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**Relational Adaptation in Buyer-Supplier Relationship  
Management: A Synthesis of Effects of Exchange  
Hazards, Relational Norms, and Legitimacy**

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**Relational Adaptation in Buyer-Supplier Relationship Management:  
A Synthesis of Effects of Exchange Hazards, Relational Norms, and Legitimacy**

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## Abstract

**Purpose** – This paper aims to advance buyer-supplier relationship management research by integrating transaction cost economics, social exchange theory, and institutional theory. The specific purpose is to identify the determinants of relational adaptation in the service relationship.

**Design/methodology/approach** – This study used a field survey to collect data. It used structural equation modeling for data analyses. It collected data from the population of supplier organizations of a focal firm, which is an international container port terminal operator.

**Findings** – We find that that transaction specific investment, business uncertainty, trust, and social respect are positively related to a supplier's relational adaptation.

**Research limitations/implications** – this research provides a synthesis of effects of exchange hazards, relational norms, and legitimacy to explain a supplier's adaptation behaviors.

**Practical implications** – Our study has several managerial implications that are helpful for firms to elicit adaptation from their partner firms. First, specific investment can be useful to serve as an interfirm governance mechanism to attain relational adaptation. Second, the development of trust and social respect in customer relationship is important for firms to attain relational adaptation.

**Originality/value** – The novelty of this paper lies in an integrative synthesis of transaction cost economics, social exchange theory, and institutional theory. Based on three different mechanisms, we provide a holistic explanation for relational adaptation behaviors in buy-supplier relationship.

**Keywords:** relational adaptation, buyer-supplier relationship, transaction specific investment, business uncertainty, trust, social respect

The need for developing collaborative interorganizational relationship for performance enhancement has been widely recognized in the marketing literature for decades (Anderson and Coughlan, 2002). Research on interorganizational relationships has also shifted from a transaction-based to a relation-based paradigm (Morgan and Hunt, 1994). This relation-based approach is premised upon inter-firm relational adaptation (Hallen, Johanson, and Seyed-Mohamed, 1991), which requires organizational modifications to cater for the specific needs of the exchange party in managing buyer-supplier relationship (BSR) (Brennan, Turnbull, and Wilson, 2003). One important goal for a BSR to pursue is improved ability to satisfy the fast-evolving market requirements. Achieving such goal requires adaptation by the exchange parties to maintain organizational flexibility in responding to the volatile market changes. Notwithstanding its well-recognized importance in both research and practice, several aspects of relational adaptation in BSR are neglected in the literature.

First, the issue on relational adaptation has been given inadequate research attention in spite of its essential role in shaping and governing the management of BSR (Brennan, Turnbull, and Wilson, 2003). The urgency for investigating this research topic is echoed by Woo and Ennew (2004), and they indicate that “little is known about the process of adaptation or the motivation for adaptation” (p. 1258). The antecedents of relational adaptation and the mechanisms under which firms undertake adaptations in BSR have yet to be addressed through theoretical grinding and empirical investigation.

Second, the literature on adaptive behaviors in BSR has neglected some important theoretical accounts. Previous studies have focused on examining dyadic adaptive behavior from the social exchange theory (SET) perspective (Hallen, Johanson, and Syed-Mohamed, 1991), arguing that organizational adaptations are embedded in the dyadic social exchange process. However, according to the logic of transaction cost economics (TCE), adaptation is fundamentally a consequence of uncertainty, whereby relational adaptation is a preferred governance mechanism in view of unforeseen contingencies in business operations (Rindfleisch and Heide, 1997; Williamson, 1985). Unequivocally, there is a serious lack of research attention examining the antecedents and consequences of relational adaptation within the TCE framework (Rindfleisch and Heide, 1997). One plausible reason for this unattended but important research area is the absence of a clear and commonly accepted definition of relational adaptation, though the concept has been applied extensively in the BSR literature (Brennan, Turnbull, and Wilson, 2003). For instance, Brennan and Turnbull (1999) emphasize the behavioral dimension of organizational adaptation. Hallen, Johanson, and Seyed-Mohamed (1991) view interfirm adaptation as elements in a social exchange process. Woo and Ennew (2004) conceptualize adaptation as one of the dimensions underlying relationship quality. More importantly, the literature seems to have overemphasized the relationship-specific investment feature of organizational adaptation (Cannon, Achrol, and Gundlach, 2000; Cannon and Perreault, 1999), neglecting its behavioral feature. In TCE, relational adaptation is generally considered as an exogenous preexisting transaction condition, namely, a relationship-specific investment (Cannon and Perreault, 1999). It is the presence of opportunism and the bound rationality of the involved parties that give rise to governance concerns in economic exchange (Cannon, Achrol, and Gundlach, 2000). As management of a BSR involves ongoing behavioral adjustment during the exchange process, relational adaptation is determined by the transaction conditions (e.g., uncertainty of order cycle and size) instead of being modeled as an exogenous

factor. Our understanding of channel members' adaptive behaviors can be enhanced through the theoretical lens of the TCE. With this consideration, we draw on both the TCE and SET theoretical perspectives to examine the antecedents of relational adaptation in managing BSR.

Third, we extend the knowledge on channel members' relational adaptation in a larger social context, i.e., in the institutional environment (Grewal and Dharwadkar, 2002) beyond the unit of analysis of individual transactions or dyadic relations as espoused in TCE and SET, respectively. In the marketing channel research, there is a predominant focus on individual transactions or dyads to investigate the management of BSR (Wathne and Heide, 2004). It is possible that extensive noneconomic motivations and mechanisms exist behind behaviors of channel members. This institutional theory (INT) perspective demands understanding of relational adaptation beyond individual economic optimization and dyadic interactions, leading us to incorporate sociopolitical considerations in our analytical framework.

Premised upon these three theoretical aspects (i.e., TCE, SET and INT), we develop a conceptual framework (see Figure 1) that integrates the effect of the economic, social, and legitimate factors on relational adaptation in BSR. We first elucidate three mechanisms underlying relational adaptation from the three aforementioned theoretical perspectives. Then, we establish the conceptual framework and develop hypotheses. Next, we explain the research setting and the methodology employed to collect empirical data, followed by hypothesis testing. We conclude with a discussion on the theoretical and managerial implications of the study results on the management of BSR.

The empirical locale of this study involves a population of suppliers serving a major global container terminal operator based in Hong Kong. This sampling population serves as a rich context to test our conceptual framework as the Chinese society is characterized by a long history to value both social relations and legitimacy in business operations.

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Insert Figure 1 about here

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### **Explaining Relational Adaptation: Three Mechanisms**

In this study, we examine the relational adaptation by suppliers in a BSR as the analytic focus to explain how a channel member's adaptive behaviors can be shaped by the transaction conditions, social exchange process, and institutional legitimacy. We organize our theoretical discussions in terms of three distinct but reinforcing mechanisms that enhance relational adaptive behaviors in BSR and they include: 1) minimizing transaction costs by limiting exchange hazards, 2) building relationship in social exchange processes, and 3) legitimizing behaviors under institutional environments. The BSR literature has recognized the importance of economic and social forces in researching interorganizational relational behaviors (Rindfleisch and Heide, 1997; Morgan and Hunt, 1994), but the combined effect of economic and social factors in determining adaptive behaviors remains under-explored. An extension of this line of research to incorporate the perspective of INT will enrich our understanding of relational behavior to a wider macro institutional setting. The central goal of this article is to gain a holistic and integral understanding of the mechanisms that influence the adaptive behaviors of channel partners.

#### **Exchange Hazards in TCE**

Economic activities incur transaction costs and the existence of firms is to minimize these costs (Williamson, 1996). Marketing channels scholars have dedicated extensive research effort to understand the design of interfirm governance mechanisms (i.e., interorganizational structures and behavior modes) that promote coordination with the hope to deter conflict, punitive actions, and opportunistic behaviors. Many channel relationships combine both “market” and “hierarchy” elements and they are established in hybrid form (Williamson, 1991). Rindfleisch and Heide (1997) have conceptualized hybrid governance as “unilateral” (contractual authority) and “bilateral” (relational governance) mechanisms in economic exchange. In this study, we view relational adaptation as a dimension of bilateral (relational) governance, where firms adjust their actions in response to the change of channel partners’ request.

Exchange hazards are the vulnerabilities encountered by firms when they coordinate the economic transactions as a result of bounded rationality and potential opportunism (cf. Williamson, 1996, p. 12). According to the logic of TCE, self-interest seeking parties compare the cost and efficiency of alternative governance mechanisms, and as exchange hazards become increasingly severe and manifest, they employ relational governance to constrain probable opportunistic behaviors by their channel partners (Heide and John, 1990). For simple exchanges (i.e., those encountering low level of exchange hazards), relational governance is unnecessary because the invisible hand of market competition regulates simple transactions (Williamson, 1985). The use of specific contingent contracts to specify monitoring techniques, penalties for non-compliance, and formal rules and processes (Stinchcombe, 1985) also provides adequate safeguards for slightly more complex economic exchanges. In case of vehement exchange hazards with rampant opportunistic behaviors in the BSR, the involved parties will either vertically integrate or design relational governance to safeguard their investment in the exchange (Noordewier, John, and Nevin, 1990; Heide and Stump, 1995). Thus, this logic suggests a positive association between exchange hazards and relational governance: the greater extent for a firm exposed to potential exchange hazards, the more likely that relational governance will be employed by the firm to attenuate those exchange hazards (Anderson and Weitz, 1992; Heide and John, 1990; Jap and Ganesan, 2000; Noordewier, John, and Nevin, 1990).

Scholars have uncovered three primary hazards to the conduct of economic exchange: transaction specific investment, behavioral uncertainty, and environmental uncertainty (Rindfleisch and Heide, 1997). In BSR, the transaction specific investment by suppliers and the environmental uncertainty encountered by them will influence their relational adaptation in the BSR, as the specific investment will render supplier vulnerable to the opportunistic behaviors by the buyer firms (Lai, 2009). On the other hand, the presence of uncertainty is a major factor affecting the organization and governance of exchange when combined with organizational interdependence in a BSR (Cannon, Achrol, and Gundlach, 2000). Relational adaptation, as a viable mean for establishing bilateral governance, can function as a mechanism to circumvent exchange hazards and safeguard opportunism in the BSR.

### **Relational Norms in Social Exchange**

There is growing trend in the marketing channel literature to assess and compare relationship management from a sociological perspective. While TCE takes the economic value as its centre of analysis, SET ascertains that the value of a channel relationship is characterized by each party’s satisfaction with the exchange, the continuous cooperation of the relationship, the compatibility of each other’s goals,



and the emotional costs and benefits from alternative options (Gassenheimer, Houston, and Davis, 1998). SET suggests that each party of channel relationship can achieve their comparable and mutual long-range goals by looking beyond short-term and economic-driven self interests (Ouchi, 1980).

Another fundamental difference between TCE and SET in explaining the channel relationship is that the former mainly investigates how initial exchange conditions (i.e., exchange hazards and power distribution) influence the choice of governance mechanisms, while the latter argues that the governance arrangements emerge from both pre-existing social contacts and ongoing interactions between partners in the social network (Macaulay, 1963; Ring and Van De Ven, 1994). Following this logic, adaptation is an element of a social exchange process (Brennan, Turnbull, and Wilson, 2003; Hallen, Johanson, and Seyed-Mohamed, 1991). Thus, the relational features of BSR, such as trust and reciprocal commitment, shape the development and effectiveness of a firm's relational adaptive behaviors.

Essential to the SET perspective of relationship management is the premise that social or relational norms help to bring order and stability into the social system and govern BSR (Heide and John, 1990). Relational norms also define expected behaviors of each BSR party (Cannon, Achrol, and Gundlach, 2000; Rokkan, Heide, and Wathne, 2003), therefore, a supplier can expect that its adaptive behavior will result in a commensurate return, leading to long-term cooperation and reciprocated by its counterpart in the relationship. Prior BSR research has identified several relational norms that govern exchange relationships (Macneil, 1980; Rokkan, Heide, and Wathne, 2003), we focus on trust and relational reciprocity in this study, which play pivotal role in shaping the structure and governance mechanism of exchange relationship (Sheng et al., 2006; Uzzi, 1996).

### **Legitimacy in Institutional Environment**

INT has its roots in both economics and sociology (Scott, 1995) where the former focuses on the regulating role of institutions on economic activities (North, 1990) and the latter centers on the legitimacy-defining role of institutions (Powell and DiMaggio, 1991). While TCE focuses on the transaction and SET uses dyadic relationship as the unit of analysis, INT situates the interorganizational behaviors in a complex institutional context—consisting of rules, norms, values, and roles enforced through legal or social forces (Dimaggio and Powell, 1983). It follows that a firm's behavior is embedded within a sociopolitical network and there are extensive noneconomic motivations underlying the activities of firms (McFarland, Bloodgood, and Payan, 2008). However, as Grewal and Dharwadkar (2002, p. 82) point out, marketing “researchers have largely overlooked the ubiquitous influence of the institutional environment and how interorganizational relationships such as marketing channels are embedded in the larger social context.” In an attempt to broaden our view of interorganizational adaptations beyond the analyses of transactions and dyadic interactions, we supplement the TCE and SET mechanisms with an institutional motivation for adaptive behaviors.

The fundamental principle of INT is legitimacy, which is defined as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs, and definitions” (Suchman, 1995, p. 574). It reflects how well a firm enacts and upholds social norms and values, when being judged in the wider society rather than in a dyadic exchange relationship. The existing literature discerns three broad types of legitimacy including pragmatic legitimacy, social legitimacy (referred as moral legitimacy by Suchman, 1995), and cognitive legitimacy. It is the focus of this

study to examine the influence of social legitimacy, which consists of endorsement from legal authorities, regulators, or powerful organizations, on relational adaptation in BSR.

Strategy theorists have long recognized social legitimacy as an intangible valuable resource that contributes to organization performance differences because it is rare, socially complex, and difficult for competitors to imitate (Barney, 1991). Social legitimacy services as a signal for firms to garner scarce capital, personnel, and exchange partners in the market with informational asymmetry, and thereby influences the survival of organizations (Hannan and Freeman, 1989). Although organizational theorists agree that social legitimacy is a determinant of organization performance, they have used related but distinct terminologies, including reputation (Rao, 1994; Weigelt and Camerer, 1988), legitimacy (Dacin, Oliver, and Roy, 2007; Grewal and Dharwadkar, 2002; Suchman, 1995), and social status (Podolny, 1994; Stuart, 2000). In this study, we consider social respect as an important constituent of social legitimacy, because it reflects both the firm's social status and reputation in a society, highlighting its value as a strategic resource. More importantly, a firm's social respect in the society will prescribe its adaptive behaviors in the BSR.

Overall, economic exchanges are embedded in a nexus of economic, social, and sociopolitical systems (Weitz and Jap, 1995). These three underlying mechanisms may coexist and complement one another in shaping an exchange partner's behaviors. Next, we develop our theoretical arguments on the influence of these mechanisms on relational adaptation and formulate related hypotheses, specifying the conditions under which these mechanisms take effect.

### **Hypotheses**

#### **Exchange Hazards and Adaptation**

*Transaction specific investments* (TSI) are those investments that have little or no value outside the focal exchange relationship (Williamson, 1985). Each BSR party can potentially and unfairly reap the benefits of the partner's TSI dedicated to the exchange relationship. Thus, it creates a lock-in situation for the involved parties in BSR. A supplier's TSI will bolster its adaptive behaviors in the BSR due to the need for safeguarding its TSI committed to the exchange relationship.

The supplier's TSI place itself in a vulnerable position because: (1) the supplier can lose the nonsalvageable portion of its asset specific investments if the exchange relationship is terminated prematurely; and (2) the buyer can use the specific investments as hostage (Williamson, 1996), which makes it difficult for the supplier to recoup the value of the relationship-specific investment (Jap and Ganesan, 2000). Thus, as the investing party, the supplier will always desire to lessen their vulnerability with the development of appropriate safeguards in the BSR. One useful way to prevent the TSI from exploitation by the opportunistic behaviors of the buyer firms is to seek vertical integration, which is a not viable option in many cases particularly when the buyer firm is dominant and on which the business of the supplier is dependent for survival. Another option, as suggested by Williamson (1996), is the use of bilateral hybrid governance structures (Rindfleisch and Heide, 1997). The supplier's relational adaptation, as a bilateral cooperative governance mechanism, will improve the buyer's satisfaction and willingness to maintain the continuity for the BSR, thus allowing the supplier a longer time span to fully utilize the TSI over a long period time. Therefore, we propose that,

**H<sub>1</sub>: The supplier's transaction specific investment is positively associated with its relational adaptation in the BSR.**



*Business uncertainty* refers to unanticipated changes in circumstances surrounding an economic exchange (Noordewier, John, and Nevin, 1990). Although most scholars acknowledge this conceptual definition, its measurement is typically broad and incorporates many different types of uncertainty elements including unpredictability of the environment (Noordewier, John, and Nevin, 1990), unpredictability of demand volume (Heide and John, 1990), unpredictability of technology (Heide and John, 1990), and decision-making uncertainty (Ganesan, 1994). This study focuses on the unpredictability of the buyer's demand and order requirements. Regardless of the types of uncertainty elements, BSR parties face uncertainty because of insufficient information (Driskell and Goldstein, 1986) which makes planning and decision-making difficult particularly for the supplier side (Achrol and Stern, 1988). To illustrate, in the empirical setting of this study, if information is not readily available regarding the terminal operator's preferences, the supplier cannot accurately predict demand in terms of order size, cycle time, and volume requirements. That is, the supplier cannot determine exactly which items and their quantities to stock and to market aggressively, as well as how much total inventory is necessary to satisfy the terminal operator's actual demand requirements. This uncertainty represents a challenging hazard for the suppliers in managing the BSR (Heide and John, 1990).

Adaptation is a primary consequence of uncertainty (Rindfleisch and Heide, 1997, p. 31; see also Williamson, 1985) due to the following two reasons. First, as business uncertainty increases, it is more difficult, if not impossible, for the exchange parties to specify all contingencies in a contract *a priori* (Noordewier, John, and Nevin, 1990; Williamson, 1985). Therefore, adaptation from the supplier is necessary to maintain an efficient and long term BSR. For example, if the terminal operator in this research setting occasionally varies its order size and volume, the supplier will have to make corresponding adjustment in the transactions, because the BSR contract does not provide specified terms. On the other hand, high levels of business uncertainty increases the transaction costs of modifying contractual agreements (Rindfleisch and Heide, 1997). Then, it is more cost efficient for the BSR partners to increase relational adaptations in the presence of business uncertainty, rather than modifying the contract frequently (Noordewier, John, and Nevin, 1990). Overall, the supplier's relational adaption serves as an efficient mechanism to ease any undesirable consequences due to business uncertainty (Williamson, 1985).

**H<sub>2</sub>: Business uncertainty as perceived by a supplier is positively associated with its relational adaptation in the BSR.**

### **Relational Norms and Adaptation**

*Trust* exists when "one party has confidence in an exchange partner's reliability and integrity" (Morgan and Hunt, 1994, p. 23). The literature has asserted that trust is of fundamental importance and can be a source of competitive advantage to firms (Barney and Hansen, 1995). Interorganizational trust acts as an important relational norm assuring partners' cooperation and mitigating potential opportunistic behavior (Ganesan, 1994; Heide, 1994; Morgan and Hunt, 1994). In addition, trust in a BSR reduces channel conflict, leads to higher level of satisfaction by the involved parties (Anderson and Narus, 1990), and improves purchase intentions (Doney and Canon, 1997). When mutual interorganizational trust exists, partners in the BSR tend to resolve unanticipated contingencies in a mutually profitable way instead of behaving in an opportunistic manner (Ganesan, 1994). If the supplier has trust in the buyer, it will take necessary adaptive behaviors to maintain mutual benefits of both parties (Brennan and Turnbull, 1999).

Trust also contributes significantly to a partner's commitment for a BSR (Moorman, Zaltman, and Deshpande, 1992; Morgan and Hunt, 1994; Lai et al, 2008). A committed supplier behaves to maintain the BSR and is willing to sacrifice its short-term interests to satisfy the buyer requirement in expectation for relationship continuity. When the BSR encounters environmental or dyadic turbulence, a committed supplier will then make necessary adaptation to shelter the relationship. In summary, supplier's trust in the BSR will bolster its adaptive behaviors.

**H<sub>3</sub>:** Trust as perceived by a supplier is positively associated with its relational adaptation in the BSR.

*Relational reciprocity* refers to the extent to which a mutual pattern of positive interactions and relational behaviors are present in the BSR (Uzzi, 1996). It reflects the strength of relational embeddedness in the BSR (Rindfleisch and Moorman, 2001; Uzzi, 1996; Uzzi and Lancaster, 2003). Each BSR party may engage in voluntary helping behaviors (Hansen, 1999) or feel the obligation to cooperate (Uzzi, 1999) particularly when the relationship is characterized by high level of reciprocity. For example, a highly reciprocal BSR will promote face-giving by the involved parties or unconditioned assistance if the other party faces a difficult situation. Therefore, reciprocity creates a mutually supportive BSR environment. If a supplier can expect that its goodwill reflected by adaptation behaviors will be rewarded somehow in the future, it is more likely to engage in adaptive behaviors. In other words, relational reciprocity provides an assurance that the adaptive behaviors will be converted into long term mutual benefits of the BSR parties. In addition, high level of relational reciprocity in the relationship will ease a supplier's concern that its adaptive behaviors will be exploited opportunistically in the BSR as a consequence. Therefore, we posit that relational reciprocity in BSR will enhance relational adaptation.

**H<sub>4</sub>:** **Relational reciprocity as perceived by a supplier is positively associated with its relational adaptations in the BSR.**

### **Social Respect and Adaptation**

We identify two mechanisms through which a supplier's social respect emanated from the BSR will bolster its relational adaptation. First, there is a reinforcing mechanism between social respect and relational adaptation. In addition to the economic and transactional value, a supplier's relationship with a well-regarded buyer can elevate its social respect in the eyes of existing and other potential customer firms (Podolny, 1994; Rao, 1994). The social respect or social status is an important intangible strategic asset which serves as a signal of the supplier's service quality and relationship building capability. In return, this asset will help the supplier develop partnership with other buyers in the industry and generate more sales. Recognizing these strategic values of social respect emanated from the cooperation by the buyer, the supplier will become more flexible to cater for the buyer's request, as the former knows that endorsement by the latter will bring in social respect, which signals the supplier's quality.

Secondly, social respect can serve as a self-constraint to encourage the supplier's adaptive behaviors. According to INT, social legitimacy is embedded in the larger societal context, including the normative institutions encompassing professional associations and the professions themselves (Grewal and Dharwadkar, 2002). These normative institutions require BSR parties to embrace and comply with socially accepted norms and behaviors (Selznick, 1984), such as relational adaptation. In other words, a firm's social respect emerges as an institutional pressure to encourage adaptive behaviors (McFarland, Bloodgood, and Payan, 2008). Therefore, a supplier with social respect is more likely to be aware of and

voluntarily adhere to these social obligations, and engage in more adaptive behaviors.

**H<sub>5</sub>: The social respect emanating from the BSR as perceived by a supplier is positively associated with its relational adaptations in the BSR.**

### **The Effect of Adaptation on Relationship Stability**

In the adaptation process, the supplier either makes substantial TSI or alters their normal business practices to appeal to the requirements in the BSR (Hallen, Johanson, and Seyed-Mohamed, 1991). By their nature, these non-transferable TSI have little value outside a particular relationship and thus create a durable economic bond between the exchange parties (Rokkan, Heide, and Wathne, 2003). This economic bond will encourage cooperative behaviors from the exchange parties and lead to a long term stable relationship, because a stable relationship is of the best interest to both the BSR parties (Lai et al, 2005). In addition, relational adaptation is beneficial for satisfying the unforeseen BSR requirements, laying a foundation to build trust and cooperation (Brennan and Turnbull, 1999) as well as creating a social bond which will prescribe further relational behaviors the BSR parties. For example, Hallen, Johanson, and Seyed-Mohamed (1991) find that buyer and supplier's adaptations are correlated with each other as part of a trust-building process. These reciprocal adaptations reflect as aspect of relational commitment in the BSR (Anderson and Weitz, 1992) encouraging mutual cooperation, which will contribute to a stable BSR in the long term.

**H<sub>6</sub>: Relational adaptation by a supplier is positively associated with its perceived stability of the BSR.**

### **Methodology**

#### **Samples**

To minimize the extraneous sources of variance in BSR, we tested the above hypotheses by collecting data from the population of supplier organizations of a focal firm. This approach enabled us to minimize the potential confounding effects of variation in organizational practices in dealing with their partner firms. The supplier organizations were requested to report on their relationships with a focal buying firm which is an international container port terminal operator (referred as TO hereafter), minimizing the variation of industrial and organizational characteristics in managing inter-organizational relationship. This approach also allowed us to tailor the measurement to obtain more accurate data related to the transaction and relational attributes of the BSR, improving the internal validity of the survey instrument due to differences in industry and organizations. Following prior studies in choice of informants (Heide and Miner, 1992), executives of these supplier firms, identified by the TO, actively involved in managing the supply relations with the TO were surveyed. These informants were considered knowledgeable in their relationship with the TO and able to provide accurate evaluation of the BSR in their survey responses.

The TO is considered as a service-oriented industrial retailing outlet that provides services to such organizations as shipping companies, shippers, customs, trucking companies, and so forth. It links the various mode of transportation (e.g., barge, railway and truck) to facilitate seaborne cargo movements for international trade. In providing logistics services such as container handling and temporary storage, TO requires supplier inputs ranging from ordinary office stationeries to port facilities such as quay cranes and their maintenance (Wong, Lai and Teo, 2009). Thus, TO needs to interact with a large number of suppliers to maintain its port

service quality. This industrial context provides a rich research setting for examining the factors influencing relational adaptation in BSR.

We followed the multi-stage survey approach recommended by Dillman (Dillman, 2000) to enhance our response rate. The process yielded 365 responses with an overall response rate of 27%. However, seven returned questionnaires were disqualified due to significantly incomplete responses or the completed questionnaires were received too late for inclusion in data analysis.

We took a number of steps to detect the problem of non-response bias. First, we compared the archival data on company size and age of relationship with TO for respondents and non-respondents. We found no significant differences between the two groups. In addition, we compared the responses from first- and second-wave mailings on the theoretical constructs, and found no significant differences between the two groups of respondents (Armstrong and Overton, 1977). Thus, non-response bias problem appears not serious in this study.

### **Measures Development**

We employed existing measures when possible and appropriate to measure the theoretical constructs. To measure relational adaptation (RA), we focused on the responding managers' perceptions of the level of flexibility in such aspects as product features and inventory to meet and adapt to the requirements of TO. We used items dealing with managerial perceptions on the conditions of relationship in terms of steadiness and cooperation, and if both parties are engaged in an active and long-term relationship to measure relationship stability (RS). We measured transaction specific investment (TSI) dedicated to the relationship using items evaluating the relationship-specific investment with committed resources and if these investments can be recouped. Similarly, we measured business uncertainty (BU) as an exchange hazard using items that reflect the level of difficulty to predict the demand and the order requirements by the TO. In measuring trust (T) as a social norm, we used items that referred to reliability and trustworthiness of the BSR parties. The reciprocity (R) construct includes items evaluating the return of favor and assistance offered to support partners with the aim to build a long-term relationship. Last, we measured social respect (SR) using items that assess the degree to which respect and consideration were demonstrated amongst the BSR parties. We used five-point Likert scales to assess these theoretical constructs. Our final survey questionnaire was preceded by a statement instructing the respondents to refer to a major product or service in terms of sales volume that they supplied to TO when responding the survey. The measurement items and their validity assessments are summarized in the Appendix.

We consider several control variables that may affect the proposed relationships. A supplier has a long relationship age with TO may provide a positive response on their perceived relationship stability. We therefore assessed each supplier's relationship age with TO in terms of the trading relationship length in number of years and such objective information was from the archival data provided by the TO. In addition, we control for unobserved power-difference effects in the analysis by including variables on transaction volume and supplier firm size. Business volume is measured in terms of total revenue generated from trading with the TO in the fiscal year. Lastly, supplier firm size is measured in terms of the number of employees. We report the basic descriptive statistics and correlations in Table 1.

**Table 1**  
**Descriptive Statistics and Correlations**

Variable	1	2	3	4	5	6	7	8	9	10
1 Specific Investment	1.00									
2 Business Uncertainty	.08	1.00								
3 Trust	-.08	.35**	1.00							
4 Reciprocity	.17**	.21**	.32**	1.00						
5 Social Respect	.19**	.27**	.26**	.56**	1.00					
6 Relational Adaptation	.48**	.19**	.11*	.22**	.20**	1.00				
7 Relationship Stability	.11*	.27**	.47**	.38**	.39**	.15**	1.00			
8 Relationship Age	.07	.14**	.13*	-.03	.04	.03	.09	1.00		
9 Transaction Volume	.22**	.16*	.20**	.22*	.23**	.31**	.17**	.06	1.00	
10 Firm Size	.02	.16**	.08	.13*	.10	.09	.13*	.16**	.27**	1.00
Mean	2.57	2.64	4.17	3.41	3.07	2.04	4.16	.66	.19	.10
Standard deviation	.95	.88	.76	.81	.86	.98	.73	.47	.38	.30

\*  $p < .05$ ; \*\*  $p < .01$  (two-tailed).

### Construct Validity

We evaluated our theoretical constructs through a series of confirmatory factor analysis (CFA) models estimated with AMOS 17.0. We followed the accepted norms to retain only items that loaded significantly in excess of .50 (Hartline, Maxham and McKee, 2000). The standardized factor loadings range from .54 to .96 and are statistically significant at  $p < .01$ . This result provides evidence that the theoretical constructs possess convergent validity. The overall goodness-of-fit supports the seven-factor measurement model with  $\chi^2 = 893.48$ ,  $df = 329$ ,  $p < .001$ . The  $\chi^2 / df$  ratio of 2.7 in the range of 1.50 to 3 is acceptable and it indicates a good fit (Byrne, 1989). The comparative fit index (CFI) was .92, the root mean square error of approximation (RMSEA) was .06, and the Tucker-Lewis index (TLI) is .90. The scale reliabilities well exceeded the recommended threshold of .70 (Nunnally, 1984) in the range of .77 to .94, indicating that the construct measures are sufficiently reliable. The average variance extracted (AVE) of each construct exceeded the recommended threshold of .50 (Fornell and Larcker, 1981), suggesting the measures cover at least half of the domain of a construct. The AVE of each construct is greater than the squared correlation between a pair of constructs, indicating the discriminant validity of the construct measures (Fornell and Larcker, 1981). Overall, these results show that the measures in this study possess adequate reliability and construct validity.

### Results

The hypothesized model was tested via a structural equation model using AMOS 17.0. The model has acceptable fit to our survey data with  $\chi^2 = 1248.04$ ,  $df = 448$ ,  $p < .001$ , CFI = .91, RMSEA = .06, TLI = .90. Table 2 summarizes the standardized parameter estimates and the results of the structural model estimation.

Table 2

#### Standardized Parameter Estimates and Summary of Results

Structural paths	Standardized parameter estimates	Hypotheses testing result
H1: specific investment → relational adaptation	.472 (7.76***)	Supported
H2: business uncertainty → relational adaptation	.097(1.81 <sup>+</sup> )	Supported
H3: trust → relational adaptation	.115(2.01*)	Supported
H4: reciprocity → relational adaptation	.009(.13)	Not supported
H5: social respect → relational adaptation	.123(1.81 <sup>+</sup> )	Supported
H6: relational adaptation → relationship stability	.150(2.80**)	Supported
Controls:		
relationship age	.038(.68)	



transaction volume	.046(.78)
firm size	.094(1.64 <sup>+</sup> )

Note: Numbers in parentheses represent t-values.

\*\*\*  $p < 0.001$ , \*\*  $p < 0.01$ , \*  $p < 0.05$ , +  $p < 0.10$

### **Exchange Hazards: H1 and H2**

We predicted that exchange hazards in terms of TSI and business uncertainty would be positively related to relational adaptation. We found that both the paths of SI → RA and BU → RA were significant. Both H1 and H2 were supported. This implies that exchange hazards that characterized the vulnerability of firms in a BSR can drive the development of cooperation to maintain the relationship and to safeguard investment and reduce uncertainty in the BSR.

### **Social Norms: H3 and H4**

Our prediction regarding social norms as antecedents of relational adaptation received mixed support. We found that trust (T) in BSR is positively related to RA, suggesting that where a firm believes its partners are reliable, it is more willing to maintain flexibility to meet its partner needs. H3 was supported. However, R → RA was insignificant, indicating that the return of favor and voluntary cooperation between partners do not enhance the adaption of firms in making such changes in product features, personnel, distribution, and so forth. H4 was not supported.

### **Social Respect: H5**

SR as an antecedent had a marginally significant influence on RA, highlighting the importance of paying tributes to partners for improved flexibility in the BSR. H5 was partly supported.

### **Relational Adaptation: H6**

We found that the positive RA → RS path was significant. This result indicates that relational adaptation is valuable for establishing an enduring and stable relationship. Relational adaptation may indicate the willingness of the BSR parties to pursue relationship stability by encouraging mutual cooperation and understanding for reciprocal economic and operational benefits.

## **Discussion**

Our research goal is to understand and to reply the call for research on the factors that motivate relational adaptation. The importance of relational adaptation is well-recognized in practice, there is little empirical evidence on how different transactional conditions, social exchange process, and institutional legitimacy affect its development, and its impact on the stability of the exchange relationship; our study is an attempt to fill these voids.

The transactional conditions that are reflected in exchange hazards in terms of specific investment and business uncertainty are positively related to relational adaptation. This is consistent with prior findings that when firms perceive vulnerability in their economic relationship, they would maintain flexibility to better satisfy a partner's requests and needs with the aim to constrain the probable opportunistic behavior by the partner. Specifically, our result showed that the higher level of TSI committed together with the higher level of difficulty in predicting the partner needs would require a higher level of relational adaptation through frequent modification of operational processes and equipments to develop a stable BSR.

Trust, but not reciprocity, as a social norm in BSR had a significant influence on relational adaptation. Trust is reflected in the perception of BSR parties that the partner would behave cooperatively in the exchange. Consistent with the SET, social norm improves the flexibility of BSR parties to meet partner needs in hope of building a mutual and long-term exchange relationship. However, our findings suggest that



reciprocity is less important to relational adaptation. This indicates that the mutual dependence in BSR is insufficient to nurture relational adaptation.

Social respect as an institutional legitimacy in BSR was positively related to relational adaptation. This finding is consistent with the INT that social respect forms the institutional base for cooperation and mutual obligations, guiding the behavior of partners seeking to gain legitimacy in the BSR.

Relational adaptation is instrumental for developing relationship stability in BSR, where partners have a good relationship that reduces misunderstanding and enables a continuous relationship. With firms being adaptive to meet their partner needs, a harmonious and long-term oriented relationship can be induced, suggesting the value of relational adaptation in exchange relationship.

### **Managerial Implications**

Our study has several managerial implications that are helpful for firms to elicit adaptation from their partner firms. First, prior studies based on the TCE perspective as well as our findings have shown that exchange hazards in terms of specific investment and business uncertainty can be instrumental to achieve relational adaptation in a BSR. As indicated in our findings, specific investment can be useful to serve as an interfirm governance mechanism to attain relational adaptation. Similarly, firms who are unable to predict their future exchange relationship with their buyers would be more adaptive to the requirements and specification. The perceived vulnerability due to specific investment and business uncertainty encountered by suppliers in the BSR increases their level of adaptability in complying with the buyers' specifications. Managers of buying firms may therefore apply these governance mechanisms as means to attain relational adaptation from their suppliers, while the suppliers should consider their ability to be adaptive to buyers' requirements when they make specific investment and are uncertain with future exchange relationship.

Second, our research shows that the development of trust in BSR is important to firms to attain relational adaptation in a BSR. Prior studies have suggested that trust can reduce self-interest seeking behavior of partners. Instead, a trusting relationship suggests partners are likely to seek mutual interest and willing to sacrifice their short-term benefits. Such relational norm contributes mutual understanding of responsibilities and roles of partners in a BSR, eliciting adaptation in a BSR. Thus, the development of a trusting BSR with confidence in partners' reliability and integrity can be useful for managers to attain relational adaptation for flexibility of partners to meet their changing requirements.

Third, reciprocity as a social norm is found insufficient to attain relational adaptation. The favors and face-giving by partners does not imply their adaptation. Managers should not assume adaptation from partners who have shown relational reciprocity. Instead, the development of trust in a BSR as a social norm is more preferable to attain adaptation from partners.

Fourth, our results suggest that social respect as institutional legitimacy exerts influence on relational adaptation. This suggests that managers should acknowledge that social respect perceived by suppliers can be a useful institutional mechanism to cultivate relational adaptation. Managers may encourage relational adaptation by showing recognition and consideration to improve social status of suppliers.

Lastly, our findings reveal a positive relationship between relational adaptation and relationship stability, suggesting adaptation can be useful in creating a social bond in a BSR that contributes to a cooperative and long-term relationship. To improve relationship stability, managers should acknowledge that exchange hazards in terms of specific investment and business uncertainty, social norm in terms of

trust, and institutional legitimacy in terms of social respect are important catalysts for relational adaptation, which is useful to stabilize a BSR.

### **Limitations and Future Research Directions**

Similar to other empirical research, though we have identified the key factors based on three seemingly disparate theoretical perspectives that contribute to relational adaptation, only a couple of key variables on relational adaptation were examined in this study. It is possible that other variables related to exchange hazards, social norms, and institutional legitimacy may have an impact on the extent of relational adaptation in a BSR. For instance, future research may consider such exchange arrangements as contracts and standards that may be imposed in managing BSR. The exchange arrangements can govern the exchange relationship through reducing exchange hazards and increasing the explicitness of responsibilities of partner firms. With our research model serving as a basis, a more comprehensive research model that incorporate these additional exchange variables can be developed for future research.

In addition, the data of this study was generated from the suppliers of a focal firm. This research design aims to improve the accuracy of measures for exchange behavior by minimizing the extraneous sources of variance in BSR. Future research can improve this research design to study BSR in multiple dyadic relationships, examining the differences of exchange relationship in different contexts and industries to improve the generalizability of findings. Moreover, it is worthwhile to study BSR in a longitudinal basis, taking into account the dynamics of BSR and a foundation for this research direction is provided in this study.

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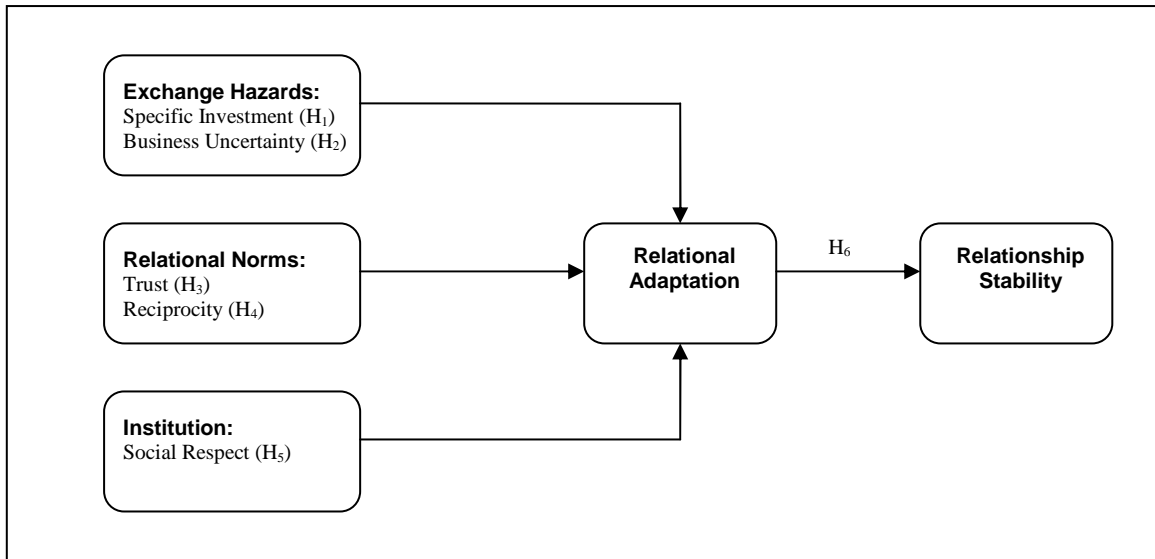


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Figure 1

The Conceptual Model



## APPENDIX

### Measurement Scales

Construct and Source	Description	Standardized Factor Loadings
Specific Investment ( Stump and Heide, 1996) $\alpha = .82$ ; CR = .83; AVE = .55	• We have spent significant resources to ensure the specifications for the items supplied to Terminal Operator fit well with Terminal Operator's operational capabilities	.81
	• Most of the training we have undertaken to meet Terminal Operator's requirements cannot be easily adapted for use by another customer	.88
	• It would be difficult for us to recoup investments made in Terminal Operator if we switched to another customer	.71
	• If we stopped contracting with Terminal Operator, we would waste a lot of knowledge that is tailored to Terminal Operator's operational methods	.52
Business Uncertainty (Heide and John, 1990) $\alpha = .89$ ; CR = .89 AVE = .67	• Forecasting our sales volume to Terminal Operator is	.76
	• Forecasting Terminal Operator's demand requirements for the items we supply is	.76
	• Forecasting Terminal Operator's order size is	.89
	• Forecasting Terminal Operator's order cycle is (1 = extremely difficult to 5 = extremely easy)	.86
Trust (Morgan and Hunt, 1994; Siguaw, Simpson and Baker, 1998) $\alpha = .94$ ; CR = .94 AVE = .79	• Terminal Operator does what it says it will do	.96
	• Terminal Operator has a good reputation	.90
	• Terminal Operator has been frank in dealing with us	.86
	• Terminal Operator's promises are reliable	.82
Reciprocity (Leung and Chan 2003) $\alpha = .77$ ; CR = .80 AVE = .81	• We always return a favor to Terminal Operator after they provide us with a favor	.62
	• Terminal Operator always returns a favor to us after we provide them with a favor	.86
	• When we face a difficult situation, Terminal Operator would sympathize and offer us help	.80
Social Respect (Leung and Chan 2003) $\alpha = .92$ ; CR = .92 AVE = .70	• Social respect given by the Terminal Operator in social interaction improves our relationship with the Terminal Operator	.87
	• The Terminal Operator helps us get back our social respect for better exchange of relationship	.92
	• The practice of respect and consideration by the Terminal Operator greatly enhances our social respect	.80
	• We enhance each other's social respect during our interactions	.76
Relational Adaptation (Hallen, Johanson and Seyed-Mohamed, 1991; Noordewier, John and Nevin, 1990) $\alpha = .91$ ; CR = .93 AVE = .77	• We frequently change our product's features to meet Terminal Operator's specific needs	.78
	• We frequently change our personnel to meet Terminal Operator's specific needs	.82
	• We frequently change our inventory and distribution to meet Terminal Operator's specific needs	.90
	• We frequently change our marketing to meet Terminal Operator's specific needs	.90
	• We frequently change our capital equipment to meet Terminal Operator's specific needs	.89
Relationship Stability (Davies, Leung, Luk and Wong, 1995; Leung, Wong and Tam, 1995; Luo, 1997) $\alpha = .87$ ; CR = .88 AVE = .60	• We attempt to maintain harmony with Terminal Operator	.57
	• Our frequent cooperation with Terminal Operator reduces most of the business misunderstanding	.56
	• We maintain a good relationship with Terminal Operator for more business	.92
	• We maintain a good relationship with Terminal Operator for building up our reputation/image	.89
	• We maintain a good relationship with Terminal Operator for smooth contractual arrangements	.88

Notes: All the items, except as specifically indicated, use Likert scales (1 = strongly disagree, 5 = strongly agree).

$\alpha$  = Cronbach's  $\alpha$ , CR = composite reliability, AVE = average vari