ASYMMETRICAL BUYER-SUPPLIER RELATIONSHIPS: THE ROLE OF PERCEIVED BENEVOLENCE

By

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This dissertation is dedicated to my parents (Ruixin Wang & Xiaoyuan Tao), and my advisor and his wife (Barton Weitz & Shirley Weitz), with deep gratitude.

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ASYMMETRICAL BUYER-SUPPLIER RELATIONSHIPS: THE ROLE OF PERCEIVED BENEVOLENCE

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Characteristics of mutually beneficial, long-term buyer-supplier relationships are well documented; however, little research has studied how to develop such relationships, especially when buyer-supplier relationships are of asymmetrical power. This dissertation introduces a three-component model of inter-firm benevolence, and argues that inter-firm benevolence is the key element of building stable, mutually beneficial asymmetrical buyer-supplier relationships in the long term. A conceptual framework involving the antecedents as well as the consequences of inter-firm benevolence is proposed in the buyer-supplier context.

Structural equation modeling and regressions were used to estimate the measurements and test the nomological validity of the model with data from a survey of 516 purchasing managers across industries. Empirical results point to the importance of the three-component benevolence model in buyer-supplier relationships, and show that perceived affective, normative and calculative benevolence are measurable independent

dimensions of a benevolence construct. Perceived supplier's affective benevolence and perceived normative benevolence are found to be positively related to the buyer's commitment. Further, perceived supplier's affective benevolence is shown to play a more important role for a buyer's commitment while the buyer is of high power than for the buyer who is of low power, while perceived calculative benevolence tends to be effective to obtain commitment from a low power buyer than from a high power buyer. Perceptions of supplier's responsiveness, concessions, relationship-specific investments, and reputation are found to be the antecedents of perceived supplier's affective, normative, and calculative benevolence. Finally, a buyer's commitment determines this buyer's responsiveness, concessions, relationship-specific investments, and knowledge sharing in the relationship.

CHAPTER 1
INTRODUCTION

Considerable research in marketing has reported that relationships between buyers and suppliers with asymmetrical power are characterized by low cooperation, low trust, and high conflict (Anderson and Weitz 1989; Bleeke and Ernst 1991; Buchanan 1992; Dwyer et al. 1987; Frazier et al. 1989; Stern and Reve 1980). This prior research suggests that asymmetrical relationships are inherently unstable because the high power firm, acting in its self-interest, takes advantage of the low power firm; and in response, the low power firm, searching for ways to protect itself from this potential abuse, often must either resign itself to earning sub-normal profits or to abandoning the relationship. According to this research, asymmetrical inter-firm relationships are transitory phenomena doomed to *naturally* dissolve.

However, one of the most consistent and striking phenomena is the persistence of a wide distribution of firms composed of different sizes and capabilities (Audretsch et al. 1999; Tommaso and Dubbini 2000). For example, in the United States, the ten largest retailers now account for 80% of the average manufacturer's business (Boyle 2003). Asymmetrical, rather than symmetrical, buyer-supplier relationships prevail in the marketplace, suggesting asymmetrical relationships are common and not transitory (Dwyer and Walker 1981; Johnston and Bonoma 1984; Michman 1974). Furthermore, the sustainability of many asymmetrical relationships suggests that asymmetrical relationships can be stable over time.

For example, Bloom and Perry (2001) have analyzed the data from 1988 to 1994 and, contrary to conventional wisdom, find that “there are opportunities for suppliers to become beneficiaries of Wal-Mart's power, not just be victim of this power. Indeed, small-share suppliers may find it an attractive strategy to partner with Wal-Mart, to trade off initial financial suffering for the enjoyment of the fruits of the partnership later.” In addition, Corsten and Kumar (2005) confirm that small suppliers do benefit from collaborative relationships with large retailers.

Anand and Stern (1985) start from a sociopsychological perspective and propose that under certain circumstances channel members would like to relinquish their control. James Moore (1993) argues that both high power firms and low power firms are now evolving into *business ecosystems*, which refer to the business systems formed by the interactions of firms and their environment. According to Moore, firms, regardless of their powers, now *need* to co-evolve with others in the ecosystem because firms share fates with each other in the ecosystem. Finally, researchers have demonstrated that trust and commitment, the two linchpins of mutually beneficial, partnering relationship, can be developed even in highly asymmetrical relationships if the vulnerable party is treated fairly by its more powerful partner (Kumar and Stern 1993).

In addition to the lack of research attention focusing on asymmetrical relationships, research has not focused on the process through which asymmetrical, as well as, symmetrical relationship develops. Research is needed to identify the actions undertaken by both high power firms and low power firms to develop trusting and committed relationships in the presence of power asymmetries.

Despite the importance of understanding the development of stable asymmetrical buyer-supplier relationships, the primary research on inter-firm relationships to date has examined the characteristics of long-term relationships and compared such characteristics to the characteristics of transactional relationships. In addition, prior research has not considered the factors leading to the development of long-term relationships, particularly stable asymmetric long-term relationships. For example, the only recommendation provided in the current literature for the vulnerable firms is that they should find alternative relationships to balance the power in the current relationship (Anderson and Weitz 1989; Dutta et al. 1994; Emerson 1974; Galaskiewicz 1979; Heide and John 1988; Pfeffer and Salancik 1978).

Although increasing alternatives create opportunities for vulnerable firms to "balance" the focal dyadic relationship, vulnerable firms are left with little insight for dealing with persistent unbalanced relationships. For example, little advice has been provided to low power firms on how to effectively interact with high power firms to build up long term, partnering relationships, and how to sustain such inter-firm relationships to outperform other competing inter-firm relationships to gain the leadership in the marketplace (Moore 1993). Searching for balanced relationships with alternative partners can be cost prohibitive, because of high risks involved with market uncertainty and high switching costs due to transaction-specific investments made in the previous relationships.

Objective

The objective of this dissertation is to build a foundation of both theory and evidence on how the high power firm and the low power firm interact to sustain mutually

beneficial, long-term relationships. As a first step, I propose that inter-firm *benevolence*, which is one of the three key dimensions of inter-firm trust, is a critical construct involved in stabilizing asymmetrical buyer-supplier relationships. I suggest that inter-firm *benevolence* has three different components: (a) an affect (affective benevolence), (b) a duty (normative benevolence), and (c) a must (calculative benevolence). Measures of each of the three dimensions are developed in this dissertation and their psychometric properties are examined.

My theoretical framework proposes that the perception of each component of benevolence develops as a function of different antecedents, different signals sent by the other parties, and has different implications for attitudinal and subsequent behavioral outcomes for firms in asymmetrical relationships. Specifically, one firm's characteristics and actions signal its benevolence to the other firm. The power structure of the relationship moderates the effects of one firm's benevolence signals on the other firm's attitudes and subsequent behaviors. Although clearly not exhaustive in its consideration of all potential antecedents and consequences, the framework highlights key constructs identified from past research in economics, management, marketing, law, and social psychology literatures.

Research Questions

As indicated above, the present study focuses on inter-firm benevolence that is involved but somehow neglected in stable asymmetrical buyer-supplier relationships. The related research questions that frame the study are listed below:

1. What is inter-firm benevolence? What is the theoretical importance of introducing inter-firm benevolence? What are the components of inter-firm benevolence?

2. What are the impacts of asymmetrical power in buyer-supplier relationships on perceived inter-firm benevolence, especially on different components of perceived inter-firm benevolence?

3. What are the antecedents influencing the perceptions of inter-firm benevolence in buyer-supplier relationships characterized with asymmetrical power?

4. What are the consequences of inter-firm benevolence in buyer-supplier relationships characterized with asymmetrical power?

5. What are the managerial implications for buyers and suppliers with asymmetrical power to stabilize their mutually beneficial relationships?

Contributions of the Study

To my knowledge, this study is one of the first studies to offer insights into building stable buyer-supplier relationships characterized with asymmetrical powers. A conceptual framework involving inter-firm benevolence and potential antecedents and consequences of developing asymmetrical buyer-supplier relationships is presented. Parting with economic literature, this study shows that firms do display benevolence, concern for other firms, in the buyer-supplier relationship. Such benevolence is particularly important when buyer and supplier are of asymmetrical power in the relationship. For example, the three-component conceptualization of inter-firm benevolence (affective, normative, and calculative) captures different aspects of inter-firm benevolence valued by the high and low power firms differently. In addition, the perceptions of the other party's benevolence have significant impacts on the focal firm's commitment level in the relationship.

New measures on the three components of inter-firm benevolence and antecedents as well as the consequences of inter-firm relationship development are developed and examined – measures that have good psychometric properties can be used in subsequent research. Through survey studies, our understanding of the interaction processes between

the firms in relationships characterized with asymmetrical powers is deepened, which helps obtaining constructive clues on building up trust and commitment in asymmetrical buyer-supplier relationships.

Lastly, the findings of this study suggest that inter-firm benevolence should be an important consideration of managerial decisions about inter-firm strategies, particularly about asymmetrical inter-firm relationship developments. For example, managers in the low power firms should choose certain strategies such as being responsive and flexible to get the high power firm to be more committed to the relationships, while the managers in high power firms should choose such strategies such as relationship specific investments to obtain a high level of commitment from the low power firms.

Overview of Research Methods

After a conceptual framework involving potential antecedents and consequences of inter-firm benevolence was presented, a pretest among industrial buyers was conducted to examine the validity and reliability of the measurements for new constructs. Then, after refining the measurements for new constructs, the main study was accomplished by using survey questionnaires sent to business-to-business buyers, who have served as the key informants. The complete response sample for the main study consists of 516 industrial buyers.

The selection of the samples for pretest and main study comes from both theoretical and pragmatic concerns. Theoretically, I am interested in buyer-supplier relationships between financially independent firms (e.g., the supplier of products and services and the buyer in a business-to-business relationship). These firms do not rely on or create unified financial systems or other forms of bureaucratic control to oversee the relationships.

Hence, joint ventures, horizontal relationships, and vertically integrated relationships are not considered in this study. Pragmatically, the samples ensure the availability of the data needed to test the theory and hypotheses generated. Data was collected from surveying the purchasing managers in business-to-business markets. The unit of analysis in this study is a buyer-seller relationship as viewed from the buyer's perspective.

Hypotheses are tested by using structural equation modeling and regression to estimate and compare the coefficients of models for the high and low power parties' perceptions of the nature of their counterparts' benevolence and the antecedents and consequences of these perceptions in the inter-firm relationships.

Organization of the Dissertation

The remainder of the dissertation is organized as follows. Chapter 2 provides a review of the research related to building up trust and commitment in inter-firm relationships. While providing a sketch of current marketing research on inter-firm relationships, it focuses on the three sub-areas of inter-firm benevolence: (a) the concept of inter-firm trust and benevolence which characterize successful inter-firm relationships, (b) various firm behaviors discussed in prior literature as the antecedence of successful inter-firm relationships, and (c) the critical consequence of successful inter-firm relationships - commitment. Chapter 2 offers a background on the contributions as well as the limitations of current research, and sets the stage for the conceptual framework developed in this study.

Chapter 3 describes the conceptual framework of this dissertation – definition, formation and consequences of inter-firm benevolence. It first defines inter-firm benevolence, followed by an introduction of the three component model of inter-firm

benevolence. Then antecedents of perceived inter-firm benevolence, such as perceived responsiveness, perceived concession, perceived knowledge sharing, reputation, and idiosyncratic investment of the partner are defined and reviewed. The hypothesized relationship between these antecedents of inter-firm benevolence and perceived inter-firm benevolence is articulated. Subsequently, this chapter discusses the consequences of perceived inter-firm benevolence – a receiving firm's commitment and subsequent behaviors. Finally, the model of perceived inter-firm benevolence model is developed and hypotheses are presented.

Chapter 4 describes the methodology used to empirically test the hypotheses generated in Chapter 3 in the dissertation. The data collection procedure, characteristics of the samples, and information on the research setting are specified in detail. The questionnaire and measure development process are described, and statistical techniques are presented in this chapter.

Chapter 5 presents the results of the empirical tests for the hypotheses generated in Chapter 3. It also provides a discussion of the results regarding the antecedents and consequences of inter-firm benevolence, and a summary of contributions of this dissertation.

Chapter 6 presents conclusions, implications of research and practice, limitations of the study, and recommendations for future research.

CHAPTER 2
REVIEW OF RELEVANT LITERATURE

Overview

The marketing literature is replete with the perspectives on the characteristics of successful buyer-supplier relationships, while the research on how to build successful buyer-supplier relationships is very limited. Nonetheless, prior research provides a theoretical basis for further exploration of the determinants as well as the consequences of the successful, asymmetric buyer-supplier relationships.

After a short review of the current marketing research related to successful inter-firm relationships, this chapter reviews both economic-based and behavior-based literature on three closely related topics - introduction of inter-firm trust and benevolence, antecedence of successful inter-firm relationships, and consequence of successful inter-firm relationships. It is thus organized into four sections. The first section summarizes current marketing literature on the characteristics of successful inter-firm relationship. The second section reviews the prior literature on the three dimensions of inter-firm trust, and reveals the importance of introducing inter-firm benevolence in governing long term inter-firm relationships. The third section reviews theories and empirical evidence of the antecedents of successful inter-firm relationships. The fourth section reviews theories and empirical evidence of organizational consequences of successful inter-firm relationships.

Current Marketing Research on Inter-Firm Relationships

Basically, two streams of research in marketing have been drawn to explain the nature of cooperative inter-firm relationships: (1) the economic research stream draws on

microeconomic theory and uses game theoretic models to develop insights into vertical inter-firm relationships; and (2) the behavioral research stream draws on research concerning interpersonal and inter-organizational behaviors to develop and empirically test theories describing behaviors in vertical relationships (Weitz and Wang 2004).

Initially, economics research focused on the source of channel inefficiencies and the need for cooperation. Inefficiencies result from the double marginalization problem that arises when independent firms in a vertical relationship each set prices to maximize their own profits (Spengler 1950). For example, when a manufacturer sets a wholesale price that maximizes its profits and a retailer independently sets a retail price to maximize its own profits, the resulting retail price is higher than the retail price that a profit-maximizing vertically integrated manufacturer would set. Thus, this stream of research suggests that vertical integration in the channel is superior to having independent firms to perform these activities.

Given the reality that few channels are vertically integrated, the economic-based marketing research on vertical relationships has explored a variety of mechanisms that address the coordination problems and enable independent channel members to achieve efficiency. For example, the economic research associated with Transaction Cost Analysis (Coase 1937; Williamson 1975; Williamson 1983; Williamson 1985) identifies conditions under which market and vertical integration are appropriate governance mechanisms.

Two modeling approaches have been used to examine channel coordination issues through the use of contracting mechanism, while one approach is based on non-cooperative (or strategic) games and the other based on cooperative (or coalitional)

games (Weitz and Wang 2004). The non-cooperative game theory research structures the manufacturer-retailer relationship as a leader-follower game (Choi 1991; Lee and Staelin 1997; McGuire and Staelin 1983), while co-operative game theory stresses that buyers and suppliers make simultaneous decisions, and need to incorporate each other's reactions to make appropriate decisions (Jeuland and Shugan 1983). However economic-based research on inter-firm relationships assumes that firms only have self concerns and seek to maximize their own profits.

On the other hand, behavioral research on the nature of relationship development and maintenance suggests that trust plays an important role in governing relationships (Atuahene-Gima and Li 2002; Mayer et al. 1995; Morgan and Hunt 1994). Adopting relational contract theory (MacNeil 1980) and social exchange theory (Blau 1968; Ekech 1974; Homans 1961; Thibaut and Kelley 1959), researchers highlight trust as a crucial concept in sustaining inter-firm relationships because formal contractual agreements can not effectively deal with the breadth of contingencies that can arise in relationships (Dwyer et al. 1987; Lusch and Brown 1996; Lambe et al. 2001). Recent behavior-based marketing research on vertical relationships further examines commitment and the use of relational norms to govern relationships.

However, this behavioral stream of research also suggests that when power asymmetry exists, the high power party tend to act opportunistically by taking advantage of the low power firm in order to gain a disproportionate share of rewards from their exchange. Thus the high power party impedes the abilities of the low power party to achieve its goals and thus creates conflict in the relationship (Anderson and Narus 1990; Boyle and Dwyer 1992; Dant and Schul 1992; Frazier and Summers 1986; Kim 2000;

Venkatesh, Kohli, and Zaltman 1995). In brief, behavior-related marketing research adopts the assumption that trust is essential for firms to sustain long term inter-firm relationships, but does not provide an answer to how asymmetrical relationships could sustain successfully in the reality.

Characteristics of Successful Inter-Firm Relationships

Trust has been considered to play important roles in governing inter-firm relationships, and benevolence has been introduced as one important component of trust (Anderson and Narus 1990; Hosmer 1995; Kumar 1996). Although substantial progress seems to have been made in assessing the role of trust, we are far from achieving a clear understanding of the components of trust (Mayer et al. 1995), especially what is meant by the benevolence aspect of trust. In this section, I will first review trust, and benevolence in particular, from both the inter-personal and inter-organizational literature. Then I will review the literature that reveals the importance of studying benevolence at inter-firm level.

Prior Literature on Trust and Benevolence

In the past decade, trust has become one of the most intensively studied themes in the social sciences. It has been discussed in psychology (Johnson-George and Swap 1982; Rotter 1967; Rotter 1980), philosophy (Baier 1986; Luhmann 1979; Shapiro 1987), economics (Arrow 1974; Williamson 1975; Williamson 1996), marketing (Kumar 1996; Morgan and Hunt 1994; Moorman et al. 1992), and organization theory (Zand 1972; Zucker 1986). Trust is defined as a general belief that trustor is concerned for trustee's welfare (benevolence), is honest and reliable in fulfilling its commitments (integrity), and has specific skills, competencies, and knowledge to fulfill its commitments (expertise)

(Atuahene-Gima and Li 2002; Geyskens et al. 1999; Mayer et al. 1995; Morgan and Hunt 1994).

Among the vast literature on trust, Johnson-George and Swap (1982) asserted that "willingness to take risks may be one of the few characteristics common to all trust situations." Mayer and his colleagues (1995) argue that trust can be viewed as an attribute of risk-taking behavior. Other researchers also argue that only under conditions of risk is trust needed (Boon and Holmes 1991; Deutsch 1960). For example, Currall and Judge (1995) define trust as "an individual's behavioral reliance on another person under a condition of risk". Furthermore, some theorists have pointed out that trust itself represents trustors' perceptions of outcome probabilities. Kee and Knox (1970) suggest that in order to appropriately study trust there must be some meaningful incentives at stake and that trustor must be cognizant of the risk involved.

The characteristics of asymmetrical inter-firm relationships involve a higher level of risks than those of symmetrical inter-firm relationships in that high power firms, as prior theories suggest, would take advantage of the low power firm when situations arise. In order to clarify the concept of trust in asymmetrical buyer-supplier relationships, we need to examine the relationships between risk and trust in asymmetrical buyer-supplier relationships, and the process how high power firm and low power firm interact to develop trust in the long term.

All the three components of trust (benevolence, integrity, and expertise) help reduce the perceptions of risks and uncertainties when situations arise (Mayer et al. 1995). However, among these three components of trust, integrity and expertise are relatively stable firm attributes that are internal to firms' culture and capabilities and not

greatly influenced by other firms' integrity or expertise. On the other hand, benevolence can vary greatly across inter-firm relationships because one firm's decision on benevolence is associated with other firms' benevolence.

In addition, integrity and expertise help reduce performance risks (i.e., the probability and consequences that alliance objectives are not achieved, despite satisfactory cooperation among partner firms), while benevolence deals with relational risks (i.e., the probability and consequences of not having satisfactory cooperation because of the potential for opportunistic behavior on the part of both firms) (Das and Teng 1996; Das and Teng 2001). The high risks embedded in asymmetrical buyer-supplier relationships are mainly associated with relational risks, and hence are affected mainly by the benevolence component of trust.

Benevolence in Prior Literature

Benevolence, which reflects one party's concerns for the outcomes received by another party in the relationship, has been discussed at both inter-personal level in social psychology literature and inter-firm level in management and marketing literature.

The prior literature on benevolence at inter-personal level in social psychology involves cooperation theory (Deustch 1949; Deustch 1973; Messick and McClintock 1968; Tjosvold 1984; Tjosvold 1998) and dual concern theory (Blake and Mouton 1964; Pruitt and Rubin 1986). Generally, this research finds that negotiators are less contentious, engage in more problem-solving, and achieve higher joint outcomes when they have positive rather than negative concerns for others. In this research, the factors influencing the levels of concerns for others at inter-personal levels are individual

differences (Deutsch 1982; De Dreu and Van Lange 1995) or the nature of the situation (De Dreu et al. 2000).

In management literature, Oliver (1990) mentions that firms have mutual concerns, which help firms to form stable inter-organizational relationships. However, Oliver (1990) also argues that mutual interests only arise in symmetric relationships (Oliver 1990). Similarly, marketing researchers find that buyer-seller firms need to consider mutual interests when they are trying to resolve conflicts or when they want to maintain a long term relationship, but it is impossible for mutual interests to exist between asymmetrical power parties: only symmetrical inter-firm relationships can develop mutual interests in the long term (Clopton 1984; Gassenheimer and Ramsey 1994; Hallen et al. 1991).

In economics literature, altruism, a related but different concept, has been discussed. Altruism refers to self-destructive behaviors performed for the benefit of others. More generally, altruistic behaviors benefit the focal party less than the recipient (Piliavin and Charng 1990; Kollock 1998; Hu and Liu 2003). However, benevolence, i.e., concern for others, does not necessarily affect its own utility negatively. Thus many researchers suggest that the concept of benevolence, as opposed to altruism, can increase the utility of both parties (De Dreu and Boles 1998; De Dreu and McCusker 1997; Liebrand et al. 1992).

Antecedents of Successful Inter-Firm Relationships

Although prior literature has left unanswered the question of what strategies firms can use to develop successful inter-firm relationships, some important constructs that might signal perceived benevolence, such as relationship specific investments,

knowledge sharing, being responsiveness, making concession, and reputation have been discussed in the literature (Dyer and Singh 1998; Heide and Miner 1992; Jap 1999; Jap 2001b; Kumar and Dissel 1996; Rokkan et al. 2003). This section focuses on reviewing some important strategies.

Responsiveness

Responsiveness has been investigated from two different perspectives in the prior literature. The first stream of research on responsiveness examines the effectiveness of firms' strategies in maintaining customers. For example, Kohli and his colleagues (1993) define responsiveness as the action taken in response to the relevant information generated and subsequently filtered between buyers and suppliers. They propose that a firm's responses need to be aligned with its customers' needs.

The second stream of research on responsiveness focuses on firms' optimal marketing decisions on pricing (promotion) and advertising between firms and their competitors (Ailawadi et al. 2005; Besanko et al. 2005; Chintagunta and Desiraju 2005; Dube and Manchanda 2005; Moorthy 2005; Naik et al. 2005; Reibstein and Wittink 2005; Sudhir et al. 2005). The purpose of this research is to advice the firms how to best enter the market and best defend the market given the potential competition in the market (Montgomery et al. 2005; Roberts et al. 2005).

Generally speaking, research on responsiveness focuses on the speed and coordination with which actions are implemented and periodically reviewed. In contrast to flexibility or adaptability, responsiveness requires a firm's timely responses when situations arise.

Making Concessions

A concession is “a change of offer in the supposed direction of the other party’s interests that reduces the level of benefit sought” (Pruitt 1981). Concessions are a key element of any negotiation or interaction, which is embedded in the process of relationship development. And concessions affect the process and outcome of relationship development (Klimoski and Breaugh 1977; Yukl 1974). Parties make concessions because they believe such behaviors will foster agreement, prevent the other party from leaving the relationship, and encourage the other party to make reciprocal concessions (Bartos 1965; Hamner 1974; Komorita and Esser 1975; Osgood 1959). Researchers have distinguished the timing of concessions (when to concede) from the content of concession (how much to concede) (Allen et al. 1990; Druckman et al. 1972; Kwon and Weingart 2004).

Generally speaking, three types of concession strategies have been discussed in the prior literature: competitive, coordinate, and cooperative concessions strategies. Competitive concession can be characterized as the one in which the negotiator maintains the high levels of aspiration and high limits for negotiation outcomes, and uses very inflexible behavior aimed at forcing concessions from the other party. The use of forceful concessions, such as threats, persuasive arguments, positional commitments, and the like is considered competitive concession strategy (Pruitt and Lewis 1977).

Coordinate concession refers to the two parties’ adopting a problem-solving orientation in the relationship, and showing a relatively high degree of trust and cooperation to resolve the conflicts or disagreement in the relationships. Two forms of coordinate concessions have been discussed in prior literature. One form is open and

accurate exchange of information by the parties about priorities and utilities associated with the issues to be settled (Pruitt 1981). By sharing information about priorities and utilities, both parties are better able to identify issues on which both of them can make concessions at a relatively low cost to realize greater utility for both other parties (Clopton 1984). Another form of coordinative concession is related to what Kelley and Schenitzki (1972) mean by "heuristic trial and error." This concession form arises when a party explores all possible settlements at a given level of utility before conceding to a lower level. Moreover, the party concedes very gradually, typically by conceding on the issue(s) of lowest priority. Both types of coordinate concessions appear to result from an "intelligent stubbornness" based on an individualistic orientation of obtaining the best possible outcome for the party itself. However, such concession behaviors might lead to an integrative agreement in situations where tradeoffs based on issue priorities are possible.

The third type of concession strategies is called cooperative concession strategy. Different with the previous two types of concession behaviors, cooperative concession strategy involves unilateral concession on the part of one party (Pruitt 1981). Although this type of concession is normally performed in the hope of eliciting concessions or benevolence from the other party, it does not require or request reciprocation from the other party.

Knowledge Sharing

Dyer and Singh (1998) propose that inter-organizational knowledge sharing is critical for firms to build up competitive advantages, noting that firms often learn by collaborating with other firms (Levinson and Asahi 1996; March and Simon 1958;

Powell et al. 1996). For example, Von Hippel (1988) found that in scientific instruments industries, more than two-thirds of the innovations could be traced back to a customer's initial suggestions or ideas. In wire termination equipment industries, the majority of innovations could be traced back to suppliers.

Due to the importance of knowledge sharing between firms, some researchers have investigated how firms create knowledge-sharing routines that result in competitive advantages (Dyer and Singh 1998). For example, Cohen and Levinthal (1990) have discussed the importance of cultivating absorptive capacity as "the ability of a firm to recognize the value of new, external information, assimilate it, and apply it to commercial ends." Absorptive capacity has been discussed as a function of (1) the extent to which partners have developed overlapping knowledge bases and (2) the extent to which partners have developed interactions routines that maximize the frequency and intensity of interactions (Mowery et al. 1996; Szulanski 1996). Thus, researchers propose that through building inter-firm interaction routines, the investing firm will cultivate absorptive capacity and hence the capability for knowledge sharing of both firms.

Relationship Specific Investments

Relationship-specific investments are investments specific to the buyer-supplier relationship that are difficult or impossible to be redeployed to any other relationships (Anderson and Weitz 1992; Jap and Anderson 2003; Subramani and Venkatraman 2003; Williamson 1983). The characteristic of relationship specific investment is that relationship specific investments lose substantial value unless the focal relationship persists. These investments can be physical or non-physical. For example, specialized physical investments in durable assets such as a new plant next to the other firm,

specialized warehouses, products tailored to the buyers' needs are essential for the efficient functioning of the buyer and supplier. On the other hand, the time and effort spent acquiring the non-marketable skills, tailoring operating processes to the other firm, or developing the inter-personal relationship, etc. can be viewed as non-physical relationship specific investment.

Prior research suggests that if buyers and suppliers have bilateral relationship-specific investments, buyers and suppliers will be more likely to develop overlapping roles, engage in considerable coordinated actions, negotiate changes to the terms of the exchanges on an ongoing basis, and rely on internal enforcement by establishing a mutuality of interest between parties (Subramani and Venkatraman 2003). If the bilateral relationship-specific investments are sufficient, inter-firm roles can become so closely intertwined that firms' boundaries approach complete interpenetration (Rindfleisch and Heide 1997).

However, researchers also point out that relationship-specific investments give the rise of opportunism because such investments are only partially redeployable and therefore are valuable only in the context of a given exchange (Stump and Heide 1996). Prior research has identified a variety of governance mechanisms that protect a firm making relationship-specific investments from opportunistic behavior by its partner (Rindfleisch and Heide 1997). These include formal contracts (Joskow 1988), pledges (Anderson and Weitz 1992), information sharing (Noordwier et al. 1990), supplier verification (Heide and John 1990), joint planning (Heide and John 1990), monitoring (Stump and Heide 1996), and quasi integration (Zaheer and Venkatraman 1994).

From a different yet related perspective, placing these relationship-specific investments unilaterally enables the investing party to signal a higher magnitude of the value to the other firm in the buyer-supplier relationship, although makes the investing party more vulnerable before the other firm (Doney and Cannon 1997; Doney et al. 1998; Subramani and Venkatraman 2003).

Consequences of Successful Inter-Firm Relationships

Achieving stable, win-win inter-firm relationship is an important outcome of this dissertation research. Prior research has found that a high level of mutual commitment manifests such relationships (Blau 1964; Thibaut and Kelley 1959). Cook and Emerson (1978) characterize commitment as "a variable we believe to be central in distinguishing social from economic exchange." Typically commitment is considered as the outcome of trust, fairness, and interdependence (Morgan and Hunt 1994; Geyskens and etc. 1996; Kumar et al. 1998).

By definition, commitment refers to "an exchange partner believing that an ongoing relationship with another is so important as to warrant maximum efforts at maintaining it; that is, the committed party believes the relationship is worthy working on to ensure that it endures indefinitely" (Morgan and Hunt 1994), which draws conceptualizations from social exchange (Cook and Emerson 1978), marriage (Thompson and Spanier 1983), and organizations (Meyer and Allen 1984). Similarly, Mooreman and her colleagues (1992) define commitment as "an enduring desire to main a valued relationship." In general, commitment is a critical consequence of successful inter-firm relationship, and entails a willingness to make short-term sacrifices to maintain the relationship, and a confidence in the stability of the relationship (Anderson and Weitz

1992; Dwyer et al. 1987; Gundlach et al. 1995).

Summary

In this chapter, three paradigms for understanding stable and mutually beneficial inter-firm relationships have been presented. Trust has been identified as an important role in governing stable partnering inter-firm relationships. Three components of trust have been introduced. Benevolence is particular component of trust in stabilizing asymmetrical buyer-supplier relationships because it deals with relational risks between buyers and suppliers. Antecedents of successful inter-firm relationships raised in prior literature, such as knowledge sharing, concession making, responsiveness and relationships specific investments, have been explored. Commitment, which is considered as a critical consequence of trust characterizing partnering relationships, has also been discussed. In sum, this Chapter offers a background on the contributions as well as the limitations of current research, and sets the stage for the conceptual framework developed in this study.

CHAPTER 3
CONCEPTUAL FRAMEWORK

Overview

In this chapter, the conceptual framework for the dissertation is presented. An overview of the conceptual framework is depicted in Figure 3-1. My framework suggests that the extent to which one firm perceives the other firm as benevolent determines its commitment as well as subsequent benevolence-signaling behaviors in the relationship. The perceptions of benevolence are based on behavioral signals sent by the other firm such as concessions, knowledge sharing, and relationship specific investments.

The impact of perceived benevolence on receiver's commitment is moderated by the relative power of the sender. I propose a three component model of perceived benevolence to explain the differing moderating effects of power, as shown in Figure 3-2. Each of these components is differentially affected by the nature of the signal and relative power of the signal sender. For example, my framework proposes that a high power firm would perceive a low power firm with more affective benevolence as more benevolent, and consequently would become more committed in the relationship. In contrast, a low power firm would perceive a high power firm that has more calculative benevolence as more benevolent and hence become more committed.

In the following three sections, I first develop the three-component model of inter-firm benevolence, and then I discuss the hypotheses regarding the antecedents as well as

the consequences of the inter-firm benevolence in asymmetrical buyer-supplier relationships.

The Three-Component Model of Inter-Firm Benevolence

To understand how inter-firm benevolence evolves and functions, it is important to understand the meaning and nature of inter-firm benevolence.

Definition of Benevolence

Ganesan (1994) defines benevolence as "the extent to which a party believes that the benevolent party has intentions and motives beneficial to the party." Similarly, Johnson et al. (1996) define benevolence as "the extent to which a firm in the relationship believes that its partner has intentions of goodwill and will behave in a fashion beneficial to both." And Doney and Cannon (1997) define benevolence as "the degree to which one party is genuinely interested in the other's well being and seeks joint gain."

Thus, at the center of benevolence is a firm's *positive* concern for the other firms. It involves giving party's showing consideration and sensitivity to the needs and interests of the receiving party, acting in a way that protects the interests of the receiving party, and refraining from exploiting it (Atuahene-Gima and Li 2002). In this research, I define inter-firm benevolence as the degree to which one firm is concerned about the other firm's welfare in an inter-firm relationship. Furthermore, I propose three distinct components of benevolence – affective, calculative, and normative benevolence – each having different antecedents arising from the other firm's behaviors and having different impacts on attitudes towards the other firm. The categorization of benevolence into three components arises from distinct reasons for benevolence. Benevolence may be based on emotions, cognitive evaluations, or institutions (Hosmer 1995; Lewis and Weigert 1985).

Affective Benevolence

Affective benevolence reflects one firm's benevolence based on positive feelings leading to care about the other firm's welfare. Prior research has examined this dimension of benevolence, and argues that the affective aspect of benevolence consists of the emotional bonds between the two parties (Lewis and Wiegert 1985; McAllister 1995). Affective benevolence involves one party having an emotional investment in the relationship (Doney and Cannon 1997; Johnson et al. 1996; McAllister 1995; Pennings and Woiceshyn 1987; Rempel et al., 1985).

Calculative Benevolence

Calculative benevolence reflects one firm's benevolence that is largely based on cognitions - considerations of the costs and benefits experienced by the parties in the relationships. In other words, a firm has calculative benevolence towards the other firm when it is costly for this firm not to be benevolent, or because it is rewarding to be benevolent. This aspect of benevolence is consistent with Doney and his colleagues' suggestions that trust building is a calculative process involving one party calculating the costs and rewards of the other party's cheating or cooperating in the relationship (Doney and Cannon 1997; Doney, Cannon, and Mullen 1998). Similarly, Ganesan (1994) conceptualizes benevolence as "the extent to which a party believes that the benevolent party has intentions and motives beneficial to the party." Lee and his colleagues (2004) also contend that that the expected gain from the other firm in the relationship can stimulate benevolence.

Normative Benevolence

A third component of benevolence is called *normative benevolence*, which reflects one firm's benevolence based on perceived obligation in an impersonal economic environment. It reflects a sense of moral obligation or duty on the part of one firm to support the relationship with the other firm. In a buyer-supplier relationship, normative benevolence results in the firm staying with the other firm because it feels that it should. The characteristics and the impacts of normative benevolence are largely under-explored in the extant literature.

H1: Affective, calculative, and normative benevolence are measurable independent dimensions of a benevolence construct.

Together, the three components of inter-firm benevolence comprise the *inter-firm benevolence profile*. Because these three components of benevolence are not mutually exclusive, a firm can simultaneously experience all three forms of benevolence to varying degrees. One firm, for example, might have both a strong affect and a strong sense of obligation to care about the other firm, but receive limited benefits from doing so. Another firm might have a weak affect, a moderate level of duty, and a strong need, and so on. An important implication of viewing benevolence from these three aspects is that the various forms of the perceived benevolence of another firm might have different impacts on the firm's attitudes and subsequent behaviors, which I propose are moderated by relative power.

Sender's Signals of Inter-Firm Benevolence and Receiver's Interpretations

The perceptions of one firm's benevolence depend on how the other firm interprets this firm's benevolence-related signals. A *signal* is a behavior and/or feature of a firm

that conveys information about this firm's intentions, characteristics and abilities (cf. Porter 1980). Prior literature has left unanswered the question of what strategies firms can use or through what features firms signal its benevolence or trustworthiness. The signals of inter-firm benevolence examined in this research are chosen primarily because they arose during interviews I had with purchasing agents[1] and illustrate the differential effects of the three dimensions of perceived inter-firm benevolence. Although not exhaustive, the antecedents chosen for this study represent a first step in understanding how one firm's strategies could change the other firm's perceptions of this firm's inter-firm benevolence, as briefed in Table 1. In addition, borrowing the insights from competitive market signaling theory (Heil and Robertson 1991) and attribution theory (Jones and Nisbett 1971; Kelly 1971), we argue that the receiver's interpretations of signals, which are the inferences about the sender's intentions and abilities as outlined in Table 1, determine the receiver's beliefs about the sender's benevolence (c.f., Prabhu and Stewart 2001).

I suggest five key signals affect the perception of benevolence: (1) being responsive, (2) making concessions, (3) sharing knowledge, (4) making relationship specific investments, and (5) establishing reputation for benevolence. These signals reflect different aspects of buyer-supplier relationships – the relational aspect (responsiveness, concession and knowledge sharing), the cost/benefit aspect (relationship specific investments), and the social aspect (reputation) – that are likely to impinge on the dyad's decision to develop affective (emotion-based), calculative (cognition-based), and

[1] Through March and April 2005, I telephone interviewed more than 30 purchasing managers in retailing and manufacturing industries across the states. All the targeted managers had stayed in the position of buyers for more than 5 years. I mainly asked them to describe how they manage the relationships with one of their key suppliers, as well as with one of their small suppliers.

normative (institution-based) benevolence towards each other.

Signals of Affective Benevolence

Prior research has not explicitly proposed what types of behaviors signal affective benevolence in inter-firm relationships, i.e., the types of behaviors that promote perceptions of benevolence and relate these perceptions of benevolence to the positive feelings existing between sender and receiver. To understand how a party communicates positive concerns for the other through behaviors, I draw on attachment theory in interpersonal relationships. Attachment theory suggests that behaviors promoting security are essential to generating the belief that the sender party has emotional bonds with the receiving party (Bowlby 1969/1982; Bowlby, 1973; Bowlby 1980; Feeney and Noller 1990; Kobak and Hazan 1991). In addition, Motivation/Hygiene theory as developed by Fredrick Herzberg (1966) suggests that there are two categories of behaviors could promote security feeling in inter-personal relationships: behaviors satisfying the receiver's need to feel respected, and those contributing to the receiver's feelings of comfort in the work. Similarly, the organizational commitment theory developed by Meyer and Allen (1991) suggests that the creation of a comfortable environment might lead to the perception of the company's affective commitment.

In this study, I propose that three types of behaviors can be used by a firm to signal its affective benevolence towards the other firm: (1) concessions by which the sender makes sacrifices to reduce the receiving firm's anxiety; (2) responsiveness that shows the sending firm's respect for the receiving firm by being available when needed; and (3) knowledge sharing behaviors that develop familiarity with the other firm. Therefore, all three behaviors signal sender firm's positive affects by promoting receiver's security in

the relationship, paying respects to the receiver, and creating a comfortable communication environment in the relationship.

Making concessions. Making concessions refers to one firm's act of sacrificing benefits for the good of the other firm. Examples of making concession involve a buyer adjusting product requirements, or a supplier reducing its prices and etc. to meet the other firm's requirements (Carnevale and Pruitt 1992). Concessions can take on different forms, such as on prices, contracts, services, quality and etc. (Good 2001; Madhavan et al. 2004).

Generally speaking, making concessions signals good-faith adjustments to deal with changing circumstances in relation to the other firm. These signals are particularly important when specific contractual obligations or stipulations become nonviable or cumbersome owing to unanticipated contingencies (Surbranmani and Venkatraman 2003). Through the act of sacrificing its own benefits for the good of the other firm, sender helps ease receiver's "anxiety" or worry that this firm might not be supportive in times of need, and ultimately promote a high degree of comfortableness and security in the relationship (Herzberg 1966; Bowlby 1969/1982; Bowlby, 1973; Bowlby 1980; Feeney and Noller 1990; Kobak and Hazan 1991). Hence, we argue that

H2 (a): Receiver's perception of sender's affective benevolence is positively affected by receiver's perception of sender's making concessions.

Responsiveness. Responsiveness is defined as a prompt and appropriate action taken by one firm in response to the other firm's requests (Kohli et al. 1993). Responsiveness is signaled both by the speed and degree of cooperation with which the

responsive actions are taken. To be responsive, the signaling firm needs to take actions that fit the other firm's requirements (Kohli et al. 1993).

Responsiveness would lead to a high level of presence and security (Kobak 1999) because being responsive enables the sender to convey its positive feeling by adapting to the receiver's requirements in a timely manner. Through responsiveness, the sender demonstrates its respect for the receiver's value and its interest in maintaining a close relationship with the receiver (Brennan et al. 1998). Such positive experience of being respected will lead the receiver to perceive that the sender has emotional bond to the relationship (Bowlby 1969/1982; Bowlby, 1973; Bowlby 1980; Feeney and Noller 1990; Kobak and Hazan 1991). Thus,

H2 (b): Receiver's perception of sender's affective benevolence is positively affected by receiver's perception of sender's responsiveness.

Knowledge sharing. Knowledge sharing behaviors are defined as the frequent transfer, recombination, or creation of specialized knowledge in the relationship. Knowledge is viewed as a mix of framed experience, values, contextual information and expert insight that provides a framework for evaluation and incorporating new experiences and information (Nonaka 1994; Grant 1996a; Grant 1996b; Devenport and Prusak 1997). By engaging in knowledge sharing, the sender interacts with the receiver extensively and constantly "to share everything from risk, responsibility, information, to decision making, and to acquire breadth of knowledge and skills" (Imai et al. 1985).

According to attachment theory, a party increases the comfort of the other party by exchanging information to help the other party familiarize itself with the relationship. This sharing of knowledge demonstrates the sender's affective bond in an inter-personal

relationship (Bowlby 1969; Bowlby 1972). A sender firm's consistent knowledge sharing behaviors comforts the receiver firm. Three functions of the sending firm's knowledge sharing behaviors signal its affective benevolence in buyer-supplier relationships. First, knowledge sharing demonstrates that the sender wants to understand the receiver better and promote cooperation (Dougherty 1992; Dougherty 1994). Second, it shows the sender's interest in coping with unexpected situations for the sake of maintaining the relationship with the receiver (Grant 1996; Grant 2004). Further, knowledge sharing facilitates cross-fertilization between the two parties, and reduces the tendency of the parties to become confined by their own thought-worlds, which results in more understandings between the parties (c.f., Mohr and Nevin 1990). Therefore,

H2 (c): Receiver's perception of sender's affective benevolence is positively affected by receiver's perception of sender's efforts to share knowledge.

Signals of Calculative Benevolence

Calculative benevolence reflects the consideration of costs associated with perceived benevolent. This aspect of benevolence results from a firm's concern for the other party based on a cognitive analysis of cost and benefits in a relationship. The most frequently studied cost/benefit related construct in the marketing literature is relationship specific investments.

Relationship specific investments. Relationship specific investments are defined as investments specific to the buyer-supplier relationship that are difficult or impossible to be redeployed to any other relationships. Relationship specific investments would lose substantial value unless the relationship persists. These investments can be physical or non-physical. Examples of specialized physical investments are a new manufacturing

plant located next to the retailer, specialized warehouses, and products designed to the buyer's needs. On the other hand, the time and effort spent acquiring non-marketable skills, tailoring the operation processes to the other firm, or developing the interpersonal relationship are examples of non-physical relationship specific investments.

By making these relationship specific investments unilaterally, one firm signals its desire to tailor its offering to benefit the other firm, and also makes itself more vulnerable to the other firm (Doney and Cannon 1997; Doney et al. 1998; Subramani and Venkatraman 2003). For example, a supplier devotes some resources to training its salespeople to promote its products to a specific buyer. Some part of the investment may be redeployable, because some knowledge acquired can be used to sell products to other buyers. However, other inputs are useful only for this specific buyer, and will be worthless if this relationship ends. In this way, the supplier fits its offerings to the buyer's needs. Thus, relationship specific investments are perceived by the receiver as a signal of the sender's commitment in the relationship based on its higher switching costs. Hence,

H3: Receiver's perception of sender's calculative benevolence is positively affected by the degree to which receiver perceives that sender makes relationship specific investments.

Signals of Normative Benevolence

Normative benevolence is a firm's obligation to be benevolent to the other firm. This feeling of obligation results from the internalization of norms prior to entry into the relationship (i.e., reputation), and/or following entry (i.e., inter-firm socialization). To date, the literature related to the development of normative benevolence is very limited.

Reputation might be an important influence on the signal receiver's perception of benevolence.

Sender's reputation. Reputation is defined as a function of the past actions of a firm, which build high credibility of this firm over time (Milgrom and Roberts 1982; Weigelt and Camerer 1988). In other words, sender's reputation is based on sender's activities across all of its relationships over time (Herbig and Milewicz 1997), which informs receiver of its behavioral norm towards others (c.f., Gulati, 1995). A good reputation from sender lowers the variance in receiver's estimation of sender's future benevolent actions, which provides a credible reference for the receiver to recognize the sender's normative benevolence. Thus

H4: Receiver's perception of sender's normative benevolence is positively affected by the degree to which receiver perceives that sender has a good reputation.

Receivers' Reactions to Perceived Inter-Firm Benevolence

Overview

In this section, the conceptual framework depicted in Figure 3.1 is advanced. First, I argue that when a high power firm signals its inter-firm benevolence to the low power firm ($SIGNAL_{HL}$), the low power firm's perceptions of the high power firm's benevolence ($BENEVOLENCE_{LH}$) will be affected.[2] Consequently, the low power firm's

[2] Throughout this dissertation, the subscript L stands for low power party, H stands for high power party. For example, $SIGNAL_{LH}$ is the low power party's signals for its benevolence to the high power party, and $SIGNAL_{HL}$ is the high power party's signals for its benevolence to the low power party. Similarly, $COMMITMENT_{LH}$ is the low power party's willingness to stay in the relationship and $COMMITMENT_{HL}$ is the high power party's willingness to stay in the relationship. When a firm reports its perception of the other party, there are two subscripts and the subscripts do not match. For example, $BENEVOLENCE_{LH}$ is the low power party's perception of the high power party's benevolence and $BENEVOLENCE_{HL}$ is the high power party's perception of the low power party's benevolence.

commitment ($COMMITMENT_{LH}$) and subsequent behaviors will be changed accordingly. The low power firm's behaviors signal its benevolence ($SIGNAL_{LH}$), which will have an impact on the high power firm's benevolence ($BENEVOLENCE_{HL}$) and subsequent behaviors. Thus, $SIGNAL_{HL} \rightarrow BENEVOLENCE_{LH} \rightarrow COMMITMENT_{LH} \rightarrow SIGNAL_{LH} \rightarrow BENEVOLENCE_{HL} \rightarrow COMMITMENT_{HL} \rightarrow SIGNAL_{HL}$ as depicted in Figure 3.1. This reinforcing nature of the positive feedback cycle creates stability in the relationship of their power structures.

The focus of this dissertation is on the receivers' perceptions and reactions to the senders' behaviors, specifically purchasing managers' perceptions of supplier's behaviors. The major contribution of this dissertation is the proposition that the high and the low power parties react to the signals of perceived benevolence differently. These differential perceptions of benevolence in turn affect subsequent attitudes and behaviors.

Receiver's Reactions to Signals of Benevolence in Asymmetrical Relationships

Although there has been extensive research discussing trust or benevolence in the buyer-supplier relationship, this research has largely ignored the signals the sender uses to demonstrate its trust or benevolence (Atuahene-Gima and Li 2002). In this section, my framework outlines how the perception of benevolence changes one firm's attitudes (commitment) and subsequent behaviors in an asymmetrical buyer-supplier relationship (Heil and Robertson 1991).

Receiver's commitment. Commitment entails a desire to develop a stable relationship, a willingness to make short-term sacrifices to maintain the relationship, and a confidence in the stability of the relationship (Anderson and Weitz 1992). Based on prior research, I propose that receiver's commitment to the relationship will be positively

influenced by the nature of sender's benevolence (Morgan and Hunt 1994). When receiver perceives that the sender is benevolent, the receiver would feel that its welfare is being considered, and hence is more committed to the relationships.

However, the effects of the three components of perceived benevolence on receiver's commitment vary depending upon the relative power of sender over receiver. According to attribution theory (Jones and Nisbett 1971; Kelly 1971), discounting principles (Ross and Anderson 1982) and the principle of correspondent inference (Jones and Davis 1965), when the focus of the benevolence signal is internal rather than external, the receiver is more likely to interpret the sender's behaviors as due to characteristics of the sender. In a signaling context, "internally focused signals are more likely to result in internal attributions" (Prabhu and Stewart 2001). Thus, the more internally focused the sender's signals are, the more likely these signals are to contribute to the development of the receiver's internal attitudes changes. Therefore, a firm perceived to affectively care about the other firm in the relationship (affective benevolence) might be more likely to induce the other firm to commit to the relationship. On the other hand, a firm that is perceived to feel obligated to care about the other firm (normative benevolence), or must care the other firm because of cost and benefits (calculative benevolence) is less inclined to induce commitment in the other firm. Thus,

H5: The positive relationship between the perception of sender's affective benevolence and receiver's commitment is the greatest, followed by the relationship between the perception of sender's normative benevolence and receiver's commitment, and then by the relationship between the perceptions of sender's calculative benevolence and receiver's commitment.

However, I propose that the power relationships between sender and receiver can moderate the impacts of the different aspects of perceived benevolence on receiver's commitment. When I interviewed the purchasing managers in manufacturing and retailing industries, I found that the high and low power firms have different expectations for the other firms. For example, high power buyers are more interested in working with the low power suppliers who are flexible and willing to make concessions when situations arise. A high power retailer in California would like its low power suppliers to make concession by granting the market exclusivity for promoting products. Another high power retailer in Florida would request its small power suppliers to be more responsive when the hurricane seasons come. On the other hand, the low power buyers are more interested in doing business with the high power parties who invest more time and efforts to show respects to the low power parties in the relationship.

After interviewing the managers, I have the impression that, despite the good wills from both high power and low power parties, the high power firm is more interested in obtaining more benefits and controls in the relationship. For example, the high power firm would mention that it wishes to work with the low power firm that is willing to sacrifice some freedom, autonomy and even profits when uncertainty occurs. On the other hand, the low power firm places more emphasis on gaining security in the relationship. For example, the low power firm wishes to deal with the high power firm that has made tangible investment on a long term base.

What I uncovered through these interviews is in consistent with what has been discussed in social psychology (e.g., Molm 1990; Molm et al.1999). Theoretically, compared to high parties, low power parties care more about whether high power parties

will terminate the relationships. High power parties care less about the security of staying in the relationships because high power parties normally have more alternatives than low power parties. Hence, tangible investments (such as investing significant amount of time, effort or even money) made by high power firms signal increased switching costs to low power firms, and are particularly effective in convincing the low power firms about the potential for a long term stable inter-firm relationship. Therefore:

H6: The positive relationship between receiver's perception of sender's calculative benevolence and receiver's commitment is moderated by the relative power between sender and receiver. The relationship is stronger when receiver is low power and sender is high power, and is weaker when receiver is high power and sender is low power.

On the other hand, the high power firms have different concerns while being engaged in asymmetrical relationships. Their biggest concern is the size of profits they could get in the relationship. Such concern mainly stems from the opportunity costs of not working with other potential alternative partners who might bring the high power party more profits. In other words, the high power firm's biggest concern is whether the size of profits or its "slice" of the pie is maximal for it if working with the low power firm.

In this case, if the low power firm can signal the high power firm that it genuinely cares about the high power firm's welfare (its "slice" of pie) by being responsive and making unilateral concessions in the relationships, the high power party will be more likely to stay in the relationship due to an increased probability of gaining more benefits with the low power party's "sacrifice". In addition, by signaling more affective

benevolence, the low power party gives up a certain degree of freedom and autonomy in exchange for the high power party's more control in the interactions. This leads the low power firms to have the confidence that the high power firm is interested in maintaining the relationship (Jacobs 1971; Thibaut and Kelley 1959). Such confidence might also keep the high power firm to be more likely to stay in the relationship. Therefore,

H7: The relationship between the receiver's perception of the sender's affective benevolence and commitment is moderated by the relative power between the sender and the receiver. The relationship is stronger when the receiver is high power and the sender is low power, and is weaker when the receiver is low power and the sender is high power.

Receiver's pledges. Pledges are defined as the specific behaviors that receiver uses to manifest its commitment in the relationship. Such specific behaviors are undertaken by the firm to demonstrate good faith and bind the firm to the relationship (cf., Anderson and Weitz 1992). Receiver's pledges involve the receiver's willingness to establish a long-term relationship with the sender. For example, a high level of commitment can be evidenced in all types of behaviors that show good faith and efforts in maintaining the relationship. Thus,

H8: There are positive relationships between one firm's commitment and its (1) concessions making, (2) responsiveness, (3) knowledge sharing, and (4) relationship specific investments.

Although both high and low power firms will make pledges to the relationships once committed to the relationships, asymmetries of power in the relationship will have influence on the degree or the probability that high and low power firms make pledges.

According to Molm (1999), the asymmetry in the relationship corresponds with the form of exclusion. One important form of exclusion is the withholding of rewards from one partner while pursuing exchange with another (Molm 1990). Withholding rewards benefits the high power parties not only by driving up low power party's offers, but also by lowering the high power parties' costs. High power parties who can maintain its relationship with the low power party with only intermittent reciprocity have more opportunity to pursue other exchange relations. And because the benefits flow unilaterally, they can receive benefits from multiple partners at the same time. High power partners benefit from both their low reciprocity and their consequent greater opportunity to pursue other exchanges. For example, high power firms not making specific investment in the relationship not only take less responsibility, but also have more resources to devote to other relationships. The low power party must give more frequently to maintain their powerful partner's intermittent reciprocity, must forgo more of the potential rewards from these alternative activities because their opportunity costs are higher. Thus, we expect that:

H9: The low power party is more likely to (1) make concessions, (2) be responsive, (3) have knowledge sharing, and (4) make relationship specific investments.

Summary

In this chapter, the conceptual model for the dissertation was presented. The three-component model of inter-firm benevolence (affective, calculative and normative benevolence) was introduced. The antecedents of the three-component model of benevolence (responsiveness, making concession, sharing knowledge, establishing reputation, and relationship specific investment) are discussed. Different antecedents are

argued to be positively related to different components of perceived benevolence. The three components of perceived benevolence are also thought to be positively associated with the receiving firm's commitment. And the effects of these components of benevolence are likely to be moderated by the asymmetries of power between the buyer and supplier in the relationship. The impact of commitment on different types of behaviors is also discussed. Finally, the role of the asymmetries of power on making pledges is discussed.

Table 3-1 Primary Behaviors Associated with Signaling Benevolence in Buyer-Supplier Relationships

One Firm's Behaviors towards the Other Firm	Signaling Affective Benevolence	Signaling Calculative Benevolence	Signaling Normative Benevolence	Primary Impacts of the Behaviors on the Other Firm
Exhibiting Responsiveness	+ Reacting promptly and appropriately to make the other firm feel comfortable and being respected in the relationship.			Increasing the *availability* of the rewards the other firm can access in the relationship. Also granting more *controls* and demonstrating *confidence* in the other firm.
Making Concessions	+ Refraining from using power to make the other firm feel comfortable and being respected in the relationship.			
Knowledge Sharing	+ Familiarizing with the other firm to make the other firm feel comfortable and being respected in the relationship.			
Relationship Specific Investment		+ The cost of leaving the relationship is increased.		Increasing the *magnitude* of benefits the other firm can get from the relationship
Reputation			+ To assure the receiver of its sense of obligation	Increasing the feeling of *security* of dealing with the firm who has a high reputation

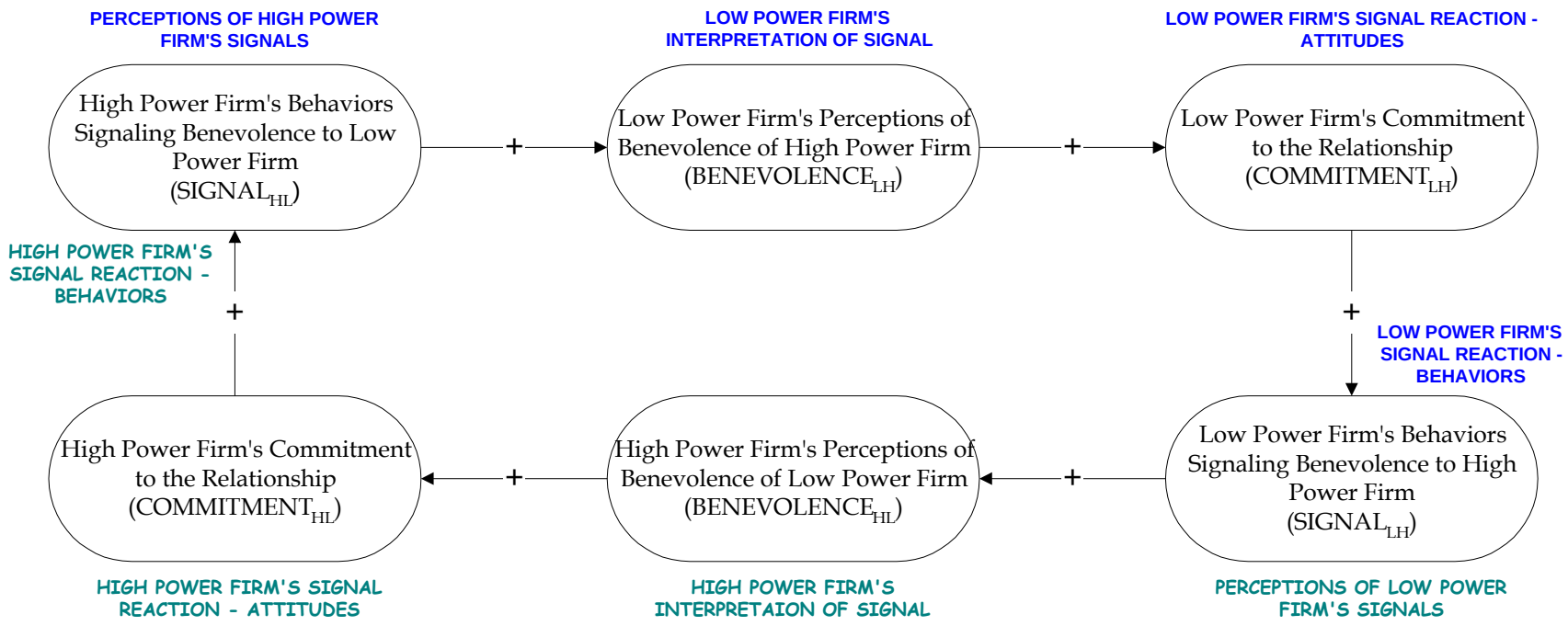


Figure 3-1 The Simple Loop of Buyer-Supplier Interactions

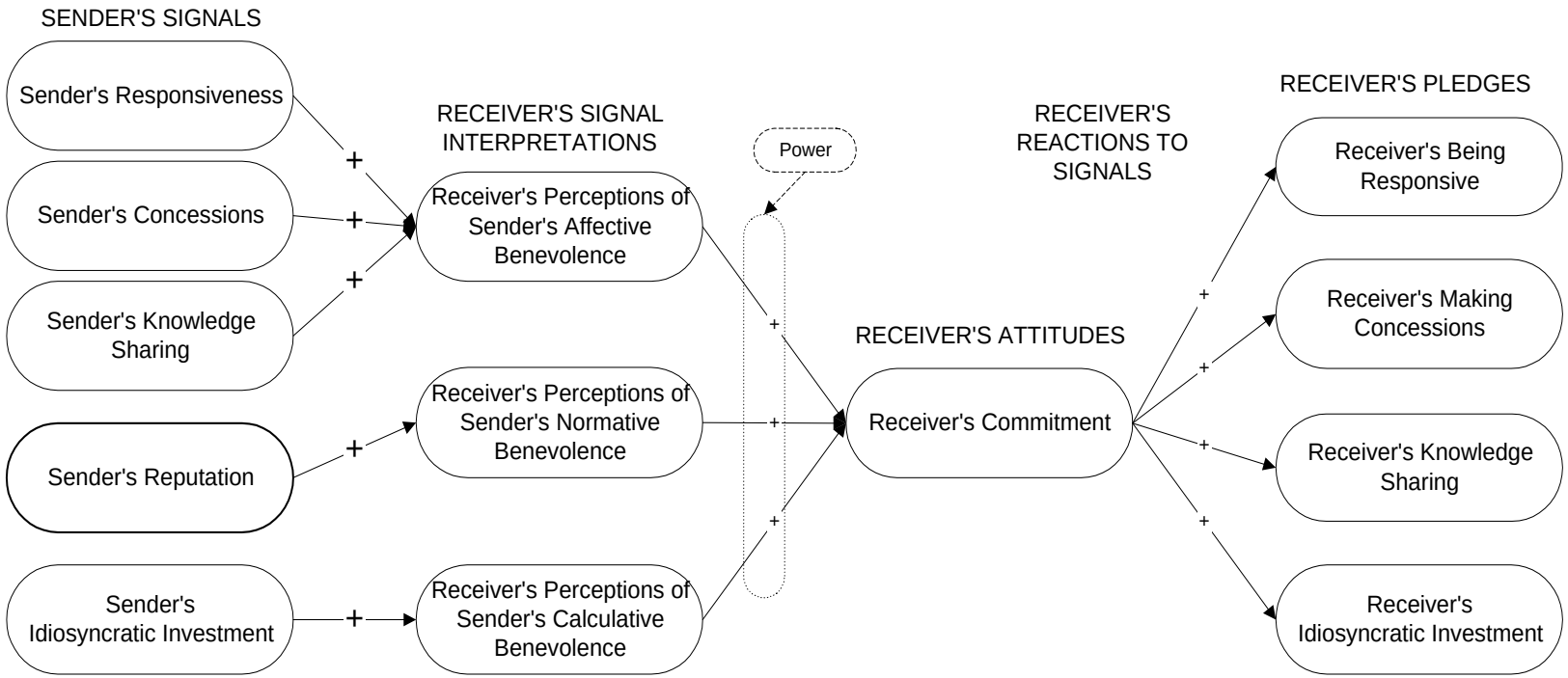


Figure 3-2 Interpretations of and Reactions to Signals for Organizational Benevolence in Asymmetrical Buyer-Supplier's Relationships

CHAPTER 4
METHODOLOGY

Overview

This chapter explicates the survey methodology, procedures, and initial measurement issues. It consists of five sections. The first section discusses the research setting, sampling frame, and respective industry characteristics. In the second section, data collection procedure is described. The third section introduces measure and questionnaire development, such as pretest results and exploratory factor analysis. In the fourth section, evidence of the constructs' initial convergent and discriminant validity was reported. Lastly, hypotheses testing model equations are presented in the fifth section.

Unit of Analysis, Sample, and Data Collection

The unit of analysis is the buyer-supplier dyad. Ideally measures of the buyer-seller dyad would be assessed by collecting data from both dyadic partners. However, there are significant problems in collecting a large sample of matched pairs. Therefore, the hypotheses are tested by treating industrial buyers as the key informants and using their responses to a questionnaire reporting their perceptions of the suppliers' behaviors, buyer companies' attitudes toward the suppliers, and buyers companies' behaviors toward the suppliers.

The purchasing managers are in a good position to know the requirements of the buyer firm for a particular product category. They have control over a product category

and are fully responsible for the profitable performance of that product or product line. Thus, the responses on the questionnaire capture the attitudes and perceptions of key decision makers in buyer-supplier relationships concerning a particular product or product category.

The sample examined in this dissertation includes buyer firms in business-to-business markets from both SIC codes 20-23 (Manufacturing), 24-34 (Material), 35-39 (Equipment), and 52-59 (Retail Trade). Access to the contact information for the buyers was provided by Institute of Supply Management (ISM). Each participating firm was offered an executive summary, presentation of results, and customized analyses in return for their participation.

In responding to the questionnaire, all buyers were asked to consider a specific supplier with which they had a relationship for over a year. In addition, to insure variance in the nature of the power asymmetry in the relationship, half of the purchasing managers were randomly selected to report the relationship with one supplier with considerably higher power than the buyer; while another half of the purchasing managers were randomly selected to report the relationship that involves a supplier who has considerably lower power compared to the buyer. Specifically, each buyer was asked to think of one high power supplier which is best described as “It would be easy for this supplier to find other customers to replace our company, but it’s difficult for your company to replace this supplier with another supplier in the particular product category”, or as to think of one low power suppliers which is best described as “It would be easy for our company to find other suppliers to replace this supplier, but it’s difficult for this supplier to replace our company with another buyer in the particular product category.” Two similar

questionnaires, one for high power buyer and the other for the low power buyer, were used.

Requests to participate in the research were sent to 4,000 purchasing managers who were randomly selected from the business-to-business purchasing managers in the United States. For the 2000 buyers who were asked to report on their relationships with low power suppliers, 345 buyers responses were collected with 263 complete responses. I also get 212 emails with incorrect addresses, 109 rejection emails, and 181 emails indicating that the managers could not receiving or checking email while they were out of office during the time of the survey, which result in a meaningful sample frame of 1498 potential respondents. The response rate is 23.03 %. For the 2000 buyers who were requested to report on their relationships with high power suppliers, 314 responses were obtained with 253 complete responses. And 149 emails with incorrect addresses, 142 rejection emails, and 232 emails indicating that the managers could not receiving or checking email while they were out of office result in a meaningful sample frame of 1477 potential respondents. The response rate is 21.26 %. The average response rate for the whole sample is 22.15%.

These purchasing managers were also asked to supply the names and addresses of the supplier firms whom they referred to when answering the questionnaires, as well as the representatives in these supplier firms with whom they have frequently interacted for at least one year. Then, similar questionnaires were sent to the named supplier representatives, seeking their appraisements of the relationships. However, only 45 buyers reported their high power suppliers' contact information, and 30 buyers reported their low power suppliers' contact information, which render 33 complete suppliers'

responses in total with response rate 44%. Because the sample size is too small to provide credible reports of the functionality of inter-firm benevolence at the suppliers' side, we exclude analysis of suppliers' responses in the current study.

Measure Development

The three components of inter-firm benevolence, responsiveness, concession, knowledge sharing, reputation and power are the new measures designed by the author. Relationship specific investment and reputation were measured by adapting the scales used by Ganesan (1994) and Joshi and Stump (1999). For commitment, I modified measures used in studies by Jap and Ganesan (2000), Anderson and Weitz (1992), Morgan and Hunt (1994), and Kumar et al. (1995)'s studies. The items were identically worded for both the high power and low power buyer. The list of measures can be found in Appendix A.

Pretest

To develop the measures, I first telephone interviewed a number of purchasing managers in the buyer firms across manufacturing and retailing industries, and asked them to review the actions they had taken towards two types of their suppliers: powerful and not powerful. For example, I asked them to think of how they interacted with these two types of suppliers on a daily base, how they assess the relationship qualities with these suppliers, and what criteria they use to value these relationships. Then I asked these purchasing managers to review the potential measurement items we designed, and made changes based on their suggestions. The questionnaires were also sent to a panel of academic experts to evaluate for clarity, specificity, and representativeness.

Factor Analysis

Fourteen constructs, each measured with multiple items, 7-point Likert Scales in simple terms using the language commonly employed by the informants, were used in this study. The new measure development was based on the procedure recommended by Nunnally (1978). The critical step in the construct validation of these constructs involves the assessment of internal consistency and unidimensionality.

First, an exploratory factor analysis was performed. If the exploratory factor analysis indicated a single factor, all items whose factor scores were greater than 0.5 were retained. However, if multiple factors were obtained from exploratory factor analysis, the factors were rotated using Varimax procedure to obtain the best factor pattern. All items either loading on more than one dimension or having a factor loading of less than 0.4 were eliminated from subsequent analysis.

The items obtained from the exploratory factor analysis were further subjected to a confirmatory factor analysis (CFA) using LISREL 8.52 (Jöreskog and Sörbom 2002), because CFA allows for a statistical test of the degree of correspondence between observed measures and concepts. A single-factor representation was used for each set of congeneric items. The items with adequate fit with the construct were used for further analysis. Maximum likelihood estimations were employed for the model assessment. This method was essential to assess and finalize and bring the measurement model to satisfactory levels of validity and reliability before structural model was tested (Segars and Grover 1993). All of the measurement model estimation in this dissertation was conducted using this method and statistical package. All the items remaining from the

CFA procedure were checked for overall reliability by calculating a reliability coefficient such as coefficient alpha.

Measurement Properties

There are two important aspects of the measurement model that should be evaluated: convergent validity and discriminant validity (Gefen et al. 2000). Convergent validity examines the degree to which the operationalization is similar to (converges on) other operationalizations that it theoretically should be similar to, and can be assessed by the examination of indicator reliability, construct reliability, and average variance extracted (Fornell 1982). Table 4-1 contains the scale items, factor loadings, indicator reliabilities, construct reliabilities, and average variance extracted for the latent constructs for purchasing managers. All the factor loadings are found to be above 0.6, suggesting good indicator reliabilities greater than 0.4 (Fornell and Larker 1981). Construct reliabilities were computed using the reliability formula of Jöreskog (1971), and are all greater than 0.7 (Table 4-1). AVE measures the shared or common variance in a Latent Variable (LV), which is captured by the LV in relation to the amount of variance due to its measurement error (Dillon and Goldstein 1984). The fourteen constructs' average variances extracted range from 51% to 82%, all exceeding the 50% as recommended by Fornell and Larcker (1981). All these demonstrate evidence of convergent validity.

Table 4-2 and 4-3 contain the summary information on the measurement models, completely standardized correlation matrix between constructs, and means for each construct for buyers. Because this dissertation is interested in studying the attitudinal perceptions of benevolence and behavioral consequences of the perceived benevolence, I run two confirmatory factor analyses (CFA) to assess the measurement properties of the

reflective latent constructs. The first confirmatory factor analysis investigates the perceptions of suppliers' behaviors, attitudes and relative power. Thus, it involves the constructs such as perceived concession, perceived knowledge sharing, perceived responsiveness, perceived reputation, perceived relationship investment of the supplier, perceived benevolence, and perceived power of the supplier. The results are shown in Table 4-2. The second measurement model examines the self reported commitment level and self reported behaviors such as concession, knowledge sharing, responsiveness, and relationship investment, and is contained in Table 4-3.

The two measurement model summarized in Table 4-2 and Table 4-3 indicate that the chi-square statistics are significant. The overall chi-square is a likelihood ratio statistic testing a hypothesized model against the alternative that the covariance matrix is unconstrained. However, as chi-square test is well known for its sensitivity to sample size, other statistic criteria shall be considered for the validity of the models.

The Comparative Fit Index (CFI) served as an exemplar fit to assess the fit of a model to data. This index ranges in possible values between zero and one, indicating a lack of fit and perfect fit between the theoretical model's covariance matrix to the observed covariance matrix, respectively. In Table 4-2 and 4-3, both CFIs are of 0.98 indicating perfect fits of the two models.

As suggested by Diamantopoulos and Siguaw (2000), I further check root mean square error of approximation (RMSEA), standardized root mean square residual **(**RMR), normed fit index (NFI), Non-normed fit index (NNFI), and Critical N (CN) to assess the measurement model fits.

RMSEA shows how well would the model, with unknown but optimally chosen parameter values, fit the population covariance matrix if it were available. It values 0.057 and 0.063 respectively for the two measurement models, indicating reasonable fit. Standardized RMR is a summary measure of standardized residuals, which is 0.05 and 0.046, respectively, in the two measurements models. Both standardized RMR indicate acceptable fit. Both the two measurement models have NFIs at 0.98, indicating good fits of the measurement models. As expected for good fits, NNFIs have been found to be no greater than CFIs in both measurement models, and both NNFIs and CFIs are expected to be greater than 0.90. In addition, CN shows the size that a sample must reach in order to accept the fit of a given model on a statistical basis, and has found to be greater than 200 in both measurement models. All these criteria further indicate that both models are adequate representations of the respective data.

Discriminant validity is the degree to which operationalization is not similar to (diverges from) other operationalizations that it theoretically should be not similar to. As suggested by Bollen (1989), I examined factor loadings as well as the squared multiple correlations between the items and the variables to assess the validity of the measures to assess the disriminant validity. AVE can also be used to gauge discriminant validity (Fornell and Larker 1981). If the squared correlation between two LV's is less than either of their individual AVE's, this suggests the LV's each have more internal (extracted) variance than variance shared between the LV's. If this is true for the target LV and all the other LV's, this suggests the discriminant validity of the target LV. Table 4-2 and Table 4-3 show that all constructs are more strongly correlated with their own measures than with any other of the constructs, suggesting good convergent and discriminant

validity. Cross-loadings are calculated and all indicators show higher loadings with their respective construct than with any other constructs, as shown in Table 4-2 and Table 4-3.

Test of H1

To assess the psychometric properties of the proposed three-component benevolent model (H1), three measurement models exclusively with the items indicating the three components of perceived benevolence were estimated and compared. The first model estimates a three-dimensional structure for benevolence composed of three types of benevolence (affective, normative, and calculative). The second model estimates a two-dimensional structure of benevolence composed of two factors (affective and normative composite, calculative), and the third model estimates a unidimensional structure of benevolence and consists of one factor only (benevolence).

The results of chi-square analyses, as reported in Table 4-4, suggest that the three-component model of benevolence provides the best fit to the data. In addition, the pairwise comparison of differences in chi-square between the models provides evidence for discriminant validity (Bienstock et al. 1997) among the three components of benevolence. Overall, the model fit for three-component model of benevolence is good (Minimum Fit Function Chi-Square χ^2 = 195.06, degrees of freedom [d.f.] = 41, goodness-of-fit index [GFI] = 0.94, normed fit index [NFI] = 0.97, non-normed fit index [NNFI] = 0.97, comparative fit index [CFI] = 0.98). Consequently, the three components of benevolence will be used as distinct concepts for all further analyses. Thus, H1 is supported.

Hypothesis Testing Model Equations

I differentiate the sample into three groups (high power, equal power, and low power buyers).

Relative Power Groupings of Buyers

In analyzing the data, I discovered that the self-reported measure of relative power was not highly correlated with the measure of relative power based on the questionnaire instructions. I decided to use the multiple item measured power to group buyers because I felt the responses to the items were more indicative to perceived relative power than the potentially unread instructions. I used median split analysis by recoding the power measures higher than 4 into perceived high power dummy variable, the power measures lower than 4 into perceived low power dummy variable, and power measures equal to 4 into perceived equal power dummy variable.

I used regression rather than LISREL to estimate the interactions of power and perceived benevolence because LISREL involves a more complicated interaction fitting function and explicit solutions are not always found. Regression provides efficient, consistent, robust estimates compared with LISREL regarding interaction effects between the constructs. Further, for chi-square to be used as a valid test statistic, the sample size should be large. However, when sample size decreases to small number into high power and low power, the statistical significance of individual parameters tends to decrease (Long 1983). Thus, this makes regression a more desirable estimation method.

Estimation Method

Then, I use regression to test the interactions of these power dummy variables with different components of perceived benevolence. Coefficients were estimated for the following system of equations:

(1) η_1 (Perceptions of Sender's Affective Benevolence) = α_1 + $\gamma_{111} \cdot RV$ (Sender's Responsiveness) + $\gamma_{112} \cdot CN$ (Sender's Concessions) + $\gamma_{113} \cdot KS$ (Sender's Knowledge Sharing) + $\gamma_{21} \cdot RI$ (Sender's Relationship Specific Investments) + $\gamma_{31} \cdot RP$ (Sender's Reputation) + ζ_1

(2) η_2 (Perceptions of Sender's Calculative Benevolence) = α_2 + $\gamma_{121} \cdot RV$ (Sender's Responsiveness) + $\gamma_{122} \cdot CN$ (Sender's Concessions) + $\gamma_{123} \cdot KS$ (Sender's Knowledge Sharing) + $\gamma_{22} \cdot RI$ (Sender's Relationship Specific Investments) + $\gamma_{32} \cdot RP$ (Sender's Reputation) + ζ_2

(3) η_3 (Perceptions of Sender's Normative Benevolence) = α_3 + $\gamma_{131} \cdot RV$ (Sender's Responsiveness) + $\gamma_{132} \cdot CN$ (Sender's Concessions) + $\gamma_{133} \cdot KS$ (Sender's Knowledge Sharing) + $\gamma_{23} \cdot RI$ (Sender's Relationship Specific Investments) + $\gamma_{33} \cdot RP$ (Sender's Reputation) + ζ_3

(4-a) η_4 (Receiver's Commitment) = α_4 + $\beta_{4a} \cdot \eta_1$ (Perceptions of Sender's Affective Benevolence) + $\beta_{4c} \cdot \eta_2$ (Perceptions of Sender's Calculative Benevolence) + $\beta_{4n} \cdot \eta_3$ (Perceptions of Sender's Normative Benevolence) + $\beta_{4h} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{4l} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + ζ_4

(4-b) η_4 (Receiver's Commitment) = α_{41} + $\beta_{41} \cdot \eta_1$ (Perceptions of Sender's Affective Benevolence) + $\beta_{42} \cdot \eta_2$ (Perceptions of Sender's Calculative Benevolence) + $\beta_{43} \cdot \eta_3$ (Perceptions of Sender's Normative Benevolence) + $\beta_{45} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{45} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + $\beta_{46} \cdot \eta_6$ (Interaction of Dummy Perceived Sender's High Power and Perceived Affective Benevolence) + $\beta'_{46} \cdot \eta'_6$ (Interaction of Dummy Perceived Sender's Low Power and Perceived Affective Benevolence) + $\beta_{47} \cdot \eta_7$ (Interaction of Dummy Perceived Sender's High Power and Perceived Normative Benevolence) + $\beta'_{47} \cdot \eta'_7$ (Interaction of Dummy Perceived Sender's Low Power and Perceived Normative Benevolence) + $\beta_{48} \cdot \eta_8$ (Interaction of Dummy Perceived Sender's High Power and Perceived Calculative Benevolence) + $\beta'_{48} \cdot \eta'_8$ (Interaction of Dummy Perceived Sender's Low Power and Perceived Calculative Benevolence) + ζ_{41}

(5) η_9 (Receiver's Responsiveness) = α_5 + $\beta_{54} \cdot \eta_4$ (Receiver's Commitment) + $\gamma_{51} \cdot RV$ (Perceived Sender's Responsiveness) + $\beta_{52} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{52} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + ζ_5

(6) η_{10} (Receiver's Concessions) = α_6 + $\beta_{64} \cdot \eta_4$ (Receiver's Commitment) + $\gamma_{62} \cdot CN$ (Perceived Sender's Concessions) + $\beta_{62} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{62} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + ζ_6

(7) η_{11} (Receiver's Knowledge Sharing) = α_7 + $\beta_{74} \cdot \eta_4$ (Receiver's Commitment) + $\gamma_{73} \cdot KS$ (Perceived Sender's Knowledge Sharing) + + $\beta_{72} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{72} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + ζ_7

(8) η_{12} (Receiver's Relationship Specific Investment) = α_8 + $\beta_{84} \cdot \eta_4$ (Receiver's Commitment) + $\gamma_{84} \cdot RI$ (Perceived Sender's Relationship Specific Investments) + $\beta_{82} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{82} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + ζ_8

Where η refers to endogenous variables, and ζ represents disturbance terms. The γ and β indicate coefficients for the influence of exogenous and endogenous variables, respectively. The constructs and coefficients with apostrophes indicate that the tests are done from a low power receiver's perspective. Otherwise, the tests are done from a high power receiver's perspective. The structure relationships are depicted in Figure 4-1. In accordance with our conceptual framework, the expected signs of the coefficients are described in Table 4-5.

Summary

The purpose of this chapter was to describe the methodology, measurement development, and preliminary construct validity results. Data were initially collected via online survey to a sampling of 4000 buyer-supplier relationships across manufacturing and retailer trade industries. Evaluation of the measurement models indicates adequate convergent and discriminant validity among fourteen constructs for buyers.

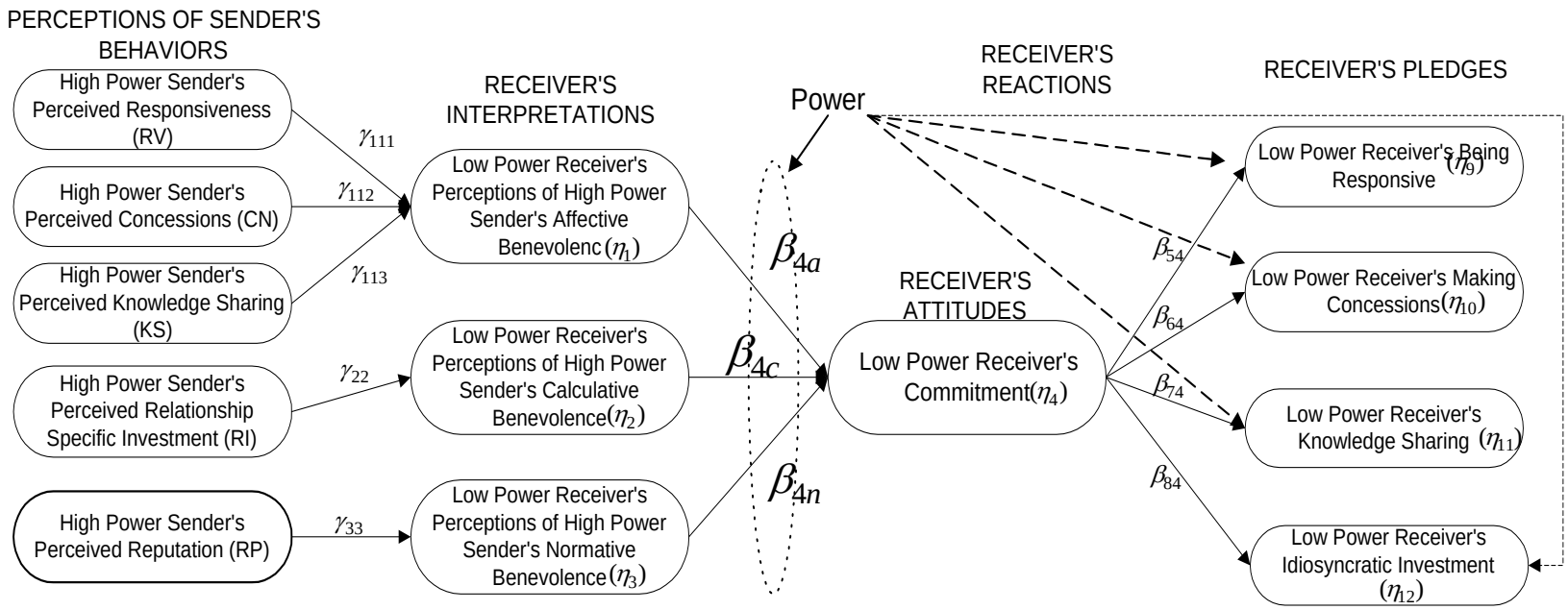


Figure 4-1 Estimation of Interpretation and Reactions in Asymmetrical Buyer-Supplier's Relationships

Table 4-1 Item Descriptions and Measurement Model Results for Latent Constructs

Item Descriptions	Lamdba Loading	Indicator Reliability	Construct Reliability	Average Variance Extracted
Perceived Affective Benevolence			0.85	0.66
This supplier has an emotional attachment to our company, that's one of the major reasons it cares about our welfare.	0.68	0.47		
The success of our relationship has a great deal of personal meaning to this supplier.	0.87	0.76		
This supplier's positive feelings towards our company are a strong force that motivates it to care about our company.	0.86	0.75		
Perceived Calculative Benevolence			0.78	0.55
This supplier cares about our company mainly because our company increases this supplier's profits.	0.68	0.47		
Because it is in its own interests, this supplier wants our company to do well.	0.74	0.55		
This supplier can turn a profit for itself from this relationship – that is one of the main reasons why this supplier cares about our company's welfare.	0.80	0.63		

Table 4-1. Continued.

Item Descriptions	Lamdba Loading	Indicator Reliability	Construct Reliability	Average Variance Extracted
Perceived Normative Benevolence			0.96	0.82
This supplier has a sense of moral obligation to care about its customers.	0.86	0.73		
This supplier thinks that it is unethical to neglect its customers' well being.	0.89	0.80		
This supplier undertakes the responsibility of caring about its customers' welfare.	0.91	0.83		
This supplier would feel that it is wrong to overlook the welfare of its customers.	0.92	0.85		
This supplier feels that it is essential for firms to care about the welfare of its customers.	0.94	0.87		
Perceived Responsiveness			0.96	0.80
If an unexpected situation arises, this supplier always responds rapidly.	0.88	0.78		
This supplier generally makes timely changes to meet our company's requests.	0.89	0.79		
This supplier generally responds to our requests promptly.	0.93	0.87		
This supplier is always accessible whenever we need its help.	0.89	0.79		
When we ask this supplier to consider some changes, this supplier always responds quickly.	0.88	0.78		

Table 4-1. Continued.

Item Descriptions	Lamdba Loading	Indicator Reliability	Construct Reliability	Average Variance Extracted
This supplier does not hesitate to respond to our requests right away.	0.90	0.82		
Perceived Supplier's Concession			0.88	0.66
This supplier is open to makes concessions when doing business with us.	0.74	0.54		
This supplier is willing to change its position on issues in this relationship.	0.72	0.52		
When disagreements arise between the two companies, this supplier makes compromises.	0.87	0.75		
When our two companies have conflicts, this supplier is fine to make accommodations to resolve them.	0.90	0.81		
Perceived Supplier's Knowledge Sharing			0.87	0.69
This supplier has an organized procedure to share its know-how with us.	0.90	0.81		
This supplier has set up a system to facilitate information sharing with our company.	0.89	0.80		

Table 4-1. Continued.

Item Descriptions	Lamdba Loading	Indicator Reliability	Construct Reliability	Average Variance Extracted
This supplier regularly organizes meetings, workshops or seminars to share information with us.	0.67	0.45		
Perceived Supplier's Relationship Investment			0.90	0.65
This supplier has invested substantially in personnel dedicated to our company.	0.82	0.68		
This supplier has made significant investments dedicated to our relationship.	0.86	0.74		
This supplier’s operating processes have been tailored to meet the requirements of our company.	0.82	0.66		
Training people in both companies has involved substantial commitments of time and money for this supplier.	0.73	0.54		
This supplier has made extensive adaptations to deal with our company’s standards and procedures.	0.80	0.64		
Perceived Supplier's Reputation			0.86	0.67
This supplier has a reputation for being concerned about its’ customers.	0.90	0.81		
This supplier has a bad reputation with its customers in the industry. (R)	0.72	0.52		
Most buyers appreciate the way this supplier behaves in the market.	0.82	0.68		

Table 4-1. Continued.

Item Descriptions	Lamdba Loading	Indicator Reliability	Construct Reliability	Average Variance Extracted
Perceived Supplier's Power			0.81	0.68
It would be difficult for us to replace the sales and the profits generated from this product line.	0.68	0.46		
The relationship with this supplier is critical to the achievement of our future goals.	0.95	0.91		
Buyer's Commitment			0.85	0.58
Our company is willing to dedicate whatever people and resources that are necessary to sustain this relationship.	0.66	0.43		
This relationship deserves our company's maximum efforts to maintain it.	0.68	0.47		
We are willing to make all the effort required to maintain this relationship over the long term.	0.87	0.75		
We are committed to this supplier.	0.83	0.68		
Buyer's Responsiveness			0.91	0.78
If an unexpected situation arises, our company always responds rapidly.	0.83	0.69		

Table 4-1. Continued.

Item Descriptions	Lamdba Loading	Indicator Reliability	Construct Reliability	Average Variance Extracted
When this supplier suggests our company to consider some changes, we always respond quickly.	0.88	0.78		
We do not hesitate to respond to this supplier's requests right away.	0.93	0.87		
Buyer's Concession			0.79	0.55
Our company is open to makes concessions when doing business with this supplier.	0.75	0.56		
Our company has made compromises when dealing with issues that arise in this relationship.	0.74	0.54		
Our company is willing to change our positions on issues in this relationship.	0.74	0.55		
Buyer's Knowledge Sharing			0.86	0.51
Our company frequently shares information with this supplier.	0.76	0.58		
Our company has an organized procedure to share our know-how with this supplier.	0.73	0.54		
Our company has set up a system to facilitate information sharing with this supplier.	0.78	0.60		

Table 4-1. Continued.

Item Descriptions	Lamdba Loading	Indicator Reliability	Construct Reliability	Average Variance Extracted
Our company regularly organizes meetings, workshops or seminars to share information with this supplier.	0.64	0.41		
Our company is open to sharing proprietary information to help this supplier to understand the market.	0.65	0.43		
Our company provides this supplier with valuable expertise when this supplier asks for it.	0.70	0.49		
Buyer's Relationship Specific Investment			0.89	0.73
If the relationship between our company and this supplier were to end, our company would waste a lot of knowledge that's tailored specifically to this relationship.	0.77	0.59		
Our company has invested substantially in personnel dedicated to this supplier.	0.89	0.80		
Our company has made significant investments dedicated to this relationship.	0.89	0.79		

Table 4-2 Measurement Model Results for Perceived Benevolence Measures

Goodness of Fit Statistics

Degrees of Freedom = 491

Minimum Fit Function Chi-Square = 1291.36 (P = 0.0)

Normal Theory Weighted Least Squares Chi-Square = 1322.28 (P = 0.0)

Estimated Non-centrality Parameter (NCP) = 831.28

90 Percent Confidence Interval for NCP = (727.11 ; 943.08)

Minimum Fit Function Value = 2.51

Population Discrepancy Function Value (F0) = 1.61

90 Percent Confidence Interval for F0 = (1.41 ; 1.83)

Root Mean Square Error of Approximation (RMSEA) = 0.057

90 Percent Confidence Interval for RMSEA = (0.054 ; 0.061)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.00065

Expected Cross-Validation Index (ECVI) = 2.97

90 Percent Confidence Interval for ECVI = (2.77 ; 3.19)

ECVI for Saturated Model = 2.31

ECVI for Independence Model = 98.64

Chi-Square for Independence Model with 561 Degrees of Freedom = 50733.11

Independence AIC = 50801.11

Model AIC = 1530.28

Saturated AIC = 1190.00

Independence CAIC = 50979.47

Model CAIC = 2075.87

Saturated CAIC = 4311.43

Normed Fit Index (NFI) = 0.97

Non-Normed Fit Index (NNFI) = 0.98

Table 4-2. Continued.

Parsimony Normed Fit Index (PNFI) = 0.85

Comparative Fit Index (CFI) = 0.98

Incremental Fit Index (IFI) = 0.98

Relative Fit Index (RFI) = 0.97

Critical N (CN) = 227.06

Root Mean Square Residual (RMR) = 0.12

Standardized RMR = 0.050

Goodness of Fit Index (GFI) = 0.87

Adjusted Goodness of Fit Index (AGFI) = 0.84

Parsimony Goodness of Fit Index (PGFI) = 0.72

Table 4-2. Continued.

Correlation Matrix (Completely Standardized)

		Mean	Std Dev.	1	2	3	4	5	6	7	8	9
1	perceived affective benevolence	4.05	1 .38	1								
2	perceived calculative benevolence	5.20	1.09	-.01	1							
3	perceived normative benevolence	4.72	1.28	.56**	.01	1						
4	perceived responsiveness	5.06	1.42	.52**	.11*	.71**	1					
5	perceived concession	4.71	1.22	.54**	.09*	.64**	.75**	1				
6	perceived knowledge sharing	3.97	1.43	.37**	.04	.42**	.46**	.43**	1			
7	perceived relationships investment	3.99	1.42	.46**	.14**	.42**	.45**	.47**	.47**	1		
8	perceived reputation	5.26	1.37	.46**	.06	.65**	.68**	.69**	.37**	.32**	1	
9	perceived power of suppliers	4.34	1.60	.15**	.09	.13**	.04	.02	.21**	.22**	.05	1

** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

Table 4-3 Measurement Model Results for Behaviors Measures

Goodness of Fit Statistics

Degrees of Freedom (df) = 142

Minimum Fit Function Chi-Square (χ^2) = 411.06 (P = 0.0)

Normal Theory Weighted Least Squares Chi-Square = 429.40 (P = 0.0)

Estimated Non-centrality Parameter (NCP) = 287.40

90 Percent Confidence Interval for NCP = (228.89 ; 353.53)

Minimum Fit Function Value = 0.80

Population Discrepancy Function Value (F0) = 0.56

90 Percent Confidence Interval for F0 = (0.44 ; 0.69)

Root Mean Square Error of Approximation (RMSEA) = 0.063

90 Percent Confidence Interval for RMSEA = (0.056 ; 0.070)

P-Value for Test of Close Fit (RMSEA < 0.05) = 0.0012

Expected Cross-Validation Index (ECVI) = 1.02

90 Percent Confidence Interval for ECVI = (0.91 ; 1.15)

ECVI for Saturated Model = 0.74

ECVI for Independence Model = 22.41

Chi-Square for Independence Model with 171 Degrees of Freedom = 11503.38

Independence AIC = 11541.38

Model AIC = 525.40

Saturated AIC = 380.00

Independence CAIC = 11641.06

Model CAIC = 777.21

Saturated CAIC = 1376.76

Table 4-3. Continued.

Normed Fit Index (NFI) = 0.96

Non-Normed Fit Index (NNFI) = 0.97

Parsimony Normed Fit Index (PNFI) = 0.80

Comparative Fit Index (CFI) = 0.98

Incremental Fit Index (IFI) = 0.98

Relative Fit Index (RFI) = 0.96

Critical N (CN) = 231.68

Root Mean Square Residual (RMR) = 0.11

Standardized RMR = 0.046

Goodness of Fit Index (GFI) = 0.92

Adjusted Goodness of Fit Index (AGFI) = 0.89

Parsimony Goodness of Fit Index (PGFI) = 0.69

Table 4-3. Continued.

Correlation Matrix (Completely Standardized)

		Mean	Std Dev.	1	2	3	4	5
1	Buyer's Commitment	4.52	1.23	1				
2	Buyer's Responsiveness	4.72	1.18	0.50**	1			
3	Buyer's Concession	4.35	1.13	0.43**	0.32**	1		
4	Buyer's Knowledge Sharing	4.23	1.30	0.52**	0.30**	0.38**	1	
5	Buyer's Relationship Investment	3.83	1.54	0.50**	0.11**	0.35**	0.45**	1

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Table 4-4 Model Comparison of the Structure of Benevolence

Model	Minimum Fit Function Chi-Square	df	RMSEA	Standardized RMR	NNFI	CFI	GFI	NFI	χ^2 difference test with Base Model ($p<0.001$)
3 factors	195.06	41.00	.09	.50	.97	.98	.94	.97	857.67 with 3 degrees of freedom
2 factors	619.61	43.00	.17	.60	.88	.91	.81	.90	433.12 with 1 degree of freedom
1 factor	1052.73	44.00	.22	.65	.80	.84	.72	.83	

df = Degree of Freedom

RMSEA = Root mean square error of approximation

RMR = Root mean square residual

NNFI = Non-normed fit index

CFI = Comparative fit index

GFI = The Goodness-of-fit index

NFI = Normed fit index

Table 4-5 Expected Signs and Relationships of Coefficients in Asymmetrical Buyer-Supplier Relationships

Hypotheses	Expected sign and expected relationships of coefficients under asymmetrical power contexts
H2 (a)	$\gamma_{111} > 0$
H2 (b)	$\gamma_{112} > 0$
H2 (c)	$\gamma_{113} > 0$
H3	$\gamma_{22} > 0$
H4	$\gamma_{33} > 0$
H5	$\beta_{4a} > \beta_{4n} > \beta_{4c}$
H6	$\beta_{48} > \beta'_{48}$
H7	$\beta_{46} < \beta'_{46}$
H8	$\beta_{54} > 0$, $\beta_{64} > 0$, $\beta_{74} > 0$, $\beta_{84} > 0$
H9	$\beta'_{52} > 0$, $\beta'_{62} > 0$, $\beta'_{72} > 0$, $\beta'_{82} > 0$

CHAPTER 5
RESULTS

Overview

This Chapter starts with a discussion of the procedure I used for assessing common method variance. Then, the tests of the hypotheses are presented. Corresponding to the structure of the conceptual framework, I will first discuss the hypotheses related to the antecedents of the benevolence components. Then the effects of inter-firm benevolence on commitment, and lastly behaviors resulted from commitment. The further exploration of three-component benevolence model will be address at the end of this chapter.

Common Method Variance

Common method variance could bias the findings when both independent and dependent measures are obtained from the same source, as is the case in this study. I assess common method bias using the procedure that Lindell and Whitney (2001) recommended. According to their procedure, I first generate a correlation matrix among the fourteen constructs (Table 5-1), and then eliminate artificial negative correlations by reflecting any variables that have a preponderance of negative correlations with other variables. Afterwards, a marker variable or a scale that has the smallest correlation with the dependent construct is selected (we use commitment construct as the dependent construct in this analysis). The correlation of this scale with the endogenous construct scale is considered indicative of method variance. Therefore, after the marker variable is identified, its correlation with the endogenous construct is used to partial out its effect from other correlations to assess the extent of method variance. In addition, Lindell and

Whitney (2001) suggest a sensitivity analysis of 95% confident interval is constructed for the correlations of the marker scale, and the procedure is repeated.

I used perceived calculative benevolence as a marker variable, which has a nonsignificant correlation of 0.09 with buyer's commitment. Table 5-2 gives the results of the procedure and presents the partial correlations between all the variables are high and significant. This provides support to the conclusion that these correlations are not merely due to common method bias. Furthermore, common method variance is unlikely to influence correlations because the interaction of power and inter-firm benevolence in the model should have minimal method bias.

Hypotheses Testing

The focus of the discussion now turns to assessing the structural model depicted in Figure 4-1. The structural model specifies the causal relationships of the constructs to one another, in addition to the specification of the observed indicators to their latent variables. I estimated the equations using least squares regression to test hypotheses H2 – H9.

Signals of Perceived Affective Benevolence

According to my model shown in Figure 4-1, buyer's perceptions of supplier's responsiveness, concession making, and knowledge sharing have positive impacts on buyer's perceptions of supplier's affective benevolence.

Making concession. Concession is defined as "a change of offer in the supposed direction of the other party's interests that reduces the level of benefit sought" (Pruitt 1981). Supporting H2 (a), making concession is positively related to positive perceived affective benevolence (γ_{112} = 0.22, $p < .01$). Perceived concession is not related to

perceived calculative benevolence, but slightly positively corresponds with perceived normative benevolence (γ_{132} = 0.09, p < .10). The findings are listed in Table 5-3.

This result shows that the efforts of making concession by the signaling firm help build a stronger emotional bond in the relationship. In addition to the prior negotiation literature on concession, where concession acts as a key element affecting both the process and outcome because concession is positively associated with the fairness felt by both negotiating parties (Clopton 1984; Ordover and Rubinstein 1986; Kwon 2004), this dissertation further proposes that concession provides a high degree of comfortableness and security, hence affective cares, to the receiving firm in the relationship.

Responsiveness. As expected in H2 (b), there is a positive relationship between buyer's perception of supplier's responsiveness and buyer's perception of supplier's affective benevolence (γ_{111} = 0.15, p < .05). Perceived responsiveness is also found be to positively related to receivers' perception of the senders' normative benevolence (γ_{131} = 0.40, p < .001). However, perceived supplier's responsiveness was not found to be related to perception of the sender's calculative benevolence either. The results are reported in Table 5-3.

It is reasonable to find that perception of responsiveness has more influence on perception of normative benevolence than on perception of affective benevolence, because responsiveness, defined as prompt and appropriate actions taken by one firm in response to the other firm's requests (Kohli et al. 1993), is more easily observed on a regularly base rather than on a case by case level. This result may also be due to how responsiveness was measured in this dissertation. I used the terms such as "If an

unexpected situation arises, this supplier *always* responds rapidly" and "This supplier is *always* accessible whenever we need its help." It is possible that by measuring how frequently the other firm responds timely and appropriately, the purchasing managers might be misled to answer the questions based on a more normative base rather than on an affective base.

Knowledge sharing. Contrary to prediction of H2 (c), buyer's perception of supplier's knowledge sharing is not related to its perception of supplier's affective or calculative benevolence as illustrated in Table 5-3. However, buyer's perception of supplier's knowledge sharing is positively related perception of normative benevolence (γ_{133} = 0.06, p < .10).

In this dissertation, knowledge sharing is defined as the frequent transfer, recombination, or creation of specialized knowledge in the relationship (Devenport and Prusak 1997; Grant 1996; Nonaka 1994). Although the prior literature on inter-firm level (Dyer and Nobeoka 2000; Dyer and Singh 1998) has suggested that knowledge sharing promotes trust in the management literature, no research has talked about how knowledge sharing promotes trust and what aspect of trust (benevolence, competence or integrity) at inter-firm level. At the interpersonal level, Abrams and et. al. (2003) suggest that knowledge sharing promotes both benevolence and competence as perceived by the other person - "people are more willing to trust someone who shows a willingness to listen and share; i.e., to get involved and talk things through. In contrast, people are wary of someone who seems closed and will only answer clear-cut questions or discuss complete solutions."

This study tries to investigate whether knowledge sharing does promote benevolence between the firms. However, we haven't found any support for this contention. One possible explanation for knowledge sharing not promoting benevolence between the firms, but influencing trust and commitment in the buyer-supplier relationships, is that knowledge sharing might mainly promote the competence, rather than benevolence or integrity, component of trust in buyer-supplier relationships. For example, firms often learn and gain competitive advantage by collaborating with other firms (Dyer and Singh 1998; Levinson and Asahi 1996; March and Simon 1958; Powell et al. 1996). Von Hippel (1988) also argues that a production network with superior knowledge-transfer mechanisms among users, suppliers, and manufacturers will be able to "out innovate" production networks with less effective knowledge sharing mechanisms.

Signals of Perceived Calculative Benevolence

Relationship specific investments. H3 is confirmed. Since buyers' perceptions of suppliers' making relationship specific investment is significantly related to their perceptions of the suppliers' positive perceived calculative benevolence (γ_{22} = 0.13, p < .05). Interestingly, perceived relationship specific investment is also positively related to perceived affective benevolence and perceived normative benevolence (γ_{21} = 0.23, p < .001 and γ_{23} = 0.08, p < .05 respectively). The results are reported in Table 5-3.

Relationship specific investments refer to the investments specific to the buyer-supplier relationship that are difficult or impossible to be redeployed to any other relationships. Particularly, relationship specific investments have more influence on perceived affective benevolence than on perceived calculative benevolence. One possible

explanation is that relationship specific investment can create the feeling of security to the other firm rather than revealing this firm's cognitive evaluations of inter-firm relationships. In other words, increased relationship specific investments generate a high level of "attachment" between the firms in the relationship, which in turn influences the receiving firm to perceive the investing firm as affective benevolence in the relationship. It would be interesting to examine the circumstances in which relationship specific investments affect the three types of inter-firm benevolence may vary in the future research.

Signals of Perceived Normative Benevolence

Perceived reputation. Reputation is a function of the past actions of a firm, which build high credibility of this firm over time (Milgrom and Roberts 1982; Weigelt and Camerer 1988). H4 is confirmed for all the buyers. In our study, purchasing managers' perceptions of their suppliers' reputation is a significant predictor of their perceptions of suppliers' normative benevolence (γ_{33} = 0.26, p < .001). In addition, perceptions of suppliers' high reputation is positively affect the buyers' perceptions of their suppliers' affective benevolence (γ_{31} = 0.11, p < .05). But, the high level of the buyers' perceptions of suppliers' reputation has little impact on buyers' perceptions of suppliers' calculative benevolence. Results are reported in Table 5-3.

The possible explanation is that consistent past behaviors not only build high credibility of the firm over time, but also creates a high level of stability in the perceptions of the other firm. According to attachment theory, this stability brought by good reputation will make the receiving party to observe affective benevolence the

sending party (ref. Bowlby 1969/1982; Bowlby 1973; Bowlby 1980; Feeney and Noller 1990; Kobak and Hazan 1991).

Main Effects of Perceived Benevolence on Commitment

Contrary to H5, the positive relationship between buyers' perceptions of suppliers' affective benevolence and buyers' commitment (β_{4a} = 0.15, p < .001) is smaller than the relationship between the buyer's perception of the sender's normative benevolence and the receiver's commitment (β_{4n} = 0.29, p < .001). The relationship between buyer's perceptions of supplier's calculative benevolence and buyer's commitment is not significant. The findings are summarized in Table 5-4.

It is interesting to find that not all types of perceptions of benevolence would lead to the other firm's commitment. This challenges the generalizibility of traditional view of Trust-Commitment Theory (Morgan and Hunt 1994; Garbarino and Johnson 1999). Thus, from the evidence got in this dissertation, generally speaking, it is always more effective for the signaling firm to exert normative and affective benevolence, rather than calculative benevolence, to the receiving firm in order to get the other firm to be more committed in the relationship.

Moderating Effects of Power on the Relationship between Perceived Benevolence and Commitment

When I test the interaction effects of relative power in the relationship, I find that for the low power buyers, the relationship between their perception of its high power supplier's calculative benevolence and the low power buyer's commitment are positive and significant (β_{48} = 0.10, p < .05). However, the relationship between the high power

buyer's perceptions of its low power supplier's calculative benevolence and commitment was not found to be significant. Thus, H6 is supported.

The results confirm that it is more effective for a high power firm to make relationship specific investments than a low power firm to do so. One explanation is that when the low power firm perceives the high power firm "locking" itself intentionally in the relationship, such "contribution" from the high power firm is associated with larger magnitudes of low costs or high rewards for the low power firm. As a consequence, the low power firm would be more likely to commit to the high power firm. On the other hand, when the low power party makes relationship specific investments, it would be less likely to affect the high power party's commitment level in the relationship, because such relationship specific investment plays less important role to the high power firm's evaluation of the cost/benefits that it can obtain from the relationships.

I also find that perceived supplier's affective benevolence influences buyer's commitment regardless of whether supplier's being high power or low power. This is an interesting finding, although it is not consistent with H7. Although the directions of coefficients in both samples are positive as expected, there is little difference between the relationship between when the receiver is high power and the sender is low power (β'_{46} = 0.16, p < .05), and when the receiver is low power and the sender is high power (β_{46} = 0.13, p < .05), as shown in Table 5-6. The F test of these two samples can not reject that hypothesis that perceived suppliers' affective benevolence affect both high and low buyers equally.

The finding shows that it is always effective for the signaling firm to show affective benevolence to the receiving firm when the buyer-supplier relationships are

asymmetric than when the buyer-supplier relationships are symmetric. One possible explanation is that, when the two firms are of unequal power, firms might perceive that it would be more costly or risky for the other firms to have affective benevolence on them than the case when the two firms are of equal power. Moreover, with slight difference across all the asymmetrical relationships, it is a bit more effective to demonstrate affective benevolence (β'_{46} = 0.16, p < .05) when the firm is of low power rather than high power (β_{46} = 0.13, p < .05). In order fully understand power's impact on perception of affective benevolence, more in-depth research is needed.

In addition, the results suggest that when buyer perceives supplier as high power, it is less likely that perceived supplier's normative benevolence will increase buyer's commitment (β_{47} = - 0.11, p < .10). This finding suggests that although normative benevolence is important to get the other party to be more committed to the relationship, it might be less important when the signaling party is of high power. Thus, when a low power firm perceives that the high power firm has normative benevolence, the less powerful firm might interpret that this normative benevolence signal as insufficient to generate commitment. The equations used to estimate the model and the estimated standardized coefficients are given in Table 5-5.

Behaviors Resulted from Commitment

The relationships between the receiving firm's commitment level in the relationship and the receiving firm's own behaviors, H8, are all supported Specifically, positive relationships were found between buyers' commitment and buyers' concession making (γ_{62} = 0.33, p < .001), responsiveness (γ_{51} = 0.46, p < .001), knowledge sharing

(γ_{73} = 0.34, p < .001), and relationship specific investments (γ_{84} = 0.25, p < .001). The results are listed in Table 5-6, Table 5-7, Table 5-8, and Table 5-9, as depicted in Figure 5-2.

Making concessions. The receiving firm's concession behaviors are only positively associated with the receiving firm's commitment level in the relationship (β_{64} = 0.33, p < .001), while the signaling firm's own concession behaviors have little influence on the receiving party's concession behaviors. The possible explanation is that concession behaviors are costly and risky for the firms to engage. Even the other firm has made concessions in the relationship; the firm does not necessarily have to reciprocate by making concessions. The low power firm is also found to be more likely to make concessions (β_{62} = 0.12, p < .05) comparing to the high power firm, as shown in Table 5-6. Thus, H9 (1) is supported. It might be due to the reason that the low power firm has to give up part of its freedom, authority or even profits in exchange of the stay of the high power firm in the relationship.

Responsiveness. As reported in Table 5-7, the receiving firm's responsiveness is highly correlated with the receiving firm's own commitment level in the relationship (β_{54} = 0.46, p < .001) and the receiving firm's perception of the other firm's responsiveness (γ_{51} = 0.15, p < .001). Interestingly, receiving firm's responsiveness is not influenced by the perceptions of the sending firm's power. Thus, H9 (2) is not supported. This means that, regardless of power relationship, both high and low power firms can positively influence each other's responsiveness in the relationship. Another way for one firm to get the other firm to be more responsive is to make itself more committed to the relationship.

Knowledge sharing. Similar to responsiveness, the receiving party's knowledge sharing behaviors are determined by the receiving party's commitment level in the relationship (β_{74} = 0.34, p < .001), and the sending party's knowledge sharing behaviors (γ_{73} = 0.37, p < .001). Also, the low power firm tends to initiate knowledge sharing with the high power firms (β_{72} = 0.09, p < .10) rather the high power firm likes to share knowledge with the low power firm. The result is reported in Table 5-8. Hence, H9 (3) is confirmed. It demonstrates that knowledge sharing acts as results of a commitment to stay in the relationship as well as the other firm's knowledge sharing behaviors. The low power firm likes to initiate knowledge sharing shows that low power firm might value knowledge sharing more than the high power firm for the sake of building a stable long-term relationships.

Relationship specific investment. The receiving party's relationship specific investment behaviors are affected by the receiving party's commitment level in the relationship (β_{84} = 0.25, p < .001), the sending party's relationship specific investment behaviors (γ_{84} = 0.26, p < .001), and the sending party's power as perceived by the receiving firm (β_{82} = 0.11, p < .05, and $\beta_{82}^{'}$ = -0.24, p < .001), as shown in Table 5-9. Therefore, H9 (4) is supported. These are interesting findings. It illustrates that one firm's relationship specific investment behaviors result from both a high level of its own commitment, the observation of the other firm's relationship specific investment behaviors, and a perception of the other firm's high power in the relationship. It also shows that although high power firm is less likely to make relationship specific investments in general, when the low power firm makes relationship specific investments, the high power firm will be more likely to make such investments. Also, if

the low power firm could get the high power firm more committed to the relationship, high power firm will be more likely to make relationship specific investments.

In sum, responsiveness, knowledge sharing and relationship specific investment behaviors executed by one firm could influence the other firm in the relationship to reciprocate. We also find that making concession is unique in that firms take great cautions to initiate this type of behavior. A possible explanation is that concession might involve a higher level of risk to the sending firm, comparing to the risks of other types of behaviors such as responsiveness, knowledge sharing and relationship specific investment. Power is found to play a role in influencing a firm's behaviors as well. Results show that the low power firm might be more likely to make concession, share knowledge with the other firm, and making relationship specific investment.

Summary

The purpose of this chapter was to describe the analysis strategy used to assess the test the structural model of interest. The results show that different signals influence different components of benevolence in asymmetrical buyer-supplier relationships. A median split analysis of power was conducted to estimate the interaction impacts of the buyers' perceptions of three components of benevolence and power on the buyers' commitment. The behaviors resulted from commitment are also reported.

Table 5-1 Correlation Matrix of All Constructs [a, b]

	PSAF	PSCL	PSNR	PSNN	PSRI	PSPU
PSAF	1.00					
PSCL	-0.01	1.00				
PSNR	0.64****	0.01	1.00			
PSNN	0.63****	0.09*	0.69****	1.00		
PSRI	0.53****	0.14***	0.44****	0.54****	1.00	
PSPU	0.57****	0.06	0.71****	0.75****	0.38****	1.00
SPOW	0.19****	0.09*	0.18****	0.06	0.27****	0.07
PSKS	0.44****	0.04	0.47****	0.51****	0.49****	0.46****
PSRV	0.60****	0.12**	0.74****	0.81****	0.49****	0.75****
BRI	0.13***	0.15***	0.01	-0.01	0.42****	-0.05
BNN	0.26****	0.03	0.11**	0.17****	0.17****	0.02
BRV	0.32****	0.02	0.38****	0.28****	0.10**	0.33****
BKS	0.40****	0.14***	0.28****	0.31****	0.52****	0.24****
BCMT	0.45****	0.09*	0.46****	0.36****	0.35****	0.35****

Table 5-1. Continued.

	SPOW	PSKS	PSRV	BRI	BNN	BRV
SPOW	1.00					
PSKS	0.27****	1.00				
PSRV	0.07	0.51****	1.00			
BRI	0.65****	0.30****	-0.06	1.00		
BNN	0.46****	0.21****	0.05	0.41****	1.00	
BRV	0.31****	0.21****	0.32****	0.12***	0.38****	1.00
BKS	0.40****	0.57****	0.24****	0.51****	0.45****	0.33****
BCMT	0.73****	0.48****	0.35****	0.56****	0.52****	0.54****

Table 5-1. Continued.

	BKS	BCMT
BKS	1.00	
BCMT	0.58****	1.00

[a]All estimates are completed standardized.

[b]Note that, PSAF = perceived affective benevolence; PSCL = perceived calculative benevolence; PSNR = perceived normative benevolence; PSNN = perceived supplier's concession; PSRI = perceived supplier's relationship specific investment; PSPU = perceived supplier's reputation; SPOW = perceived supplier's power; PSKS = perceived supplier's knowledge sharing; PSRV = perceived supplier's responsiveness; BRI =

buyer's relationship specific investment; BNN = buyer's concession; BRV = buyer's responsiveness; BKS = buyer's knowledge sharing; BCMT = buyer's commitment.

* $p < .10$

** $p < .05$

*** $p < .01$

**** $p < .001$

Table 5-2 Common Method Variance Analysis

	PSAF	PSCL	PSNR	PSNN	PSRI	PSPU	SPOW	PSKS	PSRV	BRI	BNN	BRV	BKS	BCMT
PSAF	1.00													
PSCL	0.01	1.00												
	-0.09****													
	-0.22****													
PSNR	0.64****	0.01	1.00											
	0.60****	-0.09****												
	0.56****	-0.22****												
PSNN	0.63****	0.09	0.69	1.00										
	0.59****	0.00	0.66****											
	0.54****	-0.12****	0.62****											
PSRI	0.53****	0.14**	0.44****	0.54****	1.00									
	0.48****	0.05**	0.38****	0.49****										
	0.42****	-0.06**	0.31****	0.43****										
PSPU	0.57****	0.06	0.71****	0.75****	0.38****	1.00								
	0.53****	-0.03	0.68****	0.73****	0.32****									
	0.47****	-0.16****	0.64****	0.69****	0.24****									
SPOW	0.19****	0.09*	0.18***	0.06	0.27****	0.07	1.00							
	0.11****	0.00	0.10****	-0.03	0.20****	-0.02								
	0.00	-0.12****	-0.01	-0.16****	0.10****	-0.15****								
PSKS	0.44****	0.04	0.47****	0.51****	0.49****	0.46****	0.27****	1.00						
	0.38****	-0.05	0.42****	0.46****	0.44****	0.41****	0.20****							
	0.31****	-0.18****	0.35****	0.40****	0.37****	0.33****	0.10****							
PSRV	0.6****	0.12**	0.74****	0.81****	0.49****	0.75****	0.07	0.51****	1.00					
	0.56****	0.03	0.71****	0.79****	0.44****	0.73****	-0.02	0.46****						
	0.51****	-0.08***	0.68****	0.77****	0.37****	0.69****	-0.15****	0.40****						
BRI	0.13***	0.15***	0.01	-0.01	0.42****	-0.05	0.65****	0.3****	0.06	1.00				
	0.04	0.07***	-0.09****	-0.11****	0.36****	-0.15****	0.62****	0.23****	-0.03****					
	-0.07***	-0.05	-0.22****	-0.24****	0.29****	-0.30****	0.57****	0.14****	-0.31****					

Table 5-2. Continued.

	PSAF	PSCL	PSNR	PSNN	PSRI	PSPU	SPOW	PSKS	PSRV	BRI	BNN	BRV	BKS	BCMT
BNN	0.26****	0.03	0.11**	0.17***	0.17***	0.02	0.46****	0.21****	0.05	0.41****	1.00			
	0.19****	-0.07**	0.02	0.09***	0.09***	-0.08***	0.41****	0.13****	-0.04	0.35****				
	0.09***	-0.19****	-0.10***	-0.02	-0.02	-0.21****	0.33****	0.03	-0.17****	0.27****				
BRV	0.32****	0.02	0.38****	0.28****	0.1**	0.33****	0.31****	0.21****	0.32****	0.12***	0.38****	1.00		
	0.25****	-0.08**	0.32****	0.21****	0.01	0.26****	0.24****	0.13****	0.25****	0.03	0.32****			
	0.16****	-0.21****	0.24****	0.11****	-0.11****	0.17****	0.15****	0.03	0.16****	-0.08***	0.24****			
BKS	0.4****	0.14***	0.28****	0.31****	0.52****	0.24****	0.4****	0.57****	0.24****	0.51****	0.45****	0.33****	1.00	
	0.34****	0.05*	0.21****	0.24****	0.47****	0.16****	0.34****	0.53****	0.16****	0.46****	0.40****	0.26****		
	0.26****	-0.06**	0.11****	0.15****	0.41****	0.06**	0.26****	0.47****	0.06**	0.40****	0.32****	0.17****		
BCMT	0.45****	0.09a	0.46****	0.36****	0.35****	0.35****	0.73****	0.48****	0.35****	0.56****	0.52****	0.54****	0.58****	1.00
	0.40****		0.41****	0.30****	0.29****	0.29****	0.70****	0.43****	0.29****	0.52****	0.47****	0.49****	0.54****	
	0.32****		0.33****	0.21****	0.20****	0.20****	0.67****	0.36****	0.20****	0.46****	0.41****	0.43****	0.48****	

* p< .10

** p < .05

*** p< .01

**** p < .001

[a] This is a marker correlation.

Notes: The first value in the cell is the absolute value of correlation. The second value in the cell is the correlation correlated for method bias. The third value in the cell is 95% sensitivity analysis. PSAF = perceived affective benevolence, PSCL = perceived calculative benevolence, PSNR = perceived normative benevolence, PSNN = perceived supplier's concession, PSRI = perceived supplier's relationship specific investment, PSPU = perceived supplier's reputation, SPOW = perceived supplier's power, PSKS = perceived supplier's knowledge sharing, PSRV = perceived supplier's responsiveness, BRI = buyer's relationship specific investment, BNN = buyer's concession, BRV = buyer's responsiveness, BKS = buyer's knowledge sharing, BCMT = buyer's commitment.

Table 5-3 Structural Model Summaries – Antecedents of Perceived Benevolence

Regression Equations and Estimated Standardized Coefficients for Antecedents of Perceived Benevolence and Perceived Benevolence

(1) η_1 (Perceptions of Sender's Affective Benevolence) = α_1 + $\gamma_{111} \cdot RV$ (Sender's Responsiveness) + $\gamma_{112} \cdot CN$ (Sender's Concessions) + $\gamma_{113} \cdot KS$ (Sender's Knowledge Sharing) + $\gamma_{21} \cdot RI$ (Sender's Relationship Specific Investments) + $\gamma_{31} \cdot RP$ (Sender's Reputation) + ζ_1

(2) η_2 (Perceptions of Sender's Calculative Benevolence) = α_2 + $\gamma_{121} \cdot RV$ (Sender's Responsiveness) + $\gamma_{122} \cdot CN$ (Sender's Concessions) + $\gamma_{123} \cdot KS$ (Sender's Knowledge Sharing) + $\gamma_{22} \cdot RI$ (Sender's Relationship Specific Investments) + $\gamma_{32} \cdot RP$ (Sender's Reputation) + ζ_2

(3) η_3 (Perceptions of Sender's Normative Benevolence) = α_3 + $\gamma_{131} \cdot RV$ (Sender's Responsiveness) + $\gamma_{132} \cdot CN$ (Sender's Concessions) + $\gamma_{133} \cdot KS$ (Sender's Knowledge Sharing) + $\gamma_{23} \cdot RI$ (Sender's Relationship Specific Investments) + $\gamma_{33} \cdot RP$ (Sender's Reputation) + ζ_3

Effect	Perceived affective benevolence	Perceived calculative benevolence	Perceived normative benevolence
Perceived responsiveness	γ_{111} = 0.15**	γ_{121} = 0.10	γ_{131} = 0.40****
Perceived Concession	γ_{112} = 0.22****	γ_{122} = - 0.08	γ_{132} = 0.09*
Perceived knowledge sharing	γ_{113} = 0.06	γ_{123} = - 0.06	γ_{133} = 0.06*
Perceived relationship investment	γ_{21} = 0.23****	γ_{22} = 0.13**	γ_{23} = 0.08**
Perceived reputation	γ_{31} = 0.11**	γ_{32} = - 0.02	γ_{33} = 0.26****

Table 5-3. Continued.

Effect	Perceived affective benevolence	Perceived calculative benevolence	Perceived normative benevolence
Adjusted R2	0.37	0.02	0.57
F statistic(d.f.)	60.14(5,510)****	2.60(5,510)**	137.41(5,510)****

[a] All estimates are completed standardized.

* p< .10

** p < .05

*** p< .01

**** p < .001

Table 5-4 Structural Model Summaries – Perceived Benevolence and Commitment

Regression Equation and Estimated Standardized Coefficients for Perceived Benevolence and Commitment

(4-a) η_4 (Receiver's Commitment) = α_4 + $\beta_{4a} \cdot \eta_1$ (Perceptions of Sender's Affective Benevolence) + $\beta_{4c} \cdot \eta_2$ (Perceptions of Sender's Calculative Benevolence) + $\beta_{4n} \cdot \eta_3$ (Perceptions of Sender's Normative Benevolence) + $\beta_{4h} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{4l} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + ζ_4

Adjusted R^2 = 0.408

F (5, 510) = 72.06****

Effect	Buyers' Commitment [a]	T-Value
Perceived affective benevolence	β_{4a} = 0.15****	3.61
Perceived normative benevolence	β_{4n} = 0.29****	7.10
Perceived calculative benevolence	β_{4c} = 0.05	1.34
dummy perceived high power	β_{4h} = 0.24****	4.64
dummy perceived low power	β'_{4l} = - 0.25****	-4.97

[a] All estimates are completed standardized.

* p< .10

** p < .05

*** p< .01

**** p < .001

Table 5-5 Structural Model Summaries – Perceived Benevolence, Commitment and Power

Regression Equation and Estimated Standardized Coefficients for Perceived Benevolence, Commitment and Power

(4-b) η_4 (Receiver's Commitment) = α_{41} + $\beta_{41} \cdot \eta_1$ (Perceptions of Sender's Affective Benevolence) + $\beta_{42} \cdot \eta_2$ (Perceptions of Sender's Calculative Benevolence) + $\beta_{43} \cdot \eta_3$ (Perceptions of Sender's Normative Benevolence) + $\beta_{45} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{45} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + $\beta_{46} \cdot \eta_6$ (Interaction of Dummy Perceived Sender's High Power and Perceived Affective Benevolence) + $\beta'_{46} \cdot \eta'_6$ (Interaction of Dummy Perceived Sender's Low Power and Perceived Affective Benevolence) + $\beta_{47} \cdot \eta_7$ (Interaction of Dummy Perceived Sender's High Power and Perceived Normative Benevolence) + $\beta'_{47} \cdot \eta'_7$ (Interaction of Dummy Perceived Sender's Low Power and Perceived Normative Benevolence) + $\beta_{48} \cdot \eta_8$ (Interaction of Dummy Perceived Sender's High Power and Perceived Calculative Benevolence) + $\beta'_{48} \cdot \eta'_8$ (Interaction of Dummy Perceived Sender's Low Power and Perceived Calculative Benevolence) + ζ_{41}

Adjusted R^2 = 0.422

F (11, 504) = 35.13****

Effect	Buyers' Commitment [a]	T-Value
mean centered affective benevolence	β_{41} = 0.15****	3.75
mean centered normative benevolence	β_{43} = 0.28****	6.80

Table 5-5. Continued.

Effect	Buyers' Commitment [a]	T-Value
mean centered calculative benevolence	β_{42} = 0.06*	1.69
dummy perceived high power	β_{45} = 0.25****	4.88
dummy perceived low power	β'_{45} = - 0.23****	-4.42
mean centered dummy perceived high power * PSAF	β_{46} = 0.13**	2.06
mean centered dummy perceived low power * PSAF	β'_{46} = 0.16**	2.54
mean centered dummy perceived high power * PSNR	β_{47} = - 0.11*	-1.85
mean centered dummy perceived low power * PSNR	β'_{47} = - 0.034	-0.56
mean centered dummy perceived high power * PSCL	β_{48} = 0.10**	1.98
mean centered dummy perceived low power * PSCL	β'_{48} = 0.041	0.85

[a] All estimates are completed standardized.

* p< .10

** p < .05

*** p< .01

**** p < .001

Table 5-6 Structural Model Summaries – Commitment, Power and Concession

Regression Equation and Estimated Standardized Coefficients for Commitment, Power and Concession

(6) η_{10} (Receiver's Concessions) = α_6 + $\beta_{64} \cdot \eta_4$ (Receiver's Commitment) + $\gamma_{62} \cdot CN$ (Perceived Sender's Concessions) + $\beta_{62} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{62} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + ζ_6

Adjusted R^2 = 0.20

F (4, 510) = 33.81****

Effect	Buyers' Concession [a]	T-Value
Perceived Suppliers' Concession	γ_{62} = 0.02	0.40
Buyers' commitment	β_{64} = 0.33****	6.77
Perceived high power of suppliers (Dummy Variable)	β_{62} = 0.12**	2.06
Perceived low power of suppliers (Dummy Variable)	β'_{62} = - 0.07	-1.19

[a] All estimates are completed standardized.

* p< .10

** p < .05

*** p< .01

**** p < .001

Table 5-7 Structural Model Summaries – Commitment, Power and Responsiveness

Regression Equation and Estimated Standardized Coefficients for Commitment, Power and Responsiveness

(5) η_9 (Receiver's Responsiveness) = α_5 + $\beta_{54} \cdot \eta_4$ (Receiver's Commitment) + $\gamma_{51} \cdot RV$ (Perceived Sender's Responsiveness) + $\beta_{52} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{52} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + ζ_5

Adjusted R^2 = 0.27

F (4, 510) = 47.45****

Effect	Buyers' Responsiveness [a]	T-Value
Perceived Suppliers' Responsiveness	γ_{51} = 0.15****	3.57
Buyers' commitment	β_{54} = 0.46****	9.86
Perceived high power of suppliers (Dummy Variable)	β_{52} = 0.06	1.03
Perceived low power of suppliers (Dummy Variable)	β'_{52} = 0.09	1.55

[a] All estimates are completed standardized.

* p< .10

** p < .05

*** p< .01

**** p < .001

Table 5-8 Structural Model Summaries – Commitment, Power and Knowledge Sharing

Regression Equation and Estimated Standardized Coefficients for Commitment, Power and Knowledge Sharing

(7) η_{11}(Receiver's Knowledge Sharing) = α_7 + $\beta_{74} \cdot \eta_4$(Receiver's Commitment) + $\gamma_{73} \cdot KS$ (Perceived Sender's Knowledge Sharing) + + $\beta_{72} \cdot \eta_5$(Dummy Perceived Sender's High Power) + $\beta'_{72} \cdot \eta'_5$(Dummy Perceived Sender's Low Power) + ζ_7

Adjusted R^2 = 0.38

F (4, 510) = 78.54****

Effect	Buyers' Knowledge Sharing [a]	T-Value
Perceived Suppliers' Knowledge Sharing	γ_{73} = 0.37****	9.53
Buyers' commitment	β_{74} = 0.34****	7.66
Perceived high power of suppliers (Dummy Variable)	β_{72} = 0.09*	1.78
Perceived low power of suppliers (Dummy Variable)	β'_{72} = 0.04	0.67

[a] All estimates are completed standardized.

* p< .10

** p < .05

*** p< .01

**** p < .001

Table 5-9 Structural Model Summaries – Commitment, Power and Relationship Specific Investment

Regression Equation and Estimated Standardized Coefficients for Commitment, Power and Relationship Specific Investment

(8) η_{12} (Receiver's Relationship Specific Investment) = α_8 + $\beta_{84} \cdot \eta_4$ (Receiver's Commitment) + $\gamma_{84} \cdot RI$ (Perceived Sender's Relationship Specific Investments) + $\beta_{82} \cdot \eta_5$ (Dummy Perceived Sender's High Power) + $\beta'_{82} \cdot \eta'_5$ (Dummy Perceived Sender's Low Power) + ζ_8

Adjusted R^2 = 0.39

F (4, 510) = 82.73****

Effect	Buyers' Relationship Specific Investment a	T-Value
Perceived Suppliers' Relationship Specific Investment	γ_{84} = 0.26****	7.21
Buyers' commitment	β_{84} = 0.25****	5.84
Perceived high power of suppliers (Dummy Variable)	β_{82} = 0.11**	2.17
Perceived low power of suppliers (Dummy Variable)	β'_{82} = -0.24****	-4.58

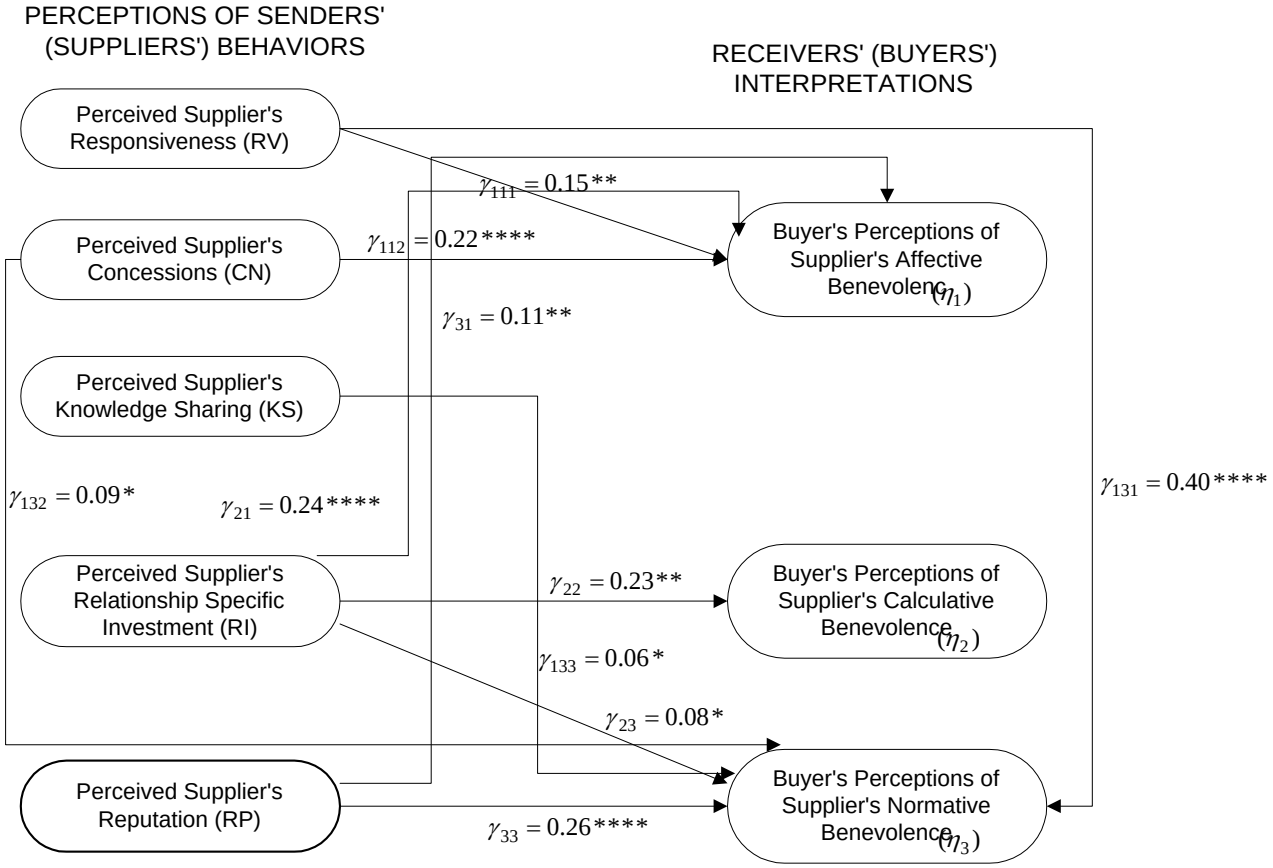
[a] All estimates are completed standardized.

* p< .10

** p < .05

*** p< .01

**** p < .001



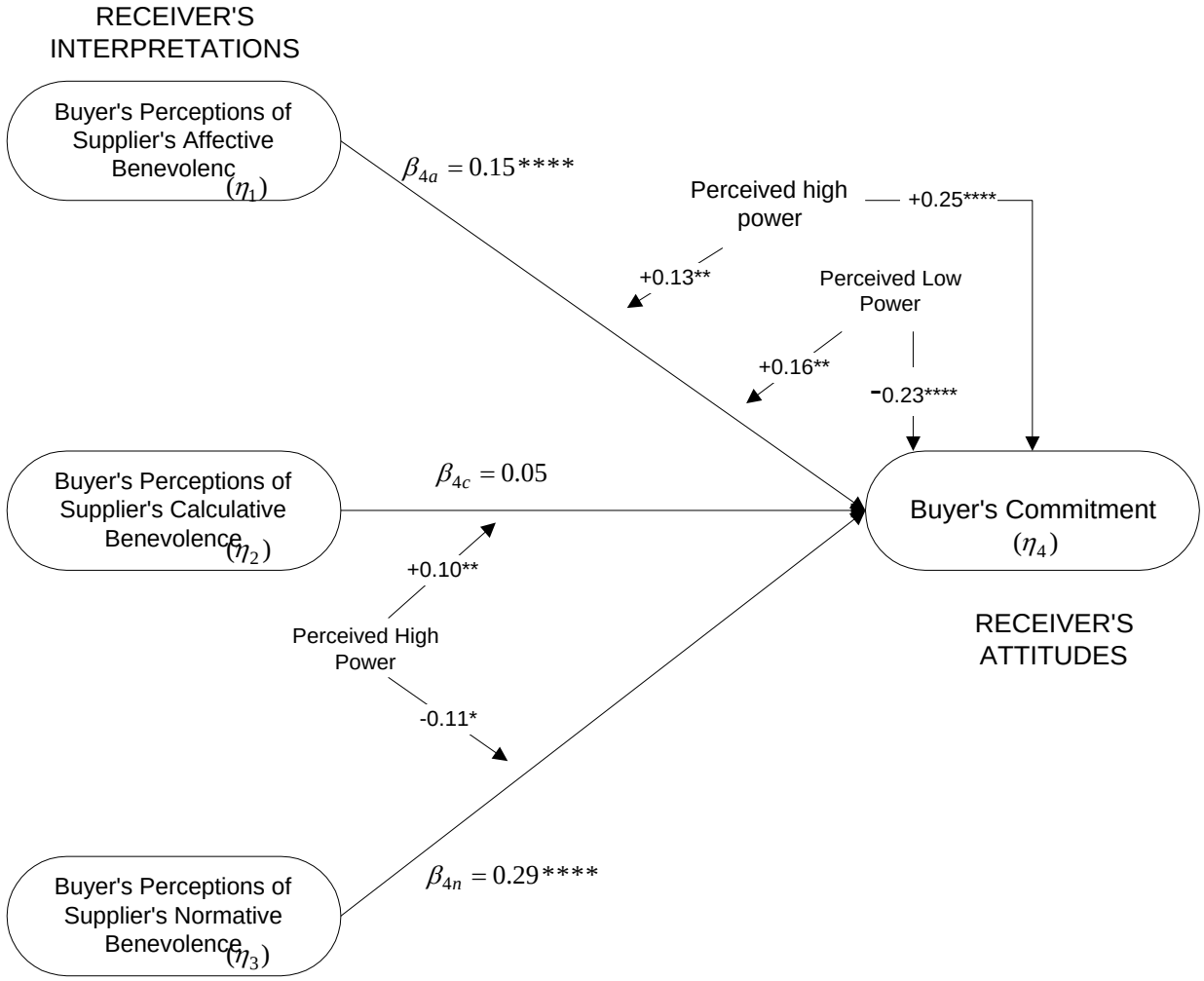
* p< .10

** p < .05

*** p< .01

**** p < .001

Figure 5-1 Antecedents of Perceived Inter-Firm Benevolence Structure Model Summary



* p< .10

** p < .05

*** p< .01

**** p < .001

Figure 5-2 Perceived Benevolence, Commitment and Power Structural Model Summary

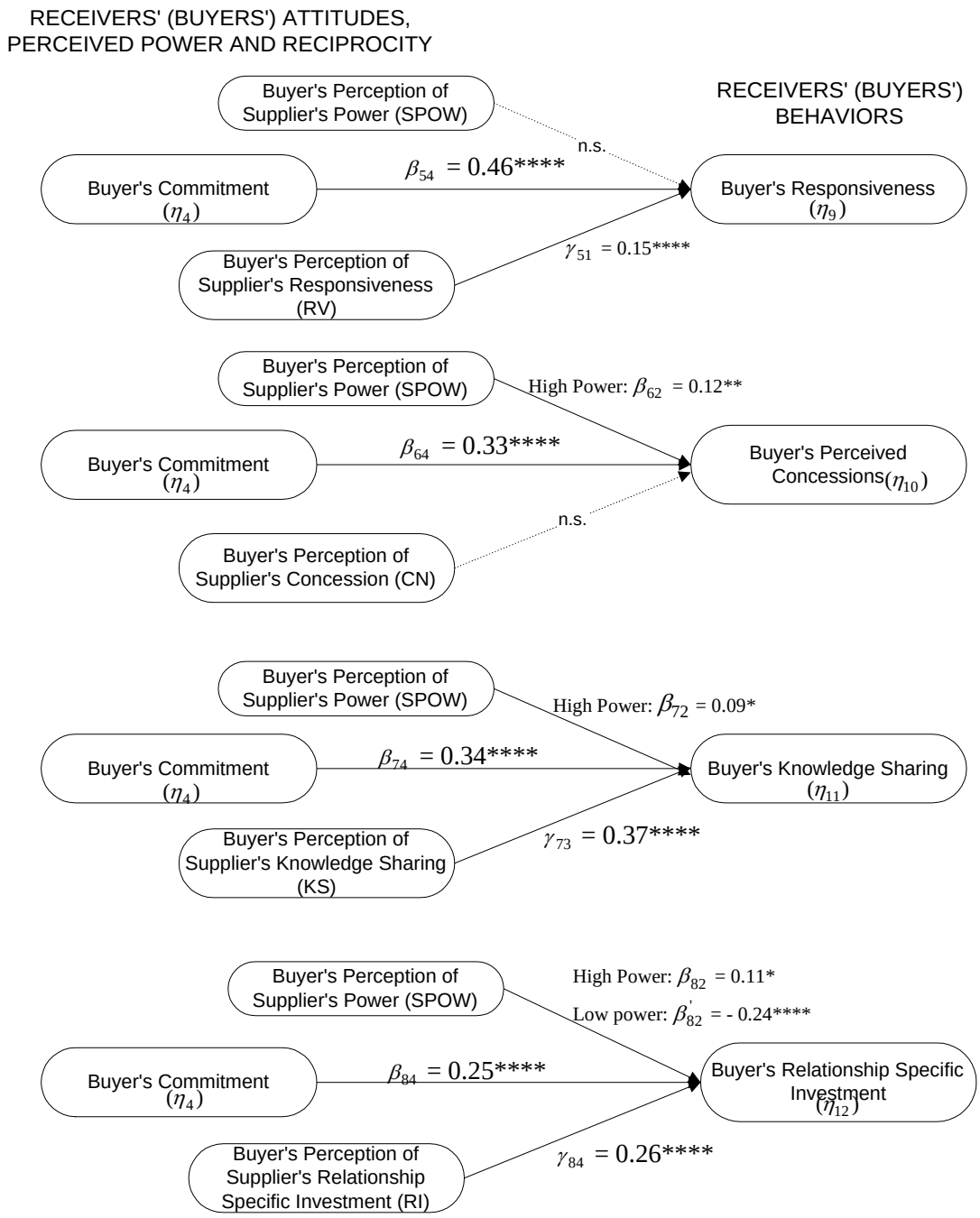


Figure 5-3 Commitment, Power, Reciprocity and Benevolence Behaviors Summary

* p< .10

** p < .05

*** p< .01

**** p < .001

CHAPTER 6
DISCUSSION

Overview

Managing asymmetrical inter-firm relationships and trust-building processes in inter-firm relationships are important and largely under-researched issues in B-to-B markets. In this dissertation, I develop and test a theoretical model to explore the role of power in trust development between buyer and supplier in an asymmetrical power relationship. This concluding chapter summarizes both theoretical and managerial contributions of this dissertation, discusses its limitations, and presents the directions for future research.

Contributions to Theory and Practice

The major factors leading to the instability in any asymmetrical power relationship are the high power party's high probabilities to terminate the relationship, and withhold the low power party's rewards unilaterally (Molm et al. 1999). This condition arises because that the high power party normally has more alternative partners than the low power party does. Thus, the high power party is more likely to use the threat of going after an alternative partner to extract concessions from the extant less powerful party, and shirk on its responsibilities. Indeed, a fundamental assumption about asymmetrical relationships in the prior literature is that high power firm, who has a goal to maximize its own benefits, may minimize the costs of being involved in the asymmetrical relationship by acting opportunistically. In doing so, the high power firm may, intentionally or otherwise, reduce the benefits of the low power firm.

In this research, I argue that it is important to introduce the construct of *perceived benevolence* into the study of asymmetrical power buyer-supplier relationships, and *perceived benevolence* solves the instability problems in asymmetrical relationships. This is an alternative view to the economics view. I argue that firms, who are seeking long-term relationships with the other firms, while concerning for their own interests, also benevolently concern for the other firms' welfare in the relationship. And benevolent concerns for the other firms may be essential for trust development in asymmetric buyer-supplier relationships. If a firm doesn't have benevolent concerns for the other firm, the firm will tend to avoid making idiosyncratic investments in the relationship or exhibit flexibility when uncertainty comes.

Besides, one firm's attitudes and behaviors may be affected by the other firm's attitudes and behaviors in the relationship through the norm of reciprocity as evidenced in the results of this study. In other words, the norm of reciprocity between the firms constitutes the rules that firms shall follow in the interactions, and the content of the norm of the reciprocity in asymmetrical buyer-supplier relationships is benevolence.

This research examines the construct benevolence in more depth than previous research. I propose and examine three components of inter-firm benevolence, and examine the antecedents and consequences of these components. Specifically, I examine the impacts of behavioral signals on receiver's interpretation of sender's benevolence, sender's three components of benevolence on receiver's commitment, and receiver's commitment on receiver's subsequent relationship performance in asymmetrical buyer-supplier relationships. Hence, this research takes a step to answer the call by Prabhu and Stewart (2001) that the marketing researchers need to study the issue of how "receivers

first form beliefs about senders and then use these beliefs in making decisions".

Finally, this study could advise managers on how to assess and understand asymmetrical buyer-supplier relationships. For too long, managerial practice has been informed to focus on symmetric relationships, and to use simple strategies to deal with business partners characterized by asymmetrical powers. With this study, managers will understand the importance of asymmetries, as well as the values of different strategies for achieving mutual benefits in asymmetrical power situations.

Discussion of Results

In this section, the results of the previous chapter will be discussed in greater detail. Given the characteristics of trust as a belief or attitude of one firm with respect to the actions of the other firm, it is natural to think of trust (as with any "psychological" state) as being subjected to the framing effects of the other firm and the decision environment in which one firm finds itself. Benevolence is introduced as a key component of trust in asymmetrical buyer-supplier relationships in this dissertation. And buyer's perception of supplier's benevolence is formed under the influence of supplier's behaviors and the power relationship between buyer and supplier.

Antecedents

The effect of concession makings on perceptions of affective benevolence is the strongest among all the antecedents' effects (concession making, responsiveness and knowledge sharing) on perceptions of affective benevolence. It appears that concession making acts as an important predictor of sender's affective benevolence in buyer-supplier relationships. It could be that concession making best satisfies receiver's need to feel respected, and the receiver's quenching for comfort in the work among all the

antecedents that I have studied in this dissertation. This might correspond with the high risks of concession making for the sending firm in the buyer-supplier relationships compared with the behaviors such as responsiveness and knowledge sharing.

Interestingly, one firm's relationship specific investment has significant effects on all the components of perceptions of benevolence. This suggests that relationship specific investments increase the perceptions of benevolence through various "channels". On the one hand, such relationship specific investment does signal the sending firm's (money-wise) willingness to tailor its offering to benefit the receiving firm, and also makes the sending firm itself more vulnerable in front of the receiving firm. On the other hand, such vulnerability may act as an important assurance and bring about the comfort feelings in the receiving firm. Relationship specific investment may also increase buyer's perception of supplier's normative benevolence if the firm also makes relationship specific investment across in the other buyer-supplier relationships it involves in.

Although reputation is found to be positively related to buyer's perception of supplier's normative benevolence, other antecedents also seem to be positively associated with buyer's perception of supplier's normative benevolence. In particular, buyer's perception of supplier's responsiveness is strongly related to perception of normative benevolence. Due to the measurement confound of responsiveness discussed in Chapter 5, I suspect that a high frequency of contacts between buyer and supplier will positively influence buyer's perception of supplier's normative benevolence.

In sum, I suspect that the antecedents of the three components of perceived benevolence might arise from three different conceptual dimensions: the behavioral antecedents of perceived affective benevolence is associated with high risk of the

behavior for the sending firm; antecedents of perceived calculative benevolence is linked with possible gains of the behaviors for the receiving firm; and antecedents of perceived normative benevolence corresponds with the stability of the behaviors across time and across buyer-supplier relationships.

Another interesting finding in this dissertation is that I do not find evidence supporting that power interacts with antecedents of the three components of perceived benevolence. It appears that the relationships between supplier's behaviors signaling benevolence and buyers' perception of supplier's benevolence are hardly influenced by power between buyer and supplier.

Consequences

As discussed in Chapter 5, buyer's perception of affective benevolence and normative benevolence are positively related to buyer's commitment. However, perception of normative benevolence is a stronger predictor compared with perceived affective benevolence. This might be partly due to the difficulty of collecting and analyzing the information of buyer's perception of supplier's affective benevolence compared with buyer's perception of normative benevolence from only one key informant from buyer firm.

Although I do not get the main effect between perceived calculative benevolence and commitment, I find that power interacts with perceived calculative benevolence on commitment. In other words, buyer's perception of supplier's calculative benevolence has greater impacts on buyer's own commitment when buyer is of low power and supplier is of high power. It shows that the perception of high power firm's calculative benevolence could get the low power firm to be more committed in the relationship, while perception of the low power firm's calculative benevolence does not. In contrast,

the perceptions of low power firm's affective and normative benevolence will increase high power's commitment in the relationship, but the perceptions of high power firm's affective or normative benevolence will not.

While most of the hypotheses regarding behavioral consequences and commitment are supported, I further carry a test for the norm of reciprocity as reported in Chapter 5. Interestingly, I find that except concession making, all the other behaviors (being responsive, sharing knowledge, and making relationship specific investment) follows the norm of reciprocity in buyer-supplier relationships. When supplier is responsive, shares knowledge, or makes relationship specific investment in the buyer-supplier relationship, buyer reciprocates well. Concession making appears to be hard to be reciprocated in asymmetrical buyer-supplier relationship, which might be due to its high risk for the sending firm.

Limitations

There are several limitations in the present study. First, because purchasing managers are from manufacturing industries and retail trade industries, further research is needed to establish the generalizability of these findings to the buyer-supplier relationships in other industries such as construction industry, service industry and etc.

Second, an attempt was made also to gain access to the purchasing managers' suppliers, which would have allowed sampling the perceptions of the suppliers, but most of the requests were rejected. In light of this, one should be cautious about generalizing the results to sides of suppliers; especially buyers have been gaining more and more power in the past twenty years. However, this study is still informative, in that both low power and high power buyers have been contacted and fulfilled the questionnaires.

Third, it would have been desirable to have the sample with variable length of the relationships. Current study only requests the purchasing managers to report the relationship that lasts more than one year. It would have been better to ask the managers to report the length of the relationship, which has been suspected to affect the functions of three components of benevolence in the relationships with asymmetrical power.

Lastly, we used self report data for all study variables, which may result in possible common method biases though Lindell and Whitney's (2001) procedure shows that this influence is likely to be minimal. An attempt was made to also gain access to the participating buyers' suppliers – this would have allowed me to sample buyer-supplier dyads – but the requests were rejected.

Future Research

Future research could begin by addressing the moderating variables that could affect the high power and low power firms selecting different strategies. For example, it would be interesting to test whether the expectations of the high power and low power firms have different impacts on the performance of the asymmetrical power relationships. Two types of expectations in interest could be "risk-reduction" expectation as suggested by Molm (1999) and "value-maximizing" view where the high power firms and the low power firms care more about increasing the "pie" rather than dividing the "pie" (cf. Jap 1999; Jap 2001).

Second, this study has focused primarily on the buyers. Another useful study would be to better understand the perceptions of their suppliers. In other words, how the causal relationships between buyer and supplier can be empirically tested would be fascinating. It's possible that the structural difference between buyer and supplier will also play a role in interpreting the strategies that can be used by the firms in the relationships. Thus it is

interesting to see what this structural difference is and how it functions in asymmetrical relationships.

Third, a new research would be conducted to examine the relationship of benevolence, competence, and integrity (the three components of trust) in asymmetrical buyer-supplier relationships. It is possible that comparing to symmetrical buyer-supplier relationships, certain component of trust such as benevolence plays a more importance role. It would also be interesting to identify different antecedents to benevolence, competence and integrity in inter-firm relationships.

Fourth, more research is needed to better understand the perceptions of the other firms' behaviors. This requires methodological work, i.e., how to better design the survey instrument so as to insure that the informants from both buyer and supplier sides use the same point of reference, time span, and events in formulating their responses, and theoretical work on how the buyers and suppliers perceive their joint relationships. It's possible that different informants attend to different factors in the relationships but weigh these factors differently in assessing the level of perceived benevolence.

Finally, a brand new avenue for future research would be to use experiments to examine the asymmetrical power relationships. One of the limitations of this dissertation is that the cross-sectional survey can only examine relationships and perceptions at one point in time. Undertaking experiments can help examine the development of benevolence over time and the causality associated with the hypothesized relationships. These experiments can borrow from the insights and methodologies from extant experimental economics and experimental social psychology literature, where researchers

have used to study power and social exchange over the past 20 years (Axelrod 1984; Molm et al. 2001).

Summary

In this concluding chapter, the significance of the dissertation is discussed, and limitations and future research are outlined. This dissertation represents a first step in better understanding how buyers and suppliers with asymmetrical relationships interact with each other to develop long-term mutual beneficial relationships. The perception approach undertaken here provides insight into the roles and effects of critical factors in the relationship that affect important inter-firm outcomes – commitment and consequent behaviors. The results suggest that factors such as perceptions of responsiveness, concession making, reputation and relationship specific investment exert differential effects on perceived affective, calculative and normative benevolence, which vary in importance of affecting commitment for high and low power firms. Furthermore, the level of commitment and the structure of power will affect whether the firm would like to reciprocate the other firm's benevolent behaviors or not. We hope that this dissertation provides the catalyst for future research on the theory and practice of trust development in asymmetrical buyer-supplier relationships.

APPENDIX A
LOW POWER BUYER SURVEY

University of Florida Supplier Research Invitation Letter
(UFIRB #2005-U-356)

Dear (LAST NAME),

We would like to kindly ask you to participate in Ms. Qiong Wang's dissertation study on the nature of relationships between buyers and sellers. This study has been approved and sponsored by the Institute for Supply Management (ISM) (http://www.ism.ws/) and the Warrington College of Business School at University of Florida (http://www.cba.ufl.edu/). Our sample is limited and therefore your responses are extremely important for Ms. Wang to complete her doctoral studies.

You can access the survey at http://www.surveyz.com/TakeSurvey?id=35456&_respondentXXXX and the password is seller

This study is simply asking for your opinions and feelings about your relationships with a supplier, and there are no right or wrong answers. Pretests have indicated that you should be able to complete the study in 20 minutes. In return for your assistance, we will send you an executive summary of our study. You can also check the progresses and the results of this study at http://bear.cba.ufl.edu/wang2/buyerdissertation.html. Your respondent ID for this study is XXXX.

This study is completely voluntary and confidential! Information reported shall be averaged across the responses of many other company buyers so that no one individual answers can be determined. If you have any questions or concerns, please feel free to contact us at relationship@cba.ufl.edu or call Qiong (pronounced as "Chong") at 352-392-0161-1273#.

Dr. Barton A. Weitz
Chair American Marketing Association, JC Penney Professor of Marketing
University of Florida

Qiong Wang
Doctoral Candidate
Department of Marketing
University of Florida
Phone: 352-392-0161-1333#

Please bear in mind that this study is completely voluntary and confidential! All of your responses shall not be revealed to your suppliers, employer, or competitors.

In buyer-supplier relationships, buyers and suppliers can be different in terms of their dependency upon each other. **Please think of one supplier**, who you have been responsible for more than 1 year, and is best described as: "It would be easy for this supplier to find other customers to replace our company, **but** it's difficult for our company to replace this supplier with another supplier in the particular product category."

(For example: Such a supplier might be a **sole source supplier** or **a large national-wide (international-wide) supplier** dominating **a particular product category**. In other words, this supplier is so important to your company that your company is more dependant on this supplier than this supplier depends on your company.)

Please briefly describe the products that you buy from this supplier: _____
Based on the types of products/services your company buys from this supplier, please indicate the relative power of your company and this supplier in the relationship. (circle the number) Our company is much more powerful than this supplier — Equal power — This supplier is much more powerful than our company 1 2 3 4 5 6 7

Please keep in mind that there is no right or wrong answers. Please do not be concerned about giving different answers to questions that seem similar. There is some redundancy built into the statements to account for the fact that some people may read and interpret the statements differently.

A) MOTIVATIONS FOR YOUR COMPANY TO WORK WITH THIS SUPPLIER

In this section, we are interested in knowing what ***motivates*** your company to work with this supplier. Indicate the extent to which you agree/disagree with the following statements. All these questions should be answered with respect to **the particular supplier** you selected initially.

	Strongly Disagree						Strongly Agree
This supplier has a reputation for being honest and trustworthy.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
This supplier has a reputation for being concerned about its' customers.	1	2	3	4	5	6	7
This supplier has a bad reputation with its customers in the industry.	1	2	3	4	5	6	7
Most buyers think that this supplier has a reputation for being difficult.	1	2	3	4	5	6	7
This supplier has a good image in the market.	1	2	3	4	5	6	7
Most buyers appreciate the way this supplier behaves in the market.	1	2	3	4	5	6	7
It would be difficult for our company to recoup our investment in this supplier if we switched to another supplier.	1	2	3	4	5	6	7
This supplier NEVER makes demands that could be damaging to our company.	1	2	3	4	5	6	7
This supplier is open to makes concessions when doing business with us.	1	2	3	4	5	6	7
This supplier has made compromises when dealing with issues that arise in this relationship.	1	2	3	4	5	6	7
This supplier is willing to change its position on issues in this relationship.	1	2	3	4	5	6	7
If our relationship was discontinued, we would have difficulty replacing this supplier.	1	2	3	4	5	6	7
We rely heavily on this supplier.	1	2	3	4	5	6	7
It's extremely easy for us to get other suppliers who can provide us with the comparable product/service lines.	1	2	3	4	5	6	7
This supplier is very important for our company.	1	2	3	4	5	6	7
We are dependent on this supplier's products and services.	1	2	3	4	5	6	7
This supplier cares about our company's welfare as much as it cares about its own.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
This supplier truly cares about our company.	1	2	3	4	5	6	7
This supplier is genuinely concerned about our company's welfare.	1	2	3	4	5	6	7

B) YOUR COMPANY'S PERFORMANCE IN THIS RELATIONSHIP

In this section, we are interested in knowing the how your company *performs* in the relationship with **this particular supplier**.
Please indicate the extent to which you agree/disagree with the following statements.

	Strongly Disagree						Strongly Agree
Our company's operating processes have been tailored to meet the requirements of this supplier.	1	2	3	4	5	6	7
Training people in both companies has involved substantial commitments of time and money for our company.	1	2	3	4	5	6	7
Our company has made extensive adaptations to deal with this supplier's standards and procedures.	1	2	3	4	5	6	7
We have gone out of our way to link our business with this supplier.	1	2	3	4	5	6	7
Our company frequently shares information with this supplier.	1	2	3	4	5	6	7
Our company has an organized procedure to share our know-how with this supplier.	1	2	3	4	5	6	7
Our company has set up a system to facilitate information sharing with this supplier.	1	2	3	4	5	6	7
Our company periodically informs this supplier about its products and services.	1	2	3	4	5	6	7
Our company regularly organizes meetings, workshops or seminars to share information with this supplier.	1	2	3	4	5	6	7
Our company is open to sharing proprietary information to help this supplier to understand the market.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
Our company provides this supplier with valuable expertise when this supplier asks for it.	1	2	3	4	5	6	7
When unexpected events occur, our company would appropriately adapt our procedures to meet this supplier's requirements.	1	2	3	4	5	6	7
Our company normally makes timely changes to meet this supplier's requests.	1	2	3	4	5	6	7
Our company always responds to this supplier's requests promptly.	1	2	3	4	5	6	7
Our company constantly reviews our performances to ensure that we are in line with what this supplier wants.	1	2	3	4	5	6	7

In the following sections, we would focus on how this supplier performs according to your observations.

C) WHAT MOTIVATES THIS SUPPLIER TO PURCHASE FROM YOUR COMPANY

In this section, we would like to know **what factors motivate this supplier to work with your company**. Again, please indicate the extent to which you agree/disagree with the following statements.

	Strongly Disagree						Strongly Agree
One of the major reasons that this supplier wants us to do well in business is that it likes being associated with our company.	1	2	3	4	5	6	7
This supplier has an emotional attachment to our company, that's one of the major reasons it cares about our welfare.	1	2	3	4	5	6	7
Because this supplier likes doing business with our company, it cares about our company's success.	1	2	3	4	5	6	7
The success of our relationship has a great deal of personal meaning to this supplier.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
This supplier's positive feelings towards our company are a strong force that motivates it to care about our company.	1	2	3	4	5	6	7
Our company is open to makes concessions when doing business with this supplier.	1	2	3	4	5	6	7
Our company has made compromises when dealing with issues that arise in this relationship.	1	2	3	4	5	6	7
Our company is willing to change our positions on issues in this relationship.	1	2	3	4	5	6	7
Our company NEVER makes demands that could be damaging to this supplier.	1	2	3	4	5	6	7
Our company would yield to this supplier's requests if necessary situations were to arise.	1	2	3	4	5	6	7
When disagreements arise between the two companies, our company makes compromises.	1	2	3	4	5	6	7
When the two companies have conflicts, our company is fine to make accommodations to revolve them.	1	2	3	4	5	6	7
We defer to this supplier when a conflict arises.	1	2	3	4	5	6	7
This supplier cares about our company mainly because our company increases this supplier's profits.	1	2	3	4	5	6	7
This supplier is nice to our company because it would take too much time, energy, and expense to switch to another buyers.	1	2	3	4	5	6	7
This supplier is nice to our company because it's hard for it to find another company to match the overall benefits we offer in business.	1	2	3	4	5	6	7
Although this supplier cares about our company's welfare, it does so mainly for its own purpose.	1	2	3	4	5	6	7
Because it is in its own interests, this supplier wants our company to do well.	1	2	3	4	5	6	7

D) PERFORMANCE OF THIS SUPPLIER

In this section, we wish to know what your opinions about **the performance of this supplier**.
Please indicate the extent to which you agree/disagree with the following statements.

	Strongly Disagree						Strongly Agree
This supplier can turn a profit for itself from this relationship – that is one of the main reasons why this supplier cares about our company's welfare.	1	2	3	4	5	6	7
This supplier treats our company well because our company is valuable for the development of its own business.	1	2	3	4	5	6	7
This supplier cares about our company's welfare for its own sake.	1	2	3	4	5	6	7
This supplier frequently shares information with our company.	1	2	3	4	5	6	7
This supplier has an organized procedure to share its know-how with us.	1	2	3	4	5	6	7
This supplier has set up a system to facilitate information sharing with our company.	1	2	3	4	5	6	7
This supplier periodically informs our company about its products and services.	1	2	3	4	5	6	7
This supplier keeps our company at distance, restricting us from sharing knowledge.	1	2	3	4	5	6	7
This supplier regularly organizes meetings, workshops or seminars to share information with us.	1	2	3	4	5	6	7
If an unexpected situation arises, this supplier always responds rapidly.	1	2	3	4	5	6	7
This supplier generally makes timely changes to meet our company's requests.	1	2	3	4	5	6	7
This supplier generally responds to our requests promptly.	1	2	3	4	5	6	7
This supplier is always accessible whenever we need its help.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
This supplier constantly reviews its performances to ensure that it is in line with what we want.	1	2	3	4	5	6	7
When we ask this supplier to consider some changes, this supplier always responds quickly.	1	2	3	4	5	6	7
This supplier believes that it should care about its customers.	1	2	3	4	5	6	7
This supplier feels that it is its duty to be concerned about its customers' welfare.	1	2	3	4	5	6	7
This supplier would not feel right ignoring its customers' well-being.	1	2	3	4	5	6	7
It would be difficult for this supplier to recoup its investment in us if it switched to another buyer.	1	2	3	4	5	6	7
If the relationship between this supplier and our company were to end, this supplier would waste a lot of knowledge that's tailored specifically to this relationship.	1	2	3	4	5	6	7
This supplier has invested substantially in personnel dedicated to our company.	1	2	3	4	5	6	7
This supplier has made significant investments dedicated to our relationship.	1	2	3	4	5	6	7
This supplier's operating processes have been tailored to meet the requirements of our company.	1	2	3	4	5	6	7
Training people in both companies has involved substantial commitments of time and money for this supplier.	1	2	3	4	5	6	7
This supplier has made extensive adaptations to deal with our company's standards and procedures.	1	2	3	4	5	6	7
This supplier has gone out of its way to link its business with ours.	1	2	3	4	5	6	7

E) WHEN A PROBLEM ARISES, WHAT THE COMPANIES DO?

In this section, we wish to know what **the two companies do when a problem arises**. Please indicate the extent to which you agree/disagree with the following statements.

	Strongly Disagree						Strongly Agree
This supplier is open to sharing proprietary information to help our company understand the market.	1	2	3	4	5	6	7
This supplier provides us with valuable expertise when we ask for it.	1	2	3	4	5	6	7
We keep this supplier at distance, restricting it from sharing knowledge.	1	2	3	4	5	6	7
When unexpected events occur, this supplier would appropriately adapt itself to meet our company's requirements.	1	2	3	4	5	6	7
This supplier does not hesitate to respond to our requests right away.	1	2	3	4	5	6	7
This supplier would yield to our company's requests if necessary situations were to arise.	1	2	3	4	5	6	7
When disagreements arise between the two companies, this supplier makes compromises.	1	2	3	4	5	6	7
When our two companies have conflicts, this supplier is fine to make accommodations to resolve them.	1	2	3	4	5	6	7
This supplier defers to our company when a conflict arises.	1	2	3	4	5	6	7
Our company is willing to dedicate whatever people and resources that are necessary to sustain this relationship.	1	2	3	4	5	6	7
We are willing to do whatever it takes to support this relationship.	1	2	3	4	5	6	7
This relationship deserves our company's maximum efforts to maintain it.	1	2	3	4	5	6	7
This supplier has a sense of moral obligation to care about its customers.	1	2	3	4	5	6	7
This supplier thinks that it is unethical to neglect its customers' well being.	1	2	3	4	5	6	7
This supplier undertakes the responsibility of caring about its customers' welfare.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
This supplier would feel that it is wrong to overlook the welfare of its customers.	1	2	3	4	5	6	7
This supplier feels that it is essential for firms to care about the welfare of its customers.	1	2	3	4	5	6	7
Our company is always accessible whenever this supplier needs our help.	1	2	3	4	5	6	7
When this supplier suggests our company to consider some changes, we always respond quickly.	1	2	3	4	5	6	7
We do not hesitate to respond to this supplier's requests right away.	1	2	3	4	5	6	7
If an unexpected situation arises, our company always responds rapidly.	1	2	3	4	5	6	7

F) PLEASE ASSESS THE RELATIONSHIP QUALITY BETWEEN YOUR COMPANY AND THIS SUPPLIER

The last section assesses the relationship outcome your company has with **this particular supplier**.

	Strongly Disagree						Strongly Agree
If the relationship between our company and this supplier were to end, our company would waste a lot of knowledge that's tailored specifically to this relationship.	1	2	3	4	5	6	7
Our company has invested substantially in personnel dedicated to this supplier.	1	2	3	4	5	6	7
Our company has made significant investments dedicated to this relationship.	1	2	3	4	5	6	7
We are willing to make all the effort required to maintain this relationship over the long term.	1	2	3	4	5	6	7
We are committed to this supplier.	1	2	3	4	5	6	7
We trust that this relationship is worthy of our continuing investments.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
We expect that our relationship with this supplier to last a very long time.	1	2	3	4	5	6	7
It would be difficult for us to replace the sales and the profits generated from this product line.	1	2	3	4	5	6	7
The relationship with this supplier is critical to the achievement of our future goals.	1	2	3	4	5	6	7
Our total costs of switching to another competing supplier's product line would be prohibitive.	1	2	3	4	5	6	7

BACKGROUND INFORMATION

Finally, we need assess this supplier's perspective on this relationship to complete the study. We will send a questionnaire to the supplier but not indicate where we get this supplier's contact information or your involvement in the study. Your identity and involvement will be kept completely confidential. However, we will ask the supplier to comment on his/her relationship with your company.

Your company's Name: _____

Supplier Contact/Representative Name: _____

Email:

Phone: Fax:

(All the information you provide here will only be revealed to the university researchers conducting this survey, and will not be revealed to the supplier, your employer, or competitors.)

THANK YOU FOR YOUR PARTICIPATION IN THIS SURVEY!

APPENDIX B
HIGH POWER BUYER SURVEY

University of Florida Supplier Research Invitation Letter
(UFIRB #2005-U-356)

Dear (LAST NAME),

We would like to kindly ask you to participate in Ms. Qiong Wang's dissertation study on the nature of relationships between buyers and sellers. This study has been approved and sponsored by the Institute for Supply Management (ISM) (http://www.ism.ws/) and the Warrington College of Business School at University of Florida (http://www.cba.ufl.edu/). Our sample is limited and therefore your responses are extremely important for Ms. Wang to complete her doctoral studies.

You can access the survey at http://www.surveyz.com/TakeSurvey?id=35456&_respondentXXXX and the password is seller

This study is simply asking for your opinions and feelings about your relationships with a supplier, and there are no right or wrong answers. Pretests have indicated that you should be able to complete the study in 20 minutes. In return for your assistance, we will send you an executive summary of our study. You can also check the progresses and the results of this study at http://bear.cba.ufl.edu/wang2/buyerdissertation.html. Your respondent ID for this study is XXXX.

This study is completely voluntary and confidential! Information reported shall be averaged across the responses of many other company buyers so that no one individual answers can be determined. If you have any questions or concerns, please feel free to contact us at relationship@cba.ufl.edu or call Qiong (pronounced as "Chong") at 352-392-0161-1273#.

Dr. Barton A. Weitz
Chair American Marketing Association, JC Penney Professor of Marketing
University of Florida

Qiong Wang
Doctoral Candidate
Department of Marketing
University of Florida
Phone: 352-392-0161-1333#

Please bear in mind that this study is completely voluntary and confidential! All of your responses shall not be revealed to your suppliers, employer, or competitors.

In buyer-supplier relationships, buyers and suppliers can be different in terms of their dependency upon each other. **Please think of one supplier**, who you have been responsible for more than 1 year, and is best described as: "It would be **easy for your company** to find other suppliers to replace this supplier, **but** it's **difficult for this supplier** to replace your company with another customer in the particular product category."

(For example: such a supplier might be **a small, unimportant supplier** with many satisfctory competitors. In other words, your company is much more important to this supplier. Thus, **this supplier is more dependant** on your company than your company depends on this supplier.)

Please briefly describe the products that you buy from this supplier: _____
Based on the types of products/services your company buys from this supplier, please indicate the relative power of your company and this supplier in the relationship. (circle the number) Our company is much more powerful than this supplier — Equal power — This supplier is much more powerful than our company 1 2 3 4 5 6 7

Please keep in mind that there is no right or wrong answers. Please do not be concerned about giving different answers to questions that seem similar. There is some redundancy built into the statements to account for the fact that some people may read and interpret the statements differently.

A) MOTIVATIONS FOR YOUR COMPANY TO WORK WITH THIS SUPPLIER

In this section, we are interested in knowing what ***motivates*** your company to work with this supplier. Indicate the extent to which you agree/disagree with the following statements. All these questions should be answered with respect to **the particular supplier** you selected initially.

	Strongly Disagree — Strongly Agree
This supplier has a reputation for being honest and trustworthy.	1 2 3 4 5 6 7

	Strongly Disagree						Strongly Agree
This supplier has a reputation for being concerned about its' customers.	1	2	3	4	5	6	7
This supplier has a bad reputation with its customers in the industry.	1	2	3	4	5	6	7
Most buyers think that this supplier has a reputation for being difficult.	1	2	3	4	5	6	7
This supplier has a good image in the market.	1	2	3	4	5	6	7
Most buyers appreciate the way this supplier behaves in the market.	1	2	3	4	5	6	7
It would be difficult for our company to recoup our investment in this supplier if we switched to another supplier.	1	2	3	4	5	6	7
This supplier NEVER makes demands that could be damaging to our company.	1	2	3	4	5	6	7
This supplier is open to makes concessions when doing business with us.	1	2	3	4	5	6	7
This supplier has made compromises when dealing with issues that arise in this relationship.	1	2	3	4	5	6	7
This supplier is willing to change its position on issues in this relationship.	1	2	3	4	5	6	7
If our relationship was discontinued, we would have difficulty replacing this supplier.	1	2	3	4	5	6	7
We rely heavily on this supplier.	1	2	3	4	5	6	7
It's extremely easy for us to get other suppliers who can provide us with the comparable product/service lines.	1	2	3	4	5	6	7
This supplier is very important for our company.	1	2	3	4	5	6	7
We are dependent on this supplier's products and services.	1	2	3	4	5	6	7
This supplier cares about our company's welfare as much as it cares about its own.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
This supplier truly cares about our company.	1	2	3	4	5	6	7
This supplier is genuinely concerned about our company's welfare.	1	2	3	4	5	6	7

B) YOUR COMPANY'S PERFORMANCE IN THIS RELATIONSHIP

In this section, we are interested in knowing the how your company *performs* in the relationship with **this particular supplier**.
Please indicate the extent to which you agree/disagree with the following statements.

	Strongly Disagree						Strongly Agree
Our company's operating processes have been tailored to meet the requirements of this supplier.	1	2	3	4	5	6	7
Training people in both companies has involved substantial commitments of time and money for our company.	1	2	3	4	5	6	7
Our company has made extensive adaptations to deal with this supplier's standards and procedures.	1	2	3	4	5	6	7
We have gone out of our way to link our business with this supplier.	1	2	3	4	5	6	7
Our company frequently shares information with this supplier.	1	2	3	4	5	6	7
Our company has an organized procedure to share our know-how with this supplier.	1	2	3	4	5	6	7
Our company has set up a system to facilitate information sharing with this supplier.	1	2	3	4	5	6	7
Our company periodically informs this supplier about its products and services.	1	2	3	4	5	6	7
Our company regularly organizes meetings, workshops or seminars to share information with this supplier.	1	2	3	4	5	6	7
Our company is open to sharing proprietary information to help this supplier to understand the market.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
Our company provides this supplier with valuable expertise when this supplier asks for it.	1	2	3	4	5	6	7
When unexpected events occur, our company would appropriately adapt our procedures to meet this supplier's requirements.	1	2	3	4	5	6	7
Our company normally makes timely changes to meet this supplier's requests.	1	2	3	4	5	6	7
Our company always responds to this supplier's requests promptly.	1	2	3	4	5	6	7
Our company constantly reviews our performances to ensure that we are in line with what this supplier wants.	1	2	3	4	5	6	7

In the following sections, we would focus on how this supplier performs according to your observations.

C) WHAT MOTIVATES THIS SUPPLIER TO PURCHASE FROM YOUR COMPANY

In this section, we would like to know **what factors motivate this supplier to work with your company**. Again, please indicate the extent to which you agree/disagree with the following statements.

	Strongly Disagree						Strongly Agree
One of the major reasons that this supplier wants us to do well in business is that it likes being associated with our company.	1	2	3	4	5	6	7
This supplier has an emotional attachment to our company, that's one of the major reasons it cares about our welfare.	1	2	3	4	5	6	7
Because this supplier likes doing business with our company, it cares about our company's success.	1	2	3	4	5	6	7
The success of our relationship has a great deal of personal meaning to this supplier.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
This supplier's positive feelings towards our company are a strong force that motivates it to care about our company.	1	2	3	4	5	6	7
Our company is open to makes concessions when doing business with this supplier.	1	2	3	4	5	6	7
Our company has made compromises when dealing with issues that arise in this relationship.	1	2	3	4	5	6	7
Our company is willing to change our positions on issues in this relationship.	1	2	3	4	5	6	7
Our company NEVER makes demands that could be damaging to this supplier.	1	2	3	4	5	6	7
Our company would yield to this supplier's requests if necessary situations were to arise.	1	2	3	4	5	6	7
When disagreements arise between the two companies, our company makes compromises.	1	2	3	4	5	6	7
When the two companies have conflicts, our company is fine to make accommodations to revolve them.	1	2	3	4	5	6	7
We defer to this supplier when a conflict arises.	1	2	3	4	5	6	7
This supplier cares about our company mainly because our company increases this supplier's profits.	1	2	3	4	5	6	7
This supplier is nice to our company because it would take too much time, energy, and expense to switch to another buyers.	1	2	3	4	5	6	7
This supplier is nice to our company because it's hard for it to find another company to match the overall benefits we offer in business.	1	2	3	4	5	6	7
Although this supplier cares about our company's welfare, it does so mainly for its own purpose.	1	2	3	4	5	6	7
Because it is in its own interests, this supplier wants our company to do well.	1	2	3	4	5	6	7

D) PERFORMANCE OF THIS SUPPLIER

In this section, we wish to know what your opinions about **the performance of this supplier**.
Please indicate the extent to which you agree/disagree with the following statements.

	Strongly Disagree						Strongly Agree
This supplier can turn a profit for itself from this relationship – that is one of the main reasons why this supplier cares about our company's welfare.	1	2	3	4	5	6	7
This supplier treats our company well because our company is valuable for the development of its own business.	1	2	3	4	5	6	7
This supplier cares about our company's welfare for its own sake.	1	2	3	4	5	6	7
This supplier frequently shares information with our company.	1	2	3	4	5	6	7
This supplier has an organized procedure to share its know-how with us.	1	2	3	4	5	6	7
This supplier has set up a system to facilitate information sharing with our company.	1	2	3	4	5	6	7
This supplier periodically informs our company about its products and services.	1	2	3	4	5	6	7
This supplier keeps our company at distance, restricting us from sharing knowledge.	1	2	3	4	5	6	7
This supplier regularly organizes meetings, workshops or seminars to share information with us.	1	2	3	4	5	6	7
If an unexpected situation arises, this supplier always responds rapidly.	1	2	3	4	5	6	7
This supplier generally makes timely changes to meet our company's requests.	1	2	3	4	5	6	7
This supplier generally responds to our requests promptly.	1	2	3	4	5	6	7
This supplier is always accessible whenever we need its help.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
This supplier constantly reviews its performances to ensure that it is in line with what we want.	1	2	3	4	5	6	7
When we ask this supplier to consider some changes, this supplier always responds quickly.	1	2	3	4	5	6	7
This supplier believes that it should care about its customers.	1	2	3	4	5	6	7
This supplier feels that it is its duty to be concerned about its customers' welfare.	1	2	3	4	5	6	7
This supplier would not feel right ignoring its customers' well-being.	1	2	3	4	5	6	7
It would be difficult for this supplier to recoup its investment in us if it switched to another buyer.	1	2	3	4	5	6	7
If the relationship between this supplier and our company were to end, this supplier would waste a lot of knowledge that's tailored specifically to this relationship.	1	2	3	4	5	6	7
This supplier has invested substantially in personnel dedicated to our company.	1	2	3	4	5	6	7
This supplier has made significant investments dedicated to our relationship.	1	2	3	4	5	6	7
This supplier's operating processes have been tailored to meet the requirements of our company.	1	2	3	4	5	6	7
Training people in both companies has involved substantial commitments of time and money for this supplier.	1	2	3	4	5	6	7
This supplier has made extensive adaptations to deal with our company's standards and procedures.	1	2	3	4	5	6	7
This supplier has gone out of its way to link its business with ours.	1	2	3	4	5	6	7

E) WHEN A PROBLEM ARISES, WHAT THE COMPANIES DO?

In this section, we wish to know what **the two companies do when a problem arises**. Please indicate the extent to which you agree/disagree with the following statements.

	Strongly Disagree						Strongly Agree
This supplier is open to sharing proprietary information to help our company understand the market.	1	2	3	4	5	6	7
This supplier provides us with valuable expertise when we ask for it.	1	2	3	4	5	6	7
We keep this supplier at distance, restricting it from sharing knowledge.	1	2	3	4	5	6	7
When unexpected events occur, this supplier would appropriately adapt itself to meet our company's requirements.	1	2	3	4	5	6	7
This supplier does not hesitate to respond to our requests right away.	1	2	3	4	5	6	7
This supplier would yield to our company's requests if necessary situations were to arise.	1	2	3	4	5	6	7
When disagreements arise between the two companies, this supplier makes compromises.	1	2	3	4	5	6	7
When our two companies have conflicts, this supplier is fine to make accommodations to resolve them.	1	2	3	4	5	6	7
This supplier defers to our company when a conflict arises.	1	2	3	4	5	6	7
Our company is willing to dedicate whatever people and resources that are necessary to sustain this relationship.	1	2	3	4	5	6	7
We are willing to do whatever it takes to support this relationship.	1	2	3	4	5	6	7
This relationship deserves our company's maximum efforts to maintain it.	1	2	3	4	5	6	7
This supplier has a sense of moral obligation to care about its customers.	1	2	3	4	5	6	7
This supplier thinks that it is unethical to neglect its customers' well being.	1	2	3	4	5	6	7
This supplier undertakes the responsibility of caring about its customers' welfare.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
This supplier would feel that it is wrong to overlook the welfare of its customers.	1	2	3	4	5	6	7
This supplier feels that it is essential for firms to care about the welfare of its customers.	1	2	3	4	5	6	7
Our company is always accessible whenever this supplier needs our help.	1	2	3	4	5	6	7
When this supplier suggests our company to consider some changes, we always respond quickly.	1	2	3	4	5	6	7
We do not hesitate to respond to this supplier's requests right away.	1	2	3	4	5	6	7
If an unexpected situation arises, our company always responds rapidly.	1	2	3	4	5	6	7

F) PLEASE ASSESS THE RELATIONSHIP QUALITY BETWEEN YOUR COMPANY AND THIS SUPPLIER

The last section assesses the relationship outcome your company has with **this particular supplier**.

	Strongly Disagree						Strongly Agree
If the relationship between our company and this supplier were to end, our company would waste a lot of knowledge that's tailored specifically to this relationship.	1	2	3	4	5	6	7
Our company has invested substantially in personnel dedicated to this supplier.	1	2	3	4	5	6	7
Our company has made significant investments dedicated to this relationship.	1	2	3	4	5	6	7
We are willing to make all the effort required to maintain this relationship over the long term.	1	2	3	4	5	6	7
We are committed to this supplier.	1	2	3	4	5	6	7
We trust that this relationship is worthy of our continuing investments.	1	2	3	4	5	6	7

	Strongly Disagree						Strongly Agree
We expect that our relationship with this supplier to last a very long time.	1	2	3	4	5	6	7
It would be difficult for us to replace the sales and the profits generated from this product line.	1	2	3	4	5	6	7
The relationship with this supplier is critical to the achievement of our future goals.	1	2	3	4	5	6	7
Our total costs of switching to another competing supplier's product line would be prohibitive.	1	2	3	4	5	6	7

BACKGROUND INFORMATION

Finally, we need assess this supplier's perspective on this relationship to complete the study. We will send a questionnaire to the supplier but not indicate where we get this supplier's contact information or your involvement in the study. Your identity and involvement will be kept completely confidential. However, we will ask the supplier to comment on his/her relationship with your company.

Your company's Name: _____

Supplier Contact/Representative Name: _____

Email:

Phone: Fax:

(All the information you provide here will only be revealed to the university researchers conducting this survey, and will not be revealed to the supplier, your employer, or competitors.)

THANK YOU FOR YOUR PARTICIPATION IN THIS SURVEY!

LIST OF REFERENCES

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BIOGRAPHICAL SKETCH

Qiong Wang was born in Nanchang, the capital city of Jiangxi Province in P. R. China. She earned a Bachelor of Arts degree in international economy and trade with the highest honors from Wuhan University in P. R. China in 1996. She also holds a Master of Arts degree in international economy and trade with the highest honors from Wuhan University in P. R. China in 1999. She completed her second graduate studies from the Institute of European Studies of Macau (IEEM) at the University of Macau in 1999. From 1999 to 2001, she worked as a project manager at the International Marketing Division in Huawei Technologies. Her working experience in marketing from marketing strategy to direct sales reinforced her decision to pursue an academic career. In 2001, she joined the Ph.D. program in marketing at the University of Florida. Her research focuses on the development and management of inter-organizational relationships. She is joining Penn State University as an assistant professor of marketing in August 2006.