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CONFLICT POTENTIAL IN STRATEGIC BUYER-SUPPLIER RELATIONSHIPS

VOLUME I

By

James L. Patterson

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ABSTRACT

CONFLICT POTENTIAL IN STRATEGIC BUYER-SUPPLIER RELATIONSHIPS

By

James L. Patterson

Over the past two decades, companies have moved from traditional, adversarial buyer-supplier relationships toward more cooperative forms of "partnerships" with significant information sharing and joint goal setting. Until recently, the literature has addressed only a few issues: 1) how to start up a collaborative buyer-supplier relationship; 2) how to choose an appropriate "partner"; and 3) how to identify risks and benefits.

Attention on the development phases of collaborative relationships has created a gap in the knowledge of how these relationships are managed over time. Early attempts at investigation have primarily focused on characteristics of successful collaborative buyer-supplier relationships. This dissertation extends existing research by examining how conflict originates and how managers minimize its negative impact.

Two models have been developed. The Levels of Conflict Potential Model proposes that multiple levels of

conflict potential can arise between buyers and suppliers engaged in long-term, collaborative relationships. The three levels are identified as alpha-level (performance-oriented), beta-level (personnel and policy-oriented), and gamma-level (structural-oriented). There are three axes in the model that determine the level of conflict potential: 1) impact; 2) intensity; and 3) importance. The Conflict Feedback Model synthesizes previous theories of conflict with the Levels of Conflict Potential Model.

Following an exploratory field study, 39 matched dyads of collaborative buyers and suppliers were surveyed. Both closed and open-ended questions were used to determine attitudes and perceptions regarding specific conflict episodes, potential conflict, and sources of conflict. Only the alpha-level factors of price, delivery, quality, and service regarding supplier performance were explored. Responses were then compared, using t-tests, regression analysis, and factor analysis.

Data analysis showed mixed support for the Levels of Conflict Model. Price conflict was determined to be the largest sources of difference between the samples. Buyers tended to focus on short-term performance issues, while suppliers focused on long-term, relationship issues.

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INTRODUCTION

Over the past two decades, a body of research in the diverse fields of production/operations management, supply chain management, industrial marketing, marketing channels, economics, negotiation, and corporate strategy has noted the dramatic and distinct movement away from traditional, adversarial "arm's length" buyer-supplier commercial exchange relationships toward more cooperative "partnership"-type interorganizational alliances or relationships.[1] This basic change in the nature of day-to-day business dealings between industrial buyers and suppliers has led to a major shift in the normal industrial marketing and purchasing management paradigms which have been used for managing interorganizational relationships.[2] A significant segment of the

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[1]Robert M. Monczka, Robert J. Trent, and Thomas J. Callahan, "Supply Base Strategies to Maximize Supplier Performance," International Journal of Physical Distribution and Logistics Management, Volume 23, Number 4, 1993, pp. 42-54; C. Michael Stralkowski, R. Christopher Klemm, and S. Alexander Billon, "Partnering Strategies: Guidelines for Successful Customer-Supplier Alliances," National Productivity Review, Autumn, 1988, pp. 308-317; James C. Anderson and James A. Narus, "Partnering as a Focused Market Strategy," California Management Review, Spring, 1991, pp. 95-113; Sang-Lin Han, David T. Wilson, and Shirish P. Dant, "Buyer-Supplier Relationships Today," Industrial Marketing Management, Volume 22, 1993, pp. 331-338; Lars Hallén, Jan Johanson, and Nazeem Seyed-Mohamed, "Interfirm Adaptation in Business Relationships, Journal of Marketing, Volume 55, April, 1991, pp. 29-37: Keki R. Bhote, Strategic Supply Management: A Blueprint for Revitalizing the Manufacturer-Supplier Partnership, New York: AMACOM, 1989; and Tom Peters, The Tom Peters Seminar: Crazy Times Call for Crazy Organizations, New York: Vintage Books, 1994.

[2]Charles A. Watts, Kee Young Kim, and Chan K. Hahn, "Linking Purchasing to Corporate Competitive Strategy,"

academic and practitioner literature in these fields has discussed the need for improving the level of interorganizational cooperation to increase North American competitiveness in the global marketplace.

North American and European researchers and practitioners alike have sought to emulate the Japanese experience through the introduction of cooperative interorganizational relationships (IORs) (also known as strategic alliances or "partnerships"). Most of the definitions of these "partnership"-type relationships are similar to that of Mohr and Spekman, "partnerships are defined as purposive strategic relationships between independent firms who share compatible goals, strive for mutual benefit, and acknowledge a high level of mutual interdependence. They join efforts to achieve goals that each firm, acting alone, could not attain easily."[3] For purposes of this research, the collective terms "long-term, collaborative buyer-supplier relationship" or "cooperative IOR" are generally used in lieu of the more popular terms "strategic alliance" or "partnership."

Western managers in both North America and Europe have acknowledged that the presence of the "keiretsu" buyer-supplier relationship is one of the major factors

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International Journal of Purchasing and Materials Management, Fall, 1992, pp. 2-8.

[3]Jakki Mohr and Robert Spekman, "Characteristics of Partnership Success: Partnership Attributes, Communication Behavior, and Conflict Resolution Techniques," Strategic Management Journal, Volume 15, 1994, p. 135.

contributing to the success of Japanese corporations. Popular business writings concerning the Japanese experience have also indicated that this business success can be partially attributed to the form of buyer-supplier relationships as well as to how actual supplier selection decisions are conducted.[4] However, very little of this growing body of knowledge has sufficiently addressed the magnitude of management problems associated with the advent of interorganizational conflict. Conflict potential inevitably occurs when two or more separate, yet interdependent, commercial entities possessing differing and often contrasting and competing sets of goals and Objectives become more intimately intertwined with each other and continue this interaction over time. Investigating the *perceptions* of conflict potential was an interesting research endeavor because of the potential differences in perceptions from closely related entities regarding the same issues.[5]

A significant segment of the interorganizational relationship literature has provided managers in the field with normative prescriptions and managerial guidelines regarding the following issues:

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[4]James P. Womack, Daniel T. Jones, and Daniel Roos, The Machine that Changed the World, New York: Harper Perennial, 1991 and F. Ian Stuart, "Supplier Partnerships: Influencing Factors and Strategic Benefits," International Journal of Purchasing and Materials Management, Fall, 1993, pp. 22-28.

[5]John F. Gaski, "The Theory of Power and Conflict in Channels of Distribution," Journal of Marketing, Volume 48, Summer, 1984, pp. 9-29.

1. Why these collaborative buyer-supplier relationships are important;
2. What actually constitutes collaborative buyer-supplier relationships (i.e., their structural properties);
3. How to select appropriate strategic partners;
4. What the associated risks and benefits of such affiliations are; and
5. What the necessary conditions for forming a collaborative buyer-supplier relationship are.

This has been an important function of the body of literature to date but has failed to address what could well be the most important piece of the collaborative buyer-supplier puzzle, i.e., how to maintain or develop these interdependent dyadic relationships long after the inaugural "honeymoon" or "adolescent" period was over and the reality of day-to-day activities has taken over.

Ring and Van De Ven's 1994 *Academy of Management Review* article serves as the impetus and overall guide for this research effort.[6] They confirm the need for additional research in studying cooperative interorganizational relationships (IORs) because it was felt that the literature has generally ignored how cooperative IORs develop and change over the lifetime of the relationships. One of their key observations was that, "[i]nteraction processes among cooperating parties may cast a positive, neutral, or negative overtone to the relationship, influencing the degree to which parties settle disputes arising out of the

[6]Peter Smith Ring and Andrew H. Van De Ven, "Developmental Processes of Cooperative Interorganizational Relationships," Academy of Management Review, Volume 19, Number 1, 1994, pp. 90-118.

IOR."[7] Similar perspectives have been espoused in the negotiation literature as well. "Conflicts, misunderstandings, and opportunistic behavior are potentially a part of any negotiated relationship. Problems may occur during initial negotiations, when the parties try to protect their own interests, and also in the development stage of the relationship. [P]reventing problems by initial negotiation and by designing procedures for avoiding and handling future conflicts may be better than relying on trust alone."[8]

This observation has been corroborated by the classical conflict resolution literature arising out of the 1960s, 1970s, and 1980s and is addressed in Chapter II. This dissertation also proposes a "Conflict Feedback" model that synthesizes the classical literature and the "Levels of Conflict Potential" model outlined herein.

This dissertation research was designed to reduce this knowledge gap through the investigation of the dynamic nature of ongoing collaborative buyer-supplier relationships in North American firms. The research identifies and considers the inherent, underlying potential sources or causes of buyer-supplier conflict in North American IORs and seeks to address how managers deal with actual conflict and

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[7]Ibid, p. 91.

[8]Jorn Rognes, "Negotiating Cooperative Supplier Relationships: A Planning Framework," International Journal of Purchasing and Materials Management, Fall, 1995, pp. 16-17.

conflict potential in their day-to-day efforts to maintain and/or expand continuing interorganizational relationships.

I. OVERVIEW OF THE RESEARCH

1.1 Research Questions.

Even the most cursory examination of the existing cross-disciplinary literature on interorganizational relationships will point out that the dynamics of conflict encountered between organizations is both multi-faceted and diverse. An extensive investigation to uncover and discuss each and every factor which influences the type and level of conflict potential experienced between industrial buyers and suppliers would require a significant amount of resources in terms of time and money and was beyond the scope of this specific research endeavor. Because of the exploratory nature of this study, the number of factors investigated was restricted to those factors which are felt, a priori, to demonstrate the strongest influence on interorganizational conflict potential in long-term cooperative buyer-supplier relationships.

The three basic research questions that have guided the course of this investigation are:

1. "What are the critical factors and conditions which affect the level of conflict potential experienced between industrial buyers and suppliers in established strategic long-term, collaborative relationships?"

2. "How do industrial buyers and suppliers in established strategic long-term, collaborative relationships view the relative impact of these factors and conditions on the relationship?"

3. "Are there significant differences in these buyer-supplier dyads regarding the perceptions of industrial buyers and suppliers in established

strategic long-term, collaborative relationships concerning the potential causes and effects of conflict?"

A theoretical model that addresses the following ancillary research question was developed during the course of this research and is stated as:

4. "How do the various conflict management and conflict resolution techniques affect the traits or scope of the strategic long-term, collaborative buyer-supplier relationship over time?"

The answers to these research questions have been addressed by conducting a preliminary field study of matched pairs of industrial buyers and suppliers, detailed surveys of a targeted sample of industrial buyer-supplier dyads, and subsequent statistical analyses of the interview and survey data collected.

1.1.1 *Specific Research Hypotheses and Propositions.*

Through the process of restricting the scope of the dissertation in terms of a priori factors and conditions affecting potential conflict episodes within industrial buyer-supplier IORs, the following specific research hypotheses have been generated.

1. "Differences in perceptions between buyers and suppliers regarding supplier price performance (P) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs."

2. "Differences in perceptions between buyers and suppliers regarding supplier delivery performance (D) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs."

3. "Differences in perceptions between buyers and suppliers regarding supplier product quality

performance (Q) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs."

4. "Differences in perceptions between buyers and suppliers regarding supplier service flexibility performance (S) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs."

5. "Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly in their perceptions of conflict potential regarding supplier price performance (P)."

6. "Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly in their perceptions of conflict potential regarding supplier delivery performance (D)."

7. "Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly in their perceptions of conflict potential regarding supplier product quality performance (Q)."

8. "Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly in their perceptions of conflict potential regarding supplier service flexibility performance (S)."

The following list of research propositions is closely related to the hypotheses listed above but will not be specifically tested during the conduct of this dissertation research.

1. "Lower levels of conflict potential (i.e., price (P), delivery (D), product quality (Q), and service flexibility (S)), if left unresolved or not resolved to the satisfaction of both buyer and supplier, will lead to higher levels of conflict potential and, eventually, threaten termination of the relationship."

2. "Successful resolution of IOR conflict, at any level, is likely to result in continuation of the IOR at current levels or in higher level development of the IOR."

3. "Unsuccessful resolution of IOR conflict, at any level, is likely to result in dissolution of the IOR."

4. "Partial or suboptimal resolution of IOR conflict, at any level, is likely to continue the IOR at current or reduced levels."

Because this study was focused primarily on strategic long-term, collaborative dyadic relationships between industrial buyers and suppliers, it becomes necessary to more adequately define the various types of buyer-supplier relationships and how they differ in several key aspects related to this research.

1.2 Adversarial versus Cooperative Buyer-Supplier Relationships.

1.2.1 *Adversarial Buyer-Supplier Relationships.*

The traditional buyer-supplier relationship is typified by multiple sourcing, competitive bidding, and short-term contracting where both parties demonstrate low levels of trust regarding the motives and actions of the other.[9] The traditional buyer-supplier relationship is characterized by "arm's length" business dealings with each other involving minimal information sharing and an intense focus on determining a competitive market-based purchase price. The actual relationship between buying and supplying firms may last only until the next contract is awarded by the buyer or

[9]Robert M. Monczka and Robert J. Trent, "Evolving Sourcing Strategies for the 1990s," International Journal of Physical Distribution and Logistics Management, Volume 21, Number 5, 1991, pp. 4-12.

until the supplier fails to live up to all the "legalese" of a lengthy and detailed contract.

Multiple sourcing has traditionally been the preferred mode of dealing with suppliers due to the perception of buyers that sufficient marketplace competition between suppliers will result in the lowest possible contract price. Secondly, competitive bidding has been utilized by buying firms to aggressively drive down prices, resulting in supplier profit levels reduced to bare minimums in the buyer's quest to attain the absolutely lowest possible price available in the marketplace. Short-term contracting has been felt to provide the buyer with adequate flexibility to switch sources of supply in the event that an even lower price can be found.

In an adversarial buyer-supplier relationship, bargaining power is typically asymmetrically distributed between the exchange parties.[10] One exchange party (either buyer or supplier) will usually have a significantly higher level of coercive power than the other which is then used to the stronger party's advantage in structuring the terms and conditions of the contract, and hence the relationship. The only meaningful commitment the parties have for each other is ensuring that the other party fulfills all of its contractual obligations as stipulated in the contract. The basis for supplier selection is grounded strictly on the product or commodity being procured and is most often

[10]Watts, Kim, and Hahn, p. 3.

measured strictly in terms of price or other specific performance specifications and metrics.

1.2.2 *Cooperative Buyer-Supplier Relationships.*

Ellram has defined the strategic partnership between buying and supplying firms as "a mutual, ongoing relationship involving a commitment over an extended time period, and a sharing of information and the risks and rewards of the relationship."[11] The key elements of this definition of a strategic partnership or cooperative relationship are:

1. Mutuality;
2. Persistence;
3. Commitment;
4. Continuity of the relationship over time; and
5. Shared information, risks, and rewards.

Outsourcing partnerships involve a focus on respective basic core competencies as demonstrated or perceived by the buying and supplying firms. In the current highly competitive global business environment faced by most firms, it is difficult for each individual firm to focus on all the aspects of their business simultaneously and yet maintain a high level of competence or expertise in each. Therefore, buying firms try to obtain suppliers who can provide consistently high quality goods and services, are highly capable of maintaining expertise in the latest technologies, and are willing to enter into long-term cooperative relationships with the buyer so that each firm can

[11]Lisa M. Ellram, "The Supplier Selection Decision in Strategic Partnerships," Journal of Purchasing and Materials Management, Fall, 1990, p. 8.

concentrate on those core competencies which give them a competitive advantage in the marketplace.[12]

Bargaining power in such relationships is more likely to be more equally distributed between the parties involved in the cooperative relationship. The focus of such a relationship tends to be strategic in nature, meaning that the buyer and supplier freely share information regarding their future plans, goals, and objectives. The cooperative IOR may also be distinguished through the extensive use of congruent goals and objectives for the partnership, recognizing that mutual success for the relationship can be achieved through both parties' continued collaboration and sharing. Collaboration, as used here, is intended to reflect the notion that the parties must work closely together to achieve the other party's goals and objectives while simultaneously seeking to accomplish their own.[13] A collaborative IOR orientation is then, in part, recognition of the parties' common interests in terms of individual firm goals and objectives congruent with those of the IOR itself.

---

[12]See David A. Acker, "Managing Assets and Skills: The Key to a Sustainable Competitive Advantage," California Management Review, Winter, 1989, pp. 91-106; Pankaj Ghemawat, "Sustainable Advantage," Harvard Business Review, September-October, 1986, pp. 53-58; C. K. Pralahad and Gary Hamel, "The Core Competence of the Corporation," Harvard Business Review, May-June, 1990, pp. 79-91; and George Stalk, Philip Evans, and Lawrence B. Shulman, "Competing on Capabilities: The New Rules of Corporate Strategy," Harvard Business Review, March-April, 1992, pp. 57-69.

[13]Kenneth W. Thomas, "Conflict and Conflict Management," Handbook of Industrial and Organizational Psychology, Marvin D. Dunnette, editor, Chicago: Rand-McNally College Publishing Company, 1976, pp. 889-935.

1.3 Scope of the Dissertation.

Theoretically, a comprehensive, sound, and thorough examination of sources of conflict potential between industrial buyers and suppliers should include all possible factors in any model that attempts to explain the conflict phenomenon in cooperative, long-term buyer-supplier relationships. Such a thoroughly descriptive model would be very difficult and time-consuming to test statistically for several reasons.

First of all, the large sample size required to test such a model would be expensive requiring great effort and considerable resources. In addition, the model would be unduly complex, unwieldy, and difficult to explain in a rational manner. Third, since many of these factors could represent a significant overlap due to definitional incongruities, there would likely be significant autocorrelation of related factors that would tend to confound the nature of the underlying relationships.

The dissertation was focused on investigating previously established and on-going strategic long-term, collaborative buyer-supplier relationships in North American firms. As discussed earlier, the bulk of previous research on interorganizational relationships has focused on partner selection and initial relationship development processes. The contribution of this study was expected to extend this body of research through an examination of the dynamics of interorganizational conflict management as encountered by

practicing managers who are intimately involved in both the day-to-day and strategic activities of maintaining such relationships.

Using the conflict management grid developed by Thomas (see Figure 1),[14] it was proposed that the dyadic buyer-supplier relationships of interest in this investigation are located in the "collaborative" quadrant of the grid. Such relationships are distinguished by highly assertive and highly cooperative behaviors exhibited by each party in the relationship. These behaviors are directed toward achieving the buying and supplying firms' goals and objectives as well as the mutual goals and objectives generated by the buyer-supplier relationship.

Collaboration, as such, indicates that joint efforts are applied to find an integrative, synergistic solution when the conflicting concerns of buyers and suppliers are considered too critical to the outcome of the relationship to be compromised. Compromise, in this usage, is defined as "a conflict management technique that involves seeking *partial* satisfaction of all conflicting groups through exchange and sacrifice."[15] Compromising behavior, therefore, results in a less-than-optimal (or less-than desirable) level of conflict resolution which is reached through the use of traditional bargaining techniques known as "give-and-take."

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[14]Ibid, p. 900.

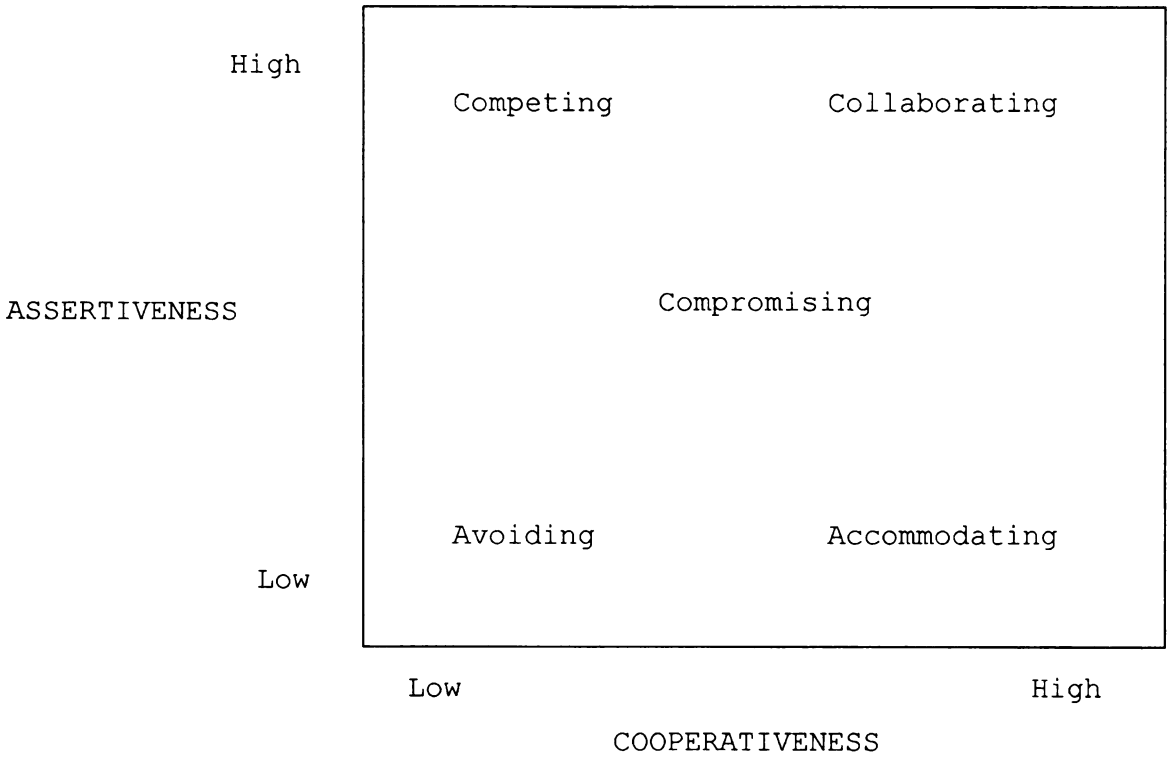
[15]Ibid, pp. 889-935.

The basic model described in Figure 2, which was adapted from Magrath and Hardy (1989) and Gaski (1984), outlines a proposed three-level model of interorganizational conflict potential: alpha-level conflict potential ("performance-oriented"), beta-level conflict potential ("personnel and/or policy-oriented"), and gamma-level conflict potential ("structural-oriented"). This dissertation research focuses on the following alpha-level factors which cause friction between buyers and suppliers on a short-term, intermittent basis, i.e., price, delivery, product quality, and service flexibility (PDQS). Due to the necessity to collect data on a longitudinal basis to effectively capture the nature of beta-level and gamma-level conflict potential, this research effort was restricted to the examination of day-to-day or alpha-level conflict potential regarding supplier performance.

Because beta-level and gamma-level conflict potential tend to occur or evolve over extended periods of time, individual respondents, due to changes in personnel and job shifts, may not have adequate knowledge of the character and root causes of these types of conflict potential. However, some attempt was made through the buyer firm and supplier firm questionnaires administered in the data collection phase to acquire a sense of beta-level and gamma-level conflict potential between the targeted buyer and supplier firms. In addition, the use of a large proportion of open-

Figure 1

CONFLICT MANAGEMENT GRID



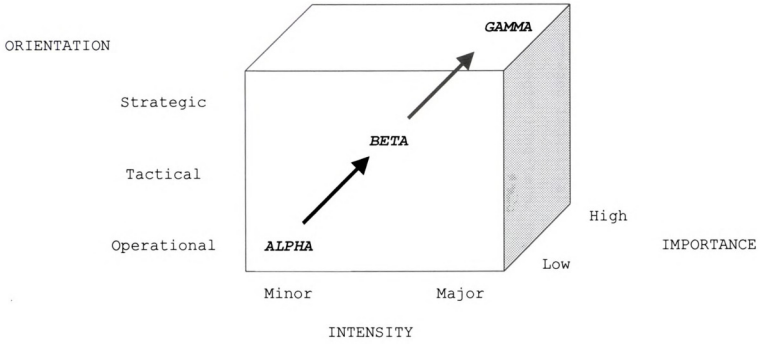
ended questions invited respondents to provide some detailed information on these higher levels of conflict potential.

1.4 Structure of the Dissertation.

Chapter II outlines a detailed review of the relevant literature accumulated from the late-1970s through 1995. Chapter III covers pre-research and research design issues, while Chapter IV presents an analysis of the data collected. Discussion of the results and corresponding conclusions are supplied in Chapter V. An extensive list of references was also provided along with copies of the primary buyer and supplier survey instruments and other supporting documents in the attached Appendices. Detailed data tables are also contained in the Appendices to provide a synopsis of the results of the survey questionnaires.

Figure 2

LEVELS OF CONFLICT POTENTIAL MODEL



II. REVIEW OF THE LITERATURE.

2.1 The Nature of Conflict and Conflict Potential.

A thorough theoretical background and understanding of interpersonal and intergroup levels of conflict and conflict potential is necessary in order to properly extend these ideas into the examination of interorganizational conflict and conflict potential between industrial buyers and suppliers involved in strategic long-term, collaborative relationships.

For this investigation, the term "conflict potential" is defined as a condition of a collaborative interorganizational buyer-supplier relationship in which one, or both, parties' goals and objectives, *regarding the performance of the relationship,* are not being achieved or are reasonably expected not to be achieved in the foreseeable future. This working definition of buyer-supplier conflict potential is similar to previous definitions of marketing channel conflict that addressed goal frustration and behavior perceptions.[1]

When two or more parties (whether at the individual, group, or organizational level) come into contact with each other and interact over time, conflict potential is an inescapable result of the relationship. This is particularly true as the two parties become increasingly interdependent, such as in the closeness encountered in a

[1]Gaski, p. 11.

strategic long-term, collaborative buyer-supplier relationship. An integral part of conflict potential between buying and selling organizations is the concept of confrontation. Miles has defined intergroup conflict as a process of confrontation that arises when one party hinders the progress of one or more other groups.[2] However, one can assume that the nature of conflict and conflict potential between buyers and suppliers in strategic long-term, collaborative relationships is a more singular form of intergroup conflict because the two parties have specifically agreed to become linked together through their collaborative arrangement.

Conflict, in and of itself, is not necessarily a dysfunctional activity that is to be avoided at all costs by the participants to a collaborative buyer-supplier relationship. Several current management writers, such as Dean Tjosvold, have described a variety of benefits that can be used to create or manage "cooperative conflict."

Tjosvold's list of benefits found in cooperative conflict includes the following:

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[2]Robert H. Miles, Macro Organizational Behavior, Santa Monica, California: Goodyear, 1980, p. 122.

1. Problem awareness;
2. Improved solutions;
3. Productivity improvements;
4. Organizational change;
5. Personal development;
6. Knowledge and creativity;
7. Awareness;
8. Self-acceptance;
9. Psychological maturity;
10. Morale; and
11. Challenge and fun.[3]

Additional intergroup relationship research also indicates that properly managed conflict can:

1. Help reduce social tensions between groups;
2. Provide the opportunity to readjust relationships between groups;
3. Stimulate creativity and innovation;
4. Sustain feedback about the relationship and its interdependencies; and
5. Help create a strong sense of group identity by clarifying differences and boundaries between the conflicting parties.[4]

However, this dissertation was primarily concerned with interorganizational conflict that has the *potential* to adversely affect the status and nature of the strategic long-term, collaborative buyer-supplier relationship. Therefore, the positive aspects of conflict which can serve to refocus, revive, and strengthen a long-term buyer-supplier relationship over time are beyond the scope of this dissertation and will not be addressed at this time.

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[3]Dean Tjosvold, Learning to Manage Conflict: Getting People to Work Together Productively, New York: Lexington Books, 1993, p. 4.

[4]Miles, p. 131.

2.2 Antecedent Conditions for Conflict.

In order for potentially destructive conflict to arise between groups, several antecedent or pre-existing conditions must be present.[5] First of all, the two groups or organizations must be interdependent upon the other. Here, interdependence means that the two groups rely on each other for such activities as mutual assistance, information sharing, compliance to rules, regulations, and/or norms, performance feedback, or other actions through which the two groups coordinate their respective activities. In general, the relationship existing between any two groups that share a common linkage offers the potential for intergroup conflict. If there is no commonality between the groups, then each group is indifferent concerning the activities of the other; hence, no conflict or potential for conflict exists. Therefore, the type of interorganizational relationship under study in this dissertation, a strategic long-term, collaborative buyer-supplier relationship, meets this condition because both parties have agreed to conduct ongoing cooperative business exchanges for an extended period of time.

The second antecedent condition that must be present for conflict between groups to occur is political indeterminism. Political indeterminism means that the relative power between the groups is subject to question or

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[5]Ibid, p. 131.

interpretation by the parties involved in the relationship, i.e., no one group appears to have an indisputable power differential over the other. However, if an indisputable power imbalance does exist, then any disagreements between the two groups will be subjected to the party having the greater relative power. In other words, the outcome desired by the group with the higher level of relative power will prevail over the desired outcome of the weaker party. Under conditions of high power uncertainty, individual groups are more likely to gamble on pressing their own position or to "cheat" on the relationship because of the uncertainty over which group has the higher level of relative power at that point.

Firms that are involved in newly developed buyer-supplier relationships are more likely to flex their individual organizational muscle than those involved in more established, mature relationships. This occurs because the two organizations involved have not yet, either implicitly or explicitly, agreed as to how the buyer-supplier relationship is to be shaped or managed. However, even in strategic long-term, collaborative buyer-supplier relationships, relative power differentials can be altered due to changing conditions from both inside and outside the relationship, thereby allowing an increased potential for conflict to occur. Changes in marketplace demand, competition, substitute products, or governmental regulation can dramatically affect the way that a buyer-supplier

relationship is perceived by the participants and lead to conflict. Also, major internal changes to either or both parties, such as new key personnel, different organizational policies and guidelines, or organizational structures, can alter the nature of the relationship, thereby creating or enhancing the conditions for conflict to arise between the parties. In other words, any internal activity or environmental condition that drastically changes the power status quo within the relationship satisfies the second antecedent of conflict through the introduction of uncertainty into the relationship.

The final antecedent condition that is necessary for conflict to develop is diversity. Diversity, unlike the current connotation in popular organizational behavior writings, is defined as the differences or disagreements between groups or organizations which come about due to varying, or competing, goals and objectives. Conflict potential will increase in a strategic long-term, collaborative buyer-supplier relationship if the goals of the parties to the relationship are not highly congruent or otherwise compatible with each other. In the case of a buyer and a supplier, the buying organization's goals in terms of price, delivery, product quality, and service flexibility may differ greatly from those sought after by the supplying organization. For example, the buyer would like to receive the best possible value for its expenditures, while the supplier may be more interested in

improving its profitability through charging higher prices or providing different levels of delivery, product quality, or service flexibility.

The range and types of disagreements that exist between groups and organizations can also occur in differences, actual or perceived, in one or more of the following categories:

1. Group goals;
2. Time orientations;
3. Limited resources;
4. Evaluation methods and standards;
5. Status;
6. Jurisdictional disputes; or
7. Values, assumptions, or general perceptions.

2.3 Stages of Conflict Development.

Like negotiation, conflict and conflict potential are less a single, discrete event and more an ongoing process of interaction and interrelationships between two or more parties. Pondy's research has described the process of conflict as consisting of five stages.[6] The first stage is described as "latent conflict" in which intergroup dissension has not been fully recognized or is, at best, only faintly perceived. In his research Pondy has identified three basic categories of latent conflict.

1. Competition for scarce resources;
2. Drives for autonomy; and
3. Divergence of subunit goals.

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[6]Louis R. Pondy, "Organizational Conflict: Concepts and Models," Administrative Science Quarterly, Volume 12, 1967, p. 300.

The second stage of conflict development is called "perceived conflict" in which the difficulties or differences of opinion between the parties are readily identified and understood, and all parties to the conflict have now been made explicitly aware of its presence. Typical responses in this stage by the parties to the conflict episode may include either the "ostrich" approach of ignoring the conflict, hoping that it will go away, or deciding to proactively address and eliminate the cause of the conflict before it escalates and develops a highly emotional element.

The third stage of conflict development is "felt conflict." The presence of strong, personal emotions, such as fear, resentment, tension, and anxiety, differentiate this stage from the previous stage of perceived conflict. The contrast between felt conflict and perceived conflict is characterized by personalization or internalization of the conflict episode between the groups through identification of emotional issues and elements of disagreement. Tensions between the groups are accentuated and can only be defused through the provision of a "safety valve" mechanism that can allow these building emotions to be vented without long-term deleterious effects. It is in this stage where the negative effects of dysfunctional conflict begin to be encountered.

"Manifest conflict" is the fourth stage in the process of conflict and is often demonstrated through openly aggressive behavior by the parties. Behaviors in this stage

are purposely intended to frustrate or block the goals and objectives of the other group. Behaviors can range from refusing to cooperate with the other group, verbal confrontations, sabotage, and possibly even to physical attacks. Clearly, in this stage, rational and calm discussions between the conflicting parties are beyond consideration. It may be necessary to engage in a "cooling-off" period or arrange for a neutral third-party intervention in order to get the groups interacting and effectively dealing with each other again.

The final stage of conflict development is referred to as "conflict aftermath." Here, *how* the conflict is resolved in a particular conflict episode is considered to be a precursor to future dealings. If the conflict is resolved to the satisfaction of both parties, then the basis for more cooperative future relations is established and the likelihood of recurrent or continuing conflict reduced. If the resolution of the conflict episode is not to the agreement of one or more of the parties, either through suppression of positive outcomes or the realization of negative outcomes, then future relations between the parties may be clouded and adversely affected. Thus, even more severe conflict episodes become likely to occur as levels of conflict potential increase, and the relationship is negatively affected. This promotes the concept of different levels of conflict that is the basis of the proposed "Levels of Conflict Potential" model outlined in Figure 2.

2.4 Process Model of Conflict.

Cadotte and Stern (1979) produced a process model of conflict that presents the dynamic interactions of marketing channel conflict.[7] The authors identified five critical elements in their development of this model.

1. Conflict potential;
2. Dependence (and its related condition, power);
3. Conflict perception;
4. Resultant force; and
5. Conflict aftermath.

As with the Pondy model of the stages of conflict, this model incorporates a feedback mechanism (conflict aftermath) by which future conflict episodes are flavored or influenced by previous conflict resolution results much as was discussed in the previous section.

2.4.1 *Conflict Potential*

Conflict potential exists to the extent that the actions of one channel member are likely (or perceived) to hinder goal attainment of the other party to the channel relationship. This potential is related to the degree of disagreement pertaining to goal incompatibility, domain dissensus, perceptual incongruency, and interdependence. Potential conflict stems from incompatible goals that are unable to be satisfied concurrently.

Domain, defined as the "claims" an organization makes in terms of products, services, or functions provided to the

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[7]Ernest R. Cadotte and Louis W. Stern, "A Process Model of Interorganizational Relations in Marketing Channels," in Research in Marketing, Volume 2, Jagdish N. Sheth, editor, Greenwich, Connecticut: JAI Press, Inc., 1979, pp. 127-158.

relationship, becomes potential conflict when disagreements as to "who" is responsible for "what" arise between channel members. As in goal incompatibility, if one party's performance is inconsistent with the other's expectations, a strong potential for conflict exists between the two.

Dissimilar perceptions of environmental conditions or channel member performance are elements of conflict potential in that channel members may have different viewpoints of the causes or outcomes of the other party's behavior derived from the same situation facing both parties. The resultant actions of a particular channel member may be very different than those of another channel member strictly based on the parties' varying perceptions of what the environmental condition is and what appropriate behavior should be taken in response. These incongruent perceptions not only cause different behaviors in response to a given situation but also adversely affect the communication that is required to resolve or prevent such conflict episodes.

Interdependence of the channel members promotes conflict potential because, as interdependence increases, the more likely the groups must take the needs and requirements of each other into account when planning and carrying out their own actions and behaviors. Higher levels of interdependence also foster opportunities for creating obstacles to the other party's attainment of its goals, and, hence, higher conflict potential.

2.4.2 *Dependence and Power*

The level of dependence (power) that one channel member experiences with another is determined by the value of the outputs received relative to the costs of the inputs invested in the channel relationship. The level of power is inversely related to the level of dependence between the parties. For example, the more dependent channel member A is on the activities and inputs received from channel member B in the relationship, then the less power A has over B in guiding B's activities and behaviors to A's benefit.

2.4.3 *Conflict Perception*

"The rate at which one member of a channel perceives the behavior of another to be interfering with its goal attainment is determined by the level of costs it incurs in behalf of the other channel members relative to the total benefits it receives in its relationship with it."[8] In this instance, if one channel member even *perceives* a conflict between itself and another channel member, then there is conflict just as much as if there was an active disagreement among the parties.

Perceived dissatisfaction or conflict prompts the channel member to actively evaluate how other channel members may be impeding the attainment of its goals and objectives. Misperceptions can color or taint how the parties feel the relationship is actually performing,

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[8]Ibid, p. 142.

causing the party with the misperception to find channel behavior which they can then attribute to their failure to achieve a particular goal and therefore justify their next round of actions. The level of conflict perceived in a channel relationship is directly related to the level of potential conflict in the relationship.

2.4.4 *Resultant Force*

The pressure that one channel member uses to persuade other channel members to change their goals, domain conceptions, and perceptions of reality to approach its own may be either coercive or noncoercive. Some studies listed by Cadotte and Stern indicate that, although coercive pressure frequently causes more disruption in channel member relationships than noncoercive behavior, in the short run it is frequently more effective in eliciting immediate changes in channel member behavior. If a channel member is successful in changing another channel member's behavior to more favorably support its own goals and aspirations, then that channel member's power has increased relative to the rest of the channel. This action has the effect of reducing a channel member's uncertainty within its task environment and increasing the likelihood of its goal attainment.

Two other factors mediate the use of power as a resultant force: distance and rigidity. The first is the distance that the target channel member (the one who is being pressured to change its behavior) has to go in changing its behavior to meet the power initiator's desired

outcomes. The farther that the target channel member has to go in changing its behavior, the more force that must be applied. Likewise, the more rigid the target firm's specific goals, domains, and perceptions, the more force that must be applied to gain the power initiator's needs.

2.4.5 *Conflict Aftermath*

The outcome or resolution of the conflict episode is the final stage of Cadotte and Stern's process model of conflict and, as in Pondy's model of the stages of conflict, sets the stage for future interaction between the channel members. The ultimate level and direction of force that the target channel member experiences is the summed total of all the pressures that act upon its goals, domain conceptions, and perceptions to change its behavior to support the outcomes desired by the power initiator having the greater relative power.

Several outcomes are possible as a result of conflict aftermath. The first, and perhaps most obvious, is the power initiator gaining a favorable outcome in terms of changing the target channel member's goals, domain conceptions, and perceptions. Second, termination or severance of the relationship between the channel members is always a possible result, particularly if the power initiator goes too far in its use of force in seeking favorable outcomes. Termination can also occur if the target channel member's goals, domain conceptions, or perceptions are too distant from the power initiator or if

they are too rigidly held. A third potential outcome is that the ratio of benefits and costs may change for either party, thereby altering the basic nature or structure of the channel relationship. Fourth, posturing of the channel members' activities may actually result in a shift of power from one channel member to another as a consequence of changes in conflict potential, perceived conflict, and/or the resultant force.

However, there are also a number of external environmental factors that can serve to mitigate the use of channel member force to change or drive the behavior of other channel members. They include the following:

1. The nature of the overall channel environment;
2. Government policy, regulation, and enforcement;
3. Market demand;
4. Technology; and
5. Competition.

2.5 Proposed "Conflict Feedback" Model.

Figure 3 provides a synthesis of the existing conflict stages model by Pondy[9], the process model of conflict by Cadotte and Stern[10], and the "Levels of Conflict Potential" model proposed by this research. This model, entitled the "Conflict Feedback" model, identifies the process nature of conflict and conflict potential between groups and/or organizations and takes into account the nature (level) of

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[9]Pondy, 1967, pp. 296-320.

[10]Cadotte and Stern, pp. 127-158.

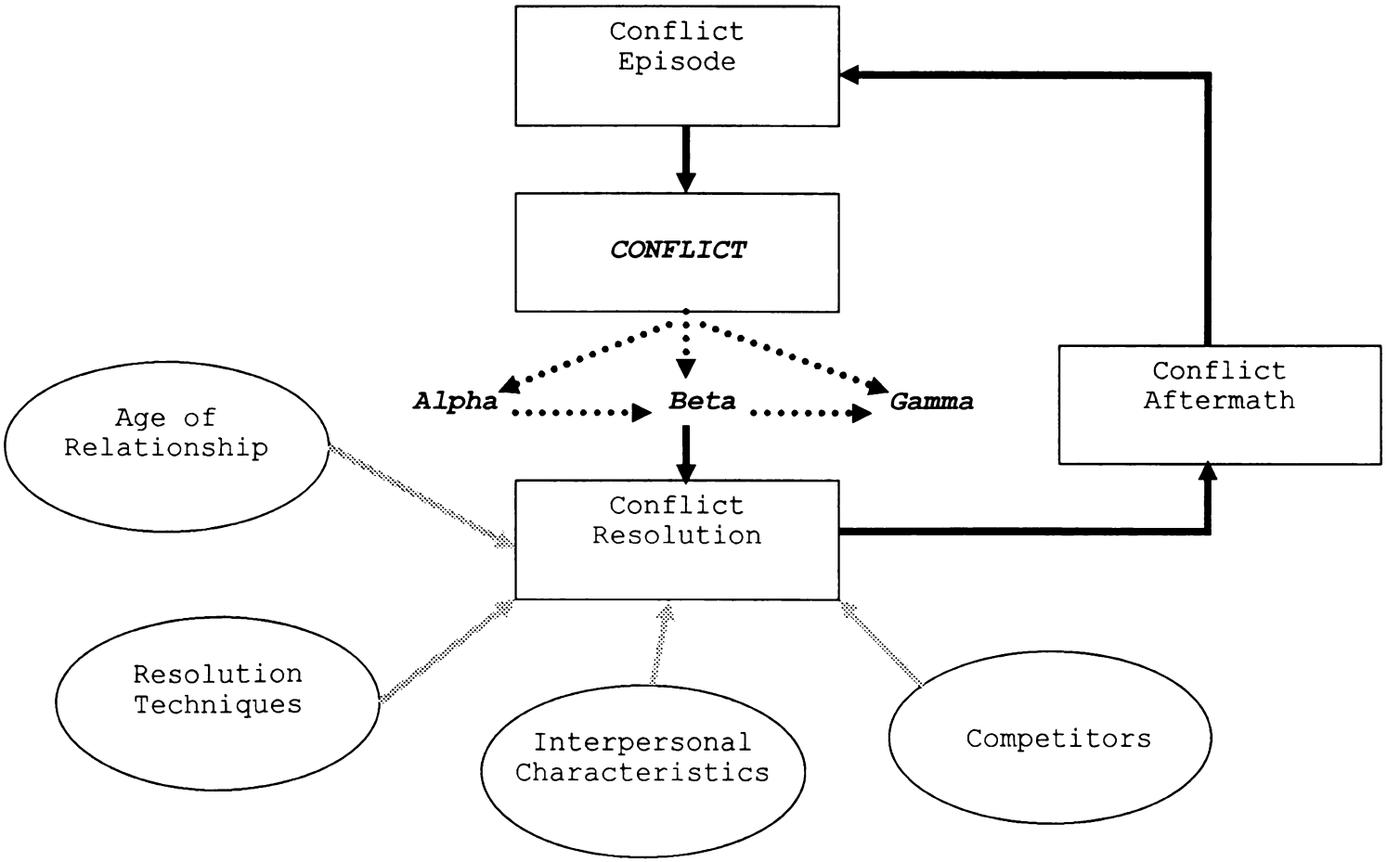
the conflict between the parties as well as the role of conflict aftermath in influencing future exchange activities of the parties.

In the proposed "Conflict Feedback" model, conflict aftermath acts as a dynamic feedback mechanism which influences how future conflict episodes and conflict potential are perceived and reacted to by the parties in an ongoing relationship. This feedback is based on how the prior conflict resolution was accomplished and the parties' degree of satisfaction of that resolution. Any individual conflict episode can result in different levels of conflict potential, i.e., alpha-, beta-, or gamma-level, as previously outlined in Figure 2. The combined nature of these three factors influence the level of conflict potential (alpha-level, beta-level, or gamma-level) encountered, i.e., impact (tactical, moderate, or strategic), intensity (minor, moderately intense, or major), and importance (low to high). It also determines the attitudes and responses of the parties to the potential or actual source of conflict and its proposed or expected resolution. This idea of conflict aftermath as a feedback mechanism has also been supported by more recent research.[11]

[11]Mohr and Spekman, pp. 146-147.

Figure 3

CONFLICT FEEDBACK MODEL



There are several moderating factors that also influence how the conflict is resolved and include:

1. The conflict resolution techniques employed by the parties to the conflict;
2. The interpersonal characteristics of the key representatives of the organizations involved in the conflict;
3. The nature of the competitive marketplace, in terms of market demand, technology, competition, and overall economic conditions;
4. The external environment surrounding the dispute; and
5. The age or maturity of the buyer-supplier relationship.

2.6 Conflict Orientation Model.

Thomas's model of conflict orientations (review Figure 1) presents five conflict-handling orientations or modes of conflict resolution which have been defined on two orthogonal dimensions of intent, "cooperativeness" (which is defined as attempting to satisfy the other's concerns) and "assertiveness" (which is defined as attempting to satisfy one's own concerns).[12] In this sense, concerns can be defined as the goals and objectives of each party. The resulting grid portrays these five conflict-handling orientations based on the degree of assertiveness and cooperativeness in achieving each group's goals and objectives:

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[12]Thomas, 1976, pp. 889-935. See also Kenneth W. Thomas, "Conflict and Negotiation Processes in Organizations," in Handbook of Industrial and Organizational Psychology, 2nd edition, Volume 3, Marvin D. Dunnette and Leatta M. Hough, editors, Palo Alto, California: Consulting Psychologists Press, Inc., 1992, pp. 651-717.

1. Avoiding;
2. Accommodating;
3. Competing;
4. Compromising; and
5. Collaborating.

The "avoiding" conflict-handling orientation is low on both the assertiveness dimension and the cooperativeness dimension. This behavior is characterized by a desire to either ignore or disregard the conflicting needs of both itself and the other party. This laissez-faire attitude toward the relationship is one in which the party attempts to avoid involvement in a conflict episode, hoping that events take care of themselves over time, thereby easing the actual or perceived conflict.

"Accommodating" is a highly cooperative, yet unassertive, position in which the concerns of the other party take precedence over one's own needs and requirements. This approach to conflict handling may be appropriate when the issue is unimportant to the accommodating party or if it has few consequences or costs associated with it. Also, it may be used to set the stage for future interactions with the other party, hoping to garner more favorable behavior from them in the future through exhibiting concessionary behavior in the present.

The "competing" conflict-handling mode (uncooperative, assertive) is the opposite from accommodation. Here, the party is attempting to triumph over the competing party with its needs and requirements taking precedence over the other party's needs and requirements at all costs. This is the

classic attitude of "win-lose" which has been the modus operandi for the traditional, arms' length buyer-supplier relationship. The intent is to achieve one's own goals at the expense of the other party in a fixed sum game. This behavior may be appropriate when firmly held issues are at stake that cannot be compromised or when time constraints dictate that other, more time-consuming conflict-handling modes cannot be utilized effectively.

The conflict-handling mode of "compromising" is the mid-range point on Thomas's two-dimensional taxonomy and is characterized by moderate assertiveness and moderate cooperativeness. Here, one party must give up something of value in order to gain something of value from the other party. This is the classical negotiation strategy of bargaining, which can also be described as "splitting the difference." The final outcome is less than optimal for both parties because potential joint gains have been left on the table.

The final conflict-handling orientation, which is the primary focus of this research, is called "collaborating." This orientation differs from bargaining or compromising in that the parties are both highly assertive and highly cooperative. They proactively seek their own preferred outcomes but are also willing to work together positively to achieve the other party's preferred outcomes as well. This behavior has been called problem solving, synergy, or integrative negotiation. The parties are likely to achieve

a solution which is located more closely to the overall optimal solution because they are working together to find unique and creative ways of simultaneously achieving both parties' goals and objectives.

For an effective strategic buyer-supplier relationship to exist in the long run, it is necessary for the two parties to exercise high levels of collaboration by working to achieve both parties' goals and objectives. Only by cooperating in the pursuit of each other's goals and objectives can the relationship exist successfully in the long run. Each individual party's goals and objectives must be highly congruent with those of the other party as well as with those of the IOR itself in order to minimize the potential for conflict within the relationship. In the long run, any of the other less than optimal orientations in Thomas's model of conflict orientation, i.e., avoiding, accommodating, competing, and compromise, will likely result in less-than-optimal behavior by the parties which will tend to frustrate the other party's goals and objectives increasing the potential for conflict.

2.7 Purchasing Partnerships.

2.7.1 *Partnership Development Phases*

Writers in the supply chain management, industrial marketing, and channels literature have provided normative managerial guidelines instructing managers on how to create and establish cooperative interorganizational relationships

between buyers and suppliers. As an example, Ellram presented a five-phase model in which she described the development and evolution of purchasing partnerships.[13] This model (see Figure 4) starts with Phase 1 as the internal evaluation of the need for a purchasing partnership and the assignment of a managerial team for the actual implementation accompanied by active top management support. She also indicated that confirming the strategic need for a purchasing partnership in terms of benefits and costs and affirming top management support before seeking to form such a relationship is critical to the partnership's eventual success.

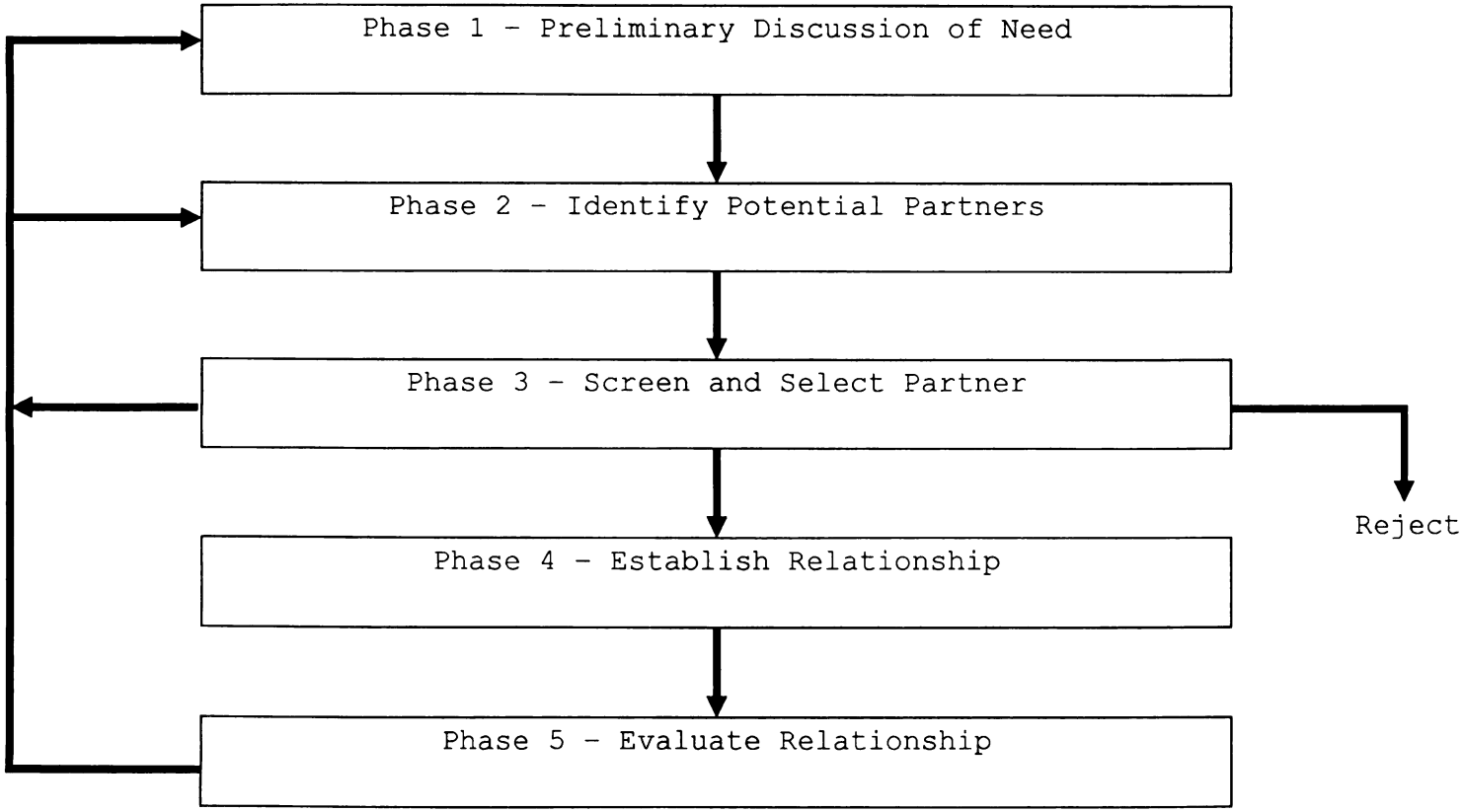
Phase 2 entails the identification of potential candidates for partnering. The first task in this phase is the determination of appropriate selection criteria in advance of actually selecting a partner. The criteria should include additional factors over and above the criteria used for normal supplier selection decisions. The final set of factors should be weighted with regard as to their importance and their impact on the proposed relationship. Also, a comprehensive list of potential partnering candidates should be identified based on those organizations' capabilities to meet the selection criteria.

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[13]Lisa M. Ellram, "A Managerial Guideline for the Development and Implementation of Purchasing Partnerships," International Journal of Purchasing and Materials Management, Summer, 1991a, pp. 2-8.

Figure 4

PHASES OF BUYER-SUPPLIER RELATIONSHIPS



This list may include either previous or existing suppliers as well as potential supplier firms that the organization has not utilized in the past.

In Phase 3 the buying organization evaluates the potential candidate list and assigns ratings to each of the supplier candidates on all evaluation factors. Once a select group of potential candidates has survived this selection process, then each of the suppliers on the short list should be contacted to determine their interest in building a partnership. Otherwise, acceptable candidates may not desire to participate in such a relationship, even if it is the most promising candidate based solely on the selection criteria. Once a final candidate is identified and has agreed to participate, a detailed evaluation should be conducted. This evaluation should include an in-depth financial analysis coupled with on-site inspections and the negotiation of an agreement between the top management teams of both participants.

Phase 4 involves actual implementation of the agreement. Detailed expectations must be established in order to prevent future misunderstandings and reduce conflict potential as much as possible. Top managers in both organizations should still be deeply involved in the start-up of a partnership to provide appropriate direction and impetus to the implementation process. Feedback systems are established to provide information regarding each party's performance as to the agreed upon expectations. The

sooner problems can be identified in this phase, the more quickly and easily they can be resolved before ingrained behavior patterns develop and employee attitudes harden.

Phase 5 consists of the ongoing evaluation of the partnership after the initial start-up period. Generally, the evaluation is conducted by a cross-functional team, which routinely interacts with the partnering supplier. Based on the cross-functional team's evaluation of the supplier's performance, several alternative outcomes can be reached:

1. Continue to monitor the relationship, while maintaining it at its current level.
2. Further build or expand the relationship.
3. Dissolve or reduce the scope of the relationship with the supplier.[14]

In general, dissolution or discontinuation of the relationship due to inadequate supplier performance is the least preferred alternative. Dissolution may be dictated by a major shift in supplier management philosophy, a change in key personnel, or some other significant change that adversely affects the supplier's performance. In most cases, terminating the relationship may have a large negative impact on buyer operations and should be used only as a last resort. The primary reason is that the level of interdependence may have increased to such an extent that the supplier's products and/or services may not be easily duplicated, either by the buyer or by another supplier,

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[14]Ibid, p. 7.

without significant disruption of the buyer's operations, loss of time, or other added costs.

The partnerships of interest in this research can be described as being in Phase 5 of Ellram's model. For example, by definition, strategic long-term, collaborative buyer-supplier relationships are ongoing and expected to either maintain the relationship or build and expand the relationship over the existing cooperative arrangement.

2.7.2 *Advantages of Purchasing Partnerships*

Ellram has also synthesized the potential advantages of developing purchasing partnerships into three descriptive areas through a review of various authors' works.[15] The first area is described as management-related. This category includes the following:

1. Reduced supplier base is easier to manage.
2. Increased mutual dependence lowers risk of losing supply source and creates greater stability.
3. Reduced time looking for new suppliers/gathering competitive bids.
4. Allows for joint planning and information sharing based on mutual trust and benefit.
5. Loyalty may increase supplier attention and customer service in areas such as:
   a. lead time reliability.
   b. priority in times of scarcity.
   c. increased attention when problems arise.
6. Greater cooperation from suppliers supports the firm's strategy.

[15]Ibid, p. 3.

The second category deals with technological issues and includes the following advantages:

1. Partners may be willing to share or to give access to technology.
2. Partners may be more willing and capable of participating in product design based on knowledge and commitment to the other partner.
3. Supplier knowledge and involvement in design may:
   a. improve quality.
   b. reduce time-to-market for new products and design changes.

The third group of advantages considers financial needs and requirements of the buyer and includes the following:

1. Sharing business risks through:
   a. joint investment.
   b. joint research and development.
   c. sharing of financial risks associated with market shifts.
2. Information sharing and forecasting may reduce inventory levels.
3. Long-term commitment of a partnership may lead to more stable supply prices.

2.7.3 *Disadvantages of Purchasing Partnerships*

Ellram has also published a list of the disadvantages of obligational contracts described as ongoing, cooperative relationships with other channel members.[16] This listing is subdivided into two categories.

The first group of disadvantages is concerned with relationship control and dependence and includes the following:

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[16]Lisa M. Ellram, "Supply Chain Management: The Industrial Organization Perspective," International Journal of Physical Distribution and Logistics Management, Volume 21, Number 1, 1991c, p. 17.

1. Loss of incentive to be competitive due to dependence.
2. Trust may prolong relationship of unequal benefits.
3. Increased risk if opportunistic due to dependence.
4. Difficult to manage multiple relationships/complex governance.
5. Difficult to build all contingencies into the relationship.
6. Difficult to evaluate due to multidimensionality.
7. Real or perceived loss of control over operations.
8. Informal relationships may be difficult to control.
9. Heavily dependent on individuals involved; limited transferability.

The second group of disadvantages concerns cost-related issues and includes the following:

1. Outside firms receive profit on value-added that firm would retain if [key] activities were performed internally.
2. Duplication of efforts may increase total cost.

2.8 Elements of Collaborative Buyer-Supplier Relationships.

Table 1 highlights the various conditions necessary for firms to effectively maintain or expand a strategic long-term, collaborative buyer-supplier relationship. The following discussion attempts to synthesize the various writings about the conditions that are felt to be necessary to successfully maintain and/or expand a strategic long-term, collaborative buyer-supplier relationship over time.

Mohr and Spekman (1994) provide an outline of the various characteristics of partnership success using manufacturers and dealers in the personal computer

industry.[17] This context was chosen because the authors felt that, "[w]hile not all channel relationships are strategic partnerships, manufacturers and dealers often form bonds that transcend a more market-based set of transactions."[18] Their literature review resulted in a framework that presented the factors of partnership success as shown in Table 1.

Table 2 is a summary outline of the existing literature's depiction of the various characteristics of strategic long-term, collaborative buyer-supplier relationships. In the table, authors are listed in alphabetical sequence within each characteristic. The most frequently described characteristic in the literature is that of *interdependence* between the parties. This characteristic indicates that the two (or more) parties to the relationship are deeply dependent on each other and would likely find it difficult to abandon or minimize the relationship without long-lasting, deleterious effects on each party's operation.

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[17]Mohr and Spekman, pp. 135-152.

[18]Ibid, p. 140.

Table 1

FACTORS OF PARTNERSHIP SUCCESS

Attributes of the Partnership	- commitment - coordination - interdependence - trust
Communication Behavior	- quality - information sharing - participation
Conflict Resolution Techniques	- joint problem solving - persuasion - avoiding smoothing - avoiding domination - avoiding harsh words - avoiding arbitration

Very closely related to interdependence between the parties is the characteristic of *trust*. As the level of interdependence between the parties increases, the likelihood of opportunistic behavior increases. Higher levels of trust are necessary to ensure that neither party takes advantage of the other because of increased dependence inherent in the closer relationship between them. Also, trust can be increased through greater *information sharing* between the parties, another of the characteristics of strategic long-term, collaborative buyer-supplier relationships. Information shared may take the form of production schedules, product forecasts, product design, cost structure, processes, and business strategies.

The literature reviewed also lists *commitment to the relationship* as a significant characteristic of these relationships. Another way of looking at this would be the way that the parties view the importance of the relationship to the individual parties. The greater the importance attached to the relationship by the parties, the higher the commitment to the relationship.

Coordination and *communication* are related characteristics that reflect the increased interdependence, information sharing, and trust inherent in strategic long-term, collaborative buyer-supplier relationships. As the level of joint operations and information-sharing requirements increase in collaborative IORs, increased coordination of the efforts of each party and effective communication of the increased information sharing and coordination efforts required become more critical to the efficiency and effectiveness of the relationship.

The increased level of interdependence between the parties calls for the goals and objectives of the individual parties to be highly *congruent* such that the efforts of the individual parties are maximized to the benefit of both parties over and above what they could have achieved without the other party.

The remaining characteristics of *relationship continuity*, *participation*, *balanced power*, *norms*, and *conflict management* can all be used to help manage the ongoing relationship. If the parties both believe that the

relationship will continue into the foreseeable future (relationship continuity), then they tend to act in ways that promote that expected longevity. Participation in problem-solving, building of positive relationship norms (expected behaviors), and use of effective conflict management techniques all work to promote harmonious relations. A power balance is necessary to prevent opportunistic behavior from the other party.

Table 2

CHARACTERISTICS OF STRATEGIC LONG-TERM, COLLABORATIVE BUYER-SUPPLIER RELATIONSHIPS FROM THE LITERATURE

CHARACTERISTIC	AUTHOR(S)
Interdependence	- Borys & Jemison (1989) - Brown & Timmins (1981) - Campbell (1985b) - Cheng (1983) - Dwyer, Schurr, & Oh (1987) - Gray & Wood (1991) - Hallén, Johanson, & Seyed-Mohamed (1991) - Heide & John (1988) - Lei & Slocum (1992) - Metcalf, Frear, & Krishnan (1992) - Mohr & Spekman (1994) - O'Neal (1989) - Stuart & McCutcheon (1995)
Trust	- Anderson & Weitz (1989) - Bialaszewski & Giallourakis (1985) - Campbell (1985b) - Dwyer, Schurr, & Oh (1987) - Ellram (1991a) - Mohr & Spekman (1994) - Ring & Van de Ven (1992) - Ring & Van de Ven (1994) - Gulati (1995) - Young & Wilkinson (1989)

Table 2 Continued

Information Sharing	- Ellram (1991b) - Gentry (1993) - Handfield (1993) - Landeros & Monczka (1989) - Metcalf, Frear, & Krishnan (1990) - Mohr & Spekman (1994) - Noordewier, John, & Nevin (1990) - Stuart & McCutcheon (1995) - Thomas & Trevino (1993) - Tjosvold (1988)
Commitment (Stakes)	- Anderson & Weitz (1989) - Campbell (1985b) - Dwyer, Schurr, & Oh (1987) - Gray & Wood (1991) - Gulati (1995) - Landeros & Monczka (1989) - Mohr & Spekman (1994) - Narus & Anderson (1987)
Coordination	- Cheng (1983) - Dwyer, Schurr, & Oh (1987) - Heide & John (1990) - Landeros & Monczka (1989) - Metcalf, Frear, & Krishnan (1990) - Mohr & Spekman (1994)
Communication	- Anderson & Weitz (1989) - Carter & Miller (1989) - Dwyer, Schurr, & Oh (1987) - Ellram (1991a) - Magrath & Hardy (1989) - Mohr & Nevin (1990) - Mohr & Spekman (1994) - Narus & Anderson (1987) - O'Neal (1989) - Stuart & McCutcheon (1995)
Congruent Goals and Objectives	- Anderson & Weitz (1989) - Eliashberg & Michie (1984) - Gray & Wood (1991) - Habib & Burnett (1989) - Magrath & Hardy (1989) - Ring & Van de Ven (1994) - Schmidt & Kochan (1977) - Tjosvold (1988) - Young & Wilkinson (1989)

Table 2 Continued

Continuity of Relationship	- Anderson & Weitz (1989) - Ellram (1991b) - Gulati (1995) - Heide & John (1990) - Heide & Miner (1992) - Narus & Anderson (1987) - Noordewier, John, & Nevin (1990) - Parkhe (1993) - Young & Wilkinson (1989)
Participation (Problem-Solving)	- Dwyer, Schurr, & Oh (1987) - Landeros & Monczka (1989) - Mohr & Spekman (1994)
Balanced Power	- Anderson & Weitz (1989) - Campbell (1985b) - Dwyer, Schurr, & Oh (1987) - Morris & Holman (1988) - Schmidt & Kochan (1977) - Stuart & McCutcheon (1995)
Norms	- Borys & Jemison (1989) - Dwyer, Schurr, & Oh (1987) - Gulati (1995) - Heide & John (1992) - Morris & Holman (1988) - Young & Wilkinson (1989)
Conflict Management	- Alter (1990) - Butaney (1989) - Dant & Schul (1992) - Dwyer, Schurr, & Oh (1987) - Mohr & Spekman (1994) - Stuart & McCutcheon (1995)

2.9 Buyer-Supplier Relations as a Network.

It is possible to conceptualize the market in which industrial buyers and suppliers conduct their exchange activities as a network.[19] In such commercial networks, a

[19]Stanley J. Paliwoda and Peter M. Druce, "Buyer-Supplier Relationships and Selection Criteria: A Study in the Carton Industry in France and Britain," Industrial Marketing & Purchasing, Volume 2, Number 1, 1987, pp. 4-5. See also James C. Anderson, Håkan Håkansson, and Jan

firm can have forward linkages with its customers, backward linkages with its suppliers, and lateral linkages with its distributors and competitors. Most firms operate primarily within the confines of one or a small number of networks, but it is possible for the firm to establish additional linkages to other networks through ongoing relations with customers and suppliers.

These network relationships between buyers and suppliers tend to tie together the participating firms over time with the relationship expanding or strengthening as the linkage continues. Five different "bonds" have been identified through which network relationships are built. These bonds accomplish a variety of purposes for the relationship. They establish a familiarity or common footing for the firms involved in the relationship that helps to set mutual goals and objectives. The bonds also function to reduce perceived risk for the networked firms and to provide a means of communicating information between

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Johanson, "Dyadic Business Relationships Within a Business Network Context, Journal of Marketing, Volume 58, October, 1994, pp. 1-15; David M. Boje and David A. Whetten, "Effects of Organizational Strategies and Contextual Constraints on Centrality and Attributions of Influence in Interorganizational Networks," Administrative Science Quarterly, Volume 26, 1981, pp. 378-395; Ram Charan, "How Networks Reshape Organizations - For Results," Harvard Business Review, September-October, 1991, pp. 104-115; Larry Hirschhorn and Thomas Gilmore, "The New Boundaries of the 'Boundaryless' Company," Harvard Business Review, May-June, 1992, pp. 104-115; and Russell Johnston and Paul R. Lawrence, "Beyond Vertical Integration - The Rise of the Value-Adding Partnership," Harvard Business Review, July-August, 1988, pp. 94-101.

them. In addition, these bonds force change that leads to the overall growth and development of the relationship over time.

The first type of network bond refers to the *technological* aspect of the network relationship. When firms establish a network relationship, they tend to promote the use of compatible technologies between them, whether communications, process-related, or product-related. In other words, the networking firms will attempt to adapt technologically to each other integrating appropriate technological advantages from all parties to the network.

Secondly, the firms establish network bonds based on *time*. These time-based bonds may refer to such aspects of the relationship as new product development cycle times, delivery times, lead times, order processing times, delivery consistency, and determining responsibility for holding inventory.

A third network bond is based on intimate *knowledge* of the other members in the network. The networking firms seek to learn more about the other party's strengths, weaknesses, opportunities, threats, processes, plans, and goals and objectives in order to share risk and promote the synergistic activities that add value to the relationship.

The fourth type of interorganizational bond is based on the *social* aspects of the relationship. The bonds involved here serve to build trust, share information, create friendships between employees of the networked firms, and

increase reliance on the performance of the other parties.

The final type of bond is concerned with the *financial and legal* aspects of the relationship that develop in the network over time. These may include favorable payment and credit terms, preferred customer or supplier considerations, lower use of formal contracts, and perhaps even joint equity participation of the networked firms in new ventures.

2.10 General Systems Theory.

General systems theory supports the proposed research hypotheses and propositions by suggesting that an entity (in this case, the strategic long-term, collaborative buyer-supplier relationship), if left alone under existing conditions, will begin to entropy, or degenerate, as either the external environment or internal conditions change. The collaborative buyer-supplier relationship will, therefore, tend to deteriorate over time, raising the levels of conflict and conflict potential and placing additional stress on the collaborative nature of the relationship, unless some purposeful and deliberate intervention is undertaken by either one or both of the parties to the relationship.

"[E]ntropy refers to the amount of variety in a system where variety can be interpreted as the amount of uncertainty prevailing in a choice situation with many

distinguishable alternatives."[20] For purposes of this dissertation research, entropy also refers to the level of disorder, or conflict potential, encountered in a strategic long-term, collaborative buyer-supplier relationship. In turn, this increases the level of uncertainty between the parties and may eventually result in increased conflict, if not resolved to the satisfaction of all concerned parties.

2.11 The IMP Interaction Model.

The IMP Project Group created its industrial marketing and purchasing interaction model based on a research project carried out in five European countries: France, Italy, Sweden, West Germany, and Great Britain.[21] The research emphasizes the importance of the relationship between buying and supplying firms, becoming more long-term in nature and involves a complex set of interactions between the parties. Four sets of variables are presented which describe the cooperative, as well as the conflicting, nature of long-term buyer-supplier interaction. The first set of variables describes the *parties* involved, at the individual level as well as at the organizational level. The second set is concerned with the *elements and process of interaction.* The third set delineates the *environment* within which the buyer-

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[20]John P. van Gigch, Applied General Systems Theory, 2nd edition, New York: Harper & Row, Publishers, 1978, p. 41.

[21]International Marketing and Purchasing of Industrial Goods, Håkan Håkansson, editor, Chichester, England: John Wiley & Sons, Ltd., 1982.

supplier interaction takes place. The fourth set of variables outlines the *atmosphere* affecting and affected by the buyer-supplier interaction.[22]

The nature of long-term buyer-supplier interaction is portrayed and influenced by the various "episodes" or activities that take place between the transacting parties and can serve to promote either IOR cooperation or conflict. These episodes involve the exchange relationship between buyer and supplier and consist of the following types of exchange.

1. Product or service exchange;
2. Information exchange;
3. Financial exchange; and
4. Social exchange.

Organizational factors include the following:

1. Technology;
2. Organizational size, structure, and strategy;
3. Organizational experience; and
4. Individuals.

The interaction environment includes the following aspects:

1. Market structure;
2. Dynamism;
3. Internationalization;
4. Position in the manufacturing channel; and
5. The social system.

The atmosphere also has several dimensions that were explored:

1. The economic dimension; and
2. The control dimension, in terms of power, dependence, and uncertainty.

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[22]Ibid, p. 15.

2.12 Match and Mismatch of Buyer-Supplier Perceptions.

Stuart and McCutcheon (1995) offer an examination of buyer-supplier perceptions regarding the degree of alliances.[23] They indicate that, in buyer-supplier alliances, the degree of an alliance can be judged by assessing two characteristics: the amount of joint problem solving and the equity in benefit sharing. This research is relevant to the study at hand because it demonstrates that differences in perceptions regarding the degree of (or performance of) the alliance can lead to potential or actual buyer-supplier conflict. The authors provide a two-by-two matrix of possible perceptions by the buyer and the supplier regarding the degree of alliance (see Table 3).

The authors indicate that the quality of the match of the buyer-supplier perceptions of the degree of alliance might have a significant impact on the way the buying firm and supplying firm deal with each other and the resulting performance or effectiveness of the relationship. When perceptions of the two parties are diverse, i.e., a poor match as defined above, there is an increased possibility that potential conflict between the parties will be manifested as an actual conflict episode.

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[23]F. Ian Stuart and David McCutcheon, "Problem Sources in Establishing Strategic Supplier Alliances," International Journal of Purchasing and Supply Management, Winter, 1995, pp. 2-9.

Table 3

POSSIBLE BUYER-SUPPLIER ALLIANCE PERCEPTIONS

	SUPPLIER'S PERCEPTION OF THE DEGREE OF ALLIANCE	
BUYER'S PERCEPTION OF THE DEGREE OF ALLIANCE	**LOW**	**HIGH**
High	Poor Match	Good Match (High Alliance)
Low	Good Match (Low Alliance)	Poor Match

Such a situation may arise where there are considerable power or size differences that lead to perceptual differences. Also, if either the buyer or supplier perceive that they have little to gain from the The authors indicate that the quality of the match of the buyer-supplier perceptions of the degree of alliance might have a significant impact on the way the buying firm and supplying firm deal with each other and the resulting performance or effectiveness of the relationship. When perceptions of the two parties are diverse, i.e., a poor match as defined above, there is an increased possibility that potential conflict between the parties will be manifested as an actual conflict episode. relationship, there is an increased probability of conflict-causing behavior. Disillusion with the alliance or alliance

partner may arise if significant expectations generated during development of the alliance are not met or exceeded once the alliance is up and running after its initial shakeout period.

2.13 The Role of Trust in Alliances.

Gulati (1995) investigates alliances from the standpoint of ongoing relations as they impact levels of trust.[24] The author posits the idea that trust emerges from prior contact between the partners and is based on the premise that this trust is developed around norms of equity (or knowledge-based trust) which have originated through ongoing interactions between the partners. The greatest concern of those organizations that are deciding whether to enter an alliance is how predictable is the other party's behavior going to be.

Ideally, trust can substitute for formal, hierarchical contracts as discussed in Ring and Van de Ven (1994).[25] In the development of IOR alliances, firms focus more on fundamental social norms and customs, rather than on formal contracts, as IORs evolve over time. The findings of this research indicate that "familiarity between organizations

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[24]Ranjay Gulati, "Does Familiarity Breed Trust? The Implications of Repeated Ties for Contractual Choice in Alliances," Academy of Management Journal, Volume 38, Number 1, 1995, pp. 85-112.

[25]Ring and Van de Ven, 1994 pp. 93, 101.

through prior alliances does indeed breed trust."[26] However, even though the findings indicate that the prior successful dealings with another organization are major precursors to future successful alliances, the author fails to address the microlevel issues regarding the management of such long-term IORs or alliances as collaborative buyer-supplier relationships.

2.14 Conflict Resolution Techniques.

Mohr and Spekman (1994), in addition to the development of the characteristics of partnership success, also provide a discussion of various conflict resolution techniques used by the parties in a cooperative IOR.[27] As discussed in section 2.2, conflict potential results in an IOR from the high level of interdependence inherent between the cooperating parties. Since conflict potential is an inevitable outcome arising from a close, interdependent interorganizational relationship, it is important to understand the various conflict resolution techniques used by the disputing parties to attempt to resolve the conflict before it reaches the more difficult to manage beta- and gamma-levels of conflict. In addition, the "Conflict Feedback" model's element of conflict aftermath (see Figure 3) indicates that the successful resolution of or failure to resolve a prior

[26]Gulati, p. 105.

[27]Mohr and Spekman, pp. 139-140.

conflict episode dramatically affects the parties' ability to resolve future conflict episodes without escalating into higher order conflict potential.

Productive conflict resolution techniques are based on joint problem solving which is to be expected if the two organizations are linked in a collaborative IOR or strategic partnership. Attempts to resolve conflict may also be based on persuasion adaptation. In collaborative IORs, the use of coercive techniques or domination are counter-productive and likely to cause additional conflict potential (beta- or gamma-level) which places additional strain on the relationship.

Although third-party mediation may be effectively utilized and appropriate in isolated conflict episodes between the parties in a cooperative IOR, internal resolution between the parties is generally preferable over repetitive outside arbitration. The widespread use of external resolution or third-party mediation indicates that the collaborative nature of the IOR is suspect. Smoothing over, ignoring symptoms, and avoiding the conflict episode are also resolution possibilities. But, due to the proactive nature of a collaborative IOR, these techniques are often incompatible with the cooperative behavioral norms and values typically adopted in such a relationship because they fail to address the root causes of the conflict episode. Therefore, the IOR's goals of mutual gain and sharing are not met.

2.15 Summary of the Literature Review.

The literature, in general, shows minimal consensus regarding the nature of conflict and conflict potential. While many different models of conflict have been proposed, few, if any, are directed specifically at strategic long-term, collaborative buyer-supplier relationships. Although the supply chain management, marketing, logistics, and strategy literature have examined the characteristics of long-term supplier alliances, the focus has been on the formation dimension of such alliances and the predictors of their expected success or failure. Relatively few studies have examined the conflict resolution techniques actually used by the interorganizational parties. In addition, the conflict resolution literature has evolved from discussions regarding power, bargaining, and negotiation in simplistic, one-time exchanges to ongoing commercial relationships between two or more transacting parties. A major unifying link in the existing literature is the role of congruent goals and goal frustration in both conflict and conflict potential.

This dissertation attempts to bridge this knowledge gap through a detailed analysis of matched buyer-supplier dyads, investigating the sources of specific conflict episodes and the resulting perceptions from both the buyer and supplier points of view. The research methodology, which is designed to accomplish this objective, is introduced in the next chapter.

III. PRE-RESEARCH AND RESEARCH DESIGN.

As presented in Chapters I and II, the overarching goal of this research study was to reduce the knowledge gap existing in the literature by investigating the dynamic nature of established, ongoing collaborative buyer-supplier relationships in North American industrial firms. To help identify the dynamics in such relationships, several factors have been selected a priori based on the existing literature that addresses interorganizational relationships, especially those considering buyers and suppliers.

In addition, an exploratory field survey was conducted using a single Midwest consumer goods and original equipment (OEM) manufacturing firm and two of its component parts suppliers which had previously been identified (by the buying firm) as active participants in established strategic long-term, collaborative buyer-supplier relationships with them. By interviewing both sets of managers in each of the matched sets of buyer-supplier relationships, general indications of attitudes and perceptions regarding specific conflict incidents, potential conflict, and possible sources of conflict were developed from opposing points of view, i.e., buyer and supplier(s).

The expected scholarly contribution was to narrow the knowledge gap concerning strategic long-term, collaborative buyer-supplier relationships in the literature and to synthesize organizational behavior theories regarding group

behavior, especially considering intergroup dynamics and conflict, and strategic management and policy theories of interorganizational relationships.

The first part of this chapter provides documentation for this analysis by discussing the results of the exploratory field interviews with these supplying and buying firms and develops the conceptual model tested in the research. The balance of the chapter describes the research design used in testing the proposed "Levels of Conflict Potential" model.

3.1 Exploratory Field Study.

3.1.1 *Interview with Buying Firm*

In order to provide an preliminary examination of strategic long-term, collaborative buyer-supplier relationships, an initial set of contacts were made with the Midwest-based division of a national corporation, generally recognized in the marketplace for manufacturing high quality and technologically advanced consumer goods and OEM-type products. In early 1995 this particular plant was recognized as the corporation's top facility in terms of their ongoing total quality management program.

This interview focused on how the firm viewed conflict and conflict potential within strategic long-term collaborative relationships formed with their suppliers. The questions were open-ended and designed to help identify potential supplier interviewee candidates and to frame

specific conflict episodes that had been encountered with those suppliers engaged in strategic long-term, collaborative buyer-supplier relationships with this firm. This interview also helped to define the proposed "Levels of Conflict Potential" model (see Figure 2) and the research variables that are studied in the dissertation.

The buying firm indicated that they considered a variety of factors when deciding whether to initiate a strategic long-term, collaborative relationship with a specific supplier. The following discussion is presented in the same order as the buying firm provided it to the interviewers. A complete set of the interview notes (one from the buyer and two from the suppliers) are provided as Appendices A, B, and C.

First of all, the buyer prefers to utilize local sources, which are defined as being located within one hundred miles or three hours truck driving time each way from the manufacturer's facility. A second factor is the supplier's ability to provide same-day, face-to-face problem solving by a supplier firm representative. Third, the buying firm expects on-time or early responses to the facility's Request for Quotations (RFQs). Next, the supplier is expected to offer competitive pricing with future savings potential. Fifth, the manufacturer demands high levels of product quality and indicated that they would consider paying some premium for superior product quality performance. On-time delivery, within a specified time

window plus or minus a given amount of time from the nominal due date, is also imperative. Because of the typical fluctuation of the manufacturer's production schedule, they also value a supplier's responsiveness to expediting requirements. Lastly, the supplier is expected to demonstrate an overall problem-solving approach to working with the manufacturer when actual problems or potential conflicts arise. An investigation of these criteria, coupled with the literature review, led to identification of alpha-level conflict potential characteristics.

The manufacturer indicated that they had several important performance standards in terms of delivery and product quality. First of all, delivery standards were expected to be 95 percent on-time delivery from the target ship date from the first day of doing business with a new supplier with zero tolerance for either early or late shipments. They nominally require zero defects, although, on occasion, defective materials have been segregated from useable parts as they were identified, and then the balance of the purchase order was utilized on the shop floor. The quality orientation and technical expertise of the salesperson is also a major concern to this manufacturer as they expect that person to spearhead development of the buyer-supplier relationship and to coordinate troubleshooting activities from the supplier's point of view. Supplier qualification generally consists of two levels, a prequalification process which consists primarily of a

purchasing review and a supplier self-audit followed by a more extensive qualification audit that is conducted by a multidisciplinary team including the manufacturing firm's purchasing, quality assurance, manufacturing, and management personnel.

3.1.2 *Interviews with Supplier Firms*

Both supplier firms surveyed have supplied this manufacturer facility since it initially opened its doors in 1984 and are considered by the manufacturer as valuable suppliers and participants in strategic long-term, collaborative relationships. In addition, both supplier firms had become ISO 9001 registered within the previous twelve months prior to the interview. One of the firms, a corrugated container supplier, tended to be less aggressive than the other, a plastic injection-molding firm, and as a result, has less enthusiastically embraced the concept of strategic "partnershipping" with the OEM manufacturer.

In the case of the corrugated container supplier, the OEM manufacturer has taken an active role in its supplier development activities which are intended to lead toward improving supplier performance in terms of product print quality, deliveries, new capital equipment installations, and improved administrative procedures. However, in the case of the plastics injection molding supplier firm, the supplier has taken on more of a "customer development" role with the manufacturer by recommending and pursuing innovative procedures and processes including just-in-time

delivery scheduling and EDI communications.

However, there appeared to be a potential difference in the basic nature of the two suppliers that may be somewhat representative of the nature of the industries in which they compete. For example, the corrugated container industry has historically been slow to either recognize, or implement, technical or business process improvements that have become more commonplace in other industries such as electronics, automobiles, and consumer goods. A possible reason for this phenomenon is the intense price competition between competitors and/or an industry-wide perception that "the box business is different [than other industries]" and that "the customer [manufacturer] just doesn't understand the corrugated box business."[1]

In addition, the corrugated container supplier has fallen back on the traditional industry argument that inspections and other generally accepted quality management techniques are not apropos to the corrugated container industry. This attitude seems to point toward a strong potential for future conflict episodes between the manufacturer and this supplier because of their differing values, assumptions, and general perceptions of the corrugated container industry. These points of contention would develop into higher level conflict potential than the day-to-day price, delivery, product quality, and service

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[1]Interview with unnamed corrugated container supplier on March 11, 1994.

flexibility performance issues that also occur with this particular supplier.

Comparing the results of the different field surveys, it became obvious that there had been several recent alpha-level and beta-level potential conflict episodes between the target manufacturer and these two particular suppliers. For example, from the supplier's point of view, the corrugated supplier (a single source) does not own its own paper mills and, therefore, is subject to the external pricing dynamics which have taken place in the kraft paper source market without having any other recourse to resist market price increases.

Whenever the corrugator has tried to pass through paper cost increases based on their actual costs of purchasing kraft paper from outside sources, the buying firm (manufacturer) has flatly rejected any price increases due to paper costs. In fact, the buyer stated that they actually expected a price decrease due to increased competitive conditions in the kraft paper marketplace. In the classification scheme in the proposed "Levels of Conflict Potential" model (see Figure 2), this ongoing conflict could be classified as beta-level conflict potential because the supplier apparently is unable, or at least unwilling, to take any major corrective actions.

From the buyer's perspective, the corrugated container supplier has had a number of difficulties in meeting the buyer's delivery quantities and product quality

specifications (alpha-level conflict potential). At the time of the author's interview, the corrugated supplier indicated that a $8 million capital improvement project (installation of a new fingerless, single facer corrugator) was being undertaken to address the ongoing product quality issues of mis-slotting and poor box print quality for both point-of-purchase displays and shelf cartons.

The supplier had also worked to alleviate product quality variations within and between manufacturing lots by purchasing new printing plates and cutting dies designed to improve their day-to-day, box-to-box quality performance. However, the corrugated supplier had spent so much time and effort on achieving ISO 9000 registration that their day-to-day product quality performance actually declined in the interim. The corrugated container supplier's actions indicate that they were looking to avoid additional beta-level conflict potential (continued unresolved alpha-level conflict) by eliminating an ongoing major source of product quality variation. Had the supplier not addressed its ongoing product quality performance problems, the buyer may have been forced to terminate the relationship or take other punitive or corrective actions in regards to the supplier.

Conflict and conflict potential experienced with the plastic injection-molding supplier have taken a different path. Prices had actually declined between two and four percent over the previous twelve months prior to the interview. The issue of increased volume has been a primary

point of contention with this supplier instead of pricing. The supplier has been stymied in its attempts to get the customer to address procedural and administrative issues such as electronic communication. Product quality performance, from the buyer's perspective, continues to be a major source of alpha-level conflict potential, even though the supplier has taken significant steps to address the customer's concerns through ISO 9000 registration and the purchase of new equipment.

Conflict potential between the manufacturer and the plastic injection-molding supplier had its origins in the differing perspectives of the two parties. The supplier was trying to improve itself strategically through the adoption of new, longer-term administrative processes while tending to ignore shorter-term product quality problems. The manufacturer was more intent on addressing the varying day-to-day product quality performance while the supplier was attempting to improve its processes through adoption of electronic data interchange (EDI) and increased volume.

The bottom line appears to be that the respective agendas for each of the buyer-supplier dyads seem to be unique to both the buyer and to the supplier. In both buyer-supplier dyads under investigation in the preliminary field studies, each supplier firm indicated that the most important cause of conflict potential for a specific conflict episode between the strategic long-term collaborative relationships was different from buyers.

3.2 Proposed "Levels of Conflict Potential" Model.

Initial analysis of the preliminary field study interviews indicates that the *perceived* causes of conflict between buyers and suppliers in strategic long-term, collaborative relationships may be different or unique based on the perspective of the firm, i.e., whether the firm is the buyer or the supplier. A review of the field notes taken during the interviews with the buyer and its two suppliers indicates that there seems to be a hierarchy of conflict episodes between the parties, which occurred in the formation and development of strategic long-term, collaborative exchange relationships (Figure 2 and Table 4).

Categorization of conflict and conflict potential using levels of intensity has been suggested by several academic authors.[2] Lambert, Boughton, and Banville discuss levels of conflict and the conflict resolution processes associated with each level and propose a conflict intensity scale. Their investigation of conflict resolution concerns matching generally recognized and accepted conflict resolution processes (i.e., bargaining, politicking, problem solving,

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[2]David R. Lambert, Paul D. Boughton, and Guy R. Banville, "Conflict Resolution in Organizational Buying Centers," Journal of the Academy of Marketing Science, Volume 14, Number 1, 1986, pp. 57-62; James R. Brown and Ralph L. Day, "Measures of Manifest Conflict in Distribution Channels," Journal of Marketing Research, Volume 18, 1981, pp. 263-274; Ghazi M. Habib, "Measures of Manifest Conflict in International Joint Ventures," Academy of Management Journal, Volume 30, Number 4, 1987, pp. 808-816; and Allan J. Magrath and Kenneth G. Hardy, "A Strategic Paradigm for Predicting Manufacturer-Reseller Conflict," European Journal of Marketing, Volume 23, Number 2, 1989, pp. 94-108.

and persuasion methods) used by organizational buying centers to handle specific in-house conflicts regarding purchases.

Likewise, Magrath and Hardy's channel conflict paradigm defines conflict within the channel as the product of multiplying conflict frequency by conflict intensity and importance of the parties' disagreements to classify conflict into three levels. Conflict intensity and importance range from insignificant flare-ups between the parties that are easily overlooked to significant disagreements that may be reflected by dysfunctional behavior on the part of either or both parties. Conflict frequency varies from intermittent disputes to extended bitterness that is accompanied by intense negatively charged emotions expressed toward the other party (manifest conflict). Magrath and Hardy's use of intensity and frequency of disputes has also been discussed elsewhere in the literature.[3] Brown and Day also include measures for importance of the dispute as well.

The three axes illustrated in the "Levels of Conflict" model from Figure 2 are: impact, intensity, and importance. Conflict impact refers to the time orientation or lasting impact of the conflict episode between the buyer and the supplier. The three levels of conflict impact are: operational, tactical, and strategic. The operational level of conflict impact would indicate that the effects of the

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[3]Brown and Day, 1981, pp. 263-274; Lambert, Boughton, and Banville, 1986, pp. 57-62; and Habib, 1987, p. 808-816.

conflict episode is primarily short-term, or day-to-day. The tactical level of conflict impact indicates that the effects of the conflict episode last longer than day-to-day, but would not create long-term negative consequences to challenge the continuing status of the strategic buyer-supplier relationship. The strategic impact of a conflict episode would be long-term in nature, having ongoing negative consequences to the ongoing health and welfare of the strategic long-term, collaborative buyer-supplier relationship.

The second axis reflects the level of emotional intensity involved in the conflict episode. The three levels of conflict intensity proposed are: minor, moderately intense, and major. Conflicts of minor intensity are generally trivial disagreements that flare up and are quickly overlooked or forgotten. Moderately intense conflict episodes reflect the fact that the conflict may become very intense at the moment but is also infrequent in nature and may not be recurring. Conflicts displaying major emotional intensity levels would be significant disagreements that could eventually lead to, at best, counterproductive behavior or, at worst, destructive behavior on the part of either the buyer or the supplier, i.e., active animosity, lawsuits, arbitration, or eventual termination of the relationship.

The third axis of the proposed model is the degree of importance of the conflict episode to the parties. This

dimension is concerned with how vital the subject matter of the conflict episode is to either of the parties to the dispute and is rated from low to high. Even though the emotional content of a conflict episode may be relatively high, the actual subject matter of the dispute may be relatively unimportant and not warrant additional attention by the parties, thereby mitigating the potential negative impact of the conflict episode on the ongoing strategic long-term, collaborative buyer-supplier relationship. Conversely, if importance to either party or both parties is considered high because it represents a key goal or objective to that party, then the level of intensity would be higher than it might be otherwise.

An example that can be shown here is that a normal delivery delay may be characterized as having low importance by a buyer if the shipment is routine and if sufficient inventory exists to cover the expected demand encountered during the length of the delay. However, if the buying firm is heavily involved in just-in-time procurement and manufacturing, that same delayed delivery on a JIT-type item would be considered as highly important because there is minimal inventory to cover the delay, resulting in an expensive shutdown of its manufacturing process.

Using the results of this dissertation, a buyer-supplier conflict measurement instrument could be developed which could help both buyer and supplier managers analyze the state of a strategic long-term, collaborative buyer-

supplier relationship and determine what actions would be required in order to maintain or improve the health of the relationship. Such a managerial tool would synthesize the measurement of conflict impact, emotional intensity, and importance of conflict episodes and conflict potential based on the perceptions of both the buying and supplying parties in order to determine the overall health and welfare of the strategic long-term, collaborative buyer-supplier relationship. Based on the score obtained using such an instrument, different management techniques, skills, and strategies could be employed by the parties to maintain or improve the relationship between the buyer and the supplier. The "Levels of Conflict Potential" model, as well as the research by Magrath and Hardy suggests that different techniques, skills, and strategies are necessary to effectively manage actual and potential conflict at each successive level.[4]

The pre-research study can be expanded into the specific environment under consideration, i.e., strategic long-term collaborative buyer-supplier relationships. It is hypothesized that there are three levels of interorganizational conflict potential that exist between industrial buyers and suppliers who are involved in strategic long-term, collaborative buyer-supplier relationships.

The lowest, or alpha- (α), level of conflict potential exists in the realm of normal day-to-day variation in short-

[4]Magrath and Hardy, 1989, pp. 94-108.

term *performance* on the part of either the buying or supplying firm. Examples of alpha-conflict potential generated by a supplier might include:

1. Inconsistency or variability in individual deliveries;
2. Variability in product quality between individual production lots;
3. Incorrect quantities delivered;
4. Wrong products delivered; and/or
5. Unauthorized product substitutions.

Examples of alpha-conflict potential initiated by the buyer might include:

1. Individual invoices not paid in a timely manner;
2. Incorrect products or quantities ordered; and/or
3. The frequent occurrence of "rush," or otherwise high priority, orders demanded from the supplier.

The intermediate, or beta- (ß), level of buyer-supplier conflict potential covers a longer time span than the alpha-level of conflict potential and is characterized by moderate disruptions or stresses placed on the buyer-supplier relationship. These arise from such *personnel or policy-oriented* activities as significant price increases from the supplier or drastically reduced quantities ordered by the buyer.

Also, changes or replacements in *key* personnel by either organization (such as sales representatives, technical representatives, purchasing agents, managers, design engineers or quality assurance personnel) could result in beta-level conflict potential if uncertainty within the relationship increases from such changes in key personnel. Changes in key support or information processing systems, such as an order processing or accounts payable

system, might result in this level of conflict. In addition, if actual alpha-level conflicts are left unresolved to the satisfaction of both parties over time, the intensity, importance, and impact of those alpha-level conflicts could escalate and become more beta-level-like which could result in higher costs and additional organizational stress for either or both of the parties involved.

The highest, or gamma-, level of conflict potential experienced between buyers and suppliers in strategic long-term collaborative relationships can be characterized as *structural* "shocks" to the buyer-supplier relationship system as demonstrated by such long-term changes or significant shifts as:

1. The nature of the product being procured;
2. The nature of the final end product sold by the procuring organization;
3. The process by which the procured item is manufactured or provided;
4. Any technology that affects either product or process;
5. Either firm's basic organizational structure, such as those encountered in typical mergers and acquisitions activities or internal reorganizations;
6. Either firm's core competencies; and/or
7. Permanent changes in "order winners" demonstrated by the supplier that may have helped to originate the long-term relationship initially.

Table 4.

PROPOSED LEVELS OF BUYER-SUPPLIER CONFLICT POTENTIAL

CONFLICT LEVEL	EXAMPLES[a]
Alpha (α)	- late deliveries (S) - early deliveries (S) - changes in delivery dates (B/S) - wrong quantities shipped (S) - quality variation between lots (S) - wrong products shipped (S) - unauthorized substitutions (S) - late payment of invoices (B) - frequent "rush" orders placed (B) - wrong products ordered (B) - order quantities changed (B)
Beta (ß)	- large price increases (S) - less quantity ordered (B) - changes in key personnel (B/S) - changes in key policies (B/S) - unresolved alpha conflict (B/S) - changes in key support systems (B/S)
Gamma (Γ)	- permanent changes in product (B) - permanent changes in process (S) - obsolete technology (B/S) - major changes in organizational structure (B/S) - permanent market changes (B/S) - permanent changes in core competencies (B/S) - permanent changes in order winner qualifiers (S) - unresolved beta conflict (B/S)

[a] (S) = supplier-generated, (B) = buyer-generated

Also, as discussed earlier, actual beta-level conflict that remains unresolved to the satisfaction of both parties over time could escalate and result in gamma-level conflict potential having severe, long-term repercussions to the

health and well being of the relationship.

Gamma-level changes would typically generate a potentially severe upheaval to the structure or health of the strategic relationship by creating significantly high levels of uncertainty and may result in termination or, at a minimum, a major modification of the collaborative relationship as opposed to the original intent of the parties. However, a major "shock" to the strategic long-term, collaborative system may actually be beneficial for the relationship. However, both parties must agree to work together to forge a new and stronger relationship and develop a new set of common goals and objectives which might bear minimal resemblance to the original, or prevailing, set of common goals and objectives.

3.3 Explanation of Hypotheses and Constructs.

In Chapter II a detailed search of the literature was used to accumulate a list of the factors which have been identified previously as having an effect on buyer-supplier relationships. In conjunction with the field interviews described earlier, this list has been pared down and incorporated into the questionnaires utilized in the surveys of matched dyads of buyers and suppliers. See Appendices D and E for examples of the specific buyer firm and supplier firm questionnaires.

These two questionnaires, each one unique to buyer and supplier respondents, were used to collect information to

verify the nature of established strategic long-term, collaborative buyer-supplier relationships and to ascertain the correlation of conflict-causing factors and their resultant effects on continuing long-term buyer-supplier relationships. The final analyses are limited to that data collected from those matched pairs of buyers and suppliers who have been engaged in strategic long-term, collaborative relationships for more than one year.

Since this dissertation focuses primarily on alpha-level (or lower level) conflict potential regarding supplier performance, it is important to describe and define the constructs underlying the proposed "Levels of Conflict Potential" model. The various alpha-level conflict potential causes have been summarized and categorized as PDQS, pertaining to price (P), delivery (D), product quality (Q), and service flexibility (S). However, it was expected that some preliminary findings regarding beta- and gamma-level would be developed both through analysis of the open-ended questions on the buyer and supplier questionnaires.

Hypothesis 1 (H_1) is stated as, "Differences in perceptions between buyers and suppliers regarding supplier price performance (P) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs." *Price performance* is defined as "the invoice amount charged by the supplier to the buyer in exchange for providing goods and/or services as ordered by the buyer." Here we are focusing on price, over which the

supplier is able to exercise some degree of control, versus total cost because total cost takes into account many internal factors in the buying organization over which the supplying firm has little or no control. Price issues leading to possible conflict potential could include item unit price, payment terms, billing accuracy, and cash discounts. Even though it is expected that price-related issues are less important to buyers and suppliers engaged in strategic long-term, collaborative relationships than to those who are not involved in such relationships, price is still be a major issue when the exchange parties disagree as to its proper amount. When other issues are decided, price may still be a major source of disagreement.

Hypothesis 2 (H_2) is stated as, "Differences in perceptions between buyers and suppliers regarding supplier delivery performance (D) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs." *Delivery performance* is defined as "the supplier's fulfillment (shipment to and subsequent receipt by the buyer) of a buyer's legal order in a timely fashion and in accordance with the buyer's specific shipping instructions." Delivery issues regarding potential conflict could include timeliness of deliveries (i.e., on-time delivery), accuracy of shipment quantities, the presence of substitutions, and consistency versus variability issues regarding delivery lead-times and quoted order cycle times.

Hypothesis 3 (H_3) is stated as, "Differences in

perceptions between buyers and suppliers regarding supplier product quality performance (Q) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs." *Product quality performance* is defined as "the supplier's ability to provide products and/or services that meet the buyer's specifications." Product quality issues possibly leading to potential buyer-supplier conflict could consist of product performance, product features, reliability, conformance to specifications, durability, serviceability, aesthetics, and perceived quality.[5]

Product performance has to do with its basic operating characteristics or traits that are also easily measurable. *Features* are the secondary traits of a product that supplement the basic functions of a product, i.e. "bells and whistles" or options. *Reliability* refers to the likelihood of a product failing or malfunctioning within a specified time period. *Conformance to specifications* is the degree to which a product's design and/or operating characteristics meet established specifications and standards. *Durability* is the measure of the product's useful lifetime before it is deteriorates or is rendered incapable of performing its intended use. *Serviceability* is related to the speed, courtesy, competence, and ease of repair when the product fails or malfunctions. *Aesthetics* is highly subjective and

[5]David A. Garvin, "Competing on the Eight Dimensions of Quality," Harvard Business Review, November-December, 1987, pp. 101-109.

a reflection of individual preferences on the sensory appeal of the product. Lastly, *perceived quality* is a function of indirect product quality measures such as reputation and brand name.

Hypothesis 4 (H_4) is stated as, "Differences in perceptions between buyers and suppliers regarding service flexibility performance (S) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs." *Service flexibility performance* is defined as "the supplier's ability to react to and meet the buyer's routine and nonstandard situations and requests." Potential conflict-causing service flexibility issues could include reactions to short (less than stated or expected) order cycle time, emergency order requests, crisis order handling, major changes in quantities or products ordered, requests for additional nonroutine information, and excessive ramp-up time required for major volume increases.

Hypothesis 5 (H_5) is stated as, "Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly in their perceptions regarding supplier price performance (P)." Hypothesis 6 (H_6) is stated as, "Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly in their perceptions regarding supplier delivery performance (D)." Hypothesis 7 (H_7) is stated as, "Buyers and suppliers engaged in collaborative long-term

buyer-supplier relationships will differ significantly in their perceptions regarding supplier product quality performance (Q)." Hypothesis 8 (H_8) is stated as, ""Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly in their perceptions regarding supplier service flexibility performance (S)."

These hypotheses (H_5 through H_8) suggest that buyers and suppliers in strategic long-term, collaborative IORs will attribute the causes of conflict potential differently from each other. Buyer perceptions of the sources of conflict potential generally contrast with the perceptions of the same conflict potential as regarded from the supplier point of view. These hypotheses are particularly important in that buyer-supplier conflict potential typically arises from differences in the parties' perceptions of supplier performance, not necessarily absolute performance levels.

3.4 Detail of the Measures Used.

The proposed "Levels of Conflict Potential" model suggests that conflict potential between industrial buyers and suppliers engaged in strategic long-term, collaborative relationships is multi-dimensional, i.e., a function of several factors. The following correlation equation outlines the suggested relationship between the factors that comprise the alpha-level of conflict potential.

$$Conflict_a = f(Importance_{PDQS}, Intensity_{PDQS}, Impact_{PDQS})$$

where:

P = Price
D = Delivery
Q = Product quality
S = Service flexibility

Each of the variables was measured through the use of a series of related questions which were designed to ascertain the level of actual and/or perceived conflict present in the particular strategic long-term, collaborative buyer-supplier relationship under investigation. One set of questions was directed specifically toward buying firm perceptions of the supplying firm's performance in price, delivery, product quality, and service flexibility while another set of similar questions was designed to determine the supplying firm's perspective of their own performance regarding meeting the expectations of the buying firm. Individual questions in this section of the questionnaires were ranked on a 7 point Likert scale using descriptions such as:

1 = Unsatisfactory;
3 = Moderately Unsatisfactory;
5 = Moderately Satisfactory; and
7 = Satisfactory.

A number of the questions were reverse coded to prevent the respondents from introducing bias by automatically answering questions in a certain pattern. See Appendices D and E for the buyer firm and supplier firm questionnaires. Questions are similar in form and content to those used by other researchers.

Each variable measure consisted of an index developed from a series of five related questions (buyer- or supplier-

specific) designed to measure the strength and extent of the buyer's or supplier's perceptions regarding the supplier's performance in price, delivery, product quality, and service flexibility. Scores for each question were calculated by taking the buyer's response minus the supplier's response as shown in the series of equations shown below. Scores for each of the five pairs of questions were added together and divided by the number of questions (5) to reach an average score for each variable.

$$X_1 = \frac{(B_1P - S_1P) + (B_2P - S_2P) + (B_3P - S_3P) + (B_4P - S_4P) + (B_5P - S_5P)}{5}$$

$$X_2 = \frac{(B_1D - S_1D) + (B_2D - S_2D) + (B_3D - S_3D) + (B_4D - S_4D) + (B_5D - S_5D)}{5}$$

$$X_3 = \frac{(B_1Q - S_1Q) + (B_2Q - S_2Q) + (B_3Q - S_3Q) + (B_4Q - S_4Q) + (B_5Q - S_5Q)}{5}$$

$$X_4 = \frac{(B_1S - S_1S) + (B_2S - S_2S) + (B_3S - S_3S) + (B_4S - S_4S) + (B_5S - S_5S)}{5}$$

where:

B_i = Buyer-specific response
S_i = Supplier-specific response
X_1 = Price variable
X_2 = Delivery variable
X_3 = Product quality variable
X_4 = Service flexibility variable
P = Price-related question
D = Delivery-related question
Q = Product quality-related question
S = Service flexibility-related question

Conflict is a multidimensional construct with the quality of past conflict resolution and conflict aftermath affecting future conflict episodes and resolution. Again, because of the nature of conflict *perception*, it is felt that adding signed values together provides a more accurate reading of actual and potential conflict.

Specific measures of conflict were utilized to determine the level of conflict potential along the three axes of the proposed "Levels of Conflict Potential" model: Impact (M), Intensity (N), and Importance (I) (Figure 2). The calculation of these axes is similar to the calculations involved in computing the PDQS variables. Reverse coding was used on several questions to minimize any response effects in the marking of answers by the respondents.[6]

The Impact axis (M) was measured using the following questions:

1. "How would you characterize the nature of the effects (or results) of conflict encountered with this particular supplier (or customer)?"

   1 = short-term
   3 = moderate term
   5 = long-term

2. "How do you perceive that this strategic supplier (or customer) will characterize the nature of the effects (or results) of conflict encountered with your firm?"

   1 - short-term
   3 - moderate term
   5 - long-term

3. "Which of the following conflict resolution techniques would you characterize as being utilized most frequently by this particular supplier (customer)?"

   a. persuasion
   b. bargaining (or compromise)
   c. coercive power or threats
   d. joint problem solving

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[6]Handbook of Survey Research, Peter H. Rossi, James D. Wright, and Andy B. Anderson, editors, San Diego, California: Academic Press, Inc., 1983, pp. 289-328.

The Intensity axis (N) was measured using the following set of questions:

1. "Which of the following would generally describe the nature of conflict encountered with this strategic supplier (customer)?"

   1 - high
   3 - moderately high
   5 - moderately low
   7 - low

2. "To what extent does strong emotional reaction by your company enter into conflict resolution with this particular supplier (customer)?"

   1 - always
   3 - frequently
   5 - infrequently
   7 - never

3. "To what extent does strong emotional reaction by the supplier (customer) enter into conflict resolution with your company?"

   1 - always
   3 - frequently
   5 - infrequently
   7 - never

4. "To what extent would you characterize the level of tension encountered when conflict with this particular supplier (customer) arises?"

   1 - high
   3 - moderately high
   5 - moderately low
   7 - low

The Importance axis (I) was measured using the following series of questions:

1. "How important are joint goal setting and goal achievement in maintaining the relationship with this strategic supplier (customer)?"

   1 - unimportant
   3 - somewhat unimportant
   5 - somewhat important
   7 - crucial

2. "How would you characterize the importance of the source(s) of conflict encountered with this strategic supplier (customer?"

   1 - high
   3 - moderately high
   5 - moderately low
   7 - low

3. "How critical to your company is maintaining a problem-free relationship with this particular supplier (customer)?"

   1 - critical
   3 - somewhat critical
   5 - somewhat non-critical
   7 - non-critical

3.5 Research Design.

3.5.1 *Sample Selection*

The research design consisted of mailing detailed buyer- or supplier-specific questionnaires sent to a selected sample of matched buyer-supplier pairs drawn from a target population of buyers and suppliers who have been actively engaged in a strategic long-term, collaborative buyer-supplier relationship with each other for more than one year. As discussed earlier, it was necessary to specify a threshold period for the collaborative buyer-supplier relationship in order to minimize the potentially disruptive effects of starting up the relationship or when conflict is simply glossed over to get the relationship up and running.

According to Cook and Campbell, "Formally speaking, the most representative samples will be those that are randomly chosen from the population."[7] This sampling scheme is referred to as the random sampling for representativeness model. However, Cook and Campbell go on to say that, "studies on this scale require considerable resources."[8] Due to the constraint of resources available to conduct this study, the research sample, therefore, consisted of approximately 40 matched dyads of industrial buyers and suppliers and was developed using a purposive sampling approach, similar to Cook and Campbell's model of deliberate sampling for heterogeneity. This methodology is similar to Stuart and McCutcheon (1995) who also used matched pairs of buyer-supplier dyads to measure differences in perceptions concerning their relationships and Handfield (1990) who used deliberate sampling for heterogeneity model as defined by Cook and Campbell.[9]

Careful consideration was given in identifying and qualifying the individual firms used in the study, especially the buying firms. The unit of analysis was the matched buyer-supplier dyad that has been engaged in a

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[7]Thomas D. Cook and Donald T. Campbell, Quasi-Experimentation: Design & Analysis Issues for Field Settings, Chicago: Rand McNally College Publishing Company, 1979, p. 75.

[8]Ibid, p. 75.

[9]Stuart and McCutcheon, p. 4 and Robert B. Handfield, A Study of Factors Affecting Delivery Speed in Make-to-Order Manufacturing, unpublished dissertation, Chapel Hill, North Carolina, 1990, p. 84-87.

strategic long-term, collaborative buyer-supplier relationship, similar to Mohr and Spekman's use of a relationship between a computer dealer and one of its suppliers.[10] This line of thinking falls in step with previous work that has carried the perspective that the basic economic activity between industrial buyers and suppliers is the act of exchange.[11] This focus on the exchange *process* highlights the dyadic perspective of the two transacting parties, i.e., a buyer and a supplier. It is the very character of ongoing dyadic exchange that is relevant to the concept of interorganizational conflict within the value chain and, thus, the focus of this dissertation.[12]

The buying participant for each matched dyad was chosen from the membership rolls of the National Association of Purchasing Management (NAPM), primarily in Districts IV and X, and also publicly available listings of professional buyers. A preliminary screening of buyer firms using a supplier selection/pre-qualification questionnaire (see Appendix F) was conducted to specifically identify buying firms who have been engaged in previously established strategic long-term, collaborative relationships with a

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[10]Mohr and Spekman, p. 140.

[11]Ravi Singh Achrol, Torger Reve, and Louis W. Stern, "The Environment of Marketing Channel Dyads: A Framework for Comparative Analysis," Journal of Marketing, Volume 47, Fall, 1983, p. 56.

[12]Lisa M. Ellram, "Partnering Characteristics: A Dyadic Approach," Journal of Business Logistics, Volume 16, Number 1, 1995, pp. 41-64.

supplier for at least one year and to gain their agreement to participate. Firms who did not meet the screening criteria were not considered as candidates for the research as no strategic long-term, collaborative buyer-supplier relationship, as defined earlier, existed.

Once the buying firm was screened and agreed to participate in the research, they were requested to provide information about and contacts for at least one supplying firm so that the principal investigator could arrange the supplier's cooperation in participating in the research. The initial contact with the supplier firm attempted to verify that a strategic long-term, collaborative relationship actually existed between the buyer and supplier firms. Again, as with the buyer firms, supplier firms that did not match the qualification criteria were not considered for the research.

Professional judgment was utilized to ensure that the participants interviewed (at both the buying and supplying firms) were located at the appropriate level in the organization such that they could offer a relevant perspective on conflict potential in the targeted buyer-supplier dyad. The interviewed managers had to be at a high enough level to be privy to the required information, but not at a level that they lost sight of the ongoing, day-to-day interaction between the buyer and the supplier.

This form of purposive sampling ensured that:

1. There was actually an established strategic long-term, collaborative buyer-supplier relationship;

2. The participants were adequately aware of conflict potential between the parties; and
3. The interviewees had access to necessary records and relevant information regarding the relationship.

Confidentiality agreements between the researcher and the participating firms were offered as required as part of the firm selection and qualification process to alleviate participant concerns regarding the use of the survey data. However, no participating buyer or supplier firms requested such a document.

In cases where more than one strategic long-term, collaborative buyer-supplier relationship existed with a single buying firm and satisfactory a priori evidence existed to show that they were independent from each other, a maximum of two buyer-supplier dyads was allowed to be generated from the same buying firm. A precedent for this sampling scheme has been set by a number of operations management researchers in cases where sufficient independence of observations can be demonstrated.[13] Use of more than one strategic long-term, collaborative buyer-supplier dyad from a single buyer firm had to meet the requirement that multiple relationships must be handled independently by the buying firm. There were three buyer firms that contributed two strategic long-term, collaborative buyer-supplier relationships. However, all three cases were treated independently from each other by the buyer firms. Interestingly, one supplier firm was named

[13]Handfield, 1990, pp. 88.

by two buyers in located in different states and working for different companies. All instances where more than one dyad per company existed, the dyads were independent from each other, separated by division, location, or department.

The buyer firm and supplier firm questionnaires were pretested using properly qualified buyer-supplier dyads. Comments and suggestions from the pretest survey respondents were used to modify the questionnaires as necessary to reflect ease of understanding, question phrasing, and form readability.

3.5.2 *Limitations of the Research*

There are several potential limitations to this research endeavor. First of all, the definition of the target research population by starting from a roster of purchasing managers who are currently members of the National Association of Purchasing Management, or similar listings of professional buyers, may restrict the generalizability, or external validity, of the conclusions derived from the data collected. It may prove useful for future studies to approach the research problem from more of a sales and marketing point of view rather than from a purely supply chain management perspective.

Second, the small sample size used to collect the data from the target population may adversely affect the statistical analyses used to assess the data. The marginal cost of increasing the sample size is extremely high, effectively limiting the number of *matched* buyer-supplier

dyads. However, it was felt that studying a smaller number of matched strategic long-term, collaborative buyer-supplier dyadic relationships offered greater richness of information and was preferable to analyzing the data from a broadcast mail survey of many purchasers and suppliers who may not have strategic relationships in common with each other. Recent discussions in the field of production and operations management reflect the fact that a high response rate from a small, targeted sample is preferable to a large-scale survey with low response rates.[14]

Thirdly, the method used to select the research sample from the target population may inadvertently introduce a level of selection bias into the results. Again, defining the initial target population as NAPM members or other similar listings of professional buyers who have been engaged in strategic long-term, collaborative buyer-supplier relationships may unintentionally bias the intended results. Although many firms indicate that they have been engaged in strategic long-term, collaborative relationships with members of their supply base, significantly fewer companies are expected to actually participate in these relationship types as defined herein. However, because buying firms were pre-qualified through a screening process, the nature of the buyer-supplier relationship can be established a priori.

Fourth, in addition to sample size problems, respondent

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[14]Operations management research methodology presentation at the 25th Annual Meeting of the Decision Sciences Institute, Honolulu, Hawaii, November 20-22, 1994.

bias may be introduced into the results. As no formal data from non-respondents was collected, it was impossible to detect this source of potential bias through analysis. However, short notes and telephone calls received from some buyer firms who declined to participate in the study indicated either that their firms did not take part in such relationships or that, due to extensive downsizing and heavy workloads, they were unable to participate. Several other non-respondents also indicated that they no longer worked in purchasing and would be unable to complete a questionnaire. It was expected that respondent buyer firms agreeing to participate had favorable attitudes regarding strategic long-term, collaborative buyer-supplier relationships since they had to be currently engaged in at least one such strategic interorganizational relationship in order to be chosen as a participant in the study. Conversely, it was expected that non-respondents were negatively oriented or, at best, neutral, toward strategic long-term, collaborative buyer-supplier relationships.

A fifth source of potential bias could be introduced through the buying firm's choice of collaborative supplier partner to participate in the study. No constraints were placed on the selection criteria other than that the supplier "partner" chosen to participate must have been involved with this particular buying firm in a strategic long-term, collaborative buyer-supplier relationship as defined herein for at least one year. There was a strong

possibility that each buying firm selected its "best" supplier even though what constitutes the "best" supplier may be defined somewhat differently between buying firms. Selection of all of the "best" suppliers may tend to reduce the variation inherent in the sample, thereby diminishing the representativeness of the research sample.

Although inclusion of less capable suppliers in the sample would provide greater variation, it was felt that these less capable suppliers should be excluded from the study because the expected lower levels of buyer and/or supplier performance encountered in weak, or deteriorating, buyer-supplier relationships may not be conducive to the maintenance or continued growth of a strategic long-term, collaborative buyer-supplier relationship over time. Such less capable relationships were expected to encounter potentially higher levels of relationship-damaging actual and potential conflict at a much earlier point in the relationship. Realistically, this might be expected to severely alter or terminate the relationship in order to minimize or avoid escalating conflict episodes, continuing problems, and increasing costs through doing business with its "partner." In addition, buyer firms were not instructed to select "good" or "excellent" suppliers for inclusion in the study because it was felt that such leading directions on the part of the investigator might inject an additional source of bias into the results.

A final potential bias is the use of single informants

at both the buying and supplying firms. Although this could be a large source of bias in the information collected, it was felt that the depth of information received through the buyer- and supplier-specific questionnaires outweighs the possible concerns. In addition, it was also felt that the consistent use of a single respondent (who was intimately knowledgeable about the buyer-supplier relationship and has had sufficient opportunity to witness the dynamics of the relationship) provided greater consistency regarding the individual's perceptions of organizational-level conflict phenomenon. The questionnaires are sufficiently long enough to mitigate the possibility that the respondents can guess the true purpose of the questionnaires.

3.6 A Description of Factor Analysis.[15]

"Factor analysis refers to a variety of statistical techniques whose common objective is to represent a set of variables in terms of a smaller number of hypothetical variables."[16] Factor analysis is an important tool for the researcher to consider using in exploratory research because, according to Cohen and Cohen, "[i]nsofar as

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[15]This discussion is primarily based on the following: Jae-On Kim and Charles W. Mueller, Introduction to Factor Analysis: What It Is and How to Do It, Newbury Park, California: Sage Publications, 1978a and Jae-On Kim and Charles W. Mueller, Factor Analysis: Statistical Methods and Practical Issues, Newbury Park, California: Sage Publications, 1978b.

[16]Kim and Mueller, 1978b, p. 9.

variables and hence hypotheses are concerned, an important general principle in research inference is succinctly stated: 'less is more' - more statistical test validity, more power, and more clarity in the meaning of results."[17] It is also assumed that the measured variables are linear representations of the underlying constructs. However, the methods used in factor analysis do not allow the researcher to make causal inferences about the correlational structure between the variables and the hypothesized constructs. In addition, it is important to remember that factor analysis does not provide substantive labels or meanings to the factors that are developed during the iterative process.

The beginning of factor analysis is an examination of the interrelationships among the variables using the correlation coefficient as a measure of association and a table of correlations. A factor analytical approach to data analysis to try and determine if the observed correlations are explainable by the presence of a small number of hypothetical variables. *Exploratory* factor analysis can be utilized as a expedient method through which to ascertain a reduced number of hypothetical constructs that can account for the observed covariation and as a means for examining the data for potential data reduction. *Confirmatory* factor analysis can be then used to test and confirm specific

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[17]Jacob Cohen and Patricia Cohen, Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences, 2nd edition, Hillsdale, New Jersey: Lawrence Erlbaum Associates, Publishers, 1983, p. 171.

hypotheses regarding the proposed constructs.

Exploratory factor analysis is appropriate in this research because there has been little or no rigorous, empirical research conducted regarding the ongoing development and management of strategic long-term, collaborative buyer-supplier relationships in any of the disciplinary areas of the literature described in Chapter II. Also, factor analysis was believed to be appropriate because there seemed to be no compelling reason to suppose that a single factor model would be required.[18] Future research along these lines will be conducted as confirmatory factor analysis to build on the findings expected here.

In practice, researchers cannot directly observe underlying source variables or constructs. However, we can observe variables that represent these underlying constructs, which could also be considered as being concepts or ideas. A variable, therefore, can be defined as a concept or idea that contains two or more directly observable values. The underlying source variables, which cannot be observed directly, are called hypothetical constructs, hypothetical variables, or hypothetical factors; hence, the name, factor analysis.

Variables can covary with each other for a number of reasons. They covary because one is the cause of the other, and/or they covary because the variables share at least one cause in common. In research covariance measures the extent

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[18]Handbook of Survey Research, p. 102.

to which values of one variable tend to covary with values of another variable. The *covariance* between standardized variables (with a mean of 0 and a variance of 1) has a special name: *correlation coefficient* or *product moment (Pearson's) correlation coefficient*.

The initial step in factor analysis is to collect the necessary data. Then a covariance matrix is prepared which provides the coefficients of variances for the different variables. The covariance matrix represents relationships between the variables shown in columns. The second step is to determine the minimum number of factors that can adequately explain the correlations between the variables. The generally accepted methods of accomplishing this are:

1. Maximum likelihood (or canonical) method;
2. Least-squares method;
3. Alpha factoring;
4. Image factoring; and
5. Principal components analysis.

The first two methods, maximum likelihood and least-squares, are generally recognized as acceptable methods for exploratory factor analysis. This dissertation used the maximum likelihood method found in the SPSS 8.0 version for Windows 95 program. The initial solution was obtained by specifying the number of factors to be included. The rule of thumb that was used to determine the appropriate number of factors was based on the eigenvalues of the variables that are greater than or equal to one, again using SPSS.

Random measurement errors can be accommodated in factor analysis without serious problems. However, the effect of

random measurement error is to lower the expected magnitudes of correlations between the observed variables.

3.7 Validity Issues.

Validity can be defined as "[a] general term denoting correctness of a measure (i.e., that it does in fact measure what it purports to measure)."[19] However, there is no one, overarching form of validity that can be utilized in all cases. Conceptually, there are two types of validity: theoretical and empirical.[20] Theoretical validity refers to the correlation between the underlying, latent construct and its observed measure. Empirical validity, on the other hand, in concerned with the correlation between the observed measure and some other observed criterion.

When investigators discuss the validity of their researcher, they generally refer to the following three types: content validity, criterion-related validity (or predictive), and/or construct validity.[21] Content validity is concerned with the representativeness of the sampled

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[19]R. M. Yaremko, Herbert Harari, Robert C. Harrison, and Elizabeth Lynn, Handbook of Research and Quantitative Methods in Psychology: For Students and Professionals, Hillsdale, New Jersey: Lawrence Erlbaum Associates, Publishers, 1986, p. 245.

[20]Handbook of Survey Research, p. 97.

[21]See Handbook of Survey Research, pp. 97-105; Jum C. Nunnally, Psychometric Theory, 2nd edition, New York: McGraw-Hill Publishing Company, 1978, pp. 87-113; Fred N. Kerlinger, Foundations of Behavioral Research, 3rd edition, New York: Holt, Rinehart and Winston, Inc., 1986, pp. 416-427; and Cook and Campbell, pp. 37-70.

content to a specific domain of interest, i.e., does the variable adequately portray the construct under consideration or the universe of content of the construct attribute(s) being measured? The theoretical universe of content refers to all of the things that could possibly be said or observed about the variable. It is impossible, however, to satisfy the definition of content validity of a universe of content because the universe exists only theoretically. Therefore, content validation here rests on the ability of the researcher, or an outside panel of experts, to make informed judgments of the representativeness of the variables. This requires that the universe of content be clearly defined so that the researcher and the outside judges can use their expertise to validate the representativeness of the variable in measuring the underlying construct of interest. The standard is the answer to the question, "Is it *reasonable* to assume that the measured variable represents the unseen underlying construct of interest?"

Criterion-related, or predictive, validity refers to the correlation between a measure and some criterion variable of interest. It is useful for judging a measure's ability to predict, or forecast, some future outcome or result based on the measure's current value. Criterion-related validity is based on the degree of correlation between the measured level of the variable and the criterion variable, either now or in the future. In other words, the

higher the correlation between the two, the greater the predictive validity. The difficulty in using criterion-related validity comes about from the problems involved in adequately determining the criterion itself.

Construct validity is based on theoretical foundations that attempt to explain empirical relationships between variables and constructs. It is also what researchers are concerned about when they discuss confounding variables. Confounding refers to the possibility that the results of a study may actually be due to a different theoretical construct than that originally hypothesized, i.e., multiple constructs (in addition to or instead of the original construct) may be responsible for the nature of the findings. Convergence and discriminability are both important issues when discussing construct validity. Convergence means that a preponderance of evidence, gathered from different sources in different ways, should indicate similar meanings for the underlying construct of interest. Likewise, different measurement methods should also center about the construct.

Discriminability, on the other hand, indicates the ability to empirically differentiate the construct from other similar constructs. The researcher would then be able to determine how the constructs differ from each other. Construct validity may be enhanced if they are tested over multiple overlapping operational representations of a single definition of a construct or across representations of

similar definitions of the same construct.

To maximize construct validity, this study utilized both elements of construct validity, multiple representations of the independent variables, price, delivery, product quality, and service flexibility. The first element of construct validity was met by using multiple questions in the questionnaire to address the same construct. The second element of construct validity was met by providing multiple definitions and characterizations of each of the independent variables, price, delivery, product quality, and service flexibility, and the dependent variable, conflict potential, to the respondents. In addition, the metrics in the proposed "Levels of Conflict Potential" model have been suggested in earlier research.[22]

In order to deal with the issue of construct validity, "the following set of steps is recommended:

1. Do an exploratory factor analysis.
2. Decide how many factors are needed to explain the covariation among the items using both the [Chi square] and Tucker-Lewis statistics as guides.
3. Examine both the rotated and unrotated solutions when m>1 in order to determine whether the factors beyond the first are substantively meaningful or merely "nuisance" factors.
4. Remove those items which are poorly related to no factors or which clearly represent more than one domain.
5. Refactor the remaining items but this time use a confirmatory analysis to verify that the items are congeneric or near congeneric.[23]

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[22]Brown and Day, 1981, pp. 263-274; Lambert, Boughton, and Banville, 1986, pp. 57-62; and Habib, 1987, pp. 808-816.

[23]Handbook of Survey Research, p. 102.

3.8 Reliability Issues.

Reliability can be defined as, "the correlation between the variable as measured and another equivalent measure of the same variable," i.e., the internal consistency of the measure.[24] Reliability issues were addressed through use of reliability analysis, deleting those individual items with low item-to-total correlations. Cronbach's alpha was computed to determine if item reliabilities meet Nunnally's reliability guidelines of 0.70 or more.[25] These coefficients are designed to measure how well the measure actually measures what it is purported to measure, as opposed to validity which is concerned with whether what the investigator intended to measure is actually being measured. In addition, multiple measures (a minimum of at least three measures) of the same constructs were utilized to enhance internal consistency.

3.9 Multicollinearity Issues.

Multicollinearity refers to the presence of "correlations among independent variables [which] may lead to difficulties in the estimation of regression statistics."[26] However, high multicollinearity is somewhat difficult to observe and diagnose because its effects fall

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[24]Cohen and Cohen, p. 68.

[25]Nunnally, p. 245.

[26]Elazar J. Pedhazur, Multiple Regression in Behavioral Research: Explanation and Prediction, 2nd edition, Fort Worth, Texas: Holt, Rinehart, and Winston, 1982, p. 232.

on a continuum. The adverse effects of multicollinearity include difficulties with the standard errors of the regression coefficients and their corresponding tests of statistical significance and confidence intervals, as well as possible reversal of signs.

It was expected that the price, delivery, product quality, and service flexibility variables would be highly related to each other. For example, price was expected to be highly correlated with the other three variables, delivery, product quality, and service flexibility. Higher prices may the result of improved delivery and product quality or a more flexible service organization. Therefore, correlation analysis was used rather than regression because of the high probability of multicollinearity.

Several rules of thumb exist for identifying the presence of the effects of multicollinearity.[27] First of all, if any of the zero-order correlations between the independent variables are greater than .80, then there is a strong possibility that multicollinearity exists between the variables. Secondly, regression coefficient estimates may be unstable or unreliable if the zero-order correlation between any pair of independent variables is greater than the zero-order correlation of either member of the pair with the dependent variable. Lastly, multicollinearity may be serious if the determinant of the matrix of correlations between the independent variables is less than .05.

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[27]Handbook of Survey Research, pp. 535-537.

However, even though the presence of multicollinearity can be identified, it is difficult to find solutions to overcome its effects. Simply dropping variables that exhibit high levels of multicollinearity effects can result in reduced instability, but do so at the cost of creating specification errors in the model. This results in biased estimates of causal effects. The creation of model specification error can be mitigated through combining such collinear variables into indices or scales, but there must be a strong theoretical basis to do so. Specification error means that there is a poor fit between the proposed model and the empirical phenomenon under study. Specification error can result in dropping out necessary variables due to multicollinearity or by including unnecessary variables "just to be safe."

None of the methods of dealing with high multicollinearity are totally effective. "In practice, many researchers drop collinear variables and simply hope that the resulting biases are not severe. At the very least, however, such decisions should be clearly reported along with speculations about the possible distortions that could result."[28] Another method of dealing with collinear effects is through the collection of additional data. Some researchers group variables either in blocks or on the basis of a priori judgment. Principal components and factor analyses are two frequent methods of this set of remedies.

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[28]Ibid, p. 537.

Some researchers abandon ordinary least squares (OLS) analysis in favor of other methods of estimation. The bottom line on high multicollinearity is that no amount of data manipulation will undo or mitigate its effects because it is symptomatic of insufficient or deficient information. Perhaps Pedhazur sums the discussion up best, "As thorough an understanding as is possible of the causes of multicollinearity in a given set of data is the best guide for the action to be taken."[29]

The proposed multiple correlation equation was evaluated using the multiple correlation statistic, R. First of all, R tends to be high when the exogenous, or independent, variables have high individual correlations with the endogenous, or dependent, variable. Secondly, the multiple correlation should not be less than the highest individual independent variable correlation with the dependent variable. Thirdly, the R value will be larger when the independent variables have low multicollinearity between themselves. If the independent variables correlate exactly zero with each other, then the following equation demonstrates the relationship between the various squared multiple correlations.[30]

$$R^2_{y.123} = r^2_y1 + r^2_y2 + r^2_y3$$

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[29]Pedhazur, p. 247.

[30]Nunnally, pp. 176-189.

IV. ANALYSIS OF DATA.

This chapter presents the results of the study that was outlined in Chapter III. The first section details the demographics of the buyer and supplier samples used in the study. The second section discusses how the integrity of the data was maintained throughout the course of the data collection and data entry phases of the process. The remaining sections describe the data analysis procedures and present the results.

4.1 Overview and Demographic Analysis.

Over a period of eight months during late 1996 and early 1997, 39 buyer-supplier dyads, as determined by the "Supplier Selection Questionnaire" (see Appendix F) as being engaged in long-term, collaborative buyer-supplier relationships, were surveyed, using Appendices D and E respectively, regarding each party's perceptions of the supplier partner's performance in the categories of price, delivery, product quality, and service flexibility, as well as the sources of conflict and conflict potential.

Also, four additional buyer responses (without matching supplier responses) have been included in only part of the analysis. The corresponding supplier partners to these buyers either declined to participate or failed to return their surveys in a timely manner to be incorporated in the analysis. Therefore, these non-matching surveys have been

included in the demographic analysis, descriptive analysis, and analysis of open-ended responses only and were not included in the detailed statistical analysis which utilized only matched buyer-supplier dyads.

Initially, 261 Supplier Selection Questionnaires were mailed out to members of the National Association of Purchasing Management using mailing lists developed primarily from District IV (Michigan and Indiana) and District X (Illinois, Minnesota, and Wisconsin) membership rosters, NAPM district and national officer and committee rolls, and the roster of attendees from the 20th Annual Michigan Purchasing Conference held in October, 1996 at Roscommon, Michigan.

A total of 45 of the Supplier Selection Questionnaires were returned indicating the buyer's willingness to participate in the second, more detailed stage of the data collection process. This number resulted in an initial response rate of 17.2 percent. Of these positive responses, a total of 39 buyer-supplier dyads completed and returned their respective surveys which were then analyzed, realizing a real response rate of 14.9 percent. Additionally, 29 other responses (or 11.1 percent of the 261 total) were received which indicated that the targeted respondents, although willing, were unable to participate in the study due to one or more of the following reasons:

1. Busy work schedules;
2. Retirement;
3. No longer working in purchasing; or
4. Not participating in alliance-type relationships with their supply base.

An analysis of the mix and distribution of respondent self-reported 2-digit Standard Industry Classification (SIC) codes revealed that no one single industry dominated either the buyer or supplier samples. The last page of the buyer firm and supplier firm questionnaires provided a list of 2-digit SIC codes from which each respondent could easily choose (see Appendix G). For consistency in coding, when a respondent listed multiple 2-digit SIC codes, the first code listed was the one recorded for analysis.

The frequency distribution of SIC codes for both buyer and supplier samples are shown in Table 5. The largest category from the buyer sample was SIC 39, "Miscellaneous Manufacturing Industries," with six respondents or 14.0 percent of the total, followed closely by SIC 35, "Industrial and Commercial Machinery and Computer Equipment," with five responses or 11.6 percent of the total. The buyer respondent sample was widely distributed over eighteen different 2-digit SIC codes.

The largest category for the supplier sample was SIC 34, "Fabricated Metal Products, Except Machinery and Transportation," with eight respondents, or 20.5 percent of the total. The supplier respondent sample was also widely distributed over eighteen different 2-digit SIC codes. The majority of respondents from both samples (81.4 percent of

buyers and 71.8 percent of suppliers) came from SIC codes classified under "Manufacturing," indicating a potential bias toward manufacturing-related firms. However, this is not unexpected considering the nature of the sample selection process and the membership characteristics of NAPM, which tends to be predominately manufacturing-related. Other than the potential bias toward manufacturing-oriented industries, it was felt that the buyer and supplier samples were fairly representative of the two populations under investigation.

Although most of the buyer responses originated from the Midwest (38 of 43 responses or 88.4 percent), the supplier sample appeared to be somewhat more balanced with more than one quarter of the respondents located outside the Midwest (11 of 39 responses or 28.2 percent). Again, a majority of respondents from the Midwest region of the United States conceivably introduces a potential bias into the results. However, because of the exploratory nature of this research, this potential was not considered to be a major concern to the analysis because the majority of the companies surveyed (both buyers and suppliers) conducted business operations over a relatively wide geographical segment of the United States and internationally.

Table 5

2-DIGIT STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODE LISTING

SIC CODE	BUYERS	SUPPLIERS
Manufacturing		
20	2 - 4.7%	0 - 0.0%
23	1 - 2.3%	1 - 2.6%
24	0 - 0.0%	1 - 2.6%
25	2 - 4.7%	0 - 0.0%
26	0 - 0.0%	2 - 5.1%
27	0 - 0.0%	2 - 5.1%
28	3 - 7.0%	1 - 2.6%
29	2 - 4.7%	0 - 0.0%
30	1 - 2.3%	3 - 7.7%
33	3 - 7.0%	2 - 5.1%
34	4 - 9.3%	8 - 20.5%
35	5 - 11.6%	4 - 10.3%
36	1 - 2.3%	1 - 2.6%
37	3 - 7.0%	0 - 0.0%
38	2 - 4.7%	0 - 0.0%
39	6 - 14.0%	3 - 7.7%
Subtotal	35 - 81.4%	28 - 71.8%
Transportation		
47	0 - 0.0%	1 - 2.6%
48	1 - 2.3%	0 - 0.0%
49	3 - 7.0%	1 - 2.6%
Subtotal	4 - 9.3%	2 - 5.1%
Wholesale Trade		
50	1 - 2.3%	4 - 10.3%
52	0 - 0.0%	1 - 2.6%
Subtotal	1 - 2.3%	5 - 12.8%
Retail Trade		
59	0 - 0.0%	1 - 2.6%

Table 5 Continued

Services		
73	0 - 0.0%	1 - 2.6%
87	0 - 0.0%	2 - 5.1%
89	3 - 7.0%	0 - 0.0%
Subtotal	3 - 7.0%	3 - 7.7%
TOTALS	43 - 100.0%	39 - 100.0%

Only three buyer firms had two respondents take part in the survey. For each of these three companies, different supplier partners were chosen to participate, and the buyer respondents came from different departments, divisions, or different geographical locations within the buying company. On two separate occasions, the same supplier firm was selected twice to participate by different buyer respondents. Again, the multiple supplier respondents came from different locations or divisions of the parent company. Therefore, there did not seem to be any bias introduced into the results from the impact of a large group of respondents coming from a single organization, either from the buyer or supplier perspectives.

Regarding the relative size of the respondent firms, a majority of companies in both samples indicated that the firms responding to the questionnaires were fairly large (See Table 6). Overall, the buyer firms tended to be somewhat larger than the supplier firms with more than 58.1 percent of buyer firms having annual sales greater than $100 million and with another 32.6 percent of respondents with

sales between $10 and $100 million per year. Nearly half of supplier firms surveyed (46.1 percent) had annual sales greater than $100 million with another quarter (25.6 percent) indicating annual sales of between $10 and $100 million. However, due to the relatively high proportion of buyer firms single sourcing from their designated suppliers (indicated by 53.5 percent of buyers and 56.4 percent of suppliers), the effects of relative power differences between the partners may be mitigated somewhat (Table 7).

Analysis of the data regarding numbers of employees provides a comparable conclusion (see Table 8), i.e., on the average, buyer firms tended to have more employees than did suppliers. Interestingly, only one supplier firm out of the total 82 buyer and supplier firms surveyed (or 1.2 percent) would not provide sales and employee data due to confidentiality concerns. When the surveys were initially developed, this was thought to be a possible concern that did not materialize.

Table 6

TOTAL ANNUAL SALES

ANNUAL SALES	BUYERS	SUPPLIERS
< $500,000	1 - 2.3%	0 - 0.0%
$500,000 - $1,000,000	0 - 0.0%	0 - 0.0%
$1,000,000 - $10,000,000	3 - 7.0%	10 - 25.6%
$10,000,000 - $100,000,000	14 - 32.6%	10 - 25.6%
> $100,000,000	25 - 58.1%	18 - 46.1%
No Answer	0 - 0.0%	1 - 2.6%
TOTALS	43 - 100.0%	39 - 100.0%

"What is your company's total annual sales for the most *recent* fiscal year?

Table 7

NATURE OF RELATIONSHIP

CATEGORY	BUYERS	SUPPLIERS
Single source	23 - 53.5%	22 - 56.4%
Dual source	5 - 11.6%	4 - 10.3%
3 sources	8 - 18.6%	5 - 12.8%
4 sources	4 - 9.3%	3 - 7.7%
5 or more sources	3 - 7.0%	5 - 12.8%
TOTALS	43 - 100.0%	39 - 100.0%

"What is the nature of this strategic buyer-supplier relationship?"

Table 8

TOTAL EMPLOYEES

EMPLOYEES	BUYERS	SUPPLIERS
< 100	4 - 9.3%	14 - 35.9%
100 - 500	12 - 27.9%	8 - 20.5%
501 - 1,000	2 - 4.7%	3 - 7.7%
1,001 - 5,000	10 - 23.3%	8 - 20.5%
> 5,000	15 - 34.9%	5 - 12.8%
No answer	0 - 0.0%	1 - 2.6%
TOTALS	43 - 100.0%	39 - 100.0%

"How many total employees?"

Analysis of the job titles of the buyer and supplier respondents indicates that nearly one-half of the (46.5 percent) buyer respondents were classified as middle management, with titles containing the word "manager." More than one half (51.3 percent) of supplier respondents were categorized as executive-level management with titles of "director," "vice president," "general manager," "president," or "owner" (see Table 9). This was interesting as the these particular supplier representatives were chosen to participate in the survey with their names and addresses being initially provided by the buyer representatives through the Supplier Selection Questionnaire used for screening buyer firms. This seems to indicate that buying firm middle managers tend to interact with executive-level supplier firm managers regarding the partnership and may

have had an impact on the strength of commitment displayed by buyers and suppliers.

Table 9

TITLES

TITLES	BUYER	SUPPLIER
Purchasing Agent/Buyer or Sales representative	15 - 34.9%	9 - 23.1%
Manager	20 - 46.5%	10 - 25.6%
Executive	8 - 18.6%	20 - 51.3%
TOTALS	43 - 100.0%	39 - 100.0%

"Job title"

Regarding the length of the buyer-supplier relationships surveyed, Table 10 shows an apparent discrepancy between buyer sample respondents and corresponding supplier respondents. It was expected a priori that each sample dyad partner would closely mirror the other when describing the length of the collaborative buyer-supplier relationship. However, Table 10 also indicates that buyer respondents tended to describe the length of the ongoing collaborative relationship as being shorter than did their corresponding supplier respondents. This may result from the respondents' relative positions in their respective corporate hierarchies as described earlier. As middle managers, buyer respondents, as a group, may have not been personally involved in the collaborative buyer-

supplier relationship for as long a period of time as their supplier counterparts, who seemed more likely to have been involved from the beginning stages of the relationship due to their relatively senior positions within supplier firms. Therefore, the buyer respondents may have understated the actual length of the relationship due to a lack of personal experience with the relationship.

Table 10

LENGTH OF RELATIONSHIP

LENGTH OF RELATIONSHIP	BUYERS	SUPPLIERS
< 2 years	11 - 25.6%	6 - 15.4%
2 - 5 years	13 - 30.2%	10 - 25.6%
5 - 10 years	8 - 18.6%	7 - 18.0%
> 10 years	11 - 25.6%	16 - 41.0%
TOTALS	43 - 100.0%	39 - 100.0%

"How long has your company been involved in a strategic, long-term collaborative buyer-supplier relationship with this particular supplier (customer) company?"

There was greater agreement between buyers and suppliers regarding the buyers' proportions of suppliers' total annual sales (see Table 11). 79.1 percent of buyers and 66.7 percent of suppliers indicated that 15 percent or less of the supplier's total sales originate from that particular customer or buyer.



Table 11

PERCENTAGE OF SUPPLIERS' TOTAL SALES

CATEGORY	BUYERS	SUPPLIERS
< 5%	22 - 51.2%	17 - 43.6%
5 - 15%	12 - 27.9%	9 - 23.1%
16 - 30%	2 - 4.7%	9 - 23.1%
31 - 45%	3 - 7.0%	2 - 5.1%
46 - 60%	3 - 7.0%	1 - 2.6%
61 - 75%	0 - 0.0%	0 - 0.0%
> 75%	1 - 2.3%	1 - 2.6%
TOTALS	43 - 100.0%	39 - 100.0%

"In terms of this strategic supplier's (buyer's) total annual sales (purchases), what proportion is your annual purchases from this supplier (sales to this customer)?"

When respondents from each sample were asked to describe the nature of the buyer-supplier relationship by number of sources (see Table 8), both samples indicated that the majority of firms were engaged in a single source relationship (53.5 percent of buyers and 56.4 percent of suppliers). What is particularly interesting was that a relatively high proportion of each sample indicated that at least three sources were involved for the acquisition of the key product or service being supplied through the collaborative buyer-supplier relationship (34.9 percent of buyers and 33.3 percent of suppliers). This finding seemed contrary to the a priori notion in the literature that collaborative relationship would typically be built around

a single-source relationship due to the amount of financial, time, and energy resources required to initiate and maintain such an intensive relationship.

When asked about the proportion of the buyer's total annual needs of the key product or service that was purchased from the supplier, 69.8 percent of buyers responded that more than 75 percent of their total needs were acquired through this collaborative buyer-supplier relationship. However, when the supplier respondents were asked a similar question, 41.0 percent indicated that the question was ambiguous or left it blank. However, one-third or 33.3 percent of the suppliers who did respond indicated that at least 50 percent of their total sales of this key product or service were made to this collaborative customer partner.

4.2 Data Entry and Survey Analysis.

The data collected from the two survey samples was handled in the following manner. Surveys from each sample were coded by hand in the margin of each survey to ensure that the appropriate code was used to store the information. The coding schema for specific questions is listed in Appendix J ("Buyer Survey Coding") and Appendix K ("Supplier Survey Coding"). Once the surveys were coded, the information was entered into a spreadsheet. This spreadsheet was then verified visually against the surveys in each sample, paying attention to reverse-coded items.

The following table (Table 12) outlines different variables that were subjected to reliability analysis for multiple measures using Cronbach's alpha statistic as described earlier in Section 3.8.

Table 12

KEY VARIABLES RELIABILITY ANALYSIS

VARIABLE	ALPHA COEFFICIENT	STANDARDIZED ALPHA
Buyer Price (P)	.7824	.7840
Buyer Delivery (D)	.9034	.9075
Buyer Quality (Q)	.8930	.8996
Buyer Service (S)	.9071	.9097
Supplier Price (P)	.3346	.3101
Supplier Delivery (D)	.9430	.9448
Supplier Quality (Q)	.8878	.8920
Supplier Service (S)	.8902	.8973
Buyer Impact (M)	.9482	.9483
Buyer Intensity (N)	.8478	.8511
Buyer Importance (I)	-.5275	-.4748
Supplier Impact (M)	.9300	.9316
Supplier Intensity (N)	.8796	.8801
Supplier Importance (I)	.5625	.5737

Eleven of the fourteen key variables exhibited Cronbach's alpha coefficients and standardized alpha coefficients above Nunnally's 0.70 or greater guidelines for modest reliability and, therefore, appear to be internally

consistent.[1] In addition, the Buyer price variable was less than Nunnally's hurdle rate of 0.80 for basic research.[2] All other variables exceeded Nunnally's basic research guidelines of 0.80.

The three variables which exhibited Cronbach's alpha coefficients of less that 0.70, Supplier price (.3346/.3101), Buyer importance (-.5275/-.4748), and Supplier importance (.5625/.5737), as well as Buyer price (.7824/.7840), the lowest variable exceeding the 0.70 hurdle, indicates that the Price and Importance variables (from both the buyer and supplier perspectives) were internally inconsistent. Since the Price and Importance variables were inconsistent from both samples, this indicated that the survey instructions for these particular variables may have been misunderstood or that there was significant variation or subjectivity in respondent scoring of the items.

In analyzing the correlation matrices for these four variables, the following conclusions can be made. The five buyer price questions had an average correlation of about .4206 with a range from .3041 to .6493. The five supplier price questions had an average correlation of about 0.0825 with a range from -.2847 to .3295. The buyer importance questions had an average correlation of -.1202 with a range

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[1]Nunnally, p. 245.

[2]Ibid, p. 245.

from -.2655 to 0.630. The supplier importance questions had an average correlation of .3096 with a range from .2272 to .4125. The Price variables utilized five questions that were similar in wording and format between all four categories of price, delivery, product quality, and service flexibility (see Appendices D and E). The Importance variables initially only utilized three questions to measure this construct which may have contributed to low reliability although the Impact variables only utilized two questions but exhibited acceptable alpha coefficients.

In light of the above analysis and the maximum likelihood factor analysis that discussed in Section 4.7, the Price variable was reconstructed into two new, separate variables, Price Control and Price Competition. The Importance variable was also modified by removal of survey questions that did not add value to the analysis. This modification resulted in a single question index measuring the Importance variable.

4.3 Factors for Partner Selection.

Buyer firm respondents selected Quality (93.0 percent), Expertise of supplier (88.4 percent), Price (83.7 percent), and Delivery (76.7 percent) as the top four factors utilized in initially selecting a strategic partner supplier firm to participate in a collaborative buyer-supplier relationship (see Table 13). This finding tended to support the preliminary conclusions of the pre-research exploratory

field study described previously in Chapter III, Section 3.1. Correspondingly, supplier firm respondents selected Volume (79.5 percent), Strategic fit (69.2 percent), Trustworthiness (64.1 percent), and Future growth potential (64.1 percent) as their top four selection factors (see Table 14).

Interestingly, the average factor was selected by the buyer firm sample by 56.3 percent of buyer respondents while the average factor was selected by the supplier firm sample by only 39.5 percent of supplier respondents. This seems to indicate that, on the average, buyer firms considered more factors in the partner selection process than supplier firms.

A cursory analysis of the two factor tables indicated that buyer firms in the sample tended to focus more on such short-term performance factors (price-, delivery-, quality-, and/or service-type factors as outlined in the proposed "Levels of Conflict Potential" model from Figure 2 and Table 4 in Chapter III). With the exception of Expertise of supplier (second), four of the top five factors were Quality (first), Price (third), Delivery (fourth), and Customer service (fifth), all alpha-level factors for conflict potential from the proposed model.

On the other hand, suppliers in this sample seemed to focus more on longer-term or strategic factors for selecting partners. They rated alpha-level factors for conflict potential at eighth, tenth, eleventh, and twelfth positions

of eighteen factors listed. Surprisingly, both samples chose the Reputation, Research and development, and Recommendation factors as the three least important factors in partnership selection, although in a different order.

In general, it appears that the alignment of objectives between buyer and supplier is tenuous at best. The implications for the proposed "Levels of Conflict Potential" model center around a very basic disagreement between buyers and suppliers regarding their respective expectations in creating collaborative buyer-supplier relationships. Buyers focus on performance, while suppliers seek relationships. It is also possible that the relative demographics of the buyer and supplier samples come into play here, i.e., buyers as middle managers and suppliers as senior managers/owners.

4.4 Company Priorities on Strategic Attributes.

Each buyer and supplier respondent was asked to rate their own company's competitive priorities from 1 (low priority) through 7 (high priority) on the following eight variables:

1. Price;
2. Delivery;
3. Technology;
4. Research & development;
5. Quality;
6. Features (product);
7. Service; and
8. Flexibility.

As might be expected, Quality was listed first as the primary competitive priority by both sets of respondents

(see Table 15). Both samples listed Delivery (2nd for buyers and 4th for suppliers), Service (3rd for buyers and 2nd for suppliers), and Flexibility (4th for buyers and 3rd for suppliers) as the next most important competitive priorities. Surprisingly, both samples listed Price relatively low in their list of competitive priorities (5th for buyers and 7th for suppliers). Competitive priorities in Technology, Features, and Research and development were all ranked low in importance by both sample groups, with Research and development anchoring each list in eighth place.

Table 13

FACTORS FOR PARTNER SELECTION - BUYER

FACTOR	NUMBER	PERCENT
Quality	40	93.0%
Expertise of supplier	38	88.4%
Price	36	83.7%
Delivery	33	76.7%
Customer service	30	69.8%
Trustworthiness	30	69.8%
Financial stability	29	67.4%
Management philosophy	26	60.5%
Previous business with supplier	26	60.5%
Strategic fit	25	58.1%
Product line	23	53.5%
Future growth potential	20	46.5%
Compatible company cultures	19	44.2%
Location	19	44.2%
R & D capabilities	18	41.9%
Reputation of supplier	14	32.6%
Recommendation	5	11.6%
Other (see listed below)	4	9.3%
AVERAGES	24.2	56.3%

Other:

1. MBE/DBE status
2. Capabilities
3. Trend toward strategic flexibility
4. Information systems

"Which of the following factors (or selection criteria) did your company consider in selecting this supplier to participate in a strategic, long-term collaborative relationship?"

Table 14

FACTORS FOR PARTNER SELECTION - SUPPLIER

FACTOR	NUMBER	PERCENT
Volume	31	79.5%
Strategic fit	27	69.2%
Trustworthiness	25	64.1%
Future growth potential	25	64.1%
Financial stability	23	59.0%
Management philosophy	22	56.4%
Compatible company cultures	19	48.7%
Quality	19	48.7%
Previous business with buyer	16	41.0%
Location	13	33.3%
Customer service	13	33.3%
Delivery	11	28.2%
Product line	11	28.2%
Expertise of buyer	9	23.1%
Reputation of buyer	6	15.4%
R & D capabilities	4	10.3%
Recommendation	2	5.1%
Other (see listed below)	1	2.6%
AVERAGES	15.4	39.5%

Other:

1. Willingness to grow together.

"Which of the following factors (or selection criteria) did your company consider in selecting this customer to participate in a strategic, long-term collaborative relationship?"

Table 15

COMPANY PRIORITIES ON STRATEGIC ATTRIBUTES

BUYER RANKING	MEAN	STD DEV	SUPPLIER RANKING	MEAN	STD DEV
Quality	6.65	1.11	Quality	6.69	0.66
Delivery	6.28	0.85	Service	6.49	0.68
Service	6.23	1.11	Flexible	6.03	1.04
Flexible	6.00	1.07	Delivery	6.03	1.11
Price	5.60	1.20	Technology	5.41	1.29
Technology	5.26	1.35	Features	4.87	1.15
Features	4.95	1.46	Price	4.85	1.09
R & D	4.40	1.69	R & D	4.64	1.87

1 = Low, 4 = Moderate, 7 = High

"Indicate your company's priorities on the following attributes."

4.5 Open-Ended Question Analysis of Questions # 16 and # 20.

An analysis of Questions # 16. and # 20., from both the buyer and supplier surveys, was conducted to gain a sense of other types of conflict which may have been present in the collaborative buyer-supplier relationships studied. The author and one additional researcher generally familiar with supply management research independently coded the open-ended Questions # 16. and # 20. gathered from the two sets of surveys (See Appendix L) using the coding scheme outlined in the next paragraph. Table 16 shows that analysis.

Table 16

ANALYSIS OF OPEN-ENDED QUESTIONS 16. AND 20.

CATEGORY	BUYER QUESTION 16.	BUYER QUESTION 20.	SUPPLIER QUESTION 16.	SUPPLIER QUESTION 20.
P/P	5 - 11.6%	1 - 2.3%	5 - 12.8%	2 - 5.1%
D/D	6 - 14.0%	0 - 0.0%	5 - 12.8%	3 - 7.7%
Q/Q	3 - 7.0%	7 - 16.3%	0 - 0.0%	2 - 5.1%
S/S	6 - 14.0%	2 - 4.7%	1 - 2.6%	1 - 2.6%
X/X	8 - 18.6%	1 - 2.3%	9 - 23.1%	2 - 5.1%
M/M	7 - 16.3%	26 - 60.5%	2 - 5.1%	22 - 56.4%
Matches	35 - 81.4%	37 - 86.0%	22 - 56.4%	32 - 82.1%
X/P	3 - 7.0%	2 - 4.7%	5 - 12.8%	2 - 5.1%
X/D	0 - 0.0%	0 - 0.0%	0 - 0.0%	0 - 0.0%
X/Q	0 - 0.0%	0 - 0.0%	0 - 0.0%	1 - 2.6%
X/S	4 - 9.3%	3 - 7.0%	9 - 23.1%	3 - 7.7%
P/Q	0 - 0.0%	0 - 0.0%	1 - 2.6%	0 - 0.0%
D/S	1 - 2.3%	0 - 0.0%	1 - 2.6%	0 - 0.0%
S/Q	0 - 0.0%	0 - 0.0%	0 - 0.0%	1 - 2.6%
S/M	0 - 0.0%	1 - 2.3%	0 - 0.0%	0 - 0.0%
M/X	0 - 0.0%	0 - 0.0%	1 - 2.6%	0 - 0.0%
TOTALS	43/100.0%	43/100.0%	39/100.0%	39/100.0%

16. "What has been the greatest single source of conflict with this particular supplier (customer) following the establishment of the strategic, long-term collaborative relationship? Why?"

20. "What other significant conflicts have occurred with this particular key supplier (customer) over the past five (5) years? How did they differ from the conflict described in Question # 16 above?"

The following codes apply to the analysis shown in Table 16:

1. "P" = price-related
2. "D" = delivery-related
3. "Q" = quality-related
4. "S" = service-related
5. "X" = other-related
6. "M" = blank, none, or n/a responses

The two raters matched on over 80 percent on three of the four questions evaluated, Buyer Question # 16. at 81.4 percent, Buyer Question # 20. at 86.0 percent, and Supplier Question # 20. at 82.1 percent. This would seem to indicate that the responses of the buyers on both questions and the suppliers on Question # 20. are straightforward. Only 56.4 percent of the supplier's responses to Question # 16. were consistent between the two raters. Therefore, an additional academic rater familiar with operations management research independently coded Supplier Question # 16. That rater's coding matched the author's coding 78.4 percent of the time, which is consistent with the coding of the other three questions between the initial two raters.

Analysis of the initial raters' coding of supplier responses to this question shows that the first outside rater took a more traditional view of service-related issues while the author took a more expanded view of the same issues. Even on the other three questions, the X/S discrepancy was consistently the most prevalent difference of opinion. This seems to indicate that perhaps the service dimension of alpha-level conflict could have been more

clearly defined and described.

The large proportion of "other-related" ("X") ratings by the two raters, particularly on Question # 16. may indicate that additional factors may be present than those initially presented. A cursory analysis of those responses indicates that these responses could be considered as beta-level or gamma-level sources of conflict, i.e., forecasting, personnel changes, growth strategy, long-term plans, technological change, corporate goals and objectives, changes in the global market, research and development, inventory reduction, internal politics, etc.

Using only the initial rater-matched responses from Question # 16., Table 17 outlines the relative greatest single source of conflict. Table 18 summarizes other sources of significant conflict that have occurred within the last five years. It is interesting that both buyer and supplier respondents consistently indicated "None" as the primary source of significant conflict over the past five years.

Table 17

QUESTION # 16. RANKINGS USING RATER MATCHES ONLY

BUYER RANKINGS		SUPPLIER RANKINGS	
Gamma-level	8 - 22.9%	Gamma-level	9 - 40.9%
None	7 - 20.0%	Price	5 - 22.7%
Delivery	6 - 17.1%	Delivery	5 - 22.7%
Service	6 - 17.1%	None	2 - 9.1%
Price	5 - 14.3%	Service	1 - 4.5%
Quality	3 - 8.6%	Quality	0 - 0.0%
TOTAL	35 - 100.0%	TOTAL	22 - 100.0%

"What has been the greatest single source of conflict with this particular supplier (customer) following the establishment of the strategic, long-term collaborative relationship? Why?"

Table 18

QUESTION # 20. RANKINGS USING RATER MATCHES ONLY

BUYER RANKINGS		SUPPLIER RANKINGS	
None	26 - 70.3%	None	22 - 68.8%
Quality	7 - 18.9%	Delivery	3 - 9.4%
Service	2 - 5.4%	Price	2 - 6.3%
Price	1 - 2.7%	Quality	2 - 6.3%
Gamma-level	1 - 2.7%	Gamma-level	2 - 6.3%
Delivery	0 - 0.0%	Service	1 - 3.1%
TOTAL	37 - 100.0%	TOTAL	32 - 100.0%

"What other significant conflicts have occurred with this particular key supplier (customer) over the past give (5) years? How did they differ from the conflict described in Question # 16 above?"

4.6 Paired Samples Data.

Table 19 summarizes the results of paired sample statistics matching comparable questions across the buyer and supplier samples. Each multiple choice survey question was compared between the samples to determine if the two populations sampled might be significantly different from each other concerning their responses. Using SPSS 8.0 for Windows, significance was computed at the .95 level with missing data excluded on a case by case basis to ensure dyad matches. The following discussion focuses on only those variables that indicated a significant difference between the two samples at the 0.10 level or better. All other variables demonstrated significant differences below the 0.10 level. Significance of 0.10 was utilized as the sample size n was relatively low for matched dyads.

Question # 18. referred to the degree of satisfaction that the buyer or supplier presented regarding the greatest single source of conflict following the establishment of the strategic, long-term collaborative relationship with the other party (see Table 20). In the buyer sample, 79.1 percent of the buyers indicated that they had been satisfied with the resolution of the greatest single source of conflict while only 56.4 percent of suppliers indicated the same satisfaction with the resolution. The two samples varied significantly at the 0.05 level. In other words, suppliers seemed more likely to be dissatisfied with resolution of the conflict that could escalate future

conflict episodes. This finding is consistent with Pondy's stages of conflict development model and Cadotte and Stern's process model of conflict described in Sections 2.3 and 2.4 in Chapter II earlier.

Table 21 refers to the future time horizon that the parties anticipated that the strategic, long-term collaborative buyer-supplier relationship would continue. The supplier group indicated that 76.9 percent thought that the relationship would continue 10 years or more while only 41.9 percent of the buyer group indicated the same anticipation of continuity. This would seem to indicate that buyers viewed the strategic, long-term collaborative relationship from a more short-term perspective than did the suppliers. In addition, nearly a third of the buyers thought that the relationship in question would last only two to five more years, about three times the number of suppliers who felt the same way.

Table 19

PAIRED SAMPLES TESTS AND CORRELATIONS

QUES. #	t	df	SIG. (2-tailed)	CORR.	SIG.
13.	1.069	38	0.292	0.550	0.000***
18.	-2.042	38	0.048**	-0.190	0.246
21.	0.000	38	1.000	-0.026	0.874
25.	1.349	38	0.185	-0.049	0.768
26.	0.666	38	0.509	0.270	0.096*
27.	-0.122	38	0.903	0.259	0.111
28.	-0.796	38	0.431	0.110	0.505
29.	1.780	38	0.083*	0.127	0.442
31.	0.291	37	0.772	0.626	0.000***
32.	-0.362	37	0.719	0.422	0.008***
33.	-0.495	37	0.624	0.399	0.013**
34.	-0.693	37	0.493	0.471	0.003***
35.	0.597	37	0.554	0.581	0.000***
38.	0.000	37	1.000	0.542	0.000***
39.	0.000	37	1.000	0.055	0.741
42.	-1.052	38	0.299	0.331	0.039**
43.	-0.347	38	0.730	0.249	0.126
44.	-1.172	38	0.249	0.061	0.713
45.	-1.992	38	0.054*	0.266	0.101
46.	-1.120	38	0.270	0.303	0.061*
48.	0.000	38	1.000	0.517	0.001***
50.	-0.136	38	0.893	0.193	0.238
51.	0.000	38	1.000	0.184	0.262
52.	-0.138	38	0.891	0.155	0.347
53.	-0.298	38	0.767	-0.009	0.955
54.	-0.804	38	0.426	0.145	0.378

Table 19 Continued

56.	0.927	38	0.360	0.570	0.000***
57.	1.957	38	0.058*	0.062	0.707
58.	-0.285	38	0.777	0.063	0.702
59.	-1.137	31	0.264	0.341	0.056*
60.	-1.793	30	0.083*	0.462	0.009***
62.	1.722	32	0.095*	0.461	0.007***
63.	1.997	32	0.054*	0.205	0.252
64.	2.431	32	0.021**	0.031	0.863
65.	2.410	32	0.022**	0.430	0.012**
66.	-0.564	32	0.577	-0.088	0.625
67.	1.739	31	0.092*	0.199	0.274
68.	1.800	32	0.081*	-0.313	0.076*

* Significant at the 0.10 level
** Significant at the 0.05 level
*** Significant at the 0.01 level

Table 20

SATISFIED WITH RESOLUTION OF CONFLICT EPISODE

	YES**	NO**		YES*	NO**
Buyer	34 - 79.1	9 - 20.9	Supp.	22 - 56.4	17 - 43.6

* Significant at the 0.10 level
** Significant at the 0.05 level

"Were you satisfied with the resolution of this conflict episode?"

Table 21

TIME HORIZON OF RELATIONSHIP CONTINUANCE

CATEGORY	BUYERS	SUPPLIERS
< 2 years	0 - 0.0%	0 - 0.0%
2 - 5 years	13 - 30.2%	4 - 10.3%
5 - 10 years	11 - 25.6%	5 - 12.8%
> 10 years	18 - 41.9%	30 - 76.9%
No answer	1 - 2.3%	0 - 0.0%
TOTALS	43 - 100.0%	39 - 100.0%

"If you answered 'Yes' to Question #21, over what time horizon do you anticipate that the relationship will continue?"

Paired sample analysis of the question regarding Price-related conflict between the buyer and supplier samples indicated that there was a significant difference between the sample means at the 0.10 level (see Table 22). Buyers indicated a relatively higher level of conflict from price (5.38) as compared to suppliers (5.00). This question was one of the reverse-coded questions utilized during the data collection phase. This finding supports the earlier notion that buyers tended to concentrate on more short-term issues such as price, delivery, quality, and service (see Section 4.3).

Table 22

LEVEL OF PRICE-RELATED CONFLICT

	MEAN*	STD DEV		MEAN*	STD DEV
Buyer	5.38	1.07	Supplier	5.00	0.97

1 = Low, 3 = Moderately Low, 5 = Moderately High, 7 = High (Reverse Coded)

* Significant at the 0.10 level

"What is the level of price-related conflict encountered with this supplier (customer)?"

Table 23 indicates the relative difference between the sample means regarding the supplier's quality performance relative to competing firms in the marketplace. Buyers (5.95) rated their suppliers' quality performance less strong than the supplier sample (6.33) rated their own organizations' performance, although both samples rated the supplier's performance as "Good" or better on a 7-point Likert scale. This difference was significant at the 0.10 level.

Table 23

SUPPLIER'S QUALITY PERFORMANCE COMPARED TO OTHER FIRMS

	MEAN*	STD DEV		MEAN*	STD DEV
Buyer	5.95	1.10	Supplier	6.33	0.87

1 = Poor, 3 = Fair, 5 = Good, 7 = Excellent

* Significant at the 0.10 level

"How do you rate this supplier's (your) quality performance as opposed to other firms which can supply this item to your firm (the customer)?"

Table 24 tabulates the results of Question # 57. which asked both buyers and suppliers about the strategic supplier's responsiveness and performance under emergency conditions. Not surprisingly, suppliers rated themselves higher (1.10) than did the corresponding buyers (1.36). This difference was significant at the 0.10 level.

Table 24

SUPPLIER GOES OUT OF ITS WAY IN EMERGENCY

	MEAN*	STD DEV		MEAN*	STD DEV
Buyer	1.36	0.78	Supplier	1.10	0.31

1= Almost Always, 3 = Frequently, 5 = Rarely, 7 = Almost Never

* Significant at the 0.10 level

"Does the supplier (you) go out of its (your) way in an emergency to help you (the customer)?"

When the two sample groups were asked to characterize their interpretation of the nature of the effects of conflict between them, buyers indicated a much shorter term impact of the effects of conflict (1.94) versus the suppliers (2.32) (see Table 25).

Table 25

THEIR CHARACTERIZATION OF THE NATURE OF THE EFFECTS OF CONFLICT

	MEAN*	STD DEV		MEAN*	STD DEV
Buyer	1.94	1.15	Supplier	2.32	1.17

1 = Short Term, 3 = Moderate Term, 5 = Long Term

* Significant at the 0.10 level

"How do you perceive that this strategic supplier (customer) will characterize the nature of the effects (or results) of conflict encountered with your firm?"

Table 26 presents the results of the relative frequency of use for various conflict management techniques used by the other strategic partner. Since the study examined only collaborative buyer-supplier relationships, it was not surprising that both sample groups indicated that the conflict resolution technique used by the other party was joint problem solving. The buyers indicated joint problem solving 65.1 percent of the time versus the suppliers at 64.1 percent. However, 10.3 percent of the suppliers said that their customers often used coercive power as the conflict resolution technique most frequently employed. No

buyers indicated that the suppliers resorted to coercive techniques.

Table 26

CONFLICT RESOLUTION TECHNIQUES

TECHNIQUE	BUYER	SUPP.
Persuasion	1 - 2.3%	0 - 0.0%
Bargaining or compromise	5 - 11.6%	7 - 17.9%
Coercive power or threats	0 - 0.0%	4 - 10.3%
Joint problem solving	28 - 65.1%	25 - 64.1%
No answer	9 - 20.9%	3 - 7.7%
TOTALS	43 - 100.0%	39 - 100.0%

"Which of the following conflict resolution techniques would you characterize as being utilized most frequently by this particular supplier (customer)?"

The responses to the question asking the buyer and supplier samples to describe the nature of conflict encountered with their strategic partner are summarized in Table 27. The means of the responses from the two groups differed significantly at the 0.10 level. In general, buyers tended to describe the nature of conflict encountered as lower (5.82) than the suppliers did (5.39).

TABLE 27

NATURE OF CONFLICT ENCOUNTERED

	MEAN*	STD DEV		MEAN*	STD DEV
Buyer	5.82	1.33	Supplier	5.39	1.39

1 = High, 3 = Moderately High, 5 = Moderately Low, 7 = Low

* Significant at the 0.10 level

"Which of the following would generally describe the nature of conflict encountered with this strategic supplier (customer)?"

Table 28 outlines the results from the question that asked each respondent in the two samples to describe their own organization's proclivity to strong emotional reactions when faced with conflict resolution with the strategic partner. Again, these differences between the means manifested themselves at the 0.10 level of significance. Buyers indicated that they entered into conflict resolution with strong emotional reaction less frequently (5.70) than did their supplier counterparts (5.18).

Table 28

YOUR STRONG EMOTIONAL REACTION

	MEAN*	STD DEV		MEAN*	STD DEV
Buyer	5.70	1.05	Supplier	5.18	1.29

1 = Always, 3 = Frequently, 5 = Infrequently, 7 = Never

* Significant at the 0.10 level

"To what extent does strong emotional reaction by the your company enter into conflict resolution with this particular supplier (customer)?"

When requested to describe the extent to which strong emotional reaction by the strategic partner entered into conflict resolution, the suppliers (4.88) said that buyers were frequently more emotional in their pursuit of conflict resolution. The mean for the buyer sample of 5.61 indicated that the suppliers infrequently became emotional when faced with a conflict resolution situation. This is consistent with the results of the last question (Question # 63.). This difference between the means was significant at the 0.05 level. It was also the largest absolute difference between any two pairs of means compared (.7273).

Table 29

THEIR STRONG EMOTIONAL REACTION

	MEAN**	STD DEV		MEAN**	STD DEV
Buyer	5.61	1.00	Supplier	4.88	1.43

1 = Always, 3 = Frequently, 5 = Infrequently, 7 = Never

** Significant at the 0.05 level

"To what extent does strong emotional reaction by the supplier (customer) enter into conflict resolution with your company?"

Table 30 reflects the responses of the two samples regarding their perception of the level of tension encountered when conflict with this particular strategic partner arises. This was the third highest absolute difference of all means compared (.6364) and was significant at the 0.05 level. Although both samples indicated that tension was moderately low between the parties when conflict was experienced, the supplier sample characterized the level of tension as being higher (4.82) than did the corresponding buyer sample (5.45).

Table 30

LEVEL OF TENSION

	MEAN**	STD DEV		MEAN**	STD DEV
Buyer	5.45	1.25	Supplier	4.82	1.55

1 = High, 3 = Moderately High, 5 = Moderately Low, 7 = Low

** Significant at the 0.05 level

"To what extent would you characterize the level of tension encountered when conflict with this particular supplier (customer) arises?"

When respondents from the two samples were asked to characterize the importance of the source(s) of conflict encountered with this particular strategic partner, suppliers indicated that the importance of the conflict source was relatively higher (3.47) than did the buyers (4.13)(See Table 31). The difference between the means was significant at the 0.10 level and was the second-highest absolute difference between means from the two samples. It is thought that perhaps, since they were less concerned with long term issues than their supplier counterparts, the buyers attributed less importance to the source(s) of conflict.

Table 31

IMPORTANCE OF CONFLICT SOURCE

	MEAN*	STD DEV		MEAN*	STD DEV
Buyer	4.13	1.84	Supplier	3.47	1.50

1 = High, 3 = Moderately High, 5 = Moderately Low, 7 = Low

* Significant at the 0.10 level

"How would you characterize the importance of the source(s) of conflict encountered with this strategic supplier (customer)?"

The last table to be discussed in this section (Table 32) demonstrates the parties' perceptions of the criticality of maintaining a problem-free relationship between the strategic partners. Again, building on the previously discussed theme that suppliers seem to be more oriented toward fostering and maintaining the collaborative relationship than are buyers, it is not surprising that the suppliers responded to this question that maintaining a problem-free relationship was more critical (1.64) than did their buyer counterparts (2.21). Again, this difference was significant at the 0.10 level and relatively large on an absolute basis.

Table 32

CRITICALITY OF PROBLEM-FREE RELATIONSHIP

	MEAN*	STD DEV		MEAN*	STD DEV
Buyer	2.21	1.29	Supplier	1.64	0.96

1 = Critical, 3 = Somewhat Critical,
5 = Somewhat Non-Critical, 7 = Non-Critical

* Significant at the 0.10 level

"How critical to your company is maintaining a problem-free relationship with this particular supplier?"

4.7 Exploratory Factor Analysis.

Exploratory factor analysis using maximum likelihood was conducted to confirm whether the a priori factors of Price, Delivery, Quality, Service, Importance, Impact, and Intensity for both buyer and supplier samples were indeed single factors.

The factor analysis indicated that Delivery, Quality, Service, Impact, and Intensity each loaded on a single factor across both groups. Reliability analysis of the Importance variable indicated that only one of the three questions (# 67.) used was appropriate (see Table 12 in Section 4.2). Therefore, factor analysis was not appropriate for this particular variable. Price loaded on two separate components for the supplier sample. Three questions (# 25., # 26., and # 27.) loaded on the first factor, now described as Price Control, while the remaining

two questions (# 28. and # 29.) loaded on the second factor, entitled Price Competition. For purposes of consistency, the same Price variables (Price Control and Price Competition) were utilized for both the buyer and supplier samples.

Tables 33 and Table 34 summarize the results of the correlation analysis that accompanied the results from the maximum likelihood factor analysis. From the buyers sample, all variable measurements (Price, Delivery, Quality, Service flexibility, Impact, and Intensity) were significantly correlated at the 0.05 level or above with 85 percent of the correlations (40 of 47) at the 0.01 level. Only the Importance variable measurements were not significantly correlated which confirms the reliability analysis results.

The supplier sample, on the other hand, did not display quite as dramatic a set of results. As indicated in the reliability analysis results, the Price and Importance variables did not display significant correlations. Of the Delivery, Quality, Service flexibility, Impact, and Intensity variables, 100 percent of the variable measurements were at the 0.01 level of significance. The fifth Price variable, which referred to the level of price-related conflict was negatively correlated with the other four Price variables.

Table 33

BUYER VARIABLES - CORRELATION ANALYSIS

PRICE	PRIC1	PRIC2	PRIC3	PRIC4	PRIC5
PRIC1	1.000				
PRIC2	.649***	1.000			
PRIC3	.551***	.337**	1.000		
PRIC4	.361**	.330**	.444***	1.000	
PRIC5	.307**	.527***	.397***	.304**	1.000

DELIVERY	DEL1	DEL2	DEL3	DEL4	DEL5
DEL1	1.000				
DEL2	.723***	1.000			
DEL3	.592***	.718***	1.000		
DEL4	.534***	.631***	.712***	1.000	
DEL5	.759***	.702***	.587***	.667***	1.000

QUALITY	QUAL1	QUAL2	QUAL3	QUAL4	QUAL5
QUAL1	1.000				
QUAL2	.873***	1.000			
QUAL3	.495***	.612***	1.000		
QUAL4	.744***	.719***	.597***	1.000	
QUAL5	.797***	.612***	.305**	.664***	1.000

SERVICE	SERV1	SERV2	SERV3	SERV4	SERV5
SERV1	1.000				
SERV2	.765***	1.000			
SERV3	.726***	.681***	1.000		
SERV4	.791***	.671***	.563***	1.000	
SERV5	.648***	.658***	.556***	.622***	1.000

IMPACT	B59	B60
B59	1.000	
B60	.902***	1.000

INTENSITY	B62	B63	B64	B65
B62	1.000			
B63	.515***	1.000		
B64	.368**	.724***	1.000	
B65	.823***	.614***	.486***	1.000

Table 33 Continued

IMPORTANCE	B66	B67	B68
B66	1.000		
B67	-.266	1.000	
B68	.063	-.158	1.000

** Significant at 0.05 level (2-tailed)
*** Significant at 0.01 level (2-tailed)

Table 34

SUPPLIER VARIABLES - CORRELATION ANALYSIS

PRICE	SPRIC1	SPRIC2	SPRIC3	SPRIC4	SPRIC5
SPRIC1	1.000				
SPRIC2	.263	1.000			
SPRIC3	.163	.199	1.000		
SPRIC4	.124	.055	.330**	1.000	
SPRIC5	-.136	-.285	-.157	.268	1.000
DELIVERY	SDEL1	SDEL2	SDEL3	SDEL4	SDEL5
SDEL1	1.000				
SDEL2	.757**	1.000			
SDEL3	.804**	.820**	1.000		
SDEL4	.807**	.657**	.859**	1.000	
SDEL5	.842**	.688**	.732**	.774**	1.000
QUALITY	SQUAL1	SQUAL2	SQUAL3	SQUAL4	SQUAL5
SQUAL1	1.000				
SQUAL2	.729***	1.000			
SQUAL3	.644***	.657***	1.000		
SQUAL4	.603***	.645***	.723***	1.000	
SQUAL5	.467***	.508***	.640***	.613***	1.000
SERVICE	SSERV1	SSERV2	SSERV3	SSERV4	SSERV5
SSERV1	1.000				
SSERV2	.622***	1.000			
SSERV3	.694***	.673***	1.000		
SSERV4	.702***	.571***	.651***	1.000	
SSERV5	.630***	.538***	.648***	.631***	1.000
IMPACT	S59	S60			
S59	1.000				
S60	.872***	1.000			

Table 34 Continued

INTENSITY	S62	S63	S64	S65
S62	1.000			
S63	.565***	1.000		
S64	.608***	.758***	1.000	
S65	.775***	.465***	.712***	1.000
IMPORTANCE	**S66**	**S67**	**S68**	
S66	1.000			
S67	.289	1.000		
S68	.237	.412**	1.000	

** Significant at the 0.05 level (2-tailed)
*** Significant at the 0.01 level (2-tailed)

Tables 35 and 36 present statistics from the maximum likelihood factor analysis for the buyer and supplier samples. Individual factors were evaluated using a minimum eigenvalue of 1.0 or greater. Also, rotations for the maximum likelihood factor analysis were made utilizing a varimax rotation in SPSS.

Regarding the factor analysis for buyer variables (Table 35), the Price and Delivery variables were significant at the 0.05 level while the Quality and Intensity variables were significant at the 0.01 level. On the supplier side (see Table 36), only the Delivery and Intensity variables were significant, both at the 0.01 level. None of the factors, other than Supplier price, were able to be rotated using varimax rotation because all of extractions resulted in a single factor.

Table 35

FACTOR ANALYSIS STATISTICS - BUYER VARIABLES

VARIABLE	EIGEN-VALUE	% OF VARIANCE	CHI-SQUARE	SIG.
Price (original)	2.697	53.937	12.790	.025**
Price Control	2.035	67.836		
Price Comp.	1.304	65.207		
Delivery	3.651	73.029	12.376	.030**
Quality	3.602	72.043	20.120	.001***
Service	3.681	73.616	4.367	.498
Impact	1.902	95.089		
Intensity	2.772	69.303	14.121	.001***
Importance	1.339	44.641		

** Significant at the 0.05 level
*** Significant at the 0.01 level

Table 36

FACTOR ANALYSIS STATISTICS - SUPPLIER VARIABLES

VARIABLE	EIGEN-VALUE	% OF VARIANCE	CHI-SQUARE	SIG.
Price (original)	1.638 1.343	32.757 26.867	0.391	.531
Price Control	1.420	47.319		
Price Comp.	1.268	63.412		
Delivery	4.099	81.983	17.192	.004***
Quality	3.499	69.970	5.451	.363
Service	3.548	70.956	1.521	.911
Impact	1.872	93.597		
Intensity	2.946	73.645	18.201	.000***
Importance	1.626	54.203		

*** Significant at the 0.01 level

4.8 Multiple Regression Analysis.

A multiple regression analysis was performed on the various elements of the "Levels of Conflict Potential" model as outlined in Section 3.4. Scores for questions measuring each of the dependent conflict variables, Impact, Intensity, and Importance, and each of the independent variables, Price control, Price competition, Delivery, Quality, and Service flexibility, were calculated using the differences found by subtracting the matched supplier response from the buyer response on corresponding questions (see Appendices D and E for question wording).

Next, an average response was calculated for the two dependent variables that used multiple measures, Impact and Intensity. Impact utilized two questions for measurement (# 59. and # 60.), and Intensity used four questions (# 62., # 63., # 64., and # 65.). Importance was measured using a single question (# 67.).

An average response across the five independent variables (Price was broken down into two factors as described in the previous discussion on factor analysis), Price control, Price competition, Delivery, Quality, and Service flexibility, was then computed for each variable using the responses from the five questions used to measure each of the variables, except for Price control which used three questions and Price competition which used the remaining two Price variables. Analysis of possible outliers resulted in the removal of one of the dyads. After reviewing the questionnaires for both buyer and supplier in this dyad, it was determined that this particular pair was in the final stages of the relationship and was likely to be dissolved.

Regressing the five independent variables against each of the dependent variables resulted in the following regression equations with corresponding beta weights and statistical significance (Table 37 for additional information). The Impact equation was not significant (F = 0.956, significance of 0.464), while the Intensity (F = 2.469, significance of 0.061) and Importance (F = 2.351,

significance of 0.072) equations were significant at the 0.10 level.

Because of the small sample size and the relatively large ratio of independent variables (five) to the number of subjects, the R^2 statistic might be considered inflated.[3] Therefore, the adjusted R^2 statistic may more accurately reflect the actual percentage of the variance in the latent variable that is linearly accounted for by the independent variables measured from these samples. However, a "model is not adequate because R^2 is high nor inadequate because R^2 is low. It is inadequate rather when it can be substantially improved within conditions set by the available data."[4]

$$M = -0.395^{*} + 0.023P_1 + 0.145P_2 - 0.099D - 0.233Q - 0.243S$$

$$N = 0.706^{***} + 0.060P_1 - 0.095P_2 + 0.261D + 0.388Q^{*} + 0.066S$$

$$I = 0.870^{**} - 0.262P_1 + 0.67P_2^{***} - 0.024D - 0.120Q - 0.183S$$

Where:

P_1 = Price Control
P_2 = Price Competition
D = Delivery
Q = Quality
S = Service
M = Impact
N = Intensity
I = Importance

* Significant at the 0.10 level
** Significant at the 0.05 level
*** Significant at the 0.01 level

[3]Cohen and Cohen, p. 106.

[4]Ibid, p. 125.

An analysis of the error residuals was conducted to determine if the regression model's underlying assumptions of:

1. The model is linear.
2. The error terms have constant variances.
3. The error terms are independent.
4. The error terms are normally distributed.[5]

Partial regression plots were prepared, using SPSS 8.0 for Windows 95, in which residuals from each of the independent variables were plotted against each of the dependent variables. A visual inspection of these fifteen scattergrams indicated that no apparent heteroscedasticity, non-linearity, or non-independent error terms existed. This fits Black's definition of a "healthy" residual graph, i.e., "[t]he plot is relatively linear, the error terms appear to be about the same in magnitude across all X values, and the error terms do not appear to be related to adjacent terms."[6]

The above regression equation regarding the latent variable Impact and Table 37 suggests that Price competition has the greatest positive effect on Conflict Impact, followed by a smaller positive effect by Price control. Delivery, Quality, and Service flexibility all had negative effects on Conflict Impact, with Delivery and Quality demonstrating the greatest effects. The negative effects of these independent variables were the opposite of what was

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[5]Ken Black, Business Statistics: Contemporary Decision Making, St. Paul, Minnesota: West Publishing Company, 1994, p. 525.

[6]Ibid, p. 526.

originally hypothesized. The R^2 regression statistic suggests that only about 16 percent of the variance in Conflict Impact is linearly accounted for by the five independent variables in these samples.[7] The adjusted R^2 statistic revises this estimate of the population variance downward to approximately zero for this latent variable.

Regarding the latent variable Intensity, the above regression equation and Table 37 imply that the independent variables Delivery and Quality have the largest positive effects on Conflict Intensity, followed by Price control and Service flexibility. The small negative effect on Conflict Intensity exhibited by Price competition is opposite that hypothesized a priori. Evaluation of the R^2 statistic implies that about 34 percent of the variance in Conflict Intensity is linearly accounted for by the independent variables in these two samples. The adjusted R^2 statistic reduces the population estimate to about 20 percent of the variance accounted for by these independent variables.

Regression analysis of the latent variable Importance indicates that Price competition is the only positive effect on Conflict Importance. The independent variables, Price control, Delivery, Quality, and Service flexibility, all demonstrated negative effects on Conflict Importance, with Price competition and Service flexibility being the strongest. The R^2 statistic here indicates that about 33

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[7]Cohen and Cohen, p. 87.

percent of the variance in the Conflict Importance latent variable is linearly accounted for by the five independent variables from the buyer and supplier samples. The estimate of the population variance linearly accounted for by the independent variables is lowered to about 19 percent as shown in the adjusted R^2 statistic from Table 38.

Regarding Hypothesis H_1 on the positive relationship between price performance and conflict potential, the results are mixed. Price competition (P_1) was positively related to the Impact and Intensity variables but negatively related to the Importance variable. Price control (P_2) was positively related to the Impact and Importance variables but negatively related to the Intensity variable.

For Hypothesis H_2, the positive relationship between delivery performance and conflict potential, the results are again mixed. Delivery was positively related only to the Intensity variable and negatively related to both the Impact and Importance variables.

Regarding Hypothesis H_3 on the positive relationship between quality performance and conflict potential, the results mirror those of H_2. Quality was related positively only to the Intensity variable and negatively to both the Impact and Importance variables.

For Hypothesis H_4, the positive relationship between service flexibility and conflict potential, the results are similar to both H_2 and H_3. Service quality was related positively only to the Intensity variable and negatively to

both the Impact and Importance variables.

Table 38 summarizes the overall statistical results of the multiple regression analysis. In the next chapter, the implications of these analyses are delineated and discussed in detail. Conclusions are presented, and the initial research hypotheses are revisited. Limitations of the study and prospective avenues for future research efforts are considered.

Table 37

REGRESSION COEFFICIENTS

	IMPACT				
	B	SE B	Beta	T	Sig T
P_1	0.002	0.205	0.023	0.108	0.915
P_2	0.137	0.208	0.145	0.659	0.516
D	-0.108	0.258	-0.099	-0.417	0.680
Q	-0.304	0.314	-0.233	-0.969	0.342
S	-0.267	0.220	-0.243	-1.215	0.236
Constant	-0.395	0.199		-1.985	0.059*
	INTENSITY				
	B	SE B	Beta	T	Sig T
P_1	0.006	0.192	0.060	0.320	0.752
P_2	-0.009	0.194	-0.095	-0.483	0.633
D	0.298	0.241	0.261	1.238	0.228
Q	0.532	0.293	0.388	1.814	0.082*
S	0.008	0.205	0.066	0.372	0.713
Constant	0.706	0.186		3.793	0.001***

Table 37 Continued

	IMPORTANCE				
	B	SE B	Beta	T	Sig T
P_1	-0.505	0.362	-0.262	-1.396	0.176
P_2	1.230	0.366	0.666	3.362	0.003***
D	-0.006	0.454	-0.024	-0.111	0.912
Q	-0.306	0.553	-0.120	-0.554	0.585
S	-0.395	0.387	-0.183	-1.021	0.317
Constant	0.870	0.351		2.481	0.020**

* Significant at the 0.10 level
** Significant at the 0.05 level
*** Significant at the 0.01 level

Table 38

MULTIPLE REGRESSION STATISTICS

STATISTIC	IMPACT	INTENSITY	IMPORTANCE
Multiple R	0.407	0.583	0.573
R Square	0.166	0.340	0.329
Adjusted R Square	-0.008	0.202	0.189
Standard Error	1.169	1.092	2.060
F Statistic	0.956	2.469	2.351
Significance of F	0.464	0.061*	0.072*

* Significant at the 0.10 level

V. DISCUSSION OF RESULTS AND CONCLUSIONS.

This chapter examines the meaning of the factor analysis, regression analysis, and other results presented in Chapter IV. Several qualitative observations derived from the data collection and analysis phases are also presented to help substantiate the quantitative analyses. The first eight sections address each of the hypotheses discussed previously in Section 1.2.1 from Chapter I. The following section outlines potential future research opportunities and plans for follow-on research. The next-to-last section discusses the limitations of the study. The final section provides a summary of the findings and the conduct of the research.

The initial basic research question addressed by this research was to identify critical factors and conditions that affect the level of conflict potential experienced between industrial buyers and suppliers in established strategic long-term, collaborative relationships. Chapter III outlines the results of the literature review that provided an extensive list of these critical factors. Also, Section 4.3 (Tables 13 and 14) has contributed to answering this research question by summarizing the relative importance of the factors that the respondents in the buyer sample and the supplier sample used to select a corresponding "partner."

The second basic research question guiding this

research addressed how industrial buyers and suppliers in established strategic long-term, collaborative relationships viewed the relative impact of these factors and conditions on the relationship. Results of the questionnaires completed by the two samples have been tabulated and discussed in Chapter IV in regards to the respondents' opinions regarding the impact of Price, Delivery, Quality, and Service flexibility on the nature of conflict between the dyads.

The third basic research question was to evaluate how buyers and suppliers engaged in strategic long-term, collaborative interorganizational relationships (IORs) viewed conflict arising between them. It is felt that the results of this dissertation research have adequately accomplished that goal, albeit not at the level of significance which was hypothesized a priori. Even though each of the firms surveyed was engaged in a collaborative IOR, there were several indications that various sources of conflict potential existed which the parties had to face.

Of the alpha-level sources of conflict potential, i.e., price, delivery, product quality, and service flexibility, there were several obvious indicators that the two populations differed from each other regarding their perceptions of these issues. The next several sections evaluate each of the eight research hypotheses and provide a discussion of the results.

5.1 Hypothesis H_1 - Price Performance and Conflict Potential.

Hypothesis 1 was initially stated as "Differences in perceptions between buyers and suppliers regarding supplier price performance (P) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs." Use of maximum likelihood factor analysis on the results of both sample questionnaires indicated that this construct consisted of two separate factors, particularly when viewed from the suppliers' perspective. These new constructs were then defined as Price Control and Price Competition. The statistics shown in Table 38 indicated that the Impact multiple regression equation was not statistically significant, while the Intensity and Importance multiple regression equations were both statistically significant at the 0.10 level.

In Section 4.8 Price Control (P_1) and Price Competition (P_2) are both shown to be positively related to the Impact conflict variable, although neither coefficient was shown to be statistically significant. Both factors demonstrated minor positive influence on the dependent variable. The direction of influence for both independent variables was in the same direction as hypothesized.

Regarding the relationship between the Price Control and Price Competition variables and the Intensity conflict variable, these two price-related factors again showed minor influence on the Intensity variable, but this time, the sign

of their coefficients were opposite of each other. Price Control showed a small positive influence on Intensity, while Price Competition demonstrated a minor negative influence. Again, neither coefficient was statistically significant. Price Control's influence was in the same direction as hypothesized, while Price Competition's influence was in the opposite direction.

Both Price Control and Price Competition exhibited the greatest influence on the Importance variable. However, this time Price Control was negatively associated with Importance, while Price Competition positively influenced Importance. Price Control was not significantly different from zero influence on the Importance variable, although much closer than it had been on the previous two dependent variables. Price Competition was significantly related to Importance at the 0.01 level. This was the strongest level of significance among the hypothesized factors from the three regression equations. The influence of Price Control was in the opposite direction, while Price Competition was again in the same direction as hypothesized.

The individual and combined influence of these two price-related factors on the three conflict factors of Impact, Intensity, and Importance is inconclusive. Therefore, this hypothesis is not supported.

5.2 Hypothesis H_2 - Delivery Performance and Conflict Potential.

Hypothesis 2 was defined as "Differences in perceptions between buyers and suppliers regarding supplier delivery performance (D) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs." Maximum likelihood factor analysis indicated that Delivery was a single factor.

Delivery influenced Impact in a minor, negative direction, opposite of what was hypothesized. The influence on Intensity was a positive one, while the influence on Importance was slightly negative. None of the beta coefficients were statistically significant. Except for the dependent variable Intensity, this hypothesis was not supported.

5.3 Hypothesis H_3 - Quality Performance and Conflict Potential.

Hypothesis 3 was defined as "Differences in perceptions between buyers and suppliers regarding supplier product quality performance (Q) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs." Maximum likelihood factor analysis indicated that product Quality was also a single factor.

The influence of product Quality on Impact and Importance was negative for both variables, while the influence of product Quality on Intensity was positive, showing the second highest beta coefficient of any

measurable factor among the three multiple regression equations. However, only the influence on Intensity was statistically significant (at the 0.10 level). Again, except for the Intensity variable, this hypothesis was not supported.

5.4 Hypothesis H_4 - Service Performance and Conflict Potential.

Hypothesis 4 was originally presented as "Differences in perceptions between buyers and suppliers regarding supplier service flexibility performance (S) are positively related to the level of conflict potential encountered in collaborative long-term buyer-supplier IORs." Like Delivery and Quality, Service flexibility was considered to be a single factor based on maximum likelihood factor analysis.

Service flexibility exhibited a negative influence on the Impact and Importance dependent variables and a positive influence on the Intensity variable. None of the beta coefficients were statistically significant. However, the positive influence on Intensity was minor. Only the Intensity variable supported this hypothesis.

5.5 Hypothesis H_5 - Perceptual Differences and Price.

"Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly in their perceptions of conflict potential regarding supplier price performance (P)." This perceptual difference

between buyers and suppliers was measured using paired sample T-tests on the responses for Questions # 25., 26., 27., 28., and 29.

The only significant difference between the samples was for Question # 29. (0.083). This question asked the respondents about the level of price-related conflict between the parties. In general, buyers felt that the level of price-related conflict was higher (5.38) than the suppliers did (5.00). Therefore, this hypothesis is supported.

5.6 Hypothesis H_6 - Perceptual Differences and Delivery.

"Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly in their perceptions of conflict potential regarding supplier delivery performance (D)." This perceptual difference between the samples was measured using paired sample T-tests on the responses from Questions # 31., 32., 33., 34., and 35.

None of the differences between the buyer and supplier samples were statistically significant. Therefore, this hypothesis was not supported by the data collected.

5.7 Hypothesis H_7 - Perceptual Differences and Quality.

"Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly

in their perceptions of conflict potential regarding supplier product quality performance (Q)." This perceptual difference between buyer and supplier was examined using Questions # 42., 43., 44., 45., and 46.

Only the responses to Question # 45. were significantly different between the buyer and supplier samples (0.054). This particular question asked the respondent's perception of the supplier's quality performance as opposed to other competitors in the marketplace. Suppliers tended to rank their quality performance higher (6.33) than did their buyer counterparts (5.95). Therefore, the data supported this hypothesis.

5.8 Hypothesis H_8 - Perceptual Differences and Service.

"Buyers and suppliers engaged in collaborative long-term buyer-supplier relationships will differ significantly in their perceptions of conflict potential regarding supplier service flexibility performance (S)." This perceptual difference between the samples was measured using the responses from Questions # 50., 51., 52., 53., and 54.

None of the differences between the buyer and supplier samples were statistically significant. Therefore, this hypothesis was not supported by the data collected.

5.9 Other Research Propositions.

The first research proposition was listed as "Lower levels of conflict potential (i.e., price (P), delivery (D), product quality (Q), and service flexibility (S)), if left unresolved or not resolved to the satisfaction of both buyer and supplier, will lead to higher levels of conflict potential and, eventually, threaten termination of the relationship." The responses to Question # 18., regarding the parties' satisfaction with the resolution of the greatest source of conflict within the buyer-supplier dyad, give some indication of support for this proposition.

Suppliers indicated that they were more often dissatisfied with the resolution of this conflict (43.6 percent) than their buyer counterparts (20.9 percent) (See Table 20). This difference was significant at the 0.05 level. This disparity of satisfaction between the parties could have longer-term implications as the length of relationship increases. However, this potential for future conflict may be mitigated somewhat in that the buyer is more in control of the relationship. This is because the buyer can decide whether or not to continue the relationship more readily than can the supplier, i.e., the supplier has to "sell" its performance in the existing relationship while the buyer can seek out new sources of supply.

The second research proposition, "Successful resolution of IOR conflict, at any level, is likely to result in continuation of the IOR at current levels or in higher level

development of the IOR," addressed the relationship between conflict aftermath and continuation of the relationship as hypothesized in Pondy's stages of conflict development[1] and Cadotte and Stern's process model of conflict.[2] It is then extended in the proposed "Conflict Feedback" model (Figure 3).

In this case, the results of Question # 13. give some indication of support for this proposition. In this question, respondents were asked to indicate their degree of satisfaction with the performance of this particular relationship. Overwhelmingly, both buyer (5.87) and supplier (5.69) indicated that they were highly satisfied (where 5 = moderately high and 7 = high satisfaction) with the performance of the dyadic relationship. There was no significant difference between the samples although the suppliers indicated slightly less satisfaction.

The third research proposition was presented as "Unsuccessful resolution of IOR conflict, at any level, is likely to result in dissolution of the IOR." Only one pair of dyadic respondents (pair # 45) indicated that they did not anticipate that the collaborative relationship would continue into the future. In this one instance, both parties indicated a low level of satisfaction with the performance of the "preferred supplier" relationship. The

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[1]Pondy, 1967, p. 296-320.

[2]Cadotte and Stern, p. 127-158.

buyer indicated that the relationship was over, while the supplier displayed more confidence that things could be worked out.

When asked to rank order the alpha-level conflicts, both parties indicated that the greatest source of conflict between them was price-related. However, responses from the buyer also indicated poor supplier performance in delivery, quality, and service as well. Therefore, the responses from this particular dyad were not included in the statistical analyses discussed in Chapter IV.

The final research proposition was originally presented as "Partial or suboptimal resolution of IOR conflict, at any level, is likely to continue the IOR at current or reduced levels." There was no direct data collected in the research that addressed this proposition.

5.10 Discussion of the Proposed "Levels of Conflict Potential" Model

An analysis of the sample differences of the dependent variables Impact, Intensity, and Importance, derived from the proposed "Levels of Conflict Potential" model (see Figure 2), is very interesting, perhaps more interesting than the results of the relationship between Price, Delivery, Quality, and Service variables and the three dependent variables. For example, seven of the nine measures of Impact, Intensity, and Importance were statistically significant at the 0.05 or 0.10 levels. As

discussed earlier, one of the two Impact measures was statistically significant at the 0.10 level (Question # 60.), and two of the three Importance measures also were statistically significant at the 0.10 level (Questions # 67. and 68.).

In regards to the Impact variable measured by Question # 60., buyers tended to indicate that the effects of conflict on the relationship were more short-term in nature (1.94), while the suppliers indicated that the effects were more moderate-term in nature (2.32). As to the Importance variable, buyers indicated in their responses to Question # 67. that the importance of the source of conflict was higher (3.47) than did their supplier counterparts (4.13). Also, the supplier sample indicated on Question # 68. that it was more critical to maintain a problem-free relationship (1.64) than the buyer sample did (2.21).

However, sample differences for all *four* of the measures of the Intensity variable were statistically significant (Questions # 62., 63., 64., and 65.), with two measures being significant at the 0.05 level (Questions 64. and 65.). This also included differences for the three most statistically significant measures (Questions # 63., 64., and 65.). When reviewed with the results of the regression analysis in Sections 5.1, 5.2, 5.3, and 5.4 above, there appears to be a pattern evolving regarding the dependent variable, Intensity, from the proposed "Levels of Conflict Potential" model. The maximum likelihood exploratory factor

analysis supported this relationship, indicating that all four measures loaded on the same factor.

Question # 62. asked the respondents to generally describe the nature of conflict encountered with the strategic partner. Buyers indicated lower levels of conflict (5.82) than suppliers did (5.39).

In terms of their own emotional reactions (Question # 63.), buyers indicated that they would react less emotionally (5.70) than the supplier sample did (5.18). In anticipating the other party's emotional reactions, suppliers indicated that the buyers would display more emotion (4.88) than would the supplier group (5.61). The results from these two questions indicate that suppliers are more prone to emotional reactions than their buyer counterparts, particularly on Price and Quality. Interestingly, however, when buyers answered Question # 65., they indicated that the level of tension encountered in a conflict situation would be lower (5.45) than suppliers did (4.82).

These results indicate general support for the proposed model, particularly on the dimension of Intensity and, to a lesser extent, on the dimensions of Impact and Importance. There were moderately significant differences in perceptions between the buyer and supplier samples on all three dimensions of the model.

5.11 Discussion of General Results and Conclusions.

In general, it seems that suppliers take a longer-term perspective on collaborative buyer-supplier relationships than do their buyer counterparts. As shown in Tables 13 and 14, buyers tended to concentrate more heavily on short-term, or alpha-level, factors when selecting potential supplier "partners." Suppliers, on the other hand, were more likely to evaluate and select potential buyer "partners" on longer-term issues, such as strategic fit, future potential for growth, and compatible company cultures. Interestingly, these same issues fell into the second half of the list of buyer responses. This could indicate higher levels of conflict potential between the parties in the future because of the basic differences in temporal focus.

In other words, the typical buyer appears to focus more on short-term supplier performance issues, such as the alpha-level factors of price, delivery, quality, and service. The average supplier, on the other hand, seems to be more relationship-oriented. The major sources of tension for the buyer come from price, delivery, quality, and service-related issues, while supplier tension seems to arise from longer term issues such as profitability, information sharing, communication, and commitment. This finding supports Miles' antecedent conditions for conflict.[3] In Miles' model the third antecedent of conflict, diversity,

[3]Miles, p. 131.

indicates that differences or disagreements between groups or organizations arise from incongruent, or competing, goals and objectives. In other words, if buyers are more concerned about short-term supplier performance, and suppliers are more concerned about longer term, relationship-oriented issues, then the potential for ongoing conflict exists.

Secondly, price is a relatively complex issue between buyer and supplier. The a priori expectation was that price could be defined simply as "the invoice amount charged by the supplier to the buyer in exchange for providing goods and/or services as ordered by the supplier." As the factor analysis discussion in Chapter IV demonstrated, multiple price-related issues exist in a long-term collaborative buyer-supplier relationship. This was perhaps the most surprising finding of the study.

Thirdly, it was somewhat surprising to see the significant differences in perceptions between the buyer and supplier samples regarding the each of the three dimensions of the proposed "Levels of Conflict Potential" model, impact, intensity, and importance.

Overall, buyers and suppliers appear to be in general agreement concerning supplier delivery and service performance. Post hoc T-tests of buyer and supplier responses to Question # 24., which asked respondents to rank order sources of conflict (1 = most likely and 4 = least likely), indicated that there was no significant differences

between the two samples.

However, responses between buyers and suppliers were significantly different on both price and quality. Suppliers ranked price as most likely to be a source of conflict, and buyers ranked quality as being most likely to cause conflict between the parties. The price differential was significant at the 0.10 level, while quality was significant at the 0.05 level. However, both buyers and suppliers rated price as the most likely source of conflict. This, coupled with the difficulty encountered in adequately defining "price," should be further investigated.

Generally, suppliers were more likely to be dissatisfied with the resolution of conflict than were buyers (see Table 20 and Section 4.6). Although suppliers are more relationship-oriented than are buyers, this condition could be expected to lead to either continuing or greater conflict over time when the conflict was less likely to be resolved favorably to both parties, according to the Pondy stages of conflict model and the Cadotte and Stern process model of conflict. This suggests that, unless buyers make a greater effort to ensure that suppliers are better off in the long-term collaborative buyer-supplier relationship, there is a risk of greater conflict in the relationship over time.

In a similar vein, buyers were more likely to display strong emotional reactions to conflict than suppliers are (see Tables 28 and 28 and Section 4.6). The buyer sample

indicated that they were less likely to have strong emotional reactions than the supplier sample when faced with conflict; however, the supplier sample indicated the opposite, that buyers were more likely to display strong emotional reactions to conflict situations. Continued strong emotional reactions by buyers may create conflict.

Post hoc T-tests indicated that the differences between the samples were significant at the 0.10 level for the question asking to what extent the respondent's firm's strong emotional reaction entered in the conflict. For the question asking about the respondent's perception of strong emotional reaction by the other firm, the difference was even stronger, significant at the 0.05 level. This suggests that there is a disparity in perceptions by the two parties. This may result from attribution theory that indicates that people impute positive outcomes to their own actions and negative outcomes from situational constraints or actions by others.[4]

5.12 Nature of the Collaborative Relationship over Time

Additional post hoc analysis of variance (ANOVA) testing was performed to gain a sense if there were differences between buyers and suppliers based on the length of the long-term collaborative relationship. For both

[4]John A. Wagner, III and John R. Hollenbeck, Management of Organizational Behavior, Englewood Cliffs, New Jersey: Prentice Hall, Inc., p. 421.

samples, each of the key variables (Price Control, Price Competition, Delivery, Quality, Service, Impact, Importance, and Intensity) were compared to the length of the relationship which was coded as follows:

1. < 2 years = 1.0
2. 2 - 5 years = 2.0
3. 5 - 10 years = 3.0
4. > 10 years = 4.0

For the buyer sample in general, as the length of the collaborative buyer-supplier relationship increased, conflict declined until the relationship reached ten years or more. For relationships of ten years or more, the level of conflict increased, with the exception of the Service variable. All other variables displayed consistent patterns. In the supplier sample, with the exception of Importance, Price Control, and Service, the same pattern occurred, i.e., the potential for conflict increased for relationships greater than 10 years old. This is counterintuitive to what might have been considered a priori.

However, this may suggest that long-term, collaborative buyer-supplier relationships may experience a relationship life cycle, not unlike the widely accepted product life cycle. Only the Service variable from the supplier sample was statistically significant and then only at the 0.10 level. Additional research should be conducted to try and understand this phenomenon.

5.13 Limitations of the Study.

The proposed "Levels of Conflict Potential" model was poorly supported by the data collected. Part of the difficulty had to do with the fact that there were multiple factors relating to price. A second problem area had to do with the small sample size. A larger sample size *n* would have provided greater power and more interpretability to the results. In this case, some results could be left open to some interpretation due to a lack of adequate statistical significance. A third potential problem area could have originated from the inordinate length of the instruments used to survey the buyer and supplier populations.

5.14 Future Research Opportunities and Plans.

This research indicated that there are many facets and complexities involved in a typical long-term collaborative buyer-supplier relationship. To adequately investigate these relationship types, there are several next steps that could be pursued to follow up on these findings. First of all, the detailed comments from the open-ended questions from both the buyer and supplier surveys should be more closely examined. There is a richness of information contained in these open-ended responses. The focus should be on evaluating the alpha-level conflict potential, particularly as it relates to the price variable(s). Additionally, greater insight to beta-level and gamma-level conflict could be derived.

More research needs to be accomplished on the proposed "Levels of Conflict Potential" model, especially the Intensity dimension. It is proposed that a follow-up study using a refined questionnaire, i.e., much shorter and with fewer open-ended questions, be utilized as a basis for a confirmatory factor analysis. This survey would be a broad-based mail survey sent to a cross-section of members of the National Association of Purchasing Management and the American Marketing Association. The results of these surveys would be compared in a similar fashion to this research to confirm differences in perceptions across the two groups and to further validate the model.

Another research direction could involve the longitudinal study of a specific evolving long-term, collaborative buyer-supplier relationship. Intimate access to personnel and information at both the buyer and supplier organizations would be required, as well as records of detailed discussions and negotiations between the two parties.

A third possible research stream would involve the application of marital and interpersonal relationship theory based on gender to long-term collaborative IORs.[5] It could be argued that buyers possess more of the traditionally "masculine" characteristics of behavior in interpersonal relationships, while suppliers, since they are more

[5]See Dyadic Decision Making, David Brinberg and James Jaccard, editors, New York: Springer-Verlag, Inc., 1989.

"relationship-oriented," demonstrate more of the traditional "feminine" gender role in interorganizational relationships. Perhaps Hofstede's model on cross-cultural differences could be adapted and applied here to determine behavioral differences between buyers and suppliers.[6]

5.15 Summary.

This dissertation research has attempted to further the study of collaborative buyer-supplier relationships through the study of matched dyads of buyers and suppliers engaged in strategic long-term, collaborative interorganizational relationships. This is one of the few studies that sought to study collaborative relationships using matched pairs of buyers and suppliers. A cursory review of the literature published since the end of the literature review contained in Chapter III and the time of this writing still indicated that minimal dyadic research has yet to be conducted.

Studying interorganizational buyer-supplier relationships without using matched pairs of buyers and suppliers is akin to studying a marriage relationship without utilizing specific couples. Much of the richness and depth of understanding of the intimate intricacies of the relationship is lost when matched dyads are not utilized. At a minimum, these kinds of studies should

---

[6]Geert Hofstede, "Motivation, Leadership, and Organization: Do American Theories Apply Abroad?" Organizational Dynamics, Volume 9, 1980, pp. 42-63.

compare responses across the populations of buyers and suppliers, not just from either the buyer's perspective or the supplier's perspective.

It is obvious from the results of this research that supply chain management as forwarded in the literature and in practice is still very much a "buyer mentality." This means that the potential for significant conflict is still present in collaborative buyer-supplier relationships. Additional research should strive to determine how successful buyer-supplier "partnerships" manage conflict potential over time.

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CONFLICT POTENTIAL IN STRATEGIC BUYER-SUPPLIER RELATIONSHIPS

VOLUME II

By

James L. Patterson

A DISSERTATION

Submitted to
Michigan State University
in partial fulfillment of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

Department of Marketing and Supply Chain Management

1999

APPENDICES

APPENDIX A

MANUFACTURER FIELD NOTES - February 22, 1994

==========

Note: "Manufacturer" is unnamed buying firm (consumer goods and OEM supplier). "Corrugated supplier" is unnamed supplying firm to Manufacturer. "Plastics supplier" is unnamed supplying firm to Manufacturer. "Old corrugated supplier" is former supplier to Manufacturer. "New gasket supplier" is unnamed prospective supplying firm to Manufacturer.

==========

Corrugated supplier

Has been corrugated supplier since 1984

Has about 95% of current corrugated business, was about 60% prior

Has been single source for about 1 year

Corrugated cosmetics are extremely important (critical)

Delivery target is plus/minus 0 days; provide vendor with weekly feedback

Vendor sales rep visits Manufacturer once per week

Vendor recently tried to get 6% price hike, but pulled back after Manufacturer's buyer questioned pricing rationale in purchasing manager's absence

Vendor told that Manufacturer management actually wanted to seek price decrease

Manufacturer wants to maintain cooperative long-term relationship with Corrugated supplier

Manufacturer is seeking continuous improvement at Corrugated supplier to reduce their costs

Corrugated supplier is installing new corrugator to reduce cost and improve quality

Corrugated supplier visiting Manufacturer Wednesday, call later in week to see if they are interested in participating in study

Manufacturer is approximately 20% of Corrugated supplier's business

Manufacturer takes a total cost viewpoint on dealing with suppliers

Vendor has not provided Manufacturer with detailed cost breakdowns, Manufacturer doesn't require

Corrugated supplier trying to become ISO 9000 qualified, process has impacted customer service as QC manager has delegated daily QC operations to supervisor so manager can concentrate on ISO 9000 process; quality has suffered

Quality initially went down when Manufacturer transferred business from old corrugated supplier on 2 weeks notice

Manufacturer pulled out of old corrugated supplier and moved business into Corrugated supplier within 2 weeks

Manufacturer's buyer physically picked up printing dies and delivered a check to clear up an outstanding invoice from old corrugated supplier

Initial printing quality problems getting up to snuff with additional volumes, some short lead time requests placed on Corrugated supplier

Could have used time to clean and repair printing plates

Manufacturer has high need for clear printing on retail products, and to lesser extent, on OEM products

2 weeks changeover from old corrugated supplier to Corrugated supplier could have been handled better with more planning, had to react instead

==========

Plastics supplier

#1 plastics supplier, in business with Manufacturer since 1984

Have about 60% of total plastics business

Starting new Manufacturer program as JIT pilot supplier with Plastics supplier and hope to extend program to top 20 suppliers later on

Vendor has actually reduced price between 2-4% in last year

Manufacturer is approximately 15% of Plastics supplier's business

Information provided by Manufacturer -

MPS-based, 10 month forecast with daily breakdown for first 2 weeks, weekly for next 90 days, monthly thereafter

Manufacturer's delivery reports go to Plastics supplier's chief executive weekly

Some issue regarding notification of late deliveries, Plastics supplier wants Manufacturer to change PO to not get hit on late delivery

Have some quality issues

Plastics supplier has supplied cost breakdowns to Manufacturer

Vendor has been willing to share information

Manufacturer shares other plastic supplier's performance with Plastics supplier

==========

Old corrugated supplier

When vendor had problems in delivery and quality, Manufacturer and old corrugated supplier agreed to specific performance targets on delivery (80% on-time initially) and quality (4% defective moving down to 1% over 3 months)

Vendor initially met and exceeded delivery targets, then fell off

Vendor did not meet quality targets

Manufacturer rejected shipment marked with Manufacturer "Reject" stickers, then shipment was sent back to Manufacturer without explanation, with no corrective action taken

Viewing of old corrugated supplier operations by buyer (dressed in jeans traveling with truck driver) - poor employee attitudes regarding old corrugated supplier

==========

New Gasket Supplier

Manufacturer soon to conduct introductory audit with multidisciplinary team including plant manager, quality assurance, and plant personnel

Audit procedural document/questionnaire is 20 pages

Audit covers different areas

- capabilities
- procedures
- systems
- quality corrective actions

On-site Manufacturer audit is conducted after vendor does similar self-audit

Manufacturer does Dun and Bradstreet report on prospective vendors

Manufacturer asks for business (customer) references and talks with them

Old gasket company had dealings with founder from early on in Manufacturer's history

Old gasket company was corporate contract (for all Manufacturer plants)

Other Manufacturer plants (Mexico and others) pulling out from old gasket supplier

Old gasket company president visited Manufacturer to view problems and then blew off the problem

Letter in reply was short and did not address the problems Manufacturer asked to be addressed, very curt and cocky

Manufacturer asked vendor to meet with Manufacturer floor operators (done) and to audit their cutting subcontractors (not done)

==========

How do you (Manufacturer) decide to get involved in a long-term relationship?

Factors

Location of sources (local plant choice - 100 miles or about 3 hours [in and back in 1 day], corporate choice - 500 miles)

Face-to-face same-day problem solving is important

Responsiveness to Manufacturer's RFQs (on-time or early)

Competitive pricing

Savings potential

Quality (Manufacturer willing to pay some premium)

Delivery

Responsiveness to expediting

Problem solving approach

Qualifications/Capabilities

95% on-time delivery from Day 1, plus or minus 0 days

Zero defects

Salesperson qualifications

Prequalification (purchasing + self-audit)

Qualification audit (multidisciplinary)

==========

Other Manufacturer Issues/Comments

Manufacturer Corrective Action Form

Problem is that suppliers often correct problem only on individual parts covered by a Corrective Action Form without extending corrective actions throughout part families or other applicable parts (idea of forward thinking required)

Manufacturer issues 25-30 Corrective Action Forms monthly

Biggest quality problem is shipments not marked with Manufacturer identification numbers such as part number, PO, etc.

Manufacturer charges vendor $125 to relabel correctly

Contracts

Manufacturer has no plant written contracts with Corrugated supplier, Plastics supplier, or pressed board supplier

Manufacturer is thinking about contract with Plastics supplier because of corporate pressure

Hard-to-see benefits of written contracts, PO serves as the contract

Manufacturer acknowledges that written contracts may have some risks with vendor managing contract rather than relationship

Manufacturer would want contracts with some vendors, hard to define which ones, probably small $ amounts or corporate pressure

Manufacturer (corporate) does have contract with Japanese supplier of key components spelling out timeframes, returns, and pricing

After 6 months without rejects, Manufacturer allows vendor to apply for certificate of achievement indicating it is a qualified supplier (not automatic)

Manufacturer wants vendors to be responsive to Corrective Action Forms

Trying to figure out how to develop vendor scorecard, price is tricky

==========

Deliverables to Manufacturer

Report of findings from Manufacturer and from vendors

Principal investigator (PI) will not provide information from vendors if vendor doesn't want Manufacturer to know

Manufacturer is willing to share delivery, quality, and other information with PI

APPENDIX B

CORRUGATED SUPPLIER FIELD NOTES - March 9, 1994

==========

Note: "Manufacturer" is unnamed buying firm (consumer goods and OEM supplier). "Corrugated supplier" is unnamed supplying firm.

==========

Corrugated supplier did about $500,000 in business with Manufacturer last year

Manufacturer (as a company) is very professional

Relationship started when previous corrugated supplier's packaging problem was not resolved; new Corrugated supplier addressed problem responsively

Home products business moved from previous corrugated supplier to new Corrugated supplier

Re: Recent price increase attempt

Corrugated supplier is an independent corrugator w/o own paper mills

Corrugated supplier at mercy of other paper companies with mills who sell to them

Corrugated supplier currently uses 6-7 different paper suppliers

In 1993, corrugated industry tried to pass through mill's price increase in October

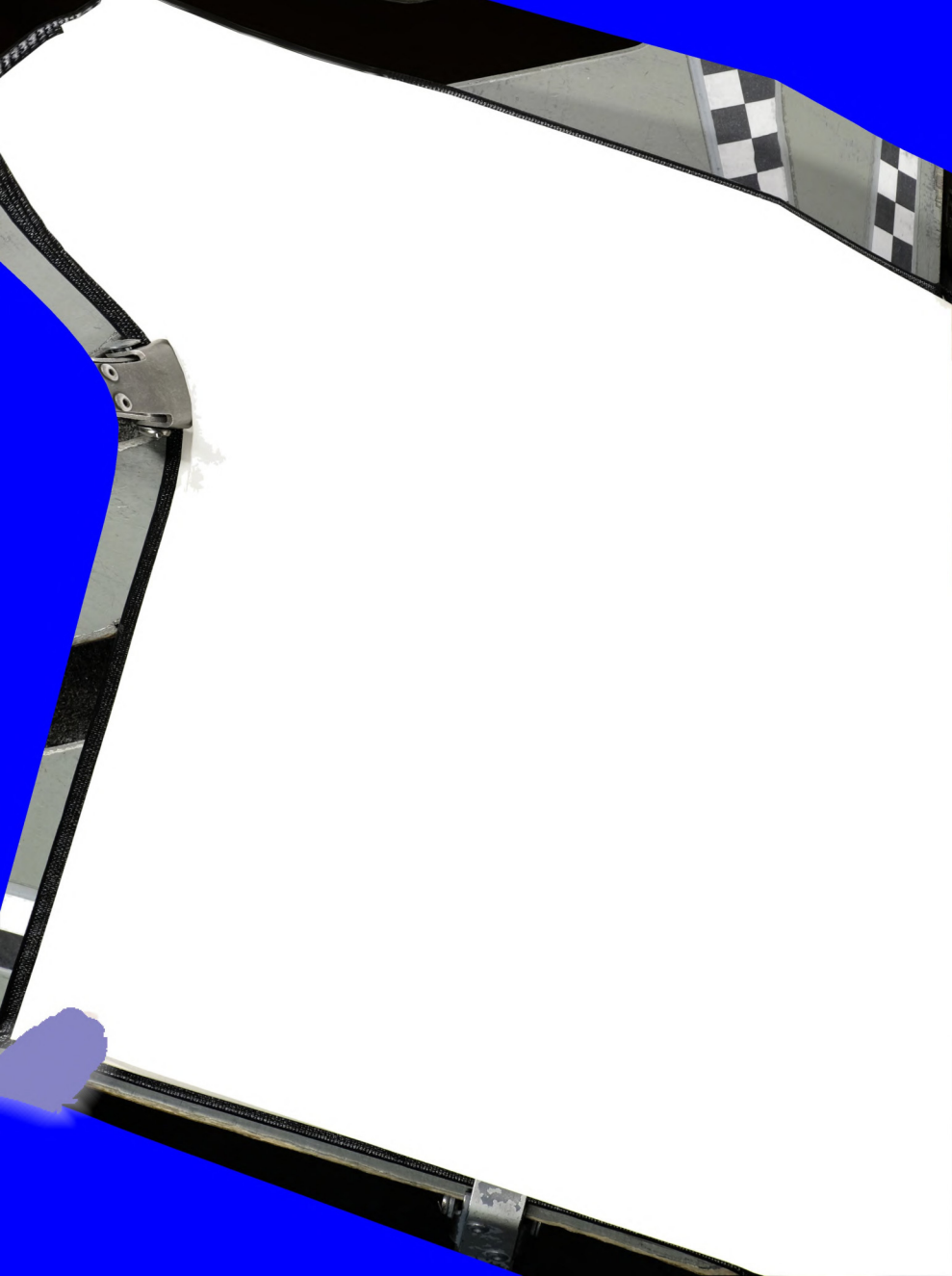
In first half of 1994, another price increase attempt is possible

Manufacturer's response to increase was that an OEM manufacturer, whom the Manufacturer sells to, is trying to reduce their prices by 5%, therefore, Manufacturer cannot pass through increase from their suppliers

Manufacturer is unfamiliar with box business

Corrugated supplier has had difficult time convincing manufacturer about inspections and other quality parameters of box business

Corrugated supplier has turned print quality around, not 180 degrees, but more like 100 degrees due to education of



Corrugated supplier by Manufacturer (i.e., long strides)

Part of problem is that box industry is not as technical as Manufacturer's business, and Manufacturer has hard time understanding

Manufacturer's expectations have driven quality improvement at Corrugated supplier

extremely high expectations

improvements for Manufacturer flow over into other business at Corrugated supplier

"Industry standards" is old-fashioned way of doing business; now have to accommodate customer

Typically in box business, quantity shipped varied about 10% from order quantity and was generally acceptable

Manufacturer expects <u>exact</u> quantities every time

Boxes to be picked up Manufacturer daily, following introduction of daily shipments at plastics supplier

Efforts to control pricing is being attacked through larger quantities instead of price increases

Current supply chain is OEM-manufacturer-driven; price passthroughs hurt throughout system

Corrugated supplier spending $8.4 million in capital improvements (new corrugator)

Corrugated supplier expects improvements in:
- productivity
- quality
- speed

Trying to prevent future increases is rationale of spending capital

If Corrugated supplier doesn't get adequate price increases (in general), then management is willing to lose non-profitable business

Paper is now historically cheaper than 4-5 years ago

Other customer relationships:

Example of "partnership" - unnamed machine shop in Southern Michigan (I've been there and concur with machine shop philosophy)

Other companies are still either a partner or a customer

Manufacturer's purchasing manager's job is to increase performance but needs to be reasonable with Corrugated supplier

Example of "reasonable" - Japanese OEM-vendor in Southern Michigan allows its vendors to "ask" for a 3% COLA increase per year; may not get it, but can ask

Japanese OEM-vendor was approached for recent 6% increase by both Corrugated supplier and competing corrugated supplier

Continuous Improvement

Long-term quality problem might be caused by new corrugator start-up; both current corrugators (to both be replaced by new one) will remain operational until new one is fully up

Recent quality problem (mis-slotted boxes) occurred last week and again yesterday

Corrugated supplier sorted on-site at Manufacturer with own personnel

Corrugated supplier's plant manager's long-term solution is to purchase new slotter die (done)

Previous corrugated supplier situation

Previous corrugated supplier refused to sort defects unless Manufacturer paid for it; wanted truckload of defects sent back to plant

Previous corrugated supplier failed to satisfy the customer

Corrugated supplier is committed to Manufacturer to solve mis-slots as soon as possible

They want to do such a good job in order to maintain □ 100% of box business

Plant manager bought new printing plates and cutting dies at beginning

Corrugated supplier doesn't expect situation (mis-slots) to get so bad (in terms of service and quality) so as to lose the business

Willing to lose on price, not others (?)

Manufacturer picks up; soon to be daily

Some problems over holidays

ISO 9000

Became ISO 9000 (9001) qualified last Wednesday; took about 1 year

Process has been a disruption to operations

Purchasing was "loose," i.e. department heads could purchase

Department heads can no longer do purchasing

Part of process is to have job descriptions to allow others to step in

All doors and drawers had to be identified

Documentation is a big issue

Improvement is flowing down in terms of attitudes

Biggest thing on partnerships is two-way feedback

Example: With two other of top four customers, machine shop and point of purchase display manufacturer, vice presidents routinely ask Corrugated supplier's opinion of "partnership"

Manufacturer maybe doesn't outwardly see that response and reinforcement of "How's it going?"

Japanese OEM-vendor is fourth top customer

Manufacturer's quality person must have been reading literature because she wants to "help" Corrugated supplier out with their process; responses indicate that she doesn't understand the corrugated box industry

Manufacturer is holding Supplier Appreciation Meeting in Southern Michigan plant on May 11

Corrugated supplier feels that it is important to talk about Manufacturer's discrepancies

Example: A recent specification change (called Rev's by Manufacturer) caused a dispute between Corrugated supplier and Manufacturer

All load tags for Manufacturer must have Part # and Rev # spelled out

Manufacturer faxable order stated Rev 1 when most recent drawing stated Rev 2 for a particular part #

Corrugated supplier shipped Rev 1, and Manufacturer complained that it was out-of-date

Manufacturer (engineer) said that Corrugated supplier should have caught the discrepancy even though they (buyer) specifically asked for out-of-date specification

For a partnership to work:

Both parties must be very open

Communication should be a two-way street (open)

Corrugated supplier wants to build relationship from here

However, a major stumbling block will be another price increase request

Japanese OEM-vendor (30-36 active numbers)

Customer is changing all part #'s from names/numbers to all numbers

Customer recently met with their 3 corrugators and 6-7 engineers in the same room to discuss the changes in new specifications and materials

Apparently, this is no problem in corrugated vendor collusion from earlier price fixing Justice Department ruling

Japanese OEM-vendor wants working drawings for all items using their format

Responsiveness in making changes is key for Japanese OEM-vendor

short time to do (Corrugated supplier ended up with shorter response window than other two vendors

question of who pays for the changes, about 45 hours of engineering time; as yet unresolved

Manufacturer (53-56 active items currently)

Manufacturer is currently moving some volume to their Mexican plant and gaining other items from other plants

Corrugated supplier is well satisfied with the amount of information Manufacturer supplies

When daily deliveries start, could get 12 months ahead on information requirements

Manufacturer generally makes few changes from faxable orders, about 1 per month

Changes are generally delivery times, not quantities

APPENDIX C

PLASTICS SUPPLIER FIELD NOTES - March 13, 1994

==========

Note: "Manufacturer" is unnamed buying firm (consumer goods and OEM supplier). "Plastics supplier" is unnamed supplying firm to Manufacturer.

==========

Has been Manufacturer vendor since 1984

Going towards JIT delivery (daily deliveries)

Used as a communication tool

Weekly faxable orders or via Federal Express (orders)

Orders now received twice per week on Tuesdays and Fridays

Under JIT, orders will be delivered by Plastics supplier; later, milk runs will be conducted combining deliveries from several vendors

Plastics supplier has been pushing Manufacturer to begin electronic data interchange for the past year and a half

Must be win-win situation

EDI should improve inventory turns for both parties

85% of Manufacturer's capacity is assembly area, not storage

When trying to add another line, Manufacturer would need to decrease its inventory and increase its inventory turns to free up space

Plastics supplier is currently using EDI with several customers including American OEM manufacturer and Japanese OEM manufacturer

Have been into EDI for about 8 years

They have recommended a "mail box" EDI system for Manufacturer, using "advance shipping notices" (ASNs)

Manufacturer uses weekly buckets for 13 weeks, then monthly after that

Plastics supplier's history

Plastics supplier has had its ups and downs especially in terms of

- quality
- delivery (major problems came and went)
- price

Respondent would like to briefly introduce me to owner (turned out to be not available)

Plastics supplier has designed an "Expected Delivery Report" aiming for 100% delivery performance; used as a checkoff

Manufacturer's dailies (orders) have not had many changes, < 5%

Manufacturer uses a fixed leadtime of 20 days (4 work weeks) of visibility which is an average leadtime for Plastics supplier

Plastics supplier has about 40 customers; Manufacturer is considered to be a "good" customer

There are about 6 or 7 "good" customers

Plastics supplier has about 36 active parts with Manufacturer-Local; they also supply two other Manufacturer plants as well

Goals and Objectives with Manufacturer

Over the nest 2-3 years, they want a larger share of Manufacturer's business; very proactive

Their daily performance:

- delivery used to be about 60%
- now climbing steadily, approaching 100%

Last year Plastics supplier was considered to be Manufacturer-Local's #1 vendor

However, Plastics supplier's plant manager used to call Manufacturer a "pain.

Owner feels that Manufacturer is a good customer

Some concerns with tooling

Plastics supplier is undergoing a change in its culture toward the customer

Moving toward shorter leadtimes, smaller quantities of each part #

Plastics supplier wants to be Manufacturer's only plastics supplier, but it has to make sense for both firms

Plastics supplier considers itself to be a niche supplier providing full-service injection molding

They are preferred suppliers for major U.S. furniture manufacturer, major U.S. electronics manufacturer, and major U.S. automobile manufacturer

They also provide additional value-added activities including stamping, painting, and assembly

Also have a "clean room" for molding clear lenses

Plastics supplier has facilities in Michigan (3) and 2 in Europe

Immediate Activities

Getting their delivery and quality act together

Expected reward - new Manufacturer business

Sales with Manufacturer grew steadily and now has leveled off somewhat, stagnant

Volume drives performance improvements and is interconnected into Manufacturer's information loops

They want the daily deliveries to expand to include Plastics supplier parts only; current volume is not large enough, requiring the milk run

Manufacturer is considered a "strategic" account

Plastics supplier's business plan is to maintain diversification with only 50% of the business to be in auto-related businesses

They want to help make Manufacturer-Local more successful (i.e., more business for Plastics supplier)

Increased volume for Manufacturer-Local (new products) would be better for both



Other Areas of Possible Conflict

There have been problems with design and manufacturability of some Manufacturer parts from Manufacturer-Corporate

Manufacturer-Local has no engineering and design capability (all corporate-level)

There is not good communication between Manufacturer-Corporate and Manufacturer-Local

Sometimes, Plastics supplier finds out about new products and changes before Manufacturer-Local does

Then, Plastics supplier lets Manufacturer-Local know the changes by keeping them in the loop

Manufacturer meets regularly with Plastics supplier engineering and design

Example of Recent Conflict

Japanese OEM customer (to Manufacturer) program introduced in last 6 months at low volumes

Plastics supplier has taken hits on quality and delivery

Cause of problem is internal to Manufacturer because of equipment problems at Local

A certain subassembly was made at Plastics supplier using sonic and/or vibration welding techniques

very technical
problem with machinery at Manufacturer

There was a need to meet together and resolve the problems; not done immediately; fingerpointing initially

Quality is critical due to nature of Manufacturer's products

Research and development from Manufacturer-Corporate met with equipment vendor

Corporate did not keep Manufacturer-Local informed

Plastics supplier took initiative and got Manufacturer-Corporate, Manufacturer-Local, Plastics supplier, and Manufacturer's equipment vendor together to address the problems

Initial positions were fingerpointing, i.e. "Who shot Johnny?"

Bringing the parties together to resolve the issues requires respect for each position and responsiveness

Labeling Problems

Generally, people issues at Plastics supplier

Steps taken to resolve labeling:

training aspects
hired new Human Resources manager to address people issues
beginning new self-directed work teams (in infancy)
week of 3/28 starting with 3 work teams of 6 people each

Program

Called "Continuous Process Improvement" or CPI; program facilitated by Plante and Moran

Involves 3 days of training with facilitator

Goal is having all 300 employees on a self-directed work team

Management orientation was conducted in September, 1993

Management has undergone team-building training

Respondent manager at Plastics supplier is head of the Leadership Council charged with implementation

Problem with German OEM customer (to Plastics supplier)

Quality problems due to an engineering change made without having adequate inventory to cover the transition

Still trying to resolve (respondent manager received telephone call during interview about the situation)

Future Interaction with MSU

Would like to cover "cradle to grave" review of process to look at where break points might occur

Would be done on another trip to Plastics supplier

Concluding Remarks

Quality is the key to the Manufacturer relationship

Current area of Manufacturer-related problems is quality

Right now at 98% of all lots defect free; Manufacturer's standard is 100%

Owner drives performance down throughout the corporation

Plastics supplier-Manufacturer is a good solid partnership

Future

milk run
EDI (really sold on)
accuracy
improves leadtimes
allows analysis versus clerical input to enter order data from faxable orders into Plastics supplier computer

Partnership requires a high level of trust where you "earn your stripes daily"

APPENDIX D

BUYER FIRM QUESTIONNAIRE

==========

INSTRUCTIONS:

Thank you for agreeing to participate in this study of strategic buyer-supplier relationships. The following questions are designed to determine how your company perceives its relationship with a designated key supplier. All of the specific answers provided to these questions will be held in the *strictest* of confidence and will *not* be released to any other individual or organization without your prior written authorization. The results of this questionnaire will be presented and made available only in aggregated form. All company and respondent names will be disguised or omitted unless previously authorized in writing.

Please answer all questions as accurately as possible. However, your best-educated estimate is preferred over no answer at all, so please answer all questions to the best of your knowledge. If you wish to make additional comments, please feel free to jot them in the margin of the questionnaire, or write them on the back of a page.

If you wish to receive a summary of the findings of this study, please indicate so below and enclose your business card along with your completed responses. Again, your valued participation is greatly appreciated. Thank you for your time and thoughtfulness in completing this questionnaire.

==========

RESPONDENT COMPANY PROFILE:

Company name: _____

Address: _____

Your name: _____

Job title: _____

Telephone: _____

Fax: _____

E-mail: _____

Date completed: _____

Study results desired? (CIRCLE ONE): Yes No

(Please attach your business card)

==========

RESPONDENT COMPANY INFORMATION:

1. Describe the primary industry in which your company's products and/or services compete.

   _____

   2-digit SIC code (SEE LAST PAGE) _____

2. What is your company's total annual sales for most *recent* fiscal year?

   $_____

   How many total employees? _____

3. What is the name of the previously identified supplier company in this strategic, long-term collaborative relationship?

   _____

4. Who is your primary contact at this supplier company?

   Name: _____

   Title: _____

   Phone: _____

5. What is the primary (key) product (or commodity) purchased from this strategic supplier?

   _____

6. How long has your company been involved in a strategic, long-term collaborative buyer-supplier relationship with this particular supplier company? CIRCLE ONE.

   < 2 years 2-5 years 5-10 years > 10 years

7. In terms of this strategic supplier's total annual sales, what proportion is your annual purchases from this supplier? CIRCLE ONE.

   < 5% 5-15% 16-30% 31-45% 46-60% 61-75% > 75%

8. What is the nature of this strategic buyer-supplier relationship?

   a. single source
   b. dual source
   c. multiple source (1 of _____ sources)

9. If you are using more than one source, what proportion of your total needs for the key product (or commodity) identified in Question # 5 above are being satisfied by this particular supplier? CIRCLE ONE.

< 5% 5-25% 25-50% 50-75% > 75%

10. Which of the following factors (or selection criteria) did your company consider in selecting this supplier to participate in a strategic, long-term collaborative relationship?

_____ Price
_____ Quality
_____ Management philosophy
_____ Delivery
_____ Expertise of supplier
_____ Product line
_____ Trustworthiness
_____ Strategic fit
_____ R&D capabilities
_____ Location
_____ Previous business
_____ Customer service
_____ Recommendation
_____ Reputation
_____ Financial stability
_____ Compatible cultures
_____ Future growth
_____ _____

9. Indicate your company's priorities on the following strategic attributes?

ATTRIBUTE	IMPORTANCE						
	Low			Moderate			High
Price	1	2	3	4	5	6	7
Delivery	1	2	3	4	5	6	7
Technology	1	2	3	4	5	6	7
R & D	1	2	3	4	5	6	7
Quality	1	2	3	4	5	6	7
Features	1	2	3	4	5	6	7
Service	1	2	3	4	5	6	7
Flexibility	1	2	3	4	5	6	7



12. How does your company define a strategic, long-term collaborative buyer-supplier relationship?

_____

_____

==========

BUYER-SUPPLIER RELATIONSHIP INFORMATION:

For purposes of this survey, a strategic, long-term collaborative buyer-supplier relationship is defined as "a mutual, ongoing relationship involving a commitment over an extended period of time, and a sharing of information and the risks and rewards of the relationship."

13. What is your company's overall degree of satisfaction with the performance of this strategic, long-term collaborative buyer-supplier relationship? CIRCLE ONE.

Low	Moderately Low			Moderately High		High
1	2	3	4	5	6	7

14. What attracted your firm to this particular supplier as a candidate for a strategic, long-term collaborative relationship?

_____

_____

15. In retrospect, is there anything different that your firm would have included in the selection and evaluation of this particular supplier for a strategic, long-term collaborative relationship?

_____

_____

16. What has been the greatest single source of conflict with this particular supplier following the establishment of the strategic, long-term collaborative relationship? Why?

_____

_____

17. How was this particular conflict episode resolved?

_____

_____

18. Were you satisfied with the resolution of this conflict episode? CIRCLE ONE.

Yes No

19. Why or why not?

_____

_____

20. What other significant conflicts have occurred with this particular key supplier over the past five (5) years? How did they differ from the conflict described in Question # 16 above?

_____

_____

21. Do you anticipate that you will continue to participate in this strategic, long-term collaborative buyer-supplier relationship into the future? CIRCLE ONE.

Yes No

22. If you answered "Yes" to Question # 21, over what time horizon do you anticipate that the relationship will continue? CIRCLE ONE.

< 2 years 2-5 years 5-10 years > 10 years

23. If you answered "No" to Question # 21, why not?

_____

24. Rank order the following sources of conflict that have occurred or might occur with this strategic supplier from most likely (1) to least likely (4). USE EACH NUMBER (1, 2, 3, or 4) ONLY ONCE.

Price _____ Delivery _____ Quality _____ Service _____

==========

PRICE RELATED ISSUES:

Price is defined as "the invoice amount charged by the supplier to the buyer in exchange for providing goods and/or services as ordered by the buyer."

For each question, CIRCLE a response regarding how your firm feels about the price-related issues presented. Your response should address only the past two (2) years of the relationship.

25. How do you rate this supplier's ability to maintain or control its prices over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

26. How do you rate this supplier's ongoing price reduction efforts?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

27. How do you rate your ability to receive preferential pricing from this supplier?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

28. How do you rate this supplier's pricing as opposed to other firms that can supply this item to your firm?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

29. What is the level of price-related conflict encountered with this supplier?

Low		Moderately Low		Moderately High		High
1	2	3	4	5	6	7

30. Define your pricing performance expectations and/or criteria regarding this supplier?

_____

==========

DELIVERY-RELATED ISSUES:

Delivery is defined as "the supplier's fulfillment (shipment and subsequent receipt by the buyer) of a buyer's order in a timely fashion and in accordance with the buyer's shipping instructions."

For each question, CIRCLE a response regarding how your firm feels about the delivery-related issues presented. Your response should address only the past two (2) years of the relationship.

31. How do you rate this supplier's ability to maintain or control its delivery performance over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

32. How do you rate this supplier's ongoing delivery performance improvement over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

33. How do you rate your ability to receive preferential delivery performance from this supplier?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

34. How do you rate this supplier's delivery performance as opposed to other firms that can supply this item to your firm?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

35. What is the level of delivery-related conflict encountered with this supplier?

Low		Moderately Low		Moderately High		High
1	2	3	4	5	6	7

36. Define your delivery performance expectations and/or criteria regarding this supplier?

_____

_____

37. Are you involved in just-in-time delivery for this key commodity with this particular supplier? CIRCLE ONE.

Yes No No longer In the future

38. How often does this supplier deliver late?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

39. How often does this supplier deliver early?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

40. What is this particular supplier's on-time delivery percentage? CIRCLE ONE.

< 25% 25-50% 50-75% 75-90% > 90%

Exact percentage (if known): _____%

41. What is the expected order cycle time for this particular key commodity from this particular supplier (from time of order to time of delivery)?

_____

==========

QUALITY-RELATED ISSUES:

Quality is defined as "how well the supplier's products and/or services meet the buyer's specifications."

For each question, CIRCLE a response regarding how your firm feels about the quality-related issues presented. Your response should address only the past two (2) years of the relationship.

42. How do you rate this supplier's ability to maintain or control its quality performance over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

43. How do you rate this supplier's ongoing quality performance improvement over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

44. How do you rate your ability to receive preferential quality performance from this supplier?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

45. How do you rate this supplier's quality performance as opposed to other firms that can supply this item to your firm?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

46. What is the level of quality-related conflict encountered with this supplier?

Low		Moderately Low		Moderately High		High
1	2	3	4	5	6	7

47. Define your quality performance expectations and/or criteria regarding this supplier?

_____

48. How often does this supplier have defective shipments that fail your incoming inspection?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

49. What types of quality problems occur with this particular supplier?

_____

_____

==========

SERVICE RELATED ISSUES:

Service is defined as "the supplier's ability to react to and meet the buyer's routine and nonstandard situations or requests."

For each question, CIRCLE a response regarding how your firm feels about the service-related issues presented. Your response should address only the past two (2) years of the relationship.

50. How do you rate this supplier's ability to maintain or control its service performance over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

51. How do you rate this supplier's ongoing service performance improvement over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

52. How do you rate your ability to receive preferential service performance from this supplier?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

53. How do you rate this supplier's service performance as opposed to other firms that can supply this item to your firm?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

54. What is the level of service-related conflict encountered with this supplier?

Low		Moderately Low		Moderately High		High
1	2	3	4	5	6	7

55. Define your service performance expectations and/or criteria regarding this supplier?

_____

_____

56. How often does the supplier meet its quoted leadtime?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

57. Does the supplier go out of its way in an emergency to help you?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

58. Are messages and phone calls answered in a timely manner?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

59. How would you characterize the nature of the effects (or results) of conflict encountered with this particular supplier?

Short-Term		Moderate Term		Long-Term
1	2	3	4	5

60. How do you perceive that this strategic supplier will characterize the nature of the effects (or results) of conflict encountered with your firm?

Short-Term		Moderate Term		Long-Term
1	2	3	4	5

61. Which of the following conflict resolution techniques would you characterize as being utilized most frequently by this particular supplier?

a. persuasion
b. bargaining or compromise
c. coercive power or threats
d. joint problem solving

60. Which of the following would generally describe the nature of conflict encountered with this strategic supplier?

High		Moderately High		Moderately Low		Low
1	2	3	4	5	6	7

63. To what extent does strong emotional reaction by your company enter into conflict resolution with this particular supplier?

Always		Frequently		Infrequently		Never
1	2	3	4	5	6	7

64. To what extent does strong emotional reaction by the supplier enter into conflict resolution with your company?

Always		Frequently		Infrequently		Never
1	2	3	4	5	6	7

65. To what extent would you characterize the level of tension encountered when conflict with this particular supplier arises?

High		Moderately High		Moderately Low		Low
1	2	3	4	5	6	7

66. How important are joint goal setting and goal achievement in maintaining the relationship with this strategic supplier?

Minor	Somewhat Unimportant			Somewhat Important		Major
1	2	3	4	5	6	7

67. How would you characterize the importance of the source(s) of conflict encountered with this strategic supplier?

High		Moderately High		Moderately Low		Low
1	2	3	4	5	6	7

68. How critical to your company is maintaining a problem-free relationship with this particular supplier?

Very Critical		Critical		Non-Critical		Very Non-Critical
1	2	3	4	5	6	7

Listing of 2-digit SIC Codes (See Appendix G)

APPENDIX E

SUPPLIER FIRM QUESTIONNAIRE

==========

INSTRUCTIONS:

Thank you for agreeing to participate in this study of strategic buyer-supplier relationships. The following questions are designed to determine how your company perceives its relationship with a designated key supplier. All of the specific answers provided to these questions will be held in the *strictest* of confidence and will *not* be released to any other individual or organization without your prior written authorization. The results of this questionnaire will be presented and made available only in aggregated form. All company and respondent names will be disguised or omitted unless previously authorized in writing.

Please answer all questions as accurately as possible. However, your best-educated estimate is preferred over no answer at all, so please answer all questions to the best of your knowledge. If you wish to make additional comments, please feel free to jot them in the margin of the questionnaire, or write them on the back of a page.

If you wish to receive a summary of the findings of this study, please indicate so below and enclose your business card along with your completed responses. Again, your valued participation is greatly appreciated. Thank you for your time and thoughtfulness in completing this questionnaire.

==========

RESPONDENT COMPANY PROFILE:

Company name: _____

Address: _____

Your name: _____

Job title: _____

Telephone: _____

Fax: _____

E-mail: _____

Date completed: _____

Study results desired? (CIRCLE ONE): Yes No

(Please attach your business card)

==========

RESPONDENT COMPANY INFORMATION:

1. Describe the primary industry in which your company's products and/or services compete.

   _____

   2-digit SIC code (SEE LAST PAGE) _____

2. What is your company's total annual sales for most *recent* fiscal year?

   $_____

   How many total employees? _____

3. What is the name of the previously identified customer company in this strategic, long-term collaborative relationship?

   _____

4. Who is your primary contact at this customer company?

   Name: _____

   Title: _____

   Phone: _____

5. What is the primary (key) product (or commodity) sold to this strategic customer?

   _____

6. How long has your company been involved in a strategic, long-term collaborative buyer-supplier relationship with this particular customer company? CIRCLE ONE.

   < 2 years 2-5 years 5-10 years > 10 years

7. In terms of this strategic customer's total annual purchases, what proportion is your annual sales to this customer? CIRCLE ONE.

   < 5% 5-15% 16-30% 31-45% 46-60% 61-75% > 75%

8. What is the nature of this strategic buyer-supplier relationship?

   a. single source
   b. dual source
   c. multiple source (1 of _____ sources)

9. If the customer is using more than one source, what proportion of your total sales for the key product (or commodity) identified in Question # 5 above are being purchased by this particular customer? CIRCLE ONE.

< 5% 5-25% 25-50% 50-75% > 75%

10. Which of the following factors (or selection criteria) did your company consider in selecting this customer to participate in a strategic, long-term collaborative relationship?

_____ Volume
_____ Quality
_____ Management philosophy
_____ Delivery requirements
_____ Expertise of buyer
_____ Product line of buyer
_____ Trustworthiness
_____ Strategic fit
_____ R&D capabilities
_____ Location
_____ Previous business
_____ Customer service
_____ Recommendation
_____ Reputation
_____ Financial stability
_____ Compatible cultures
_____ Future growth
_____ _____

9. Indicate your company's priorities on the following strategic attributes?

ATTRIBUTE	IMPORTANCE						
	Low			Moderate			High
Price	1	2	3	4	5	6	7
Delivery	1	2	3	4	5	6	7
Technology	1	2	3	4	5	6	7
R & D	1	2	3	4	5	6	7
Quality	1	2	3	4	5	6	7
Features	1	2	3	4	5	6	7
Service	1	2	3	4	5	6	7
Flexibility	1	2	3	4	5	6	7

12. How does your company define a strategic, long-term collaborative buyer-supplier relationship?

_____

_____

==========

BUYER-SUPPLIER RELATIONSHIP INFORMATION:

For purposes of this survey, a strategic, long-term collaborative buyer-supplier relationship is defined as "a mutual, ongoing relationship involving a commitment over an extended period of time, and a sharing of information and the risks and rewards of the relationship."

13. What is your company's overall degree of satisfaction with the performance of this strategic, long-term collaborative buyer-supplier relationship? CIRCLE ONE.

Low		Moderately Low		Moderately High		High
1	2	3	4	5	6	7

14. What attracted your firm to this particular customer as a candidate for a strategic, long-term collaborative relationship?

_____

_____

15. In retrospect, is there anything different that your firm would have included in the selection and evaluation of this particular customer for a strategic, long-term collaborative relationship?

_____

_____

16. What has been the greatest single source of conflict with this particular customer following the establishment of the strategic, long-term collaborative relationship? Why?

_____

_____

17. How was this particular conflict episode resolved?

_____

_____

18. Were you satisfied with the resolution of this conflict episode? CIRCLE ONE.

Yes No

19. Why or why not?

_____

_____

20. What other significant conflicts have occurred with this particular key customer over the past five (5) years? How did they differ from the conflict described in Question # 16 above?

_____

_____

21. Do you anticipate that you will continue to participate in this strategic, long-term collaborative buyer-supplier relationship into the future? CIRCLE ONE.

Yes No

22. If you answered "Yes" to Question # 21, over what time horizon do you anticipate that the relationship will continue? CIRCLE ONE.

< 2 years 2-5 years 5-10 years > 10 years

23. If you answered "No" to Question # 21, why not?

_____

24. Rank order the following sources of conflict that have occurred or might occur with this strategic customer from most likely (1) to least likely (4). USE EACH NUMBER (1, 2, 3, or 4) ONLY ONCE.

Price _____ Delivery _____ Quality _____ Service _____

==========

PRICE RELATED ISSUES:

Price is defined as "the invoice amount charged by the supplier to the buyer in exchange for providing goods and/or services as ordered by the buyer."

For each question, CIRCLE a response regarding how your firm feels about the price-related issues presented. Your response should address only the past two (2) years of the relationship.

25. How do you rate your company's ability to maintain or control its prices over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

26. How do you rate your company's ongoing price reduction efforts?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

27. How do you rate your company's ability to provide preferential pricing to this customer?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

28. How do you rate your company's pricing as opposed to other firms that can supply this item to this customer?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

29. What is the level of price-related conflict encountered with this customer?

Low		Moderately Low		Moderately High		High
1	2	3	4	5	6	7

30. Define your pricing performance expectations and/or criteria regarding this customer?

_____

==========

DELIVERY-RELATED ISSUES:

Delivery is defined as "the supplier's fulfillment (shipment and subsequent receipt by the buyer) of a buyer's order in a timely fashion and in accordance with the buyer's shipping instructions."

For each question, CIRCLE a response regarding how your firm feels about the delivery-related issues presented. Your response should address only the past two (2) years of the relationship.

31. How do you rate your company's ability to maintain or control its delivery performance over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

32. How do you rate your company's ongoing delivery performance improvement over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

33. How do you rate your company's ability to provide preferential delivery performance to this customer?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

34. How do you rate your company's delivery performance as opposed to other firms that can supply this item to this customer?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

35. What is the level of delivery-related conflict encountered with this customer?

Low		Moderately Low		Moderately High		High
1	2	3	4	5	6	7

36. Define your delivery performance expectations and/or criteria regarding this customer?

_____

_____

37. Are you involved in just-in-time delivery for this key commodity with this particular customer? CIRCLE ONE.

Yes No No longer In the future

38. How often does your company deliver late?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

39. How often does your company deliver early?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

40. What is your company's on-time delivery percentage with this customer? CIRCLE ONE.

< 25% 25-50% 50-75% 75-90% > 90%

Exact percentage (if known): _____%

41. What is the expected order cycle time for this particular key commodity shipped to this customer (from time of order to time of delivery)?

_____

==========

QUALITY-RELATED ISSUES:

Quality is defined as "how well the supplier's products and/or services meet the buyer's specifications."

For each question, CIRCLE a response regarding how your firm feels about the quality-related issues presented. Your response should address only the past two (2) years of the relationship.

42. How do you rate your company's ability to maintain or control its quality performance over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

43. How do you rate your company's ongoing quality performance improvement over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

44. How do you rate your company's ability to provide preferential quality performance to this customer?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

45. How do you rate your company's quality performance as opposed to other firms that can supply this item to this customer?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

46. What is the level of quality-related conflict encountered with this customer?

Low		Moderately Low		Moderately High		High
1	2	3	4	5	6	7

47. Define your quality performance expectations and/or criteria regarding this customer?

_____

48. How often does your company have defective shipments that fail the customer's incoming inspection?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

49. What types of quality problems occur with this particular customer?

_____

_____

==========

SERVICE RELATED ISSUES:

Service is defined as "the supplier's ability to react to and meet the buyer's routine and nonstandard situations or requests."

For each question, CIRCLE a response regarding how your firm feels about the service-related issues presented. Your response should address only the past two (2) years of the relationship.

50. How do you rate your company's ability to maintain or control its service performance over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

51. How do you rate your company's ongoing service performance improvement over time?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

52. How do you rate your company's ability to provide preferential service performance to this customer?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

53. How do you rate your company's service performance as opposed to other firms that can supply this item to this customer?

Poor		Fair		Good		Excellent
1	2	3	4	5	6	7

54. What is the level of service-related conflict encountered with this customer?

Low		Moderately Low		Moderately High		High
1	2	3	4	5	6	7

55. Define your service performance expectations and/or criteria regarding this customer?

_____

_____

56. How often does your company meet its quoted leadtime?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

57. Does your company go out of its way in an emergency to help the customer?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

58. Are messages and phone calls answered in a timely manner by your company?

Almost always		Frequently		Rarely		Almost Never
1	2	3	4	5	6	7

59. How would you characterize the nature of the effects (or results) of conflict encountered with this particular customer?

Short-Term		Moderate Term		Long-Term
1	2	3	4	5

60. How do you perceive that this strategic customer will characterize the nature of the effects (or results) of conflict encountered with your firm?

Short-Term		Moderate Term		Long-Term
1	2	3	4	5

61. Which of the following conflict resolution techniques would you characterize as being utilized most frequently by this particular customer?

a. persuasion
b. bargaining or compromise
c. coercive power or threats
d. joint problem solving

60. Which of the following would generally describe the nature of conflict encountered with this strategic customer?

High		Moderately High		Moderately Low		Low
1	2	3	4	5	6	7

63. To what extent does strong emotional reaction by your company enter into conflict resolution with this particular customer?

Always		Frequently		Infrequently		Never
1	2	3	4	5	6	7

64. To what extent does strong emotional reaction by the customer enter into conflict resolution with your company?

Always		Frequently		Infrequently		Never
1	2	3	4	5	6	7

65. To what extent would you characterize the level of tension encountered when conflict with this particular customer arises?

High		Moderately High		Moderately Low		Low
1	2	3	4	5	6	7

66. How important are joint goal setting and goal achievement in maintaining the relationship with this strategic customer?

Minor		Somewhat Unimportant		Somewhat Important		Major
1	2	3	4	5	6	7

67. How would you characterize the importance of the source(s) of conflict encountered with this strategic customer?

High		Moderately High		Moderately Low		Low
1	2	3	4	5	6	7

68. How critical to your company is maintaining a problem-free relationship with this particular customer?

Very Critical		Critical		Non-Critical		Very Non-Critical
1	2	3	4	5	6	7

Listing of 2-digit SIC Codes (See Appendix G)

APPENDIX F

SUPPLIER SELECTION QUESTIONNAIRE

PLEASE PRINT LEGIBLY

Your Company: _____

Your Name: _____

Your Title: _____

Address: _____

Telephone: _____

Fax Number: _____

1. Does your firm actively participate in strategic, long-term buyer-supplier relationships?

YES NO

2. If your firm is involved in a strategic, long-term buyer-supplier relationship, can you identify a key supplier who would be willing to actively participate in this study?

YES NO

3. If YES, please provide the following:

Supplier Name: _____

Contact Name: _____

Title: _____

Address: _____

Telephone: _____

Fax Number: _____

4. Would you be willing to make the initial contact with this supplier?

YES NO

Please describe your firm's relationship with the designated supplier listed on the previous page using the following questions. Please circle the appropriate number indicating your response.

---

1. What is this supplier's overall degree of commitment to the relationship and your firm?

LOW		MODERATELY LOW		MODERATELY HIGH		HIGH
1	2	3	4	5	6	7

---

2. What is your firm's overall degree of commitment to the relationship and this supplier?

LOW		MODERATELY LOW		MODERATELY HIGH		HIGH
1	2	3	4	5	6	7

---

3. What is the length of the existing strategic relationship between your firm and this supplier? Circle the appropriate letter.

a. < 2 years b. 2-5 years c. 5-10 years d. > 10 years

---

4. Describe the degree of information sharing between your firm and this supplier.

NEVER		OCCASIONALLY		FREQUENTLY		ALWAYS
1	2	3	4	5	6	7

---

5. Describe the level of mutual risk sharing between your firm and this supplier.

LOW		MODERATELY LOW		MODERATELY HIGH		HIGH
1	2	3	4	5	6	7

---

6. Describe the level of mutual benefit sharing between your firm and this supplier.

NEVER		OCCASIONALLY		FREQUENTLY		ALWAYS
1	2	3	4	5	6	7

---

7. Describe your firm's level of trust regarding this supplier.

HIGH		MODERATELY HIGH		MODERATELY LOW		LOW
1	2	3	4	5	6	7

APPENDIX G

2-DIGIT SIC CODE LISTING

Manufacturing

20	Food and kindred products
21	Tobacco products
22	Textile mill products
23	Apparel and finished fabrics
24	Lumber and wood products, except furniture
25	Furniture and fixtures
26	Paper
27	Printing and publishing
28	Chemicals
29	Petroleum refining
30	Rubber and misc. plastics
31	Leather and leather products
32	Stone, clay, glass, and concrete
33	Primary metal industries
34	Fabricated metal products, except machinery and transportation
35	Industrial and commercial machinery and computer equipment
36	Electronics, except computers
37	Transportation equipment
38	Measuring, analyzing, and controlling instruments, photographic, medical and optical goods, watches and clocks
39	Miscellaneous manufacturing industries

Transportation

40	Railroad transportation
41	Local and suburban transit and interurban passenger transportation
42	Motor freight and warehousing
43	U.S. Postal Service
44	Water transportation
45	Air transportation
46	Pipelines, except natural gas
47	Transportation services
48	Communications
49	Electric, gas, and sanitary services

Wholesale Trade

50	Durable goods
51	Nondurable goods

Retail Trade

52 Retail building materials, hardware, garden supply, and mobile home dealers
53 General merchandise stores
54 Food stores
55 Automotive dealers and gasoline service stations
56 Apparel and accessory stores
57 Home furniture, furnishings, and equipment stores
58 Eating and drinking places
59 Miscellaneous retail

Services

70 Lodging
72 Personal services
73 Business services
75 Automotive repair, services, and parking
76 Miscellaneous repair services
78 Motion pictures
79 Amusement and recreation
80 Health services
81 Legal services
82 Educational services
83 Social services
84 Museums, art galleries, and botanical and zoological
86 Membership organizations
87 Engineering, accounting, research, management, and related services
88 Private households
89 Miscellaneous services

APPENDIX H

BUYER FIRM QUESTIONNAIRE OPEN-ENDED RESPONSE SUMMARY

5. "What is the primary (key) product (or commodity) purchased from this strategic supplier?"

01	friction paper
02	investment/sand castings
03	computers & hardware
04	air blowers for wastewater treatment
05	injection molded plastic parts
06	packaging & packout services; product configuration manufacturing
07	plastic cups
08	steel
09	stampings
10	bearings, couplings, seals
11	street lighting
12	machining
13	bearings
14	driveshafts
15	reels, sieves
16	career wear
17	synthetic rubber
19	MRO & safety supplies
20	transformers
21	cellular infrastructure equipment
22	cartons
23	fasteners
24	acetone
25	laminated panels and work surfaces
26	letterhead
27	wire baskets
28	machined metal components
29	stainless steel bar
30	corrugated boxes
31	underground electric and gas installation
32	neon
33	aluminum plate
34	vinyl siding
35	electronic components
36	equipment installation
37	drive axles
38	bearings
39	copier/fax equipment
40	folding cartons & corrugated products
41	water treatment chemicals
43	major mobile equipment
44	electrical MRO supplies
45	fasteners

8. "What is the nature of this strategic buyer-supplier relationship?"

03 But "sole source" only as primary distributor for computers and hardware.

40 Some items are single sourced, some are dual sourced. Usually only use 1 supplier on an item.

11. "Indicate your company's priorities on the following strategic attributes?"

37 Cost and cost driver control

12. "How does your company define a strategic, long-term collaborative buyer-supplier relationship?"

01 Attempt to identify suppliers who we consider "best in class," work out a long-term agreement to stabilize relationship, and build trust. Most suppliers are asked to sign a contract that 1) includes "shared" cost reduction plans, and 2) is exclusive (can't sell to our competitor).

02 Risk & information sharing for the purpose of gaining superior competitive advantages in logistics partnerships.

03 It doesn't. Our management's "old world" & crude. I would define as a supplier that gives me consistently great price, up-to-date versions, & everything I want in stock. Strategic because it keeps very up-to-date with latest models, long-term because they've always committed to treating us as #1, & collaborative because they work easily with us on prices & credit.

04 A LTCBSR is one established in trust where both buyer & supplier are contractually committed to a specific level of business in the understanding that through cooperation, both organizations will reap the benefits of a consistent projected sales/purchase volume.

05 A relationship where we are working together on the existing business and together we are looking at the future. Monthly meetings between both companies with all disciplines from both companies in attendance. Communication between all personnel between both companies. Discussions about future investments of equipment to meet both our needs.

06 Depending on the product and its customers, the strategy is different, but flexibility is key. The market is ever-changing, & we are not very good at forecasting, so it is critical to have commitment of quick changes, increase, & decreases in the mix. Leadtime, cost, service, quality, & delivery really go without saying anymore.

07 A partnership where both companies work together to reduce their bottom line costs through a team approach. Both companies are looking for leapfrog technology which will advance sales opportunities.

08 A cooperative agreement that brings companies together to work on common goals & shared growth.

09 We define a strategic buyer-supplier relationship as one that meets the needs of both us and the supplier within a profitable business environment. This relationship is also enhanced by our extended enterprise philosophy.

10 Sole sources, evergreen, openness, supplier integration, shared risk, supplier managed process, customer managed commodity/supplier, cost savings by supplier, standardization by supplier, development of manufacturer contribution and mutual trust

11 A mutually beneficial, long-term relationship based on trust, cooperation, commitment, and open communications surrounded by a high level of integrity and ethical conduct.

12 Must be a mutual relationship.

13 Single source and multi-level contractual relationship with emphasis on the creation of value through service, technical support, and inventory management. Free access to the plant and internal customers.

14 Sharing of and discussions of cost drivers and potential for cost reduction due to changes in material or design. Sharing of warranty risks. Early supplier involvement in the design process. Frequent visits and conversations regarding management approaches, business goals, and plans. It really is more like a partnership.

15 Informal & formal long-term agreements (3 yrs.). With interface with design engineers on new products & have JIT programs.

16 Commitment to a long-term, mutually benefiting relationship.

17 A long-term partnership where both have a win-win position.

19 Focus on maximizing the total value of the purchased goods and services, while minimizing costs through effective sourcing management, planning, execution, and teamwork.

20 A mutually beneficial, long-term relationship based on trust, cooperation, commitment, and open communication, surrounded by a high level of integrity and ethical conduct.

21 Give and take on critical needs and issues
Jointly share product and market information
Joint upper management meetings
Commitment to supplier for 5 to 10 years
Increasing improved technology
To keep each other competitive
Strong, two-way customer service

22 A quality product, JIT delivery, price and cooperative people to work with.

23 Supplier is supplier of choice before new fasteners are specified. Supplier qualifies manufacturers, has unusual access to buyer company, stocks and delivers to point-of-use locations on JIT basis.

24 One in which long-term mutual goals & benefits are derived.

25 A relationship built on trust, dedication, and continuous improvement where quality, delivery, and cost improvements are sought after on a daily basis.

26 One which both companies benefits. Buyer's interests must be met. There must be a benefit for our company to enter into such a relationship. The supplier must have earned the business for several years prior to a long-term relationship being worked out.

27 The partnership is a give and take of information when we trust the supplier and they us.

28 A relationship established based on mutual goals, intended to benefit both parties over a long period of time.

29 One which is "a structured approach between one or more companies in the supply chain to develop and nurture close working relationships in order to maximize the performance of each party and provide ultimate customer satisfaction." Source: buyer's Worldwide Supplier Quality Manual

30 (blank)

31 Win-win relationship to help satisfy a customer.

32 Mutually beneficial relationship.

33 Some one we can have an open minded & open book long range contract with. They can help us get contracts by knowing the type of service & quality needed, yet remain very competitive. Take risks with us. Share some upfront expenses.

34 An ongoing relationship based on trust where each party accepts responsibility for improvement with shared risks & rewards.

35 Supplier committed to providing us with the best inside & outside sales support available. Continually keep our purchasing & engineering abreast of the latest technology. Continue to provide cost reduction opportunities while delivering a quality product on time. Our reward is the continuation of current business & the first look at any new opportunities.

36 A mutual committed relationship over a long period of time where information, risks, & profits are shared.

37 The mutual agreement to proceed toward future business alignments which optimize joint manufacturing and assembly strengths. An understanding that joint design optimizes the strengths & cost structure of both firms.

38 2 companies sharing knowledge, processes, and information completely for mutual benefit.

39 Working together over a long period to develop a mutually beneficial relationship. More needs are met by this supplier and others can be eliminated or reduced.

40 Our goal is to develop and maintain a long-term relationship with a selected group of quality suppliers. Materials and services will be purchased based on consistent quality and total value. We commit to building a relationship with the supplier which allows mutual agreement on requirements, information exchange, & mutual support.

41 Team effort on problems, planning, new technology, etc. Presently we have a win/win contract where we share savings on a 75%-25% basis regardless of whose idea it is. Share losses also.

43 A long-term relationship which provides our supplier the resources to effectively manage a strategic grouping of products & product lines. This regrouping will reduce our total acquisition costs while enhancing the support level & operating efficiencies for our customers.

44 Where continuous improvement techniques are used to identify cost drives and opportunities beneficial to both companies.

45 Single-source open-book on materials costs and labor hours, etc. Trust must be inherent. Openness and communication are key elements. Competitive advantage may be secured by information shared between the two companies.

13. "What is your company's overall degree of satisfaction with the performance of this strategic, long-term collaborative buyer-supplier relationship?"

34 Rated #1 for 1996

14. "What attracted your firm to this particular supplier as a candidate for a strategic, long-term collaborative relationship?"

01 Cost reduction potential
Best in class in terms of performance
All improvements they make are exclusive to us via the non-compete clause

02 Company goals were long term. High degree of commitment, quality, & service

03 A well-regarded reputation as having awesome prices (they do!) & being a primary distributor to all the little distributors.

04 Consistent, reliable, competitive supplier of a quality product.

05 Their willingness to be open with us regarding their strategies, their problems with our parts. Their willingness to talk about and implement changes that help both of our businesses. Their willingness to be open with us. Many of their goals are often the same as ours.

06 Cost, leadtime, delivery, flexibility. Also, their understanding of our business and our unpredictable needs.

07 Management style/leader in TQM/leader in supply of cups.

08 Quality of personnel & management
In-house capabilities & quality

09 Supplier's ability to produce a part from "cradle to grave." Their resources are second to none within our industry, which allows them to react at a moment's notice.

10 Capabilities, culture, reputation, performance, professionalism, proactivity, commitment

11 Their willingness to manufacture an item that was originally single sourced; their design team w/computer software that would help out standards/design engineer; their ability to warehouse our material with less than 2 day delivery at any place in the state.

12 Service.

13 Key and capable supplier of MRO materials
Willingness to take ownership of customer's inventory in their product line.

14 Technical expertise, management approach, willingness to work with us to accomplish common goals. Quality, reliability, overall reputation and history.

15 Sole source proprietary products integral to our end products plus high quality products from supplier.

16 Their commitment to the partnership, their product line, & price competitiveness.

17 Quality of product, JIT delivery, price, knowledge, & help of sales and technical personnel.

19 We knew about their relationship using integrated supply with another customer.

20 All the attributes mentioned in the prior questions.

21 Major supplier previously; very competitive in the industry; reputation of quality; good senior management rapport

22 Pricing, quality, just in time delivery, local supplier, and our long time relationship.

23 Customer service, attitude & knowledge of fastener industry.

24 Being a good reliable long-term supplier for the past 25 years. Open & honest.

25 When buyer began doing business with supplier, they offered to increase their capacity to allow for future growth of the product line they were providing materials for.

26 The experiences we had with supplier prior to the long-term relations. Excellent sales, management, and their ability to turn orders quickly. Their company also does an excellent job of dealing with paper mills.

27 Had been doing business as a sole source. The supplier was willing to share complete financial data.

28 Previous experience with this supplier. Growth-oriented. The right attitude. Trust. Proven trustworthiness over time (with costs, commitments, proprietary information).

29 Its world-class reputation for a commodity which we consider highly strategic.

30 See previous criteria (question 10).

31 Same as 10 and 11.

32 Quality and location.

33 A long standing relationship over the years and their willingness to take some risks with us.

34 Past performance
Good quality
Proper attitude

35 Continued demonstration of delivering quality products on a timely basis. Provides continued & ongoing engineering support, and cost reductions overall.

36 A small new company that needed & wanted to work w/us.

37 The proof of performance that the flexibility is present to believe that a customer has the long-term interest of a supplier to be in the best long-term benefit of the customer. Also, the visionary actions of the supplier to become a global leader in their industry.

38 Reputation of the supplier. [did not mark on Q# 10.]

39 Their strong desire to do whatever was necessary to earn and keep our business. They offered a service other companies would not offer or match when they heard.

40 We knew they would excel at all the things noted in #10 & #11.

41 Level of technical expertise, service, history of being competitive, good R&D efforts, etc.

43 Established relationship with our customers which included a proactive approach to our business. Understood the needs of our customers & demonstrated the ability to meet these needs.

44 Openness, flexibility, willingness to think out-of-the-box

45 Strong presence at our then partner, XXX Corp. Recommendation from our partner.

15. "In retrospect, is there anything different that your firm would have included in the selection and evaluation of this particular supplier for a strategic, long-term collaborative relationship?"

01 Only drawback has been the tendency to become "comfortable" in the relationship.

02 More involvement of engineering department upper management

03 Just that we would've & should've started using supplier earlier.

04 No

05 No, we knew this supplier for a long time before we actually developed this true strategic relationship with each other.

06 As a company we needed to set one set of expectations instead of each division setting their own expectation. It would make communication more clear.

07 No

08 A more thorough review of purchasing personnel, management, procedure, and responsibility

09 No

10 More guaranteed benefits for the supplier

11 No

12 None

13 None

14 Probably not at this point, we are still building the relationship. However, by use of rapid improvement projects worked on jointly with our supplier.

15 No

16 Not at this time.

17 No

19 Made more effort to "understand" each other's business.

20 No

21 Deeper look into advanced technology plans.

22 No

23 No

24 No

25 No

26 No

27 Yes. We would have done a better job of determining if the product being sold was truly critical or strategic before asking and offering a partnership.

28 No

29 I do not believe we were smart enough at the time to recognize that compatibility of corporate cultures is important. I don't believe we made an improper supplier selection as a result, but it has caused periodic disharmony within the relationship.

30 Computer systems/data base management
Resource allocation
Cost sharing information (modeling)
Verifiable price modeling

31 Not so far.

32 No

33 No

34 No

35 More flexibility at the local level. Too much corporate intervention.

36 Exclusive commitment.

37 If the company of 7 years ago were the same company today, we would not consider them for new potential projects.

38 No

39 No

40 No

41 No

43 Would have attempted to integrate second tier suppliers before the agreement was put into place.

44 (blank)

45 Would have insisted on more details dealing with tactical implementation, the hows. Would have insisted that supplier be more self-sufficient and stay on schedule.

16. "What has been the greatest single source of conflict with this particular supplier following the establishment of the strategic, long-term collaborative relationship? Why?"

01 Periodic drop offs in quality which leaves us with little alternative but work through the sometimes painful/slow process of fixing it.

02 Changes to dies/castings requested by us. Engineering research was not "complete."

03 Supply of current models because Compaq, HP, IBM, etc. (their lines) can't or won't keep up with demand.

04 Delivery of complete blower packages. Delivery of sub-contracted components has been responsible for conflict affecting final delivery of finished goods.

05 When personnel change. We have to make sure new people understand what this relationship is all about and how long it took us to get here.

06 "Out of the ordinary" request in doing business. Due to the nature of the business, it is critical to be creative in running the business. Why? Because some request did not fit into their business model.

07 Opening their books to us. This has been resolved.

08 Delivery
Large size of company & volume of business. Sales office & processing are in different locations.

09 Supplier's current growth strategy. This strategy has presented capacity problems and relating difficulties with supplier.

10 Move from reactive to proactive. The nature of distribution is to "jump" when the customer calls. Our desire was to have the supplier manage the process so the customer never has to call.

11 Forecasting approximate usage & quantities to warehouse were very inaccurate due to the new marketing program we initiated which focused on street lighting.

12 Casting quantities. Foundries do not ship exact quantities and causes changes to orders.

13 Corporate selection of an integrated supplier that will supply all and not just bearings/power transmission parts.

14 Gaining a "written" agreement which documents what we are doing anyhow. I think that there is a natural resistance to "put it in writing," fear of unknown problems, future, etc.

15 Initially pricing several years ago. No conflicts in last 5-7 years.

16 Communication of each company's long-term plans.

17 I can't think of any. We have done business for probably over 20 years.

19 Running (operating) our stores warehouses rather than managing them.

20 There have been no major conflicts. Our biggest concern and obviously an area for improvement is on schedule delivery dates and partial shipments.

21 Failure on the part of the supplier to meet software development and implement new technology on time.

22 There really hasn't been any real conflict. Most of our discussions have been pricing.

23 Buyers at some factories reluctant to relinquish buying responsibility to supplier. Biggest reason - difficulty in determining total cost comparisons.

24 None.

25 Occasional, reoccurring quality issues.

26 We had a difficult time when we switched from virgin paper to recycled. The mill that our company selected, quality went down after several months. The plant fought the problem for months before alerting us of the problems.

27 We have found that this supplier has many competitors and this supplier may not be the best to be partners with. We also had great difficulty with delivery.

28 We expect immediate response to new products and "hot" items with seamless delivery of current production. Some of our new product launches cause problems with production of current parts.

29 The role of inventory as a means to satisfy the customer. Contrary to what one might expect, we seek less inventory held by the supplier while they would like more. Why? See question 15. (compatible culture)

30 Ability to verify/model pricing

31 Trusting each other with all information.

32 No conflicts, but we needed to develop trust.

33 None yet.

34 Since the relationship of this strategic relationship, there has been no conflict.

35 We've had virtually no major problems with this supplier. That's why we consider them our #1 "key supplier" of electronic components. One recent problem involved the implementation of a weekly consolidated invoice. Supplier wanted to change our payment terms from net 60 to net 45.

36 Pricing & terms: Since the vendor participates w/our sales force in selling the product, he knows there is no competition.

37 The strategic partner is a division of a highly decentralized corporation. Therefore, supplier is struggling to accept an "open book" business relationship. Therefore, progress toward a total partnership is still not optimized.

38 Have not had any conflict

39 Supplier has many times when all key contacts are gone either for a trip even or sales meeting. Our technician does not have reliable backup to make the rounds to all copiers on days he is gone.

40 There really wasn't any conflict. They consistently perform at a high level.

41 None

43 The end-user using this supplier as a scapegoat for their deficiencies.

44 Moving too quickly/slowly. We tend to jump ahead with a new approach and have to slow down as we wait for technology.

45 Many promises have been broken and deadlines have been missed. Lack of communication from supplier to myself when things are not going as planned.

17. "How was this particular conflict episode resolved?"

01 Many meetings at great expense.

02 Ongoing meetings and action to achieve desired changes in a win-win atmosphere.

03 Not. Still an ongoing expedite. We have increased purchases, though, which puts us in a better slot in the back order queue.

04 We take delivery of partial shipments of components (base product) followed by secondary shipments of the back-ordered components. This allows us to ship/install primary component on schedule w/o delaying the actual equipment start-up.

05 By talking openly and candidly with new people (or people in new positions of responsibility).

06 Basically got a new team on the projects and were able to "re"set expectations.

07 Team involvement as to the need to open the books so that opportunities could be selected.

08 In process of being resolved. Sales has management involvement and review at this time.

09 All areas of concern were addressed by both supplier and buyer. Capacity problems were resolved and new lines of communication were initiated.

10 Dialogue, hands on examples, learned over time during implementation, success breeding success

11 We are still in the resolution stage. They have "marked" us as a primary customer & are devoting a large percentage of production time for our

product; shipping direct from manufacturing plant to using area.

12 Castings not shipped direct to supplier. Buyer is a buffer.

13 Still a source of conflict at this point ...

14 Still working on getting this agreement signed. We will get it signed within the second quarter of 1997 (by the end of March '97)

15 Mutual process of negotiation & guarantee of sourcing on products.

16 More communication with key people.

17 We meet at least once a year & go over audit report & then discuss areas we would like see improvement such as more accurate bale weight in quality area.

19 New contract in progress to resolve

20 It is being resolved on an ongoing basis.

21 Mutual delay plan developed. Supplier compensated buyer for long delay. Buyer/supplier worked increasingly hard together to complete the project implementation.

22 (blank)

23 High buyer workloads made outsourcing a necessary decision.

24 N/A

25 Established a cross-functional, intercompany team to investigate and improve the quality of their product.

26 We found, with the help of the supplier, a new paper mill for our recycled paper.

27 We discussed how we would have to go elsewhere if they could not deliver what we needed. They figured out a way to do what we needed.

28 Prioritizing schedules for our parts with their production.

29 A team was formed to evaluate how buyer could be a better customer by providing better information to

supplier, resulting in less variability/ uncertainty and lower inventory requirements. The team was comprised of buyer and supplier personnel as well as other members of our supplier council.

30 Models being developed for use by both companies.

31 I think it will just take some time to prove we can be trusted.

32 This is potential for competition for the same customers. We established an arrangement for shared marketing and a guarantee to use their product.

33 (blank)

34 n/a

35 This problem took over 4 weeks to resolve with many phone calls to local & regional credit managers at the supplier. I finally convinced them that there would be no change in payment practices.

36 Negotiation.

37 It is still under development.

38 (blank)

39 Discussion with account rep & sales managers many times.

40 n/a

41 n/a

43 We have increased communications, developed platforms for discussion, and have worked together to educate our end-users to the abilities of this supplier.

44 Communicating specific expectations and lines of communication, setting a mutually acceptable timeline and working together to meet that timeline.

45 Letters and phone calls to upper management at the company did not help. Finally, we notified today to dissolve partnership.

19. "Why or why not?"

01 The last 12 months have shown record levels of quality (low rejects, high CPKs)

02 Supply partner is very responsive to our needs.

03 Compaq, HP, TI can't or won't keep up with demand. Trouble is, I cannot find out if that's supplier's negotiating shortcoming or truly a supply problem.

04 The supplier & customer both know what projected versus actual leadtimes will be, so no delays are incurred & the end customer's deadlines are met reliably.

05 By talking openly & candidly, people realize that we are working at this relationship for the betterment of both companies.

06 We were able to get new, fresh minds on the projects.

07 (blank)

08 Not yet

09 Due to new lines of communication, it afforded us more response needs from supplier, which allowed greater flexibility.

10 After implementation, the supplier "saw" the benefits to both companies from process proactivity and institutionalized into their company.

11 We are getting our product & keeping our customers satisfied.

12 Extra freight costs.

13 n/a

14 I think I will be. Not concerned about reaching an agreement.

15 n/a

16 We still get the product, price, & delivery we want & have increased our commitment to the partnership.

17 We are usually able to discuss & resolve. Develop a team approach to work on problem solving it.

19 (blank)

20 (blank)

21 Economic issue resolved. Technology close to being launched. Supplier showed strong commitment to resolve issues.

22 (blank)

23 Good service from supplier; more important issues for company buyers, and more critical commodities.

24 N/A

25 Quality was improved.

26 Our product continued to be what our employees needed. No shipments were missed, minimal problems were found.

27 They were faced with a conflict, and they solved it.

28 They responded quickly to our immediate needs and we rescheduled orders we did not need.

29 No one was blamed. In fact, the irony is that the conflict arose a result of each party looking out for the best interests of the other. Team-oriented, fact-based problem solving was used.

30 In process. Too early to know resolution outcome.

31 (blank)

32 We both have more to gain from the agreement, than we do on our own.

33 (blank)

34 n/a

35 This problem had a happy ending, but it shows how difficult minor changes can be when dealing with a national company versus a small local organization.

36 We are not on a level playing field. He knows there is no competition.

37 Both parties have confidence that a mutual & cooperative resolution will be concluded.

38 (blank)

39 Action more recently taken to improve this so it remains to be seen over time.

40 n/a

41 n/a

43 This slow process continues to make inroads into our customers actions with negative reports being few & fewer, yet rush work needs to be done.

44 needs, priorities, and resources became clearly defined.

45 Disappointed that we have to change suppliers again, but confident this is the only way to improve operations. Supplier can't be made to "care," to react to the degree necessary.

20. "What other significant conflicts have occurred with this particular key supplier over the past five (5) years? How did they differ from the conflict described in Question # 16 above?"

01 None significant.

02 None.

03 Taking responsibility for returns is also a problem involving product failures over 60 days from purchase. Yet supplier & manufacturers point fingers @ each other to take responsibility.

04 We have had a number of quality problems, but our supplier through a strong warranty program has supported us 100%. Again, we have worked through obstacles together, versus an us versus them mentality.

05 No matter how good a supplier is, there always seems to be a quality problem from time to time. Years ago, we would tend to send the parts back and tell the supplier to send good parts ASAP! Now we might still send the parts back, but we are sitting down and talking about the problem together to find areas that we can both help in.

06 Cost competitiveness
Poor management

07 None

08 None

09 None

10 There have been no significant conflicts in the past 8 years. Differences of opinion, yes. However, not all categorized as "conflicts."

11 No previous conflicts.

12 None.

13 Buy back of inventories that had no turnover; they purchased from us on good faith - specialized bearings

14 There have no "major" conflicts with this supplier that were not resolved quickly and justly.

15 Limited quality problems on only one product line, i.e, sieves. Was corrected by supplier.

16 (blank)

17 (blank)

19 Supplied fittings which did not meet specs. They were installed in our pyrolysis furnace. Supplier paid for replacement.

20 None

21 The above was a 12-13 month conflict. No other major has occurred.

22 None

23 None

24 (blank)

25 No significant conflicts.

26 None

27 None

28 No other significant conflicts.

29 I can only speak for the last 15 months firsthand. There are no other "significant" conflicts of which I know prior to then.

30 1) Most are related to question #16.
2) Willingness to share cost information
3) New ideas on cost savings
4) Turnaround on pricing info

31 None

32 Difficulty in communication due to high volume of work. This was not a real conflict, just an opportunity to address shortcomings in communication and scheduling.

33 (blank)

34 Prior to set up of the relationship, there was some conflict over distribution of risk.

35 Due to strict goals & objectives set by corporate offices, it's sometimes hard to get the local branch to bend to meet our needs, i.e., requiring a 20% bond of all inventory covered by a letter of intent. A smaller local distributor is sometimes more willing to break the rules.

36 Quality is not on the same level as ours if we did the work ourselves.

37 Resolution of quality & reliability issues. Difference is that supplier understands that resolving current product Q & R issues impacts bottom line results. Therefore, Q & R issues needing joint solutions are shared 50-50.

38 (blank)

39 Pricing errors on dealer's invoices or poor response from dealers on our national accounts.

40 n/a

41 n/a

43 No significant conflicts.

44 Mixed communication from too many "fingers in the pie" resulting in the "left-hand not knowing what the right hand is doing" syndrome. Very similar to #16. Everyone was moving so quickly, we had to slow down.

45 Quality problems - items received out of spec. No plan presented for first piece sample approvals. Computer bar code scanning equipment repeatedly defective.

23. "If you answered "No" to Question # 21, why not?"

45 Preferred supplier relationship has been dissolved.

24. "Rank order the following sources of conflict that have occurred or might occur with this strategic supplier from most likely (1) to least likely (4). USE EACH NUMBER (1, 2, 3, or 4) ONLY ONCE."

33 We really have not had any conflict to date.

30. "Define your pricing performance expectations and/or criteria regarding this supplier?"

01 They need to provide product that will allow us to be the low cost supplier in that market.

02 Ongoing efforts to add value and reduce costs.

03 Min. 10% below all other distributors (ave. computer markup is only 8% I just heard on XXX radio!)

04 We want to achieve a 5% cost reduction on base material cost within the next 12 month period.

05 We expect this supplier to continually look for new, better raw materials and to continually upgrade their manufacturing equipment and systems. We expect this supplier to at least look at the latest technology. We in turn will spend time looking at all of the above with the supplier, and we help in the development or testing of the above. We also pay or help pay for much of the above.

06 We, of course, want a perfect product for next to nothing. That is what we drive to, but we do not want the supplier to lose $. That is just asking for trouble.

07 To have the lowest cost in the industry, if possible, due to our volume and the partnership/alliance.

08 With volume pricing a key, they should remain below market competition.

09 With supplier's ability and resources, pricing has never been a problem area.

10 Contract is cost plus. Recent corporate volume leverage has reduced margin. Constant effort by

supplier to work with manufacturers to be/stay competitive.

11 That pricing will remain constant with the industry standards, if not better.

12 Maintain cost without annual increases.

13 Offset any price increases with cost reductions through their on-site technical support; substitutions, buy-repair, crossing OEM part numbers to generic, etc.

14 We expect that our suppliers will AT LEAST offset inflation and any labor increases they may have. We understand the need to share in material cost increases that cannot be offset. We also understand the need to be responsible for cost increases due to our design. Goal is cost reduction of 1% per year actual.

15 Now tied to P.P.I. index on existing contract items - O.K. Competitive quote on "new" business.

16 Competitive pricing based on our purchasing history.

17 Based on feedstocks, if price of feedstock goes up, price of product goes up. % of feedstock is gradual, some of price of [?] with greater price protection. Win-win for both.

19 Price structure defined by contract.

20 We make it clear up front with our strategic alliance suppliers that our company will continue to practice competitive bidding. SA suppliers have a distinct advantage over competitors as all value-added services and benefits are factored in the bid evaluation. Despite ongoing efforts to lower $ cost, no specific product price objectives are set as part of the alliance.

21 Supplier needs to continue to improve their pricing matrix relative to the competitive pressures in our industry.

22 We expect the pricing to be in line with the linerboard price and also quantity break prices.

23 Choose good value in manufacturers. Hold cost down for services performed.

24 (blank)

25 Expect a 2-3% reduction annually.

26 We expect our vendor to purchase paper at a % off of list price and to pass on that decrease.

27 The supplier has shared their cost build up on each item. We review these annually.

28 We quote all machined components out to 7 or 8 suppliers and own internal shop. We expect pricing to be competitive. We do not shop for lowest price, but total value (expertise, engineering support, cost, delivery, quality, etc.).

29 Expert general economic increases amounting to less than half the PPI, which is in our current agreement.

30 Better than market. Top quartile of our competitors.

31 We are looking at process improvement to lower our costs.

32 Price must be competitive and is measured by our ability to win contracts.

33 We know what we can spend for raw materials. They have been very aggressive in making sure we could get our contract. They will have volume.

34 Increases & decreases are justified.
Both are given based on market conditions and initiated by the supplier.

35 Would like to receive best price up-front without having to negotiate back & forth, through competitive bidding.

36 Our only control is if he overcharges on the quote, we will not get the order; however, he could still get the business w/our competition.

37 Willingness to do future business on a "Total Acquisition Cost" basis plus reasonable margin.

38 1-3% increase per year if justified.

39 Pricing maintained or reduced as volume (number of units & excess copies) warrants. Reevaluate our copier program to propose cost alternatives (this is in process).

40 We expect that on those items where they have the best capability to produce a high quality product, their price will better their competition. (Note - we have 2 primary carton suppliers; one can best run large orders; one is best at smaller/mid-sized orders.)

41 Market conditions will determine pricing trend. We should be getting his best price. Savings are to come in accurate usage of product & new technology or different concentrations.

43 To provide competitive pricing across the board on all mobile equipment lines while picking out the opportunities to save costs through OEM conversions, rebuilt parts, and inventory control.

44 As we move into cost-plus, we will need to attack the cost drivers in a manner that is mutually beneficial.

45 Supplier saved us $60,000-$70,000 on piece part price to begin the program. Part number consolidation efforts and reduction of receiving & purchasing transactions saved us much more than that amount.

32. "How do you rate this supplier's ongoing delivery performance improvement over time?"

10 Has remained at 99%+ for over 10 years.

36. "Define your delivery performance expectations and/or criteria regarding this supplier?"

01 Deliver with a max. of 30 day leadtime. Maintain a warehouse to release product within 4 hours (supplier is located on the East Coast and this means 3 days normal transit).

02 Meeting of requested due dates.

03 Everything they stock (a lot!) is shipped same day, next day delivery - with rare exception.

04 We want a 25% reduction in normal leadtimes within the next 12 months. Typical delivery is 6-8 weeks for this piece of equipment.

05 We expect parts at our door on the day we asked for them. No sooner, no later. We expect that when we get an unexpected order, our supplier will either have stock on the floor or they will get

the part in and run it within the time frame we ask.

06 On time - every time.

07 On time, every time.

08 Expect continual improvement until there is not a problem.

09 With supplier's ability and resources, delivery has never been a problem area.

10 Stock items - on a 48 hours prearranged schedule
Non-stock - as promised by the manufacturer

11 Material will be warehoused by manufacturer sufficient to cover our requirements with delivery within 2 days of release to manufacturer with no backorders.

12 Expect a 5 day window or advance notice of change.

13 Two hour delivery 24 hr/day for local inventory items, next day for non-stocked items.

14 The EXACT number of pieces we order, on the day they are due. With this supplier, we have set a "milk run," and product is delivered to us twice per week from out-of-state. We will be implementing returnable containers as soon as we agree on the design.

15 Varies with price (high/low) and bulk size of product. Shipments are weekly & some to line. Set build of our products.

16 No order should take more than 5 working days before we receive it.

17 Work on JIT basis, & we keep less than 1 day inventory in plant.

19 Critical items (defined and agreed to) 98-100% service level; stores items 95%; spot purchases 90%.

20 We attempt to place orders within the supplier's leadtime. It is then expected that the supplier will deliver on our due on dock date. We allow 1 week early, no days late. Delivery dates for orders placed outside leadtime are mutually agreed upon between companies.

21 Supplier needs to increase efforts to meet new technological introduction dates.

22 Parts to be on a JIT basis.

23 Use of full range of EDI transactions. Stocking options offered. Point-of-use, just-in-time delivery.

24 Supplier maintains multi-million gallon storage. Our trucks pick it up. Order lead time as little as 1 hour.

25 Delivery within one week after receipt of order. 100% complete and on time.

26 Delivery on the date marked on the purchase order.

27 We gad a delivery problem discussed above. They now deliver in 20 days or less.

28 We demand delivery within acceptable window of confirmed date (7 calendar days early, 0 days late). We expect responsiveness to expedited deliveries for new products (our life blood).

29 100% on time delivery with continuous improvement in production cycle times in order to minimize pipeline inventory while maintaining availability on demand.

30 On-time, accurate, flexible.

31 We expect a 5-7 day window for installation. We are working on a shorter window.

32 Meeting schedules or communicating changes in advance.

33 Everything must be on time. They maintain a safe stock level for us.

34 All deliveries are expected when requested without regard to stated lead times.

35 Maintain current level of excellent delivery performance!

36 Delivery is dictated by our customers start-up. The vendor is always aware of the startup schedule.

37 Supplier did not hurt us during the high increase in demand in 1994-95. They found ways to meet the "customer focus."

38 100% on time delivery.

39 All request including out-of-state locations would receive equipment on date requested with same day installation & training.

40 We schedule in a manner that minimizes rush orders, yet expect them to perform quickly when needed. We also do a lot of pre-scheduling with them to anticipate needs.

41 Delivery must be adequate to maintain the levels in all tanks. especially for the long weekends & holidays.

43 We expect 95% of all items delivered by all suppliers to be delivered by the promised date. Emergency orders to get special handling on a case-by-case basis.

44 Next day on A items.

45 Expect delivery within 24 hours of order as per the agreement. Frequent stockouts by supplier and long lead times to begin supplying an item are unacceptable.

37. "Are you involved in just-in-time delivery for this key commodity with this particular supplier?"

06 It's almost JIT. Same day or day before delivery.

29 Not in the truest sense of JIT.

40 Via a consignment program.

39. "How often does this supplier deliver early?"

44 This is acceptable.

40. "Exact percentage (if known)"

45 Unknown on uncontrolled (visual reorder) items. This is where most problems occur.

41. "What is the expected order cycle time for this particular key commodity from this particular supplier (from time of order to time of delivery)?"

01 30 days
02 14 days
03 1-3 days
04 6-8 weeks (12 weeks with one specific product)
05 1 week
06 3-5 days
07 4 weeks
08 4 weeks
09 (blank)
10 48 hours (scheduled)
11 2 days
12 4 weeks
13 within 2 days consistently
14 One week firm orders, two or more weeks of visibility to build schedule, 12 months of forecast with no guarantees.
15 Rolling 8-10 weeks on monthly schedules
16 5 working days
17 5-7 days
19 14-18 days
20 6-8 weeks
21 45-60 days for standard equipment
22 15-20 days or sooner if we need a rush shipment.
23 < 10 days
24 1 hr - 3 days
25 1 week
26 Ranges from 1 week to 12 weeks
27 15-20 days (working)
28 8 weeks or better, 4 weeks - new products
29 2 days
30 < 1 week
31 (blank)
32 4-5 weeks
33 6-8 weeks from mill, they deliver weekly.
34 1 week
35 12 weeks average
36 NA
37 2 weeks
38 4 days
39 4-7 days
40 It varies
41 2 weeks
43 unknown - dependent upon specific material needs
44 1 day
45 24 hours

42. "How do you rate this supplier's ability to maintain or control its quality performance over time?"

10 For a distributor, the "products" is service.

44. "How do you rate your ability to receive preferential quality performance from this supplier?"

14 I don't believe they selectively provide quality. If they did, we'd leave!!

47. "Define your quality performance expectations and/or criteria regarding this supplier?"

01 Become a "certified" supplier in 1997
No inspection
Currently we are going through this process by paper grade (about 20 grades) 2/3 are now not inspected

02 Continuous process improvement. Supplier continually exceeds quality expectations.

03 When we ask for technical support or pre-sales support choosing a product, we expect prompt answers, right answers the first time.

04 We expect 100% accuracy in the fulfillment of our orders.

05 We expect parts to come in the door in a condition that is to print. A part that will function properly, look good, and hold up over time.

06 No quality surprises! If there is a problem, let me know right away, and we will work through the issue together. Do not ship anything that is of questionable quality.

07 Meet specs every time

08 Continuation of excellence

09 With supplier's ability and resources, quality has never been a problem area.

10 Consistent, high level representation and a supply chain process that is reliable to a fault.

11 Material supplied will meet our specifications when delivered with no rejections due to manufacturing, packaging, or handling

12 Parts must meet drawing tolerances.

13 Since they are a distributor, this is hard to rate. Key factors: delivery, paperwork efficiency, inventory control accuracy.

14 Goal of 2000 parts per million pieces is the first level. This is a max of 0.2% defective. It gets tougher from there. Obvious goal is 0 parts per

million, but one needs to somewhat realistic too. Supplier is monitored and provided reports on a quarterly basis.

15 (blank)

16 The same high quality standards we use for our product.

17 We rate on PPK based on 13 measurements set up by quality team.

19 Must meet specifications 100% of the time.

20 100% compliance with our specifications.

21 Perform equal to or greater to competition. New technology quality higher than current.

22 Parts to be made to our engineering specs.

23 Choose, qualify, monitor quality in manufacturers.

24 Material supplied meets or exceeds specifications.

25 100% usable material.

26 We expect the highest quality in the paper we have selected along with excellent printing. Typically one + 2 color printing.

27 We expect 90% or better.

28 Parts must meet our written specifications (blueprint) & pass our QC inspection sample.

29 100% quality, i.e., zero defects.

30 Meet/exceed specifications.
Problems founds before item leaves supplier's plants.

31 No customer complaints. Good inspections reports.

32 Meets or exceeds performance requirements.

33 No rejects.

34 Panels which lock easily yet hold.
Color & texture consistent without regard to lot.

35 Continue to ship the right part on time. We do not inspect deliveries from this supplier. They are set up as "dock-to-stock."

36 The quality is dictated by the customer's expectations.

37 Supplier needs to improve its internal plant housekeeping.

38 100% compliance.

39 Equipment that meets and preferably exceeds its established CBC rate (copies between service calls).

40 (blank)

41 Material quality is always fairly standard with these chemicals. Application accuracy is the most important part. The quality is above industry standard for this company.

43 All parts/documents/invoices/etc. to be correct the first time. Rebuilt components to have life past normal average. Adding value through suggesting higher quality, longer life parts.

44 Zero product defects. Quality products/services that increase productivity while remaining price competitive resulting in lower overall costs.

45 Require certifications on all fasteners. Not occurring. Receiving bad quality, non-repeatable quality from China.

48. "How often does this supplier have defective shipments which fail your incoming inspections?"

45 Certified supplier. Defects are caught on-line.

49. "What types of quality problems occur with this particular supplier?"

01 Various formulation and/or surface defects

02 Packaging issues are the biggest problem associated. Consistent unit pack quantity, package identification.

03 Wrong Compaq or other manufacturer part #s for the product we ask for.

04 The most minuscule details are occasionally overlooked.

05 We buy plastic parts. We see flash on the parts. We see contamination. We see parts that warp.

06 It's more component vendors to them shipping poor quality components.

07 None

08 Hidden defects/equipment-caused problems.

09 Minor quality problems (burrs, bends, etc.)

10 Usually changes in personnel; However, this supplier does a good job recovering from employee related issues.

11 There is only one item that has caused concern. This item is in redesign stage with our engineers working closely with theirs to resolve problems.

12 None.

13 None to speak of; occasional paperwork errors; packing slip and/or invoicing

14 Shipping damage.

15 (blank)

16 Shading problems, fabric flaws

17 Sticking bales

19 On few cases, not meeting specs.

20 Broken bushings and connectors. Occasional paperwork problems.

21 Software bugs. Hardware debugging extensive

22 Printing or color maybe wrong or the box may be too large or too small.

23 Nearly none.

24 (blank)

25 Usually defective material from their supplier.

26 Don't recall the last quality problem.

27 Paint (outside source) problems. Packaging problems.

28 Rarely we may find negligence to pick up a quality problem.

29 None. Finished 1996 with 0 defective ppm.

30 Dust, tabs, usual stuff, warp in hot/humid weather.

31 Customer clean-up, plastic pipe fusion, DOT flagging or signage.

32 We have not experienced any.

33 (blank)

34 Poor lock

35 Rarely see any quality problems from supplier. When they occur, it's usually a package issue, i.e., sent three-hole device when surface mount was ordered or vice versa.

36 Poor workmanship or misunderstanding of what customer expected.

37 Paint (primer quality), contamination.

38 None

39 Copier with too frequent service repairs was replaced. Small copier found to have hinge defect. All will be repaired even if no problem has occurred to date.

40 We've experienced a few blank sheets over the past 2 years along with incomplete die cut. Some glue problems. Very minor. Quality rating 99.7%.

41 Not material spec problems, but application problems.

43 Occasionally a problem with life of a rebuilt part/component. Normally caused by other internal problems within the unit.

44 We really have not experienced quality problems.

45 Cheap material.

55. "Define your service performance expectations and/or criteria regarding this supplier?"

01 Do what it takes to satisfy our customers' requests REGARDLESS of who has caused the problem to happen in the first place.

02 Continuous interaction with us to include all personnel involved in the use of supplier materials.

03 We get great service overall, but special or customized parts are not what supplier's good at supplying.

04 We expect the supplier to respond to service-related questions or problems within a 2 hour window. Problem resolution within the same 8 hour time period is mandatory.

05 We expect people to be responsive to our questions, concerns, and problems. We want to see someone in our plant weekly to at least talk about how things are going.

06 Quick, quick reaction to requested change.

07 Deal w. customer issues immediately.

08 Service is excellent except as it relates to delivery. Otherwise, response from sales is prompt.

09 With supplier's ability and resources, service has never been a problem area.

10 Representatives be knowledgeable, professional, proactive, good interpersonal skills, creative, get things done, loyal.

11 As stated earlier, due to the influx of request for streetlighting material, their/our forecasting was inaccurate for stock on-hand at their warehouse. We are now primary customer who is receiving priority treatment at manufacturing plant. Service will be maintained at all times to prevent stockouts.

12 If shipment date has moved, must provide advance notice.

13 Create value for customer by being innovative in their services/technical support; on-site technical support 5 days/week

14 We expect our suppliers to react quickly to any calls pertaining to quality issues. We expect

flexibility in order schedule. We expect prompt responses to requests for assistance with engineering, design for manufacture, material choices, etc.

15 Product must meet requirements of form, fit & function for end use of our final product with low warranty costs less than 1% of purchases.

16 To receive goods under almost any time table.

17 We expect quick response to any question on quantity, delivery, etc.

19 They have dedicated customer service reps for us.

20 Our goal is to be doing business with the supplier providing the lowest total cost or ownership. That means being the best at all the criteria contributing to that cost.

21 Quick response to problems. Keep us informed on current issues. Resolve mutual conflicts.

22 Parts to be her on time and if there is a problem, we expect it to be handled in a timely manner.

23 ESI, qualification of manufacturers, continued high quality understanding of industry, advice (i.e., Fastener Quality Act & its impact on buyer.

24 (blank)

25 Able to handle surges in our business activity level routinely.

26 Ability to react to time sensitive material. Ability to react to problems that may pop up and the ability to resolve those problems.

27 Expect the supplier to handle rejections quickly. Expect the supplier to notify us in advance of late (potentially late) deliveries.

28 We expect responses to inquiries and request same day. We expect our suppliers to offer suggestions for improvement or cost reductions.

29 Subjective, but essentially an ongoing demonstration by supplier personnel that their primary objective is to ensure buyer's success.

30 Responsive, flexible, easy to work with, look for solutions - don't offer excuses, make suggestions to buyer.

31 Be on time to satisfy the customer's needs.

32 Meeting schedules.

33 When we have issues, we need quick response time & helpful suggestions. They do all of this very well. We have weekly meetings with them to be sure we are on track.

34 Prompt handling of customer complaints.
Deliveries as required.
Technical support as required.

35 Continue to provide top level inside sales support. Recognize & support our need for top-level outside sales support to keep our engineers & purchasers abreast of the latest technology.

36 The owner is normally involved w/servicing us & our customer.

37 (blank)

38 Must react immediately to resolve problems.

39 Daily technician visits to maintain very high quality copies and proactively maintain copier to prevent service calls/copier downtime.

40 (blank)

41 During normal plant operations, the water conditions must be within guidelines and during plant upsets, take the necessary steps quickly & environmentally adequate to get the plant back within guidelines. Report any major problems.

43 Supplier is to lead our mobile equipment program through the supply of parts, proactively stepping into maintenance problems, on-site training, troubleshooting, policy & procedure development, and other service type benefits. Future expectations include consignment and managing our mobile equipment maintenance programs.

44 Superior service using innovative techniques to meet and exceed our needs.

45 Expect answers within 1/2 hour many times. Extraordinary amount of follow-up and expedite

calls are required. Supplier does not notify us of problems when he should.

APPENDIX I

SUPPLIER FIRM QUESTIONNAIRE OPEN-ENDED RESPONSE SUMMARY

5. "What is the primary (key) product (or commodity) sold to this strategic customer?"

01 friction papers
02 cast bus fittings
04 Roots blowers
05 injection molded plastic parts
06 software & electro-mechanical assembly
07 single serve barrier applesauce containers
08 flat roll steel - hot roll pickled & oiled sheet
09 metal stampings & assemblies, including Class 1
10 bearings & power transmission products
11 roadway lighting fixtures
12 precision machining
13 bearings and power transmission
14 axle shafts
15 OEM components
16 oxford cloth shirts
17 synthetic rubber (SBR)
19 MRO supplies
20 transformers
21 cellular infrastructure equipment
22 shipping boxes
23 fasteners
26 custom printed business forms/computer paper
27 bakery shelving
28 machined components
29 stainless steel bar
30 corrugated packaging
31 installation of an electric utility to residential & commercial customer
33 aluminum plate
34 vinyl siding
35 electronic, electro-mechanical & computer products & components
36 ductwork
37 axles
38 bearings
39 fax & copiers
40 paperboard folding cartons
41 water treating chemicals
43 spares & repairs of mining & mobile equipment
44 electrical products
45 fasteners

10. "Which of the following factors (or selection criteria) did your company consider in selecting this customer to participate in a strategic, long-term collaborative relationship?"

28 They selected us.

12. "How does your company define a strategic, long-term collaborative buyer-supplier relationship?"

01 Win-win - strategy: a) cost, b) market share
Mutual cost reduction
Continuous improvement
Quality - R&D

02 Service & quality

04 (blank)

05 Combined resources to achieve improved quality, lower cost, and reduced response time to fulfill the needs of our customers while increasing mutual profitability of the partners.

06 Just in time inventory management, worldclass manufacturing methodology, & fulfillment capabilities.

07 Long-term commitment in writing.
Collaboration efforts to achieve growth and profitability for both companies.

08 A buyer who stays with us continually over several contract periods (years). Who does not jump from supplier to supplier based on price, etc. Allows learning curves and negotiation to occur.

09 The ability to profitably grow the metal stamping business by increasing incremental sales as a result of quality, cost, and delivery performance criteria.

10 Working together and letting each "partner" do what they do best, win-win relationship. We must stay proactive at all times. Cost reductions is our main focus.

11 Communication, communication, communication. I'm not being flippant...The alliance relationship requires an extraordinary amount of time to spend talking to one another.

12 A long-term commitment which is mutually beneficial.

13 We offer around the clock service and tech support 365 days per year. Customer voices needs, we offer solutions.

14 A relationship which will provide our company a long-term manufacturing opportunity & will let us grow in volume of components supplied to the partner.

15 We strive to continuously improve a partnership relationship where problems and opportunities are addressed in the best interests of first the ultimate (end-user) customer, then to the benefit of supplier and our OEM customer. This is achieved through constant interaction and early involvement in all developmental projects.

16 We consider our relationship with our customers to be a partnership where we can work together to obtain long-term goals. Working closely with the customer and sharing information, we can anticipate each other's needs.

17 A mutually beneficial, symbiotic relationship which values the long-term growth of both parties; and consideration of reasonable profit margins to support same. Strong, long-term,personal relationships between individuals and groups within the two organizations. Commitment to the ideals and goals of each company with emphasis on quality of products and service.

19 Mutual long-term commitments and goals which satisfies both parties utilizing continuous improvement in a partnering relationship. Sharing information to mutually benefit both parties.

20 Relationship based on trust.

21 An alliance that mutually benefits the parties from the standpoint of growth, quality, and success in the marketplace.

22 Most of the time, it is defined with a contract. This relationship has evolved over the last thirty years.

23 This relationship must be based on trust. It must benefit both the supplier & the customer. Full disclosure is a must. A minimum of 3-5 year agreement is necessary.

26 Sole source, price negotiable influenced by raw material market, long-term agreements.

27 The ability to work together for the need of both companies without the interference of outside competitive bidding, but still being able to make a reasonable profit.

28 A teaming up of two companies with matching needs and capabilities that commit to work together and trust one another.

29 A relationship that is mutually beneficial:
1) allows supplier acceptable ROI/ROA
2) provides customer with:
   a) outstanding quality & delivery
   b) ability to be complete and grow in their markets
3) based on 1 & 2, we grow & prosper together.

30 Written long-term agreement.
Mutual/articulated goals that are quantifiable and qualifiable.
Mutual commitment and concern for the long-term health of the relationship.
Continuous improvement.
Respect and honesty.

31 A joint relationship between 2 or more companies to work together to reduce the costs of services for the benefit of both companies.

33 Key attributes: long-term focus; continuous improvement goals & plans; focus on total cost versus price; culture of company; openness; willingness to accept change; mutually beneficial. Many companies "talk" partnership; few practice it.

34 Maintain a long-term relationship that is profitable and able to grow. Also being able to learn from each other and use all marketing tools offered.

35 We segment our accounts into various tier levels based on current and potential business levels. Tier one accounts, of which customer is a member, are defined as "business partners" and are allocated a greater amount of company resources to develop & maintain the business relationship to mutual benefit.

36 Good price, quality product, exceptional personnel, business rapport, financial/technological credibility

37 One that is mutually beneficial to each of us and the ultimate customer. One that provides an atmosphere where we both remain flexible enough to do what's best for all concerned.

38 Choosing up sides in a multibrand environment combining dual efforts & value to marketplace. Mutual support and commitment.

39 Yes, supplier has many partners for different issues.

40 Primarily, it requires a great deal of trust on the part of both parties. The greater the knowledge that the other parties' word is good as gold, the farther one can extend themselves for the benefit of the other.

41 a. Collaborative spirit.
b. Places a value on service and expertise, not a commodity buyer.
c. Focuses on making improvements.
d. Financially stable.
e. Flexible in their approach to business.

43 As a vendor, we define our role as the crossroad for communicating with the field. We know what they want and need and translate this into purchasing language. This is done responsibly using 7 years of experience and relations.

44 Open ongoing communications; both parties need to be flexible. supplier needs to be willing to take a chance by being creative, thinking out of the box.

45 Mutual beneficial relationship for an extended period of time with opportunity for growth from increased production and the addition of other product lines.

14. "What attracted your firm to this particular customer as a candidate for a strategic, long-term collaborative relationship?"

01 Long history, technical agreement
Strategic fit
Good volume
Sole supplier - exclusivity

02 Down-to-earth approach

04 Level of buying, people, market they are into.

05 A 20 year business relationship.

06 The type of company that buyer is & the potential for a strong, solid longlasting relationship.

07 They were and are our largest customer.

08 We specialize in products customer uses and proximity of customer plants to our facilities.

09 A positive, ethical, financially-sound business relationship.

10 Strong sales volume, long-term commitment, financial stability, low cost structure.

11 Existing buyer/seller relationship.

12 Open communications between companies.
Excellent payment record.
Work well suited to our operation.

13 Size-potential.
Business (management) philosophy

14 Best of class in buyer's industry; financial stability of buyer; integrity of personnel.

15 Volume and products marketed.

16 Increased sales volume.

17 1) Integrity of personnel and company philosophy.
2) High volume of strategic materials.
3) Consistently excellent payment.

19 Genuine interest in eliminating redundancies and reducing their "total" cost of acquisition, possession, and application of materials.

20 Overall company philosophy which seemed to be "decision maker" driven (upper management agreement).

21 Strategic fit, future growth potential.

22 See #12.

23 Growth; stability of business; long range forecasting & planning; <u>new culture</u>.

26 Volume of purchases, negotiated prices, delivery requirements.

27 Trust, understanding, fit of both companies both in manufacturing and growth.

28 They are honest, open, and try to meet you more than half way.

29 Substantial sales potential with a customer that participates in markets where we can benefit each other.

30 Trust, volume, opportunity, culture, industry, quality of their people, mix of business.

31 They are a company that has demonstrated their commitment to work together for the benefit of both companies. They are fair to deal with.

33 Progressive, growth oriented company. Financially sound. Purchase full range of products that we carry. Goal of supplier reduction. Relationship with purchasing department.

34 High volume and topnotch people.

35 A match in their technology vs. our strengths, combined with their available market targeted them as a tier one account.

36 Quality product, exceptional working relationship, customer advocate

37 The factors listed in #10. The openness of customer people, our ability to work together towards a common goal. their culture and operating philosophy are a lot like ours.

38 Reputation in the marketplace along with past experience. Quality people & processes.

39 Quality of customer, trustworthiness of the buyer, we fit all of their locations, their financial stability, future growth potential.

40 They are close by, have good volume, & meet our requirements for a long-term relationship.

41 Previous good business relationship, appreciative of good performance, significant sales to other customer subsidiaries, goal for single supplier common.

43 We had put 5 years of work solving problems for the field and didn't want to lose our position. So we do it all now.

44 We were asked to participate in the bid package presented by the customer. Our interest was the customer's willingness to bet on new services we wanted to offer and the growth potential of this account.

45 Connection with our largest customer & their product line.

15. "In retrospect, is there anything different that your firm would have included in the selection and evaluation of this particular customer for a strategic, long-term collaborative relationship?"

01 No

02 Cannot think of any

04 (blank)

05 No

06 No

07 No

08 A commitment from both facilities. Management to ensure service to a customer is top priority in order to grow.

09 No

10 As far as any changes, I would say no. We all know things will change; something will not stay the same. Both os us must stay flexible in our partnership.

11 Yes...Would have insisted on a commitment to establishing a (more) effective forecast system.

12 No

13 No

14 No

15 Buying pattern - ability to forecast & schedule.

16 No

17 No

19 We would have better analyzed data processing capabilities.

20 No

21 No

22 No

23 Not really. Sometimes the demands are high, but that's part of the deal!!

26 No

27 No

28 This relationship requires on-going attention that goes beyond the initial selection.

29 Better understanding of company philosophies.

30 Not in the selection process, but in the deal structure.

31 That they would have had some type of formal training on "strategic alliances" for their employees.

33 Needed more joint meetings with their management and purchasing department to better communicate the "buy in" to vendor reduction and partnership. In addition, their requirements are not predictable - job shop. Easier to partner with an OEM.

34 No

35 No

36 Not based on this customer.

37 No

38 No

39 Not at this time.

40 No

41 A better mechanism to oversee the process. Some of our value is lost to the customer because recommendations are made at the lower levels where the bigger picture cannot be seen.

43 We didn't select them. We basically outflanked our competition. No one had the flexibility and experience to do what we do, at least not locally.

44 The assurance of upper management's buy-in to this program. Also, that the buyer's employees affected by this agreement (positively) would have been educated initially, prior to the start of our agreement.

45 Their government requirements.

16. "What has been the greatest single source of conflict with this particular customer following the establishment of the strategic, long-term collaborative relationship? Why?"

01 Cost-price and our perceived profit -"incorrect perception"
Huge price - cost pressure on customer from automotive industry.
Our paper small part of problem.

02 A few times lack of communications.

04 Delivery

05 (blank)

06 The fact that at time of new product launch(s), expectations are not within lead-times. This causes a number of people to rush their process.

07 Price increase because of resin cost changes.

08 On-time delivery - we have failed miserably to get the customer material within their delivery window due to an upward market trend lasting several years.

09 The issuance of purchase orders and the resulting ability to receive payments. The customer's burdensome financial system which contains numerous layers of accountability.

10 Changes in the global market will always be a conflict, from pricing to supply and demand.

11 Delivery...poor forecasting data
Quality...manufacturer growth

12 None come to mind.

13 Pricing - at one time.
Competitive situation - price only.

14 Schedule changes (quantity of products purchased for a specific ship date) cause us major problems. Drastic increases or decreases do really affect cash flow, labor days, etc.

15 The implementation of price escalator in contract based on CPI & PPI index. Price agreement was delayed/denied. When invoices reflecting new price were sent, no payment was made. Accounts receivable reached $800,000 on product with sales of $2.4 million/year.

16 They demand USA-made goods only.

17 Inability to provide good R&D support.

19 Lack of defined metrics and ability to measure accurately those of which were defined.

20 Customer expectations with manufacturing flexibility (delays & expedites).

21 Confidential.

22 Other companies trying to "buy" the business.

23 Developing a "good" objective rating system for supplier performance.

26 Increasing prices due to labor and raw material prices increasing. Resistance is to the point of not considering this partnership-type relationship.

27 Being able to satisfy their needs on low volume delivery. This problem has been addressed and corrected.

28 Expectations that are not shared. We lack control when they make a unilateral decision.

29 When changes in key plant or purchasing personnel occur. We have to "prove ourself all over again."

30 Pricing. We have had major issues in accuracy after switching to a new database management system. This has really stressed the relationship.

31 Problems with dealing with our customer's union employees who perceive us as individuals trying to take their jobs.

33 The "buy in" from the buyers. Also, there is no corporate purchasing manager to coordinate the direction through their various divisions.

34 Following up on some warranty problems, the location of the warranty claim made it difficult to service.

35 Excessive preoccupation with low price. generally, the value of service & delivery are perceived, but competitors' "low ball" pricing causes them to pressure us for price concessions which could ultimately impair our ability to service them as they wish.

36 Incomplete/incorrect blueprints--happened only one time.

37 1) Extended work on a project without proper application of potential costs along the way (our problem). Total cost was out of line.
2) Our corporate philosophy on what info we divulge on cost data.

38 Current pressures to reduce inventory at the end users & at distributors in conflict with the manufacturer's need to grow shipments.

39 Invoicing problems!! Receiving too many invoices from our company, increasing the paperwork load on their staff.

40 We would like all the business, but that is against their policy.

41 One purchasing person trying to second guess operations and attempting to buy from other sources at a lower price.

43 They have been slow to integrate the blank order for us to handle. Why? Uncertainty. Late in doing this. But 14 months later, it is just finishing.

44 Political infighting at the customer. There were several power struggles that occurred where we were used as a scapegoat for several problems. This really was a symptom of the lack of communication within the customer's organization and the communication between the customer's organization and our company.

45 Removal of some high volume items due to government requirements.

17. "How was this particular conflict episode resolved?"

01 Breakthrough - mutual teams reduce their cost.

02 To mutual benefit.

04 Our suppliers not meeting required deliveries.

05 (blank)

06 We have come to a mutual agreement that this will be the "exception," not the "rule."

07 Predetermined mechanism outlined in the agreement.

08 Still in negotiation.

09 Our added due diligence in following the paperwork through the customer's system.

10 Reduction in price and more commitment with technical support, from us and our suppliers.

11 Ongoing.

12 (blank)

13 Buyer originally a duplicate contract with our competitor. Buyer left position. Approached purchasing manager & exposed problem. Purchasing manager canceled duplicate contract.

14 A recent decrease was negotiated with the buyer by his agreeing to take some of the product into inventory. We agreed to quickly slow down our manufacturing operation to match the new schedule. Results in high WIP.

15 After many discussion, we chose to discontinue shipments pending resolution. We offered to forego a portion of difference.

16 We ask the customer to buy cuttings to ensure USA-made goods.

17 It has not been resolved.

19 Ongoing open communication and better analysis of information. Customer is working on better system capabilities and provide better interface with ours.

20 Not resolved, but less impact due to customer forecasts.

21 Confidential.

22 Fair negotiation.

23 Better objective system development.

26 Turn the work back or take a loss on work to retain.

27 Supplier set up a "short run" department.

28 Constant and continual management of conflicts.

29 Through frequent communications, visits with key management personnel from both companies. Being included on suppliers' council.

30 Went back to old system but needing a lengthy & costly reconciliation to do so.

31 It is ongoing.

33 Ongoing....

34 Customer received cash settlement.

35 Customer generally allows us the opportunity to match competition pricing. This forces us to decide upon a threshold of pain and either match pricing or walk away from the business.

36 Face to face meeting.

37 1) End price was decreased based on removing options with a target price being requested on future projects.
2) Some cost data has been shared as we feel necessary to conduct business.

38 Adjustment of purchasing targets.

39 We went to a Malone billing invoice which means they have less paperwork and we receive our money quicker.

40 We just have to accept it.

41 By going to management and giving operations information to counter the purchaser's moves.

43 Unfolding as we speak. It just sort of came to a head. By being patient and not rushing them.

44 Structured meetings within the customer's organization. Our champion within the buyer's organization requested specific examples of situation that were caused by this agreement. Most were non-existent or unsubstantiated. These meetings opened lines of communication within their organization.

45 No.

18. "Were you satisfied with the resolution of this conflict episode?"

19 Ongoing progress.

36 ABSOLUTELY!

19. "Why or why not?"

01 Still ongoing.

02 n/a

04 (blank)

05 (blank)

06 This has been a successful solution to this point.

07 It had a fair outcome.

08 I feel facility shipping customer the product is inadequate in dealing with internal problems to "fix" customer problems.

09 The lack of a timely payable process represented increased expense to supplier.

10 Our contract was never supposed to be a price issue. You need to forget and remember nothing ever stays the same.

11 (blank)

12 (blank)

13 We were to be used only after hours or breakdowns. Cancellation corrected problem. We were less than 5% higher on price.

14 Each party recognized the other's needs & tried to accommodate them.

15 We were paid, production resumed, contract was renegotiated to eliminate index based price.

16 They continue to be a valued customer with increases in sales volume.

17 Capital restrictions.

19 Honesty and willingness of both parties to address the issue.

20 Customer can only react to their customer needs forcing us, the manufacturer, to be reactionary.

21 Confidential.

22 See #17.

23 Takes personality conflicts out of the picture.

26 Kept the goodwill, but lost money.

27 We fulfilled our customer's needs.

28 Conflicts are inevitable. If you trust one another you can work through it.

29 We continue to work together.

30 There will be lasting negative residual effects.
Cost both companies significant $.
We looked like idiots.

31 This is a problem we will always face.

33 Relationship can be more adversarial at times.

34 Because we felt the claim was not totally justified.

35 Because it continues to happen. Our competition will quote below cost just to make us look bad. When we choose not to participate, we leave the customer with a lingering feeling that we are inflexible or too highly priced.

36 Customer was fair and open to our point of view.

37 1) We all learned a lesson from.
2) We continue to try to find resolutions that are acceptable to corporate, as well as customer.

38 Distributor has committed to grow their sales of my product as we agree to allow a gradual increase

in purchasing targets for several years, until inventory level goals are met.

39 See question #17.

40 We have a great relationship that we would not disturb for any but the most serious reasons.

41 This lacked the sense of a collaborative spirit. Would have preferred everyone reading from the same script initially.

43 It seems to be over. Now we will see how we do.

44 We were aware of the situations and individuals involved. Once these situations were dissipated, our reputation within their organization immediately improved.

45 We are still trying to replace lost dollars.

20. "What other significant conflicts have occurred with this particular key customer over the past five (5) years? How did they differ from the conflict described in Question # 16 above?"

01 Quality improvement - lower variation - not cost related. We met their expectation.

02 n/a

04 None

05 (blank)

06 Our business is structured in teams to meet our customers' needs. We've changed players on this team a number of times.....not always smoothly.

07 Nothing significant.

08 Quality problems - internal problem due to parts file being incorrect.

09 Since buyer views metal stampings as core business in their manufacturing strategy, there exists an ongoing challenge in procuring new business.

10 None

11 None

12 (blank)

13 None

14 None

15 An ongoing/reoccurring problem is in our effort to be responsive, we made product improvements at the request of customer engineering. Paperwork required to recover cost of improvement is delayed or never makes it to customer purchasing. Therefore, our margins can be reduced by providing good service.

16 Timeliness in delivery.
Timeliness in payment (past due invoices).

17 Individual customer plant complaints (justified). They are resolved as they occur with adjustments to existing quality systems.

19 None

20 Bar coding problems, delivery conflicts, pricing conflicts.

21 Confidential.

22 None

23 None

26 None

27 None

28 We have been open enough to avoid significant conflicts.

29 We had delivery problems in 1994-95 due to new computer programs we implemented to actually improve overall performance.

30 New director of purchasing in one of their businesses who has no ownership in this partnership. Impact is unknown at this point.

31 1) Schedule our own work (this has been resolved).
2) Warehouse materials (this has been resolved).
3) Different standards for each of the 6 offices we work (this is being worked on).

33 Conflict over delivery performance. Their reports are inaccurate by their own admission, yet they draw conclusions from them.

34 Competitive pricing. Competitors are willing to reduce price but have no idea as to service required.

35 Customer arbitrarily extended payment terms from 30 to 60 days. We were told to accept new terms or disengage from relationship. We complied. Difference - this dialogue came from corporate management and was not under control of purchasing department.

36 NONE.

37 From time to time, pricing or warranty issues. I was not part of the group for this entire period of time.

38 (blank)

39 None

40 None

41 Billing problems due to our changing accounting systems. Operations not placing orders leading to a run out of chemicals.

43 Negotiation on the pricing and revenue sharing was too long and drawn out. Too much splitting hairs and senseless meeting.

44 I am not fully aware of previous situations that may have occurred.

45 Too early, only into the program for 5 months.

23. "If you answered "No" to Question # 21, why not?"

11 Not profitable

25. "How do you rate your company's ability to maintain or control its prices over time?"

32 As a reseller, our ability to control price is limited.

26. "How do you rate your company's ongoing price reduction efforts?"

14 Mature product

27. "How do you rate your company's ability to provide preferential pricing to this customer?"

14 Product is custom built to buyer's specs.

17 Preferential as compared to competition at this account, not to the industry as a whole. If referring to the latter, I would rate a 6.

30. "Define your pricing performance expectations and/or criteria regarding this customer?"

01 Maintain recent past - price-profit expectation in face of indexed restraints (give back) contract - profit compared to other business the same.

02 This question needs to be more specific.

04 To maintain the best equipment and price as possible.

05 Based on history and market test, we are competitively priced. We have an agreed upon procedure to address raw material price changes and yearly labor & overhead increases.

06 I will continually get the best pricing. If my customer's demands are low...I'll get price breaks to present to my customer, so they have options for deciding their best strategic move.

07 Price adjusts with raw material cost changes. Price can increase a maximum of 4% per year. Cost increases in excess of 4% can be recovered once raw material costs decline.

08 Customer expects us to know the market and be at or below based on a contract.

09 Supplier requires a return on assets significant enough to support future capital growth in order to support all our key customers.

10 In the past we would concentrate on overall cost. Price has just become an issue, due to the financial change of our customer.

11 At expectation...low sell price/high volume

12 Prices have not changed since the relationship began.

13 We are always competitive.

14 Due to the custom nature of this business with buyer, we have had few price fluctuations. We do pass through raw material & some labor increases annually or semiannually.

15 We expect to control pricing on base product for long periods of time (3-5 years), but expect to recover product improvement cost.

16 Our pricing structure is the same for all our customers. Price discounts are spelled out in writing and are based on yearly $ volumes.

17 Stay within the pack (the 3 major suppliers of this product). Prices are based on a formula which includes variation on a quarterly basis of intrinsic raw materials from which the products are comprised.

19 To preserve competitive pricing of products while covering our cost for value-added services expected by customer.

20 Manufacturer must be allowed to maintain a profitable product line and customers need to assist in looking for other savings than 1st price.

21 Cannot erode profit margin.

22 Fair profit margin over paper cost.

23 We must maintain constant price reduction efforts.

26 Competitive prices that are fair, but not always the lowest.

27 No problem.

28 We expect a reasonable rate of return on sales.

29 We prefer to emphasize total cost of using our product. If our price per pound is slightly higher but the total cost of manufacturing a part is less with our product, it is a win/win. We try to target pricing to make them competitive in their industry.

30 Correct and timely pricing information in addition to competitive levels and aggressive price reduction (cost) activities.

31 (blank)

33 Price protect on small orders.
Special programs work jointly with steel/aluminum mills to arrive at the most competitive price.
We measure our performance through ABC costing.

34 Our price is higher than most, but we provide the most service.

35 We try to offer most competitive pricing available to customer while still enjoying enough profit to pay for the services the customer expects.
Pricing reductions are freely offered when they become available.

36 All jobs are on a bid basis and occur throughout the US, so there are many variables involved in pricing. The expectation is always fairness.

37 That we work together to avoid margin deterioration for either of us. That we share in cost increases as a result of suppliers who give us no alternative. That the customer pay for cost increases resulting from their engineering changes.

38 Maintain current balance value/price.

39 They want the best pricing which is fine, but on the flip side, they won't commit 100% of their product line to our company. So with no commitment, it is hard for us to reduce our cost.

40 Due to a merger, we expect that we may have reduce price because of the possibility of central purchasing. We charge somewhat more but give better quality, delivery, & service. These may not be recognized by someone at a distance.

41 Our pricing should cover expenses and provide a net profit that is 4 to 6 percent below the company average. This is very dependent on days of service required. Discounts based on less service time for dollars of chemicals sold.

43 We want our pricing to be on par with the best available pricing for the same quality of spare or repair.

44 Price has not been an issue. As long as we were competitive in our marketplace and provide superior services which continue to result in cost reductions to our customer, we expect to remain in a position to receive a premium price - not being

the least expensive, but very competitive overall. This should continue for the next year or two, provided we are the lowest cost provider.

45 Mark up price was set as part of the contract.

31. "How do you rate your company's ability to maintain or control its delivery performance over time?"

31 This [section] is not applicable re: the services we provide this client.

36. "Define your delivery performance expectations and/or criteria regarding this customer?"

01 We maintain large inventory.
Break in schedule when needed.

02 Supply the customer parts within 48 hours after they place orders with us.

04 To always do our best to meet delivery times.

05 We have a well-defined delivery requirement system which works very well.

06 To be proactive and inform my customer of issues or potential issues at the earliest moment.

07 Must deliver between 8:00 am and 10:00 am day requested.

08 Customer gives us plenty of lead time to deliver the product. We are unable to turn it around to meet their delivery schedule.

09 Delivery ratings are critical to the overall supplier ratings and therefore are prioritized by supplier.

10 To have the right material available to the maintenance people in the plant when they need them.

11 Manufacturer deliveries very poor. They have experienced record growth in sales...This is self-correcting.

12 Four weeks after receipt of raw materials.

13 Will remain excellent.

14 We are on a "ship schedule" on the high volume parts to buyer, i.e., we know the build schedule &

ship to meet the demand. There is no room for error or missed delivery!

15 We expect to deliver all products to line - set in the future. At about 50% of product now.

16 Shipping complete orders within 2 to 3 days.

17 Get me to the church on time.

19 Looking for a realistic expectation to develop a delivery schedule based on meeting their service level requirements.

20 Customer expectations could unattainable. Concentrated efforts on manufacturer abilities and customer expectations is continuous.

21 Delivery when customer needs equipment if at all possible. Whether or not customer ordered outside 8 week leadtime.

22 Most of the items are on a "JIT" program.

23 This is an we need to perfect. Given time and new systems, we'll get there.

26 Get jobs to customer when expected, and try to get rush orders to customer when they expect, at all costs.

27 We will meet their needs.

28 We expect to be challenged by this customer in special situations and to negotiate on-time performance on repeat orders.

29 Our goal is to deliver on time - 100%. We have established a "mini" C.I. team to improve our performance.

30 Products delivered when expected (ever decreasing lead times), correct quantities and flawless billing information.

31 (blank)

32 95+% on time - reviewed on a quarterly basis - goal 100% - minimum level 98%.

34 We deliver as agreed.

35 Customer has "Just-in-Time" program in place with delivery window 5 days early, 0 days late. We have been top supplier in terms of delivery several years in a row. Consistently 99+% on time.

36 Realistic lead-times, continued communication, honesty.

37 We deliver to customer's schedule. They are reasonable in adjustments. We work together to resolve any issues.

38 Currently have 87% fill rate (per lines ordered). Target 93-95%.

39 To deliver products within 5 business days.

40 We expect to meet whatever they require.

41 To have chemical on hand at all times. To be able to get a chemical to customer in emergencies within three days once notified.

43 Because of the diversity of products and the range and age of equipment, they have always had to struggle with delivery. I believe we are making improvements.

44 Being the single source supplier, we must deliver products within the timeframe requested by this customer. As their needs for particular products are communicated to us, we will invest in the inventory to provide our customer with exceptional delivery service. We are in a consignment agreement with our customer.

45 "JIT" parts are to be delivered when they need them.

37. "Are you involved in just-in-time delivery for this key commodity with this particular customer?"

09 2 select programs & platforms.

19 On stores items from stores management on site.

33 On select programs.

44 We provide consigned inventory.

39. "How often does your company deliver early to this customer?"

09 Note: Early deliveries are not an accepted practice in the auto industry.

19 Delivery from stores several times daily to meet customer's needs - JIT concept.

44 It's already on site. They take what they need when they need it.

40.b. "Exact percentage (if known)"

14 I believe at 96% since ship schedule was initiated. (No recent report available).

23 Not good enough.

41 Note: 90% of deliveries are not included in this. We have a blanket P.O. for most chemicals and deliver them in our own trucks. This is for chemicals not on blanket P.O.

44 On time delivery defined as what?

41. "What is the expected order cycle time for this particular key commodity shipped to this customer (from time of order to time of delivery)?"

01 6 months - order
02 2 weeks
04 4 weeks
05 4 weeks
06 Within 2 weeks - existing products
Within 3-4 weeks - new products
07 1 day to 2 weeks
08 1 month
09 10 weeks
10 24 hours
11 From stock 48 hours
4 weeks manufacturer cycle
12 We work off a blanket order.
13 We stock most items.
14 60 days - we have their planning horizon of 360 days.
15 4-10 weeks - depending on product
16 3-4 days
17 1 week
19 Stores items - JIT as required with several daily deliveries.
20 Yearly projection with 8 week ARO adjustments.
21 8 weeks
22 2 weeks
23 5 days
26 8 weeks
27 4 weeks

28 6 weeks
29 If delivered from stocking program, 48 hours. If a special mill manufactured product, 8-16 weeks.
30 5 working days and dropping.
31 (blank)
33 Can vary from 1 day to weeks.
34 10 days
35 As requested, we supply lead-time info, and they generally buy within those constraints. But requests can vary from immediate delivery to schedules 3-4 months in future.
36 Because each job is "custom" in nature, and because locales can vary, this is really not applicable to this relationship.
37 (blank)
38 8-10 days
39 5 business days
40 One to six weeks
41 10 days
43 No way to tell - stock order 3-5 weeks, emergency 3-5 days depending on product
44 Next day or same day as needed by this customer.
45 Next or same day

44. "How do you rate your company's ability to provide preferential quality performance to this customer?"

12 We do not provide preferential quality to any customer.

47. "Define your quality performance expectations and/or criteria regarding this customer?"

01 Highest effort to improve quality. 100% improvement last 5 years.

02 The physical, metallurgical, and all other criteria must fall within + or - 1 sigma level of normal curve.

04 (blank)

05 This customer has very stringent quality and performance standards that are well-defined.

06 To meet or exceed our customers' requirements, & we are committed to continuous improvement of the processes which produce the products & services.

07 CPK of 1.0 or better for all specifications.

08 Wants a usable product for exposed applications, so product must be basically defect-free of surface imperfections.

09 Again, quality ratings are critical to the overall supplier ratings and therefore are prioritized by supplier.

10 No shipping errors, conformance to delivery requirements, error-free transactions, technical expertise and easy to do business with.

11 Poor - Several fixture types very much a problem...Redesigns in process.

12 100% acceptance.

13 We have an ongoing quality process (CSI) continuous service improvement.

14 From 1988 to 1995-1/2, we have 0 rejects. Broke the old string in '95 & have had several rejects due to a "missed mfg op" in 1996; driven by higher volume & increase in speed of manufacturing. We seek 0 defects/0 rejects.

15 Intended to be ISO certified by December, 1997

16 To continue to ship quality products that meet or exceed our company's expectations.

17 Product should arrive at customer's dock in a usable form, free from contamination, and meeting all customer's material specifications.

19 Work closely with core maintenance teams to meet their requirements and offer cost effective alternatives or opportunities when we have them available.

20 Meet the specifications.

21 Always striving for 6 sigma level quality with all customers.

22 To meet or surpass customer's requirements for each.

23 This must be a "given."

26 Deliver to customer what they expect and advise customer of a quality issue may arise on job they have designed. Avoid problem before created.

27 Quality always is an important factor in our relationship and we expect to keep it high in our requirements.

28 We expect to satisfy over 95% quality on new orders and 100% on repeat orders.

29 Meet customer specification 100% of the time. If there is a problem, resolve it immediately and then apply 8D problem solving techniques to assure it does not re-occur.

30 Products to customer spec as well as fit for use. There should be continued quality improvements measured by defect reduction.

31 We expect our employees to comply 100% with the standards & specification while installing a natural gas service or electric service for customer.

33 98% acceptance at account - reviewed quarterly.

34 Provide a consistent level of quality.

35 We are rated for quality as well as delivery with this customer. We usually run at 100% quality. On an annualized basis, 99+%.

36 Customer gets our best efforts all the time. Any conflicts, and they are practically non-existent, are handling immediately.

37 1) Customer identify his expectations & measurements.
2) Advance notice of changes.
3) Customer involvement in design process which establishes performance expectation.

38 ISO 9000 series. Ongoing joint quality improvement teams to examine this orders to remittance process & correct inefficiencies & optimize the process.

39 The copier has to be at the highest level, and the machines must experience limited downtime.

40 We intend to meet or exceed their requirements.

41 No delivery problems.
1 or 2 invoice problems a year.
No product problems.

43 We are building/repairing components for mining equipment overseas. It was too hard and work. We build to factory standards for new equipment.

44 We are very open in discussing what our customer's expectations are and our ability to meet these expectations. Our company is willing to invest heavily in resources to provide this customer with the products or services that will meet or exceed our customer's expectations and specifications.

45 0 rejections.

49. "What types of quality problems occur with this particular customer?"

01 Caliper - small amount
Defects - basis weight of paper.

02 (blank)

04 (blank)

05 Part fit & color match.

06 n/a

07 None

08 Surface defects
Undergauge product

09 Raw material (steel) issues primarily.

10 Cannot remember our last problem.

11 Breakage.

12 Mostly casting related problems.

13 (blank)

14 Recently missed drilling a hole in 2 of 100 components in that lot. Part returned to us, fixed, and reshipped.

15 Mis-labeling or mis-sequenced.

16 Manufacturing defects such as shallow seams.

17 Product is shipped on pallets with discrete bales stacked on each other. Occasionally, the bales adhere to one another due to inadequate surface coating causing problems to production personnel.

19 Nothing significant. Ship only as preapproved specifications and brands. We do not substitute product without approval.

20 Component failure or shipping damage.

21 None to speak of.

22 The most frequent problem would be shipping damage.

23 Usually shipping errors.

26 Paper out of specification due to raw material supplier, supplying us out of specification materials.

27 Insufficient coverage at "hang marks" or chrome plating.

28 Cosmetic problems, bearing bore fits.

29 If there is a problem, it is usually cracked steel.

30 Warp and skew. These are manufacturing issues for use and not necessarily a material defect.

31 Not proper depth; poor fuse or weld; equipment failure.

33 More paperwork related compared to defective material.

34 Most common is blemishes on siding.

35 Manufacturers products are defective. As we distribute, not manufacture, this is beyond our control. However, we are still held as responsible by the customer.

36 Installation problems may occur, often due to miscommunication with the end customer.

37 Seal leaks.

38 Extremely little.

39 With copiers & faxes, there are multiple problems that occur.

40 On rare occasions, we have bad problems with glue joints not holding or too much glue causing a problem.

41 #1 billing mistakes
#2 occasional delivery

43 Warehousing/transit related damages.

44 The quality problems that occur are mainly caused by the lack of communication between the customer and our company. Meeting deadlines that may not have been understood by our company or providing a product or service that may not be as easily used by the customer as our customer would like.

45 (blank)

51. "How do you rate your company's ongoing service performance improvement over time?"

44 As we understand and communicate better.

55. "Define your service performance expectations and/or criteria regarding this customer?"

01 #1 customer - we schedule other business around them.

02 Whenever there is a problem pertinent to metals, whether it is Q.C., service, we want the customer to come to us.

04 (blank)

05 Our service performance is based on good communication at all levels of both companies in all departments.

06 Quickness, flexibility, economy, communication, innovation, integrity/dependability, & improvement.

07 Maintain high satisfaction.

08 Customer service rep is at a different facility due to manufacturing operations being understaffed. So, service is not always the best.

09 Supplier is buyer's largest stamping supplier (outside buyer's manufacturing). Therefore, service and customer support are critical.

10 We are responsible for delivery, inventory management, product application idea, standardization, price management, and in some cases, order process itself.

11 Service issues are not a problem...Prompt response is the norm.

12 Respond to the situation as required.

13 Service is our soul.

14 Respond to the customer's needs! Do what is necessary to service the customer. He's our partner!

15 (blank)

16 To continue and maintain our relationship by providing quality products and excellent service.

17 If the request is within reason, we will comply.

19 Work closely with customer to develop realistic service metrics and monitor them to assure we are meeting or exceeding their requirements.

20 Meet customer predefined expectations.

21 Customer satisfaction is always a key objective.

22 Whatever the customer needs.

23 This will always be a problem area, mostly because of customer - short lead - small quantity requirements.

26 Give 100% to customer in service areas and be available for questions, meetings, discuss quality issues at any time. It's like being "on call" all the time.

27 Always first in our relationship.

28 We expect constant adjustments and fair negotiations.

29 To be on time 100%. To provide technical support when appropriate or requested by the customer.

30 We do technical and design activities for this customer which we consider part of our overall service definition. Meeting all requests with quality responses in a timely fashion would meet expectations.

31 it is our goal to install a customer service within the 8 day window we are given by customer or sooner.

or sooner.

33 Customer rated as a "top" customer given top priority by sales and service departments. Common items (stocked) quote same day. Non-standard items - vary one day to one week depending on complexity.

34 If it's broke, fix it.

35 All orders entered on timely manner (1-3 days, depending upon material requested). All reschedules processed in timely manner (within 24 hours). All return requests processed in timely manner (1-7 days). Requests for engineering support, data sheets, samples responded to within 24 hours.

36 We see our relationship as long term, and know that any problems inefficiently resolved may jeopardize future business. We treat them as we would like to be treated. We know that failure to do this can result in problems for both our firms over the long-term.

37 Customer defines our service performance. We expect advance notification of any changes. They communicate well.

38 (blank)

39 (blank)

40 We intend to do whatever they want & do it cheerfully.

41 No unscheduled shutdowns for water treating problems.
Keep cleaning cost at a minimum.
No out of compliance on waste water.
Maintain projected equipment life and exceed.

43 Because of our ongoing push to service the customer, we solve problems using the info they provide if they could put all the pieces together. I guess this is why we won the job!

44 Again, our expectations to provide the highest level of service is our main concern. As we understand more of our customer's expectations, we improve our service performance to meet or exceed our customer's expectations. Our company is very willing to invest in the resources needed to provide exceptional service.

45 We are a single source JIT supplier. It's our responsibility to get the product to the customer on time.

APPENDIX J

BUYER SURVEY CODING[1]

QUESTION	FIELD	CODE	DESCRIPTION
**	A	B	buyer
**	B	01-99	dyad number (matched pairs)
1	C	01-99	2-digit SIC code
2	D	1	< $500,000 annual sales
		2	$500,000-$1,000,000
		3	$1,000,001-$10,000,000
		4	$10,000,001-$100,000,000
		5	> $100,000,000
	E	1	< 100 employees
		2	100-500
		3	501-1,000
		4	1,001 - 5,000
		5	> 5,000
6	F	1	< 2 years of relationship
		2	2-5 years
		3	5-10 years
		4	> 10 years
7	G	1	< 5% of supplier's sales
		2	5-15%
		3	16-30%
		4	31-45%
		5	46-60%
		6	61-75%
		7	> 75%
8	H	1	single source
		2	dual source
		3	3 sources
		4	4 sources
		5	5 or more sources
9	I	1	< 5% of total needs
		2	5-25%
		3	25-50%
		4	50-75%
		5	> 75%

[1] Questions 29, 35, 46, 54, and 66 have been reverse coded to be consistent with corresponding questions.

10	J	1 or 0	Price (1=yes, 0=no)
	K	1 or 0	Quality
	L	1 or 0	Management philosophy
	M	1 or 0	Delivery
	N	1 or 0	Expertise of supplier
	O	1 or 0	Product line
	P	1 or 0	Trustworthiness
	Q	1 or 0	Strategic fit
	R	1 or 0	R&D capabilities
	S	1 or 0	Location
	T	1 or 0	Previous business
	U	1 or 0	Customer service
	V	1 or 0	Recommendation
	W	1 or 0	Reputation of supplier
	X	1 or 0	Financial stability
	Y	1 or 0	Compatible company cultures
	Z	1 or 0	Future growth potential
	AA	1 or 0	Other
11	AB	1-7	Price (1=low, 7=high)
	AC	1-7	Delivery
	AD	1-7	Technology
	AE	1-7	R & D
	AF	1-7	Quality
	AG	1-7	Features
	AH	1-7	Service
	AI	1-7	Flexibility
13	AJ	1-7	Satisfaction (1=low, 7=high)
18	AK	1 or 2	Satisfied w. resolution (1=yes, 2=no)
21	AL	1 or 2	Continue (1=yes, 2=no)
22	AM	1	< 2 years expected to continue
		2	2-5 years
		3	5-10 years
		4	> 10 years
24	AN	1-4	Price (use each only once)
	AO	1-4	Delivery
	AP	1-4	Quality
	AQ	1-4	Service
25	AR	1-7	Control P (1=poor, 7=excellent)
26	AS	1-7	P reduction (1=poor, 7=excellent)
27	AT	1-7	Preferred P (1=poor, 7=excellent)



28	AU	1-7	Market P (1=poor, 7=excellent)
29	AV	1-7	P conflict (1=low, 7=high)
31	AW	1-7	Control D (1=poor, 7=excellent)
32	AX	1-7	D improvement (1=poor, 7=excellent)
33	AY	1-7	Preferred D (1=poor, 7=excellent)
34	AZ	1-7	Market D (1=poor, 7=excellent)
35	BA	1-7	D conflict (1=low, 7=high)
37	BB	1 2 3 4	Yes (just-in-time) No No longer In the future
38	BC	1-7	Deliver late (1=always, 7=never)
39	BD	1-7	Deliver early (1=always, 7=never)
40	BE	1 2 3 4 5	< 25% on-time delivery % 25-50% 50-75% 75-90% >90%
	BF	000-100	Exact percentage
42	BG	1-7	Control Q (1=poor, 7=excellent)
43	BH	1-7	Q improvement (1=poor, 7=excellent)
44	BI	1-7	Preferred Q (1=poor, 7=excellent)
45	BJ	1-7	Market Q (1=poor, 7=excellent)
46	BK	1-7	Q conflict (1=low, 7=high)
48	BL	1-7	Defective (1=always, 7=never)
50	BM	1-7	Control S (1=poor, 7=excellent)

51	BN	1-7	S improvement (1=poor, 7=excellent)
52	BO	1-7	Preferred S (1=poor, 7-=excellent)
53	BP	1-7	Market S (1=poor, 7=excellent)
54	BQ	1-7	S conflict (1=low, 7=high)
56	BR	1-7	Leadtime (1=always, 7=never)
57	BS	1-7	Emergency (1=always, 7=never)
58	BT	1-7	Messages (1=always, 7=never)
59	BU	1-5	Your effects (1=always, 5=never)
60	BV	1-5	Their effects (1=always, 5=never)
61	BW	1 2 3 4	Persuasion (techniques) Bargaining or compromise Coercive power or threats Joint problem solving
62	BX	1-7	Nature of conflict (1=high, 7=low)
63	BY	1-7	Your emotions (1=always, 7=never)
64	BZ	1-7	Their emotions (1=always, 7=never)
65	CA	1-7	Tension (1=high, 7=low)
66	CB	1-7	Goals (1=unimportant, 7=important)
67	CC	1-7	Importance (1=high, 7=low)
68	CD	1-7	Maintain (1=critical, 7=non-critical)

APPENDIX K

SUPPLIER SURVEY CODING[1]

QUESTION	FIELD	CODE	DESCRIPTION
**	CE	S	supplier
**	CF	01-99	dyad number (matched pairs)
1	CG	01-99	2-digit SIC code
2	CH	1	< $500,000 annual sales
		2	$500,000-$1,000,000
		3	$1,000,001-$10,000,000
		4	$10,000,001-$100,000,000
		5	> $100,000,000
	CI	1	< 100 employees
		2	100-500
		3	501-1,000
		4	1,001 - 5,000
		5	> 5,000
6	CJ	1	< 2 years of relationship
		2	2-5 years
		3	5-10 years
		4	> 10 years
7	CK	1	< 5% of supplier's sales
		2	5-15%
		3	16-30%
		4	31-45%
		5	46-60%
		6	61-75%
		7	> 75%
8	CL	1	single source
		2	dual source
		3	3 sources
		4	4 sources
		5	5 or more sources
9	CM	1	< 5% of total needs
		2	5-25%
		3	25-50%
		4	50-75%
		5	> 75%

[1] Questions 29, 35, 46, 54, and 66 have been reverse coded to be consistent with corresponding questions.

10	CN	1 or 0	Volume (1=yes, 0=no)
	CO	1 or 0	Quality
	CP	1 or 0	Management philosophy
	CQ	1 or 0	Delivery requirements
	CR	1 or 0	Expertise of buyer
	CS	1 or 0	Product line of buyer
	CT	1 or 0	Trustworthiness
	CU	1 or 0	Strategic fit
	CV	1 or 0	R&D capabilities
	CW	1 or 0	Location
	CX	1 or 0	Previous business with buyer
	CY	1 or 0	Customer service needs
	CZ	1 or 0	Recommendation
	DA	1 or 0	Reputation of buyer
	DB	1 or 0	Financial stability
	DC	1 or 0	Compatible company cultures
	DD	1 or 0	Future growth potential
	DE	1 or 0	Other
11	DF	1-7	Price (1=low, 7=high)
	DG	1-7	Delivery
	DH	1-7	Technology
	DI	1-7	R & D
	DJ	1-7	Quality
	DK	1-7	Features
	DL	1-7	Service
	DM	1-7	Flexibility
13	DN	1-7	Satisfaction (1=low, 7=high)
18	DO	1 or 2	Satisfied w. resolution (1=yes, 2=no)
21	DP	1 or 2	Continue (1=yes, 2=no)
22	DQ	1	< 2 years expected to continue
		2	2-5 years
		3	5-10 years
		4	> 10 years
24	DR	1-4	Price (use each only once)
	DS	1-4	Delivery
	DT	1-4	Quality
	DU	1-4	Service
25	DV	1-7	Control P (1=poor, 7=excellent)
26	DW	1-7	P reduction (1=poor, 7=excellent)
27	DX	1-7	Preferred P (1=poor, 7=excellent)

28	DY	1-7	Market P (1=poor, 7=excellent)
29	DZ	1-7	P conflict (1=low, 7=high)
31	EA	1-7	Control D (1=poor, 7=excellent)
32	EB	1-7	D improvement (1=poor, 7=excellent)
33	EC	1-7	Preferred D (1=poor, 7=excellent)
34	ED	1-7	Market D (1=poor, 7=excellent)
35	EE	1-7	D conflict (1=low, 7=high)
37	EF	1 2 3 4	Yes (just-in-time) No No longer In the future
38	EG	1-7	Deliver late (1=always, 7=never)
39	EH	1-7	Deliver early (1=always, 7=never)
40	EI	1 2 3 4 5	< 25% on-time delivery % 25-50% 50-75% 75-90% >90%
	EJ	000-100	Exact percentage
42	EK	1-7	Control Q (1=poor, 7=excellent)
43	EL	1-7	Q improvement (1=poor, 7=excellent)
44	EM	1-7	Preferred Q (1=poor, 7=excellent)
45	EN	1-7	Market Q (1=poor, 7=excellent)
46	EO	1-7	Q conflict (1=low, 7=high)
48	EP	1-7	Defective (1=always, 7=never)
50	EQ	1-7	Control S (1=poor, 7=excellent)

51	ER	1-7	S improvement (1=poor, 7=excellent)
52	ES	1-7	Preferred S (1=poor, 7-=excellent)
53	ET	1-7	Market S (1=poor, 7=excellent)
54	EU	1-7	S conflict (1=low, 7=high)
56	EV	1-7	Leadtime (1=always, 7=never)
57	EW	1-7	Emergency (1=always, 7=never)
58	EX	1-7	Messages (1=always, 7=never)
59	EY	1-5	Your effects (1=always, 5=never)
60	EZ	1-5	Their effects (1=always, 5=never)
61	FA	1 2 3 4	Persuasion (techniques) Bargaining or compromise Coercive power or threats Joint problem solving
62	FB	1-7	Nature of conflict (1=high, 7=low)
63	FC	1-7	Your emotions (1=always, 7=never)
64	FD	1-7	Their emotions (1=always, 7=never)
65	FE	1-7	Tension (1=high, 7=low)
66	FF	1-7	Goals (1=unimportant, 7=important)
67	FG	1-7	Importance (1=high, 7=low)
68	FH	1-7	Maintain (1=critical, 7=noncritical)

APPENDIX L

PDQS CODING OF SELECT OPEN-ENDED SURVEY QUESTIONS

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DEFINITIONS OF PDQS VARIABLES

PRICE is defined as "the invoice amount charged by the supplier to the buyer in exchange for providing goods and/or services as ordered by the buyer."

DELIVERY is defined as "the supplier's fulfillment (shipment and subsequent receipt by the buyer) of a buyer's order in a timely fashion and in accordance with the buyer's shipping instructions."

QUALITY is defined as "how well the supplier's products and/or services meet the buyer's specifications."

SERVICE is defined as "the supplier's ability to react to and meet the buyer's routine and nonstandard situations and requests."

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INSTRUCTIONS:

Please place one of the following letters to the left of each individual response. Use the above definitions to guide your coding decisions.

P	Price-related
D	Delivery-related
Q	Quality-related
S	Service-related
X	Other-related
M	Blank or none response

Note: Letters in front of each question indicate scoring from each of two raters, separated by a slash. First letter is from Dr. Sarah Alexander, formerly of Western Illinois University. Second letter is from author.

BUYER FIRM QUESTIONNAIRE OPEN-ENDED RESPONSE SUMMARY

16. "What has been the greatest single source of conflict with this particular supplier following the establishment of the strategic, long-term collaborative relationship? Why?"

Q/Q 01 Periodic drop offs in quality which leaves us with little alternative but work through the sometimes painful/slow process of fixing it.

S/S 02 Changes to dies/castings requested by us. Engineering research was not "complete."

D/D 03 Supply of current models because Compaq, HP, IBM, etc. (their lines) can't or won't keep up with demand.

D/D 04 Delivery of complete blower packages. Delivery of sub-contracted components has been responsible for conflict affecting final delivery of finished goods.

X/X 05 When personnel change. We have to make sure new people understand what this relationship is all about and how long it took us to get here.

S/S 06 "Out of the ordinary" request in doing business. Due to the nature of the business, it is critical to be creative in running the business. Why? Because some request did not fit into their business model.

X/P 07 Opening their books to us. This has been resolved.

D/D 08 Delivery
Large size of company & volume of business. Sales office & processing are in different locations.

X/X 09 Supplier's current growth strategy. This strategy has presented capacity problems and relating difficulties with supplier.

D/S 10 Move from reactive to proactive. The nature of distribution is to "jump" when the customer calls. Our desire was to have the supplier manage the process so the customer never has to call.

X/S 11 Forecasting approximate usage & quantities to warehouse were very inaccurate due to the new

marketing program we initiated which focused on street lighting.

D/D 12 Casting quantities. Foundries do not ship exact quantities and causes changes to orders.

X/S 13 Corporate selection of an integrated supplier that will supply all and not just bearings/power transmission parts.

X/X 14 Gaining a "written" agreement which documents what we are doing anyhow. I think that there is a natural resistance to "put it in writing," fear of unknown problems, future, etc.

P/P 15 Initially pricing several years ago. No conflicts in last 5-7 years.

X/X 16 Communication of each company's long-term plans.

M/M 17 I can't think of any. We have done business for probably over 20 years.

X/S 19 Running (operating) our stores warehouses rather than managing them.

D/D 20 There have been no major conflicts. Our biggest concern and obviously an area for improvement is on schedule delivery dates and partial shipments.

S/S 21 Failure on the part of the supplier to meet software development and implement new technology on time.

P/P 22 There really hasn't been any real conflict. Most of our discussions have been pricing.

X/P 23 Buyers at some factories reluctant to relinquish buying responsibility to supplier. Biggest reason - difficulty in determining total cost comparisons.

M/M 24 None.

Q/Q 25 Occasional, reoccurring quality issues.

Q/Q 26 We had a difficult time when we switched from virgin paper to recycled. The mill that our company selected, quality went down after several months. The plant fought the problem for months before alerting us of the problems.

D/D	27	We have found that this supplier has many competitors and this supplier may not be the best to be partners with. We also had great difficulty with delivery.
S/S	28	We expect immediate response to new products and "hot" items with seamless delivery of current production. Some of our new product launches cause problems with production of current parts.
X/S	29	The role of inventory as a means to satisfy the customer. Contrary to what one might expect, we seek less inventory held by the supplier while they would like more. Why? See question 15. (compatible culture)
P/P	30	Ability to verify/model pricing
X/X	31	Trusting each other with all information.
P/P	32	No conflicts, but we needed to develop trust.
M/M	33	None yet.
M/M	34	Since the relationship of this strategic relationship, there has been no conflict.
X/X	35	We've had virtually no major problems with this supplier. That's why we consider them our #1 "key supplier" of electronic components. One recent problem involved the implementation of a weekly consolidated invoice. Supplier wanted to change our payment terms from net 60 to net 45.
P/P	36	Pricing & terms: Since the vendor participates w/our sales force in selling the product, he knows there is no competition.
X/P	37	The strategic partner is a division of a highly decentralized corporation. Therefore, supplier is struggling to accept an "open book" business relationship. Therefore, progress toward a total partnership is still not optimized.
M/M	38	Have not had any conflict
S/S	39	Supplier has many times when all key contacts are gone either for a trip even or sales meeting. Our technician does not have reliable backup to make the rounds to all copiers on days he is gone.

M/M 40 There really wasn't any conflict. They consistently perform at a high level.

M/M 41 None

X/X 43 The end-user using this supplier as a scapegoat for their deficiencies.

X/X 44 Moving too quickly/slowly. We tend to jump ahead with a new approach and have to slow down as we wait for technology.

S/S 45 Many promises have been broken and deadlines have been missed. Lack of communication from supplier to myself when things are not going as planned.

20. "What other significant conflicts have occurred with this particular key supplier over the past five (5) years? How did they differ from the conflict described in Question # 16 above?"

M/M 01 None significant.

M/M 02 None.

S/S 03 Taking responsibility for returns is also a problem involving product failures over 60 days from purchase. Yet supplier & manufacturers point fingers @ each other to take responsibility.

Q/Q 04 We have had a number of quality problems, but our supplier through a strong warranty program has supported us 100%. Again, we have worked through obstacles together, versus an us versus them mentality.

Q/Q 05 No matter how good a supplier is, there always seems to be a quality problem from time to time. Years ago, we would tend to send the parts back and tell the supplier to send good parts ASAP! Now we might still send the parts back, but we are sitting down and talking about the problem together to find areas that we can both help in.

X/P 06 Cost competitiveness
Poor management

M/M 07 None

M/M 08 None

M/M	09	None
M/M	10	There have been no significant conflicts in the past 8 years. Differences of opinion, yes. However, not all categorized as "conflicts."
M/M	11	No previous conflicts.
M/M	12	None.
S/S	13	Buy back of inventories that had no turnover; they purchased from us on good faith - specialized bearings.
M/M	14	There have no "major" conflicts with this supplier that were not resolved quickly and justly.
Q/Q	15	Limited quality problems on only one product line, i.e., sieves. Was corrected by supplier.
M/M	16	(blank)
M/M	17	(blank)
Q/Q	19	Supplied fittings which did not meet specs. They were installed in our pyrolysis furnace. Supplier paid for replacement.
M/M	20	None
S/M	21	The above was a 12-13 month conflict. No other major has occurred.
M/M	22	None
M/M	23	None
M/M	24	(blank)
M/M	25	No significant conflicts.
M/M	26	None
M/M	27	None
M/M	28	No other significant conflicts.
M/M	29	I can only speak for the last 15 months firsthand. There are no other "significant" conflicts of which I know prior to then.

X/P	30	1) Most are related to question #16. 2) Willingness to share cost information 3) New ideas on cost savings 4) Turnaround on pricing info
M/M	31	None
X/S	32	Difficulty in communication due to high volume of work. This was not a real conflict, just an opportunity to address shortcomings in communication and scheduling.
M/M	33	(blank)
X/X	34	Prior to set up of the relationship, there was some conflict over distribution of risk.
X/S	35	Due to strict goals & objectives set by corporate offices, it's sometimes hard to get the local branch to bend to meet our needs, i.e., requiring a 20% bond of all inventory covered by a letter of intent. A smaller local distributor is sometimes more willing to break the rules.
Q/Q	36	Quality is not on the same level as ours if we did the work ourselves.
Q/Q	37	Resolution of quality & reliability issues. Difference is that supplier understands that resolving current product Q & R issues impacts bottom line results. Therefore, Q & R issues needing joint solutions are shared 50-50.
M/M	38	(blank)
P/P	39	Pricing errors on dealer's invoices or poor response from dealers on our national accounts.
M/M	40	n/a
M/M	41	n/a
M/M	43	No significant conflicts.
X/S	44	Mixed communication from too many "fingers in the pie" resulting in the "left-hand not knowing what the right hand is doing" syndrome. Very similar to #16. Everyone was moving so quickly, we had to slow down.

Q/Q 45 Quality problems - items received out of spec. No plan presented for first piece sample approvals. Computer bar code scanning equipment repeatedly defective.

SUPPLIER FIRM QUESTIONNAIRE OPEN-ENDED RESPONSE SUMMARY

16. "What has been the greatest single source of conflict with this particular customer following the establishment of the strategic, long-term collaborative relationship? Why?"

X/P	01	Cost-price and our perceived profit - "incorrect perception" Huge price - cost pressure on customer from automotive industry. Our paper small part of problem.
X/S	02	A few times lack of communications.
D/D	04	Delivery
M/M	05	(blank)
X/S	06	The fact that at time of new product launch(s), expectations are not within lead-times. This causes a number of people to rush their process.
P/P	07	Price increase because of resin cost changes.
D/D	08	On-time delivery - we have failed miserably to get the customer material within their delivery window due to an upward market trend lasting several years.
X/X	09	The issuance of purchase orders and the resulting ability to receive payments. The customer's burdensome financial system which contains numerous layers of accountability.
X/X	10	Changes in the global market will always be a conflict, from pricing to supply and demand.
D/D	11	Delivery...poor forecasting data Quality...manufacturer growth
M/M	12	None come to mind.
P/P	13	Pricing - at one time. Competitive situation - price only.
D/D	14	Schedule changes (quantity of products purchased for a specific ship date) cause us major problems. Drastic increases or decreases do really affect cash flow, labor days, etc.

P/P	15	The implementation of price escalator in contract based on CPI & PPI index. Price agreement was delayed/denied. When invoices reflecting new price were sent, no payment was made. Accounts receivable reached $800,000 on product with sales of $2.4 million/year.
X/X	16	They demand USA-made goods only.
X/S	17	Inability to provide good R&D support.
X/X	19	Lack of defined metrics and ability to measure accurately those of which were defined.
D/D	20	Customer expectations with manufacturing flexibility (delays & expedites).
M/X	21	Confidential.
X/P	22	Other companies trying to "buy" the business.
X/X	23	Developing a "good" objective rating system for supplier performance.
P/P	26	Increasing prices due to labor and raw material prices increasing. Resistance is to the point of not considering this partnership-type relationship.
D/S	27	Being able to satisfy their needs on low volume delivery. This problem has been addressed and corrected.
X/S	28	Expectations that are not shared. We lack control when they make a unilateral decision.
X/S	29	When changes in key plant or purchasing personnel occur. We have to "prove ourself all over again."
P/Q	30	Pricing. We have had major issues in accuracy after switching to a new database management system. This has really stressed the relationship.
X/X	31	Problems with dealing with our customer's union employees who perceive us as individuals trying to take their jobs.
X/X	33	The "buy in" from the buyers. Also, there is no corporate purchasing manager to coordinate the direction through their various divisions.

S/S 34 Following up on some warranty problems, the location of the warranty claim made it difficult to service.

P/P 35 Excessive preoccupation with low price. generally, the value of service & delivery are perceived, but competitors' "low ball" pricing causes them to pressure us for price concessions which could ultimately impair our ability to service them as they wish.

X/S 36 Incomplete/incorrect blueprints--happened only one time.

X/P 37 1) Extended work on a project without proper application of potential costs along the way (our problem). Total cost was out of line.
2) Our corporate philosophy on what info we divulge on cost data.

X/S 38 Current pressures to reduce inventory at the end users & at distributors in conflict with the manufacturer's need to grow shipments.

X/S 39 Invoicing problems!! Receiving too many invoices from our company, increasing the paperwork load on their staff.

X/P 40 We would like all the business, but that is against their policy.

X/P 41 One purchasing person trying to second guess operations and attempting to buy from other sources at a lower price.

X/S 43 They have been slow to integrate the blank order for us to handle. Why? Uncertainty. Late in doing this. But 14 months later, it is just finishing.

X/X 44 Political infighting at the customer. There were several power struggles that occurred where we were used as a scapegoat for several problems. This really was a symptom of the lack of communication within the customer's organization and the communication between the customer's organization and our company.

X/X 45 Removal of some high volume items due to government requirements.

20. "What other significant conflicts have occurred with this particular key customer over the past five (5) years? How did they differ from the conflict described in Question # 16 above?"

Q/Q 01 Quality improvement - lower variation - not cost related. We met their expectation.

M/M 02 n/a

M/M 04 None

M/M 05 (blank)

X/S 06 Our business is structured in teams to meet our customers' needs. We've changed players on this team a number of times.....not always smoothly.

M/M 07 Nothing significant.

Q/Q 08 Quality problems - internal problem due to parts file being incorrect.

X/X 09 Since buyer views metal stampings as core business in their manufacturing strategy, there exists an ongoing challenge in procuring new business.

M/M 10 None

M/M 11 None

M/M 12 (blank)

M/M 13 None

M/M 14 None

S/S 15 An ongoing/reoccurring problem is in our effort to be responsive, we made product improvements at the request of customer engineering. Paperwork required to recover cost of improvement is delayed or never makes it to customer purchasing. Therefore, our margins can be reduced by providing good service.

D/D 16 Timeliness in delivery.
Timeliness in payment (past due invoices).

S/Q	17	Individual customer plant complaints (justified). They are resolved as they occur with adjustments to existing quality systems.
M/M	19	None
X/Q	20	Bar coding problems, delivery conflicts, pricing conflicts.
M/M	21	Confidential.
M/M	22	None
M/M	23	None
M/M	26	None
M/M	27	None
M/M	28	We have been open enough to avoid significant conflicts.
D/D	29	We had delivery problems in 1994-95 due to new computer programs we implemented to actually improve overall performance.
X/S	30	New director of purchasing in one of their businesses who has no ownership in this partnership. Impact is unknown at this point.
X/S	31	1) Schedule our own work (this has been resolved). 2) Warehouse materials (this has been resolved). 3) Different standards for each of the 6 offices we work (this is being worked on).
D/D	33	Conflict over delivery performance. Their reports are inaccurate by their own admission, yet they draw conclusions from them. (Systems problem vs. people problem)
P/P	34	Competitive pricing. Competitors are willing to reduce price but have no idea as to service required.
X/P	35	Customer arbitrarily extended payment terms from 30 to 60 days. We were told to accept new terms or disengage from relationship. We complied. Difference - this dialogue came from corporate management and was not under control of purchasing department.

M/M	36	NONE.
P/P	37	From time to time, pricing or warranty issues. I was not part of the group for this entire period of time.
M/M	38	(blank)
M/M	39	None
M/M	40	None
X/X	41	Billing problems due to our changing accounting systems. Operations not placing orders leading to a run out of chemicals.
X/P	43	Negotiation on the pricing and revenue sharing was too long and drawn out. Too much splitting hairs and senseless meeting.
M/M	44	I am not fully aware of previous situations that may have occurred.
M/M	45	Too early, only into the program for 5 months.

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