure 2, we can synthesize common interorganizational constructs by extending the RBV theory from the more common "firm" unit of analysis to an "exchange," arguably the most fundamental unit for marketing (Bagozzi 1975), in which the dependence structure and relational norms perspectives and communication and opportunistic behaviors precede commitment, trust, and RSIs. We also build on Jap's (1999) and Dyer's (1996) empirical work to apply the RBV to an interfirm dyad by (1) supporting their findings that RSIs positively affect performance and (2) integrating the key relational governance construct of commitment and trust, as well as other key interorganizational constructs. Overall, compelling evidence shows that when the RBV is applied to an exchange, it offers a unifying paradigm, similar to its use in strategy research, which synthesizes diverse literature across different perspectives (Conner 1991).

More specifically, we outline the key role of each focal construct with the RBV of interorganizational relationship performance. First, as relationship marketing literature (Morgan and Hunt 1994) argues, commitment encapsulates

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[2]Because relational norms have a strong impact on outcomes in the relational norms perspective, we test an additional model that includes relational norms as a mediator in the RBV model. In this alternative model, relational norms are not significantly related to any of the four outcomes, in support of their role as antecedents rather than focal mediators.

TABLE 7
Summary of Key Findings and Implications

Key Findings	Implications
Commitment–Trust Perspective	
•Commitment and trust positively affect financial and relational outcomes. These direct effects remain even when they are modeled as an antecedent in other perspectives.	•Commitment and trust are immediate precursors and important drivers of exchange performance.
•Customer and seller RSIs have a direct effect on exchange outcomes, which is not fully mediated by commitment or trust.	•RSIs influence outcomes through direct, not trust- and commitment-mediated, pathways, consistent with a recent meta-analysis showing RSIs have a large, direct effect on seller objective performance, in addition to their frequently hypothesized mediated effects (Palmatier et al. 2006). Researchers should no longer model RSI effects on outcomes as fully mediated by trust and commitment, but rather they should investigate RSIs' direct effects and/or other possible mediating mechanisms.
•The impact of strong interfirm relationships (commitment, trust) on overall financial performance and cooperation is enhanced as environmental uncertainty increases.	•Relational-based exchanges outperform transactional-based exchanges in high environmental uncertainty. Managers should concentrate relationship marketing investments on more dynamic customer segments.
Dependence Perspective	
•Interdependence and dependence asymmetry have direct effects on only three of the four outcomes, all antecedents have direct effects on the outcome variables (i.e., no antecedents are fully mediated in this perspective), and dependence constructs are fully mediated in all other perspectives.	•Interdependence and dependence asymmetry are not immediate precursors of performance; the dependence structure of a relationship represents a structural characteristic of the exchange that provides an important context for other, more proximate drivers.
•Dependence's effect on outcomes is not moderated by environmental uncertainty.	•The effect of dependence on outcomes is not sensitive to uncertainty.
Transaction Cost Economics Perspective	
•RSIs have a direct effect on all exchange outcomes; their influence on financial and relationship outcomes is not fully mediated in any of the other models.	•RSIs are immediate precursors and important drivers of exchange performance.
•Opportunistic behaviors affect relational outcomes but not financial outcomes. Unlike RSIs, opportunistic behaviors are fully mediated in both the commitment–trust and the relational norms models.	•Opportunistic behaviors do not influence financial outcomes directly but rather indirectly through their impact on relational behaviors.
Relational Norms Perspective	
•Relational norms have direct effects on all exchange outcomes but fail to mediate the effects of five of eight antecedents on outcomes fully. Relational norms' effects on outcomes are fully mediated in the commitment–trust perspective and transaction cost perspective (except for cooperation).	•Relational norms are not immediate precursors of exchange performance.
•Only two of the eight interorganizational constructs modeled as antecedents have significant effects on relational norms in this perspective. Conversely, norms are a significant antecedent in all other perspectives.	•The strong effects on other focal constructs imply that it is an important antecedent and may provide a long-term contextual backdrop for other focal performance drivers.
RBV Perspective	
•A post hoc model integrating theoretical perspectives according to the causal ordering indicated is consistent with an RBV of the exchange. Mediation tests demonstrate that the effects of all antecedents on outcomes are fully mediated by commitment, trust, and RSIs.	•Proximate drivers of both financial and relationship outcomes include commitment, trust, and RSI, which supports the premise that the RBV can be extended to interfirm relationships.
•The antecedents of dependence, relational norms, and communication significantly affect the key mediators in the RBV model.	•An exchange is embedded in a dependence structure, which affects partners' commitment and RSI willingness, and an informal grid of relational norms, which affects all key drivers of performance. Ongoing communication builds and maintains trust and increases customer and seller RSIs, possibly by uncovering potential exchange-leveraging investment opportunities.

exchange partners' desire and motivation to maintain a relationship, without which it is difficult to envision the partner expending effort to enhance exchange performance. Second, trust gives partners confidence in their counterpart's future actions, strengthens commitment, supports cooperation, and prevents conflict, which suggests that it plays an important role by enabling long-term, successful interactions rather than affecting financial outcomes directly. Third, in terms of the direct effect of RSIs on exchange performance, though commitment captures an exchange partner's relational motivation, RSIs improve financial and relationship outcomes by increasing the efficacy or effectiveness of the exchange itself because of the exchange's improved ability to create value by either increasing benefits or reducing costs. For example, when partners invest in training, customized procedures, or specialized interfaces, they improve the functional capabilities of the exchange relationship, which creates value (e.g., lower interaction costs, improved product innovation) and catalyzes higher performance.

The theoretical implications and research opportunities of the RBV of relationship marketing are varied. First, the focus on investments and asset specificity should shift from a transaction cost perspective of safeguarding and monitoring to a focus on improving the effectiveness and efficacy of relationship value creation. Second, the many different forms of exchange-specific investments must be evaluated with regard to their productivity-enhancing effect, difficulty to duplicate, and overall ability to generate value. Third, the interaction between governance variables and investments should be better understood. For example, if commitment improves exchange partners' motivation to maintain the relationship and RSIs increase exchange capabilities, capabilities may have a greater impact on outcomes when partners are more motivated. Further empirical support for these premises would offer important managerial implications regarding the level and type of exchange-specific investments that yield the highest returns, as well as how spending should be allocated across relational- and effectiveness-building investments.

Limitations and Further Research

Despite its longitudinal analysis and objective performance data, our study contains several limitations. For example, the seller is a single large company. Although its product breadth and varied business processes reduce some concerns, we cannot evaluate its idiosyncratic characteristics. It is difficult to envision how these might influence the causal ordering of constructs or the fit among theoretical perspectives, but they could alter the relative effect sizes among our constructs. Further research should confirm our results in other industries and with other firms. In addition, we conduct our longitudinal analysis over four years, which may not support an analysis of constructs with longer response cycles, such as norms, or those that may vary from month to month, such as interaction frequency and depth of communication. Additional research should take a more dynamic view and investigate whether key interorganizational constructs follow natural growth curves and response cycles. Because we fail to identify many antecedents of relational norms, further research also should investigate how firms can build or accelerate norm development.

We focus on four common theoretical perspectives for understanding interorganizational exchanges, but further research should compare and synthesize other perspectives as well. Focusing on the newly defined knowledge-based view of the firm may be especially fruitful (Johnson, Sohi, and Grewal 2004; Selnes and Sallis 2003) because of its compatibility with the RBV. Overall, we hope that additional efforts extend our research by providing more dynamic and integrative views of interfirm exchange performance.

APPENDIX

Constructs and Measures (Scale Sources)	Item Loadings
Customer Commitment (Kumar, Hibbard, and Stern 1994) (Measured in Years 1 and 2)	(Year 1/Year 2)
We continue to represent [Seller] because it is pleasant working with them.	.93/.87
We intend to continue representing [Seller] because we feel like we are part of the [Seller] family.	.88/.88
We like working for [Seller] and want to remain a [Seller] agent.	.76/.79
Customer Trust (Crosby, Evans, and Cowles 1990) (Measured in Years 1 and 2)	
[Seller] is a company that stands by its word.	.81/87
I can rely on [Seller] to keep the promises they make to me.	.92/91
[Seller] is sincere in its dealings with me.	.86/90
Customer Dependence (Kumar, Scheer, and Steenkamp 1995) (Measured in Years 1 and 2)	Interdependence
If for some reason, our relationship with [Seller] ended ...	
The loss would hurt our sales of non-[Seller] lines as well.	.71/.70
It would be relatively easy for us to diversify into selling new product lines. (R)	.40/.38
We would suffer a significant loss of income despite our best efforts to replace the lost income.	.80/.75
The loss would seriously damage our reputation in this area.	.78/.71

Seller Dependence (Kumar, Scheer, and Steenkamp 1995) (Measured in Years 1 and 2)
If for some reason, we ended our relationship with [Seller] ...

	Dependence Asymmetry
Such a loss would seriously hurt the sales of [Seller] lines in this area.	.58/.61
[Seller] could easily compensate for it by appointing another agent in this area. (R)	.53/.50
Such a loss would significantly damage [Seller]'s reputation in this area.	.67/.79
Such a loss would negatively affect the service [Seller]'s customers have come to expect in this area.	.57/.61

Customer RSIs (Heide and John 1988) (Measured in Years 1 and 2)
In terms of the time spent learning, the following are unique to [Seller]:

The [Seller]'s way of doing things in order to become a [Seller] agent.	.79/.79
Specialized knowledge about the product lines offered by [Seller].	.78/.79
Special procedures used by [Seller].	.82/.83
Special needs of [Seller]'s customers.	.86/.87

Seller RSIs (Zaheer and Venkatraman 1995) (Measured in Years 1 and 2)

[Seller] has invested significant resources in providing me ongoing training.	.79/.78
[Seller] has invested significant resources in providing me customized support.	.80/.77
[Seller] has invested significant resources in improving personal relations between us.	.88/.83

Seller Opportunistic Behaviors (John 1984) (Measured in Years 1 and 2)

In working with its partners, [Seller] alters facts in order to meet their own goals and objectives.	.74/.87
In working with its partners, [Seller] does not negotiate from a good faith bargaining perspective.	.90/.90
In working with its partners, [Seller] breaches formal or informal agreements to benefit themselves.	.83/.85

Relational Norms (Kaufmann and Dant 1992) (Measured in Years 1 and 2)
Solidarity Norms (α = .77/.74)   .88/.87
  We consider [Seller] to be our business partner.
  We conscientiously try to maintain a cooperative relationship with [Seller].
  Our relationship with [Seller] is more important to us than profits from individual transactions.
Mutuality Norms (α = .83/.88)   .87/.83
  Even if costs and benefits are not evenly shared between us in a given time period, they balance out over time.
  We each benefit and earn in proportion to the efforts we put in.
  My business usually gets a fair share of the rewards and cost savings in doing business with [Seller].
Flexibility Norms (α = .79/.79)   .75/.76
  We would willingly make adjustments to help out [Seller] when faced with special problems or circumstances.
  We would gladly set aside the contractual terms in order to work through difficult situations with [Seller].
  [Seller] gladly sets aside the contractual terms in order to work with us in difficult times.

Communication (Greenbaum, Holden, and Spataro 1983) (Measured in Years 1 and 2)

Communications are prompt and timely.	.75/.68
Communications are complete.	.84/.89
The channels of communication are well understood.	.77/.91
Communications are accurate.	.80/.88

Overall Financial Performance (Lusch and Brown 1996) (Measured in Year 3)   .85/.98/.88
[For this Seller's products], our performance is very high in terms of (sales growth, profit growth, and overall profitability)

Cooperation (Ambler, Styles, and Xiucum 1999; Morgan and Hunt 1994) (Measured in Year 3)
OVERALL, our relationship with [Seller] suggests that ...

We have a mutually beneficial relationship.	.89
We can work together well in this business.	.94
We should describe our relationship as cooperative.	.83

Conflict (Kumar, Scheer, and Steenkamp 1995) (Measured in Year 3)
OVERALL, I consider my relationship with [Seller] to be (frustrating, antagonistic, conflictful).   .91/.95/.94

Notes: All items were measured using five-point scales anchored by 1 = "strongly disagree" and 5 = "strongly agree," unless otherwise indicated. R = reverse scored.

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