AN ASSESSMENT OF SUPPLIER – CUSTOMER RELATIONSHIPS

by

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The study of supplier – customer relationships has been the subject of many articles over the past several years (Achrol 1997; Anderson and Narus 1990; Bagchi and Virum 1998; Brown, Dev, and Lee 2000; Cannon and Perreault 1999; Cooper et al. 1997; Coviello et al. 2002; Cullen, Johnson, and Sakano 2000; Ellram and Cooper 1990; Golicic, Foggin, and Mentzer 2003; Heide 1994; Heide and John 1990, 1992; Houston and Johnson 2000; Johnson 1999; Knemeyer, Corsi, and Murphy 2003; Lambert, Emmelhainz, and Gardner 1999; Mohr and Spekman 1994; Ring and Van de Ven 1994; Rokkan, Heide, and Wathne 2003; Whipple, Frankel, and Anselmi 1999; Whipple, Frankel, and Daugherty 2002). The focus of much of this research is the study of the long-term, non-ownership types of relationships that have grown in number and importance within the realm of business-to-business transactions. The closest contribution to this research is the work of Cannon and Perreault (1999), who identified eight relationships between suppliers and customers. Their work provided a contributional foundation for the research findings in this paper.

In actual business practice, firms are adopting programs that seek to develop closer relationships in order to achieve lower product costs, reduced time-to-market, improved quality, advanced tech-nology, or improved service/delivery. Conceptually, academics have considered the differences

between types of relationships. Heide and John (1992) distinguished between transactional and relational relationships, and Webster (1992) and Ellram (1991) both introduced basic continuums ranging between transactions and vertical integration or acquisition. However, as businesses move toward a relational perspective with their suppliers and/or customers, they may find those relationships to be costly and the relationships may not produce the promised benefits. Therefore, research is warranted if it can help overcome the challenges of successfully creating and managing relationships. Within this context, research can serve multiple purposes. The first purpose would be for direct improvement in the actions taken by the individuals and firms responsible for the active management of such relationships. The second is to provide focus to future research efforts so that a significant body of research can be generated within this area of study. Research can be valuable if it helps create the underlying organizing structure that provides a platform for future research.

The study outlined in this paper builds operational definitions of relationship types by empirically considering which relationship characteristics act as defining attributes. This paper accomplishes that task by identifying the characteristics that relationship managers see as key to the distinctions between the actual relationships they manage. Specifically, this research aims to answer questions such as: do trust, frequency of interaction, and commitment to the relationship really help to uniquely define different types of relationships; are there consistent groupings of relationships with relatively unique combinations of these "defining" characteristics, and if so, what should these groups be called? This research attempts to enhance the existing theory of business-to-business relationships by taking disparate concepts and testing them in a more integrated conceptual manner. This paper begins by reviewing the existing relationship classification schemes identifying the lack of specificity and how that diminishes their usefulness. It continues by compiling a list of potentially relevant "relationship distinguishing" characteristics from the extant literature and organizes these by creating a framework that positions each of these characteristics as either a personal or organizational factor. The framework is then tested using actual relationship managers to determine whether these characteristics do indeed distinguish between relationship types. Next, the paper reviews the results of a follow-up Delphi study that helped provide names for the relationship types uncovered in the data analysis. The paper concludes with the managerial and theoretical implications of these relationship types.

RELATIONSHIP CLASSIFICATION SCHEMES

Traditionally, in order to model the factors that distinguish supplier – customer relationships, a framework or continuum that compares and contrasts various types of interorganizational relationships has been used (Gundlach and Murphy 1993; Golicic, Foggin, and Mentzer 2003). As shown in Figure 1, these relationships can be positioned on a continuum that has market governed transactions at one end and complete ownership systems at the other end, with relationally governed systems in the middle. The sections that follow present a synthesis of the general descriptions of each framework, including their defining characteristics.

FIGURE 1

TRANSACTION – RELATIONSHIP – OWNERSHIP CONTINUUM

General Concepts	Market Governed Situations		Relationally Governed Systems				Ownership Governed Systems	
Academic Concepts	Conventional Channels		Administered and Contractual Systems				Vertical Integration Systems	
Business Applications: Traditional Concepts	Single Transaction Situations 1	Multiple Transaction Situations 2	Activity Based Systems 3	Functional Systems 4	Seller Based Systems 6	Franchise Systems 7	Buyer Based Systems 11	Corporate Systems 12
Business Applications: Hybrid Applications				Partnerships 5		Alliances 8	Single Function Joint Ventures 9	Multiple Function Joint Ventures 10

Market Governed Situations

Market governed situations are those that generally rely on competitive market forces when determining the specifics of either single or multiple transaction situations. In many cases, the competitive market behavior may be based on price or service dynamics that cause buyers to only purchase one time (as in the single transaction situation) or multiple times from the same supplier if the supplier maintains a competitive price or service position relative to the competition. Due to the reliance on market forces, transaction cost theory suggests increased potential for opportunistic behavior by one party or the other (Williamson 1979, 1985). In these situations, the amount of information shared between parties is minimal, and the level of trust the buyer places in the supplier is very low.

Over a period of time, a buyer may conduct a number of transactions with the same supplier. The number of prior transactions with a supplier has previously been used as a proxy for trust. If a buyer experiences difficulty with a supplier, he/she typically will not do business with the supplier in the future (Gulati 1995), unless the supplier is the only option for the buyer, i.e., characteristic of monopolization in the market. In many cases these relationships are characterized by traditional transaction practices including arm's length contracting, low information exchange, and standard bidding procedures on an order-by-order basis. Recently, organizations began employing technology driven transaction systems, such as the use of procurement cards and Internet based catalogs to reduce the transaction costs associated with these situations.

Relationally Governed Systems

Relationally governed systems are those in which the parties form a mutually agreed upon governance structure where market forces do not play a central role in determining relationship parameters. In other words, the governance arises from the unique agreement that the parties have concerning how business will be conducted within the relationship. These relationships generally fall within one of two categories: those where informal agreements form the central organizing entity of the relationship, leading to single function or activity based agreements (traditionally referred to as administered vertical marketing systems), and those that are contractually centered that include broad based contractual agreements that cover complete business operational activities, such as franchise contracts (traditionally referred to as contractual vertical marketing systems) (Stern, El-Ansary, and Coughlan 1998). Contained within this range of relationally governed systems are the traditional forms of relationships classified as activity based systems, functional systems, seller based systems, franchise systems, and more recent "hybrid" systems, commonly referred to as partnerships and alliances.

Activity based systems are designed around a single activity that drives the relationship, such as an agreement for specific merchandising of a product in a store, or an incentive driven action based on one activity performed by one of the organizations, such as a firm that has a unique capability to create assortments and package those assortments for the other party. Functional contracts and seller based systems are developed between suppliers and customers for the provision of various products and services due to the performance of a specific function, such as logistics support from a

logistics service provider and implied contracts initiated by wholesalers (seller based system such as a wholesale sponsored cooperative) to provide supply support to retailers in wholesale sponsored cooperative arrangements. The most common example of contractual systems is evidenced by the specification of franchise contracts that provide specific ties between suppliers and customers over a long period of time, and covering very broad dimensions of business operations.

In addition, recent developments of supplier – customer relationships have been based on extensions of these contractual foundations, but emphasizing relational characteristics that guide the actions of the parties. Those types of relationships have been referred to in the literature and in practice as partnerships and alliances (Ellram and Cooper 1990; Webster 1992).

Ownership Governed Systems

Beyond relationally governed systems are various forms of equity arrangements. These relationships are governed by the policies of one of the parties because that party has ownership control in the relationship. Joint ventures, retail owned cooperatives, and corporate or "internal customer" situations all fall within the realm of ownership governed situations. Joint ventures commonly involve creating a separate subsidiary between two entities. In some cases, joint ventures may have limited investment by one party. Alternatively, both parties may have multiple elements of interest in the relationship and thus initiate investment strategies that approximate equality.

Ownership can also occur directly within the entities themselves. Retail sponsored cooperatives (an example of buyer based systems) evolve when the buyer owns stock in the wholesale entity and retail owners hold board positions in the supplier organization. This type of situation demonstrates how one firm in the relationship can have significant control over the design and performance of the relationship (Rosenbloom 1995).

The ultimate in control is to vertically integrate the operations of one party within the operations of the other. When complete ownership is achieved, the controlling organization is able to maximize its influence over the performance of operational activities. This philosophy provided the foundation of General Motors' operations for much of the 20th Century as they chose to maintain supply control through internal suppliers such as AC Delco and Delphi.

While Figure 1 provides a useful method of categorizing the various types of relationships, it lacks one crucial element: empirical support. There is no empirical evidence indicating that the distinctions made by these frameworks represent actual business practice. For any framework to be useful for further theory development or managerial use, it needs to gain empirical support for its organizing structure. This research takes that necessary first step.

KEY "DISTINGUISHING" ATTRIBUTES

To fully understand supplier – customer relationships, they should be characterized in terms of distinguishing elements that offer more than the previously introduced dimensions of control (Heide 1994). The literature on relationship management focuses on the general constructs of trust between

the parties, the level of interaction between the parties, and the commitment of the parties to the relationship as important attributes of the relationship (e.g., Anderson and Narus 1990; Dwyer, Schurr, and Oh 1987; Nishiguchi 1994; Frazier and Rody 1991; Frazier, Spekman, and O'Neal, 1988; Handy 1995; Ring and Van de Ven 1994). These attributes are discussed in greater detail below.

Trust

The underlying elements of trust seem to be differentiated at the personal level and the organizational level (Ganesan 1994). At the personal level, trust is assessed by the characteristics of the relationship manager (Anderson and Narus 1990; Doney and Cannon 1997; Smith and Barclay 1997). Organizationally, trust is assessed through the organizational capabilities that each organization offers to the other party (Ring and Van de Ven 1994).

Personal character

The study of supplier – customer relationships has shifted from a focus on the organizational traits associated with relationships to a focus in which personal trust between the parties has been acknowledged as an important ingredient (Ganesan 1994; Handy 1995; Heide and Miner 1992; Kumar et al. 1995). McAllister (1995) concluded that trust occurs in cognitive and affect based forms. The former has its roots in reliable role performance, cultural-ethnic similarity, and professional credentials, while the latter is a function of individual behavior and interaction frequency. Both forms were found to enhance coordination by lowering administrative costs. Coordination is related to trust through boundary definition and reflects the set of tasks each party expects the other to perform (Mohr and Spekman 1994). Trust has also emerged as an important component of supplier/manufacturer relational exchange norms and firms are beginning to acknowledge the importance of trust and coordination in cooperative relationships (Pilling and Zhang 1992).

Gulati (1995) found that suppliers and customers are less likely to use equity sharing agreements as they gain more experience with each other through ongoing relationships. Moreover, greater familiarity between the parties bred trust, which replaced legal relationships. The underlying theme of these studies is that trust develops when tangible benefits appear to both parties from the business relationship. Interestingly, even as firms increase the length of their agreements, research has concluded that many supplier – customer relationships are still characterized by a lack of trust (Coviello et al. 2002). Thus, opportunistic behavior by one party can lead to a lack of trust by the other party (Stump and Heide 1996).

The role of trust is also indirectly addressed through investments in the personal relationships between the boundary spanners that minimize the risk to both parties. This attitude often leads to a sharing of responsibilities traditionally considered the exclusive domain of one party, such as "implanting" a representative in the operations of the other party to facilitate operational flows and transaction activities between the parties. This type of attitude leads to significant increases in the quality and duration of supplier – customer relationships.

Organizational capability

Organizational level dimensions of trust address the capability of the other organization to meet the needs of the focal organization. Trust at this level implies that a firm has the resources available and is capable of implementing those resources for the benefit of the relationship (Anderson and Narus 1990; Ganesan 1994). For example, a firm's assignment of specific assets to a relationship can affect the other party's interpretation of that firm's willingness to pursue or continue the relationship. Research suggests that asset specificity can play a major role in cultivating trust between the parties involved in supplier – customer relationships (Ring and Van de Ven 1994). Transaction-specific investments serve as safeguards under conditions of uncertainty which influence the type of relationship desired between a supplier and customer (Rindfleisch and Heide 1997). This phenomenon has also been referred to as "bilateral hostages" (Borys and Jemison 1989) and suggests that an important linkage exists between asset specificity and trust.

Interaction Frequency

Success in a supplier – customer relationship is partly based on how frequently the parties interact concerning business activities and the volume of business transacted. At the personal level, communication frequency affects each party's perception of the value created by the other through time spent communicating with the other party. At the organizational level, interaction frequency is characterized by the amount of business transacted between the parties.

Communication frequency

Communication and the sharing of information are fundamental to most aspects of supplier – customer relationships (Kapp and Barnett 1983; Mohr and Nevin 1990). Indeed, it has been proposed that the exchange of information between the parties serves to "create" a necessary environment for the conduct of business relationships (Pfeffer and Salancik 1978; Weick 1969). Therefore, as boundary spanners exchange information, that information provides cues to the other party as to what the communicating boundary spanner considers important to his/her organization and the relationship. In order for the boundary spanner to react appropriately, he/she must be able to interpret the information and determine its value to his/her organization. If the parties do not effectively exchange the information, then relationship utility is minimized (Handfield 1993; Mohr and Spekman 1994).

Business volume

Interaction frequency at the organizational level is based on the amount of business transacted between the parties whether that amount of business is transacted based on volume or dollars of revenue. For example, a customer that has a large concentration of retail stores generating greater volumes of product sold to ultimate consumers can demand greater support in the form of more frequent deliveries and guaranteed product availability from its suppliers. Therefore, the large volume of transactions and resulting revenues reflects the influence that the customer can have over the

supplier. Consequently, volume is a strategic element of consideration by the boundary spanner, when interacting with the supplier or customer.

It is assumed that the likelihood of a strong relationship between a manufacturer and supplier increases over time if relational exchange norms emerge between parties that result in positive outcomes such as guaranteed business volumes. Since contracts can help establish and insure these norms, we expect that parties to a supplier – customer agreement rely more readily on formal contracts to capitalize on market opportunities evolving from the relationship.

Commitment

Interorganizational relationships are also the result of the level of commitment of the parties to the relationship. Commitment involves the perception of dependence that one party perceives they have on the other, and the amount of investment in time and resources that the organization makes in the relationship (Gundlach, Achrol, and Mentzer 1995).

Perceived dependence

Dependence exists when one of the boundary spanners does not entirely control all of the conditions necessary for achievement of a desired outcome performed by the other party (Emerson 1962; Ganesan 1994). Resource dependence theory specifies the conditions under which one unit is able to obtain compliance with its demands when dependence between the parties is present (Pfeffer and Salancik 1978). Three critical factors that affect the degree of perceived dependence include the importance of the resource, the extent to which the group has discretion over the resource, and the extent to which there are limited alternatives. For instance, Provan and Skinner (1989) found that dealers of agriculture equipment were less opportunistic when they depended on a primary supplier, whereas suppliers with greater control over dealers' decisions exhibited greater opportunism. Therefore, as the dealer became more dependent on the supplier, they chose to minimize their opportunism in the supply market and limit their business with the supplier. However, those that sense guaranteed business from a dependent supplier or customer will pursue opportunities for other business relationships at the expense of the existing relationship. Also, Frazier, Gill, and Kale (1989) found that boundary spanners often use coercive influences on the other party under various conditions of dependence, including threats, promises, and legalistic pleas as a mechanism to get the other party to accomplish the former's objectives. Understanding resource dependence theory is critical for interpreting the impact of dependence on different types of relationships. It would be expected that collaborative relationships would operate under conditions of mutual dependence by the parties and competitive relationships would result from situations of a power/dependence imbalance.

Organizational investment

Commitment to a relationship is most frequently demonstrated by committing resources to the relationship, which may occur in the form of a manager's time, money, facilities, equipment, etc. These

types of resources are often referred to as "asset specific" resources, in that they are directed specifically toward the other party (Dyer and Singh 1998; Rokkan, Heide, and Wathne 2003).

The influence of asset specificity on organizational relationships was originally described by transaction cost theorists (Williamson 1979). The concept was later extended to help explain the formation of "clans" (Ouchi 1980). However, only recently have theorists described how the commitment of assets influences the nature of supplier – customer relationships. Several studies have found a relationship between resource commitment and the joint action or continuity between parties within supplier – customer relationships (Friedman 1991; Heide and John 1990; Nishiguchi 1994; Yoshino and Rangan 1995). These studies suggest that longer-term relationships tend to be characterized by a willingness of both parties to commit a variety of different assets to a set of future transactions.

RESEARCH QUESTION

The literature review presented the attributes identified as possible distinguishing elements for supplier – customer relationships. Specifically, these elements are trust, interaction frequency, and commitment. The purpose of this research is to test for, and specifically identify, differences among types of supplier – customer relationships based on the variation in the levels of these characteristics. This leads to the following question:

> *Research Question:* Will different types of business-to-business relationships exhibit relatively unique combinations and levels of the following attributes: the trust in the other party (personal character of the other party and the other organization's capability to meet the former's needs), interaction frequency (communication frequency between the parties and the level of business conducted between the parties), and the commitment of the parties to the relationship (perceived dependence on the other party and the level of investment made in the relationship by the focal parties)?

In addition to testing whether these attributes do indeed distinguish among relationship types, an additional goal of this research is to develop labels for the relationship types based on actual managers' perceptions of the relationships' underlying characteristics.

METHOD

Research Context and Data Collection

This research was conducted as a part of corporate sponsored management seminars on negotiation and relationship management and Executive MBA classes at a major research university. The convenience sample was identified based on the design of "deliberate sampling for heterogeneity," in which one defines target classes of persons, settings, and times, and ensures that a wide range of instances from within each class are represented (Cook and Campbell 1979). In this type of sampling plan, the objective is to determine observable effects despite differences between the sample points.

The attributes of the firm which the study was intended to generalize across were size, industry, location within North America, and variation in relationship structure. We sought to secure respondent perceptions of three relationships (their perception of a very good supplier or customer relationship, their perception of an average or typical relationship with a supplier or customer, and a poor, problem, or failed relationship with a supplier or customer) so that the database would contain a range of relationships. Most random samples are mail-based and elicit only one response from the respondent. Second, the use of executives in a negotiation training environment and Executive MBAs provides stronger responses because the sample group should have higher levels of business experience and academic background to understand the core nature of the supplier – customer relationship than general mail survey participants. In addition, there did not appear to be a difference between the executive responses and the Executive MBA responses in the Delphi study.

One of the major limitations of a convenience sample is the generalizability of results. In this case, our sample was restricted to a handful of manufacturing industries. A significant portion of the sample represented the automobile industry (greater than 50% of the sample included representatives from auto manufacturers, Tier I suppliers, and Tier II suppliers). The sample also included representation from transportation companies (20%), with the remainder of the sample comprising participation from the agricultural equipment (15%), petroleum (7%), healthcare industries (4%), appliance manufacturing (2%), and food (2%).

The Executive MBA classes consisted of managers with a minimum of five years of experience in manufacturing and operations (65% of the respondents), and the Executive Seminar participants predominantly represented boundary spanners and managers in the purchasing (15%), logistics (11%), and marketing (9%) functions of their respective firms. All respondents indicated that they had an adequate level of knowledge of relationships about their suppliers or customers to be involved in the study. Ninety percent of the respondents had a college degree or graduate education and a minimum of one year of negotiation experience with their suppliers or customers, and an average of four years of business negotiation experience. Half of the respondents were 35 years old or older and 75% had been with their current employers in excess of two years. Finally, 50% of the respondents held positions of manager or above in their organizations and 10% were Directors, Vice Presidents, or CEOs.

In order to capture the full range of interactions likely to occur in business-to-business relationships, each participant was asked to complete identically worded questionnaires that elicited their perceptions of their *best, average,* and *worst* supplier – customer relationships. By ensuring the data reflect the range of relationship situations that could exist between suppliers and customers in the business-to-business context, the results would be less likely to be biased by only examining good working relationships. Thus our findings would be more robust. Terms such as contractual relationship, alliance, partnership, and joint venture were not included in the instructions, or in any of the individual questions. A total of 465 observations were collected from 155 usable responses (155 each of best, average, and worst case situations), representing approximately 95% of those surveyed.

Measure Development

The measures included assessments of both *personal* and *organizational* dimensions using slightly modified versions of existing scales. At the personal level the measures include: the personal character of the other party, communication frequency between the parties, and the respondent's dependence upon the other party. Organizational level measures include: capability of the other organization to meet the focal organization's needs, the business volume conducted between the organizations, and the investment in resources made by the focal organization specific to the relationship. These measures, at both the personal and organizational level, lead to the generation of 49 (7 point) items comprising the six scales designed to assess the characteristics of each relationship.

The measures were pre-tested in a set of executive seminars prior to use in the final sample. Exploratory factor analysis was conducted using a Varimax rotation procedure in the SPSS software package. Only the 22 items that loaded on their respective factors were retained for further use. Cronbach's alpha was then calculated for each scale; the lowest alpha was .79, which indicates acceptable reliability (Nunnally 1978). Table 1 provides the factor loadings, cross-loadings, and the Alpha scores for the final 22 items used (with the exact wording of each scale and its original source). The loading and cross-loadings provide strong evidence of expected convergent and discriminant validity of the measures used. In addition, a confirmatory factor analysis was run using LISREL 8.5 using the constructs of personal character, organizational capability, communication frequency, business volume, dependence, and investment as the six factors. The results showed that the variables loaded as expected on the proposed factors. The overall model fit was acceptable based on a normed fit index of .87, a non-normed fit index of .87, and a GFI of .85. All of the variable loadings were significant at p ($<$ .05 on their respective factors. Evidence of discriminant validity was provided by the fact that all of the off-diagonal factor correlations were significantly less than 1.00. In the discussion that follows, only the measures retained for the final analysis are discussed.

TABLE 1

MEASUREMENT ANALYSIS OF RELATIONSHIP DESCRIPTORS – FACTOR CROSS-LOADINGS AND ALPHAS

	Factor Loading Scores	Factor Component 1	Factor Component 2	Factor Component 3	Factor Component 4	Factor Component 5	Factor Component 6	Alpha
Personal Character Measures								**0.91**
This party has negotiated in good faith in the past. (honesty) (Gundlach, Achrol, and Mentzer 1995)	**0.684**	**0.684**	0.143	9.32E-02	0.429	2.75E-02	1.04E-02	
I think that the other party does not mislead us. (honesty) (Ganesan 1994)	**0.702**	**0.702**	4.79E-02	9.81E-02	0.437	8.02E-02	1.01E-00	
We feel confident that the other party won't take advantage of us. (reliability) (Kumar, Scheer, and Steenkamp 1995)	**0.707**	**0.707**	6.61E-02	8.86E-02	0.479	5.87E-02	4.08E+02	
If an important decision needed to be made, our firm would be willing to rely on the other party to make a mutually beneficial decision without our input. (reliability) (Kumar, Scheer, and Steenkamp 1995)	**0.676**	**0.676**	3.88E-02	9.48E-02	0.225	6.31E-02	0.184	
We think the other party is open in describing their strengths and weaknesses with us. (openness) (Ganesan 1994)	**0.772**	**0.772**	8.19E-02	5.22E-02	0.213	9.77E-02	0.151	
I feel that the other party negotiates joint expectations fairly. (reliability) (Gundlach, Achrol, and Mentzer 1995)	**0.709**	**0.709**	9.40E-02	5.00E-02	0.460	2.27E-02	0.140	
Communication Frequency Measures								**0.85**
The face-to-face meetings we have with the other party take longer than the meetings held with most of our other suppliers/customers. (information exchange due to meeting length)	**0.746**	0.325	0.248	0.156	9.27E-02	6.24E-02	**0.746**	
We have more electronic communication with the other party than in most of our other relationships. (information exchange through the use of electronic information exchange systems)	**0.849**	0.147	0.239	0.168	-3.44E-02	4.86E-02	**0.849**	

TABLE 1 (CONT.)

MEASUREMENT ANALYSIS OF RELATIONSHIP DESCRIPTORS – FACTOR CROSS-LOADINGS AND ALPHAS

	Factor Loading Scores	Factor Component 1	Factor Component 2	Factor Component 3	Factor Component 4	Factor Component 5	Factor Component 6	Alpha
Perceived Dependence Measures								**0.79**
If this exchange relationship was terminated, it would be difficult to make up the lost sales volume or supply benefit. (cost/benefit assessment) (Ganesan 1994)	**0.738**	0.223	0.317	**0.738**	3.99E-02	-7.56E-02	7.10E-02	
We do not have a good alternative for this relationship. (market alternatives) (Ganesan 1994)	**0.806**	-0.103	5.74E-02	**0.806**	-5.46E-02	8.29E-02	0.106	
We need this relationship with the other party to accomplish our organizational objectives. (objective attainment) (Smith and Barclay 1997)	**0.651**	0.147	0.491	**0.651**	1.34E-02	-9.64E-02	0.101	
My organization is highly dependent on the other party. (general assessment)	**0.609**	0.172	0.348	**0.609**	-178	5.85E-02	0.131	
Organizational Capability Measures								**0.86**
The other party has demonstrated their dependability in the performance of our agreement. (dependability) (Ganesan 1994)	**0.794**	0.156	9.13E-02	3.20E-02	**0.794**	0.113	0.119	
In my opinion, the other party is reliable. (reliability) (Ganesan 1994)	**0.827**	-4.93E-02	0.130	-4.05E-02	**0.827**	2.16E-02	0.116	
The other party is flexible in response to requests for changes in a characteristic of the relationship. (flexibility) (Heide and John 1992)	**0.836**	0.170	4.32E-02	0.211	**0.836**	-2.47E-02	-2.28E-02	

TABLE 1 (CONT.)

MEASUREMENT ANALYSIS OF RELATIONSHIP DESCRIPTORS – FACTOR CROSS-LOADINGS AND ALPHAS

	Factor Loading Scores	Factor Component 1	Factor Component 2	Factor Component 3	Factor Component 4	Factor Component 5	Factor Component 6	Alpha
Business Volume Measures								**0.89**
Relative to the rest of your supply/customer base, identify how much volume you buy from/or sell to the other party. (volume) (Heide and John 1990)	**0.919**	0.132	2.05E-04	5.82E-02	7.71E-02	**0.919**	5.23E-02	
Relative to the rest of your supply/customer base, identify how much revenue you generate/or purchase cost you incur in transacting with the other party. (revenue) (Frazier and Rody 1991)	**0.934**	3.01E-02	5.48E-02	-2.92E-02	1.46E-02	**0.934**	3.48E-02	
Investment Measures								**0.86**
We have invested substantially in personnel dedicated to this relationship. (personnel) (Ganesan 1994)	**0.69**	-6.27E-02	**0.69**	0.168	-6.78E-00	6.05E-02	0.444	
We have provided proprietary expertise and/or technology to this relationship. (expertise) (Heide and John 1992)	**0.765**	5.08E-02	**0.765**	0.125	0.102	-3.75E-02	0.130	
We have made significant investments in dedicated equipment or dedicated support systems to this relationship. (dedicated equipment) (Heide and John 1992)	**0.854**	7.59E-02	**0.854**	0.125	-6.88E-02	4.60E-02	0.135	
Information exchange with the other party is aided by their investment in a high level of electronic interface capability. (electronic information exchange)	**0.710**	0.223	**0.71**	0.287	-4.33E-02	3.21E-02	5.33E-02	
We have made significant investments in capital assets dedicated to this relationship. (capital assets) (Heide and John 1992)	**0.828**	2.62E-02	**0.828**	0.161	-0.119	4.58E-02	1.14E-02	

DATA ANALYSIS

The multiple item measures were summed to form an index for each of the six constructs. The first step in the analysis was to group each observation into a cluster based on its score on the personal character, communication frequency, perceived dependence, organizational capability, business volume, and organizational investment measures. Then discriminant analysis was used to establish the significance of the cluster differences. This procedure was repeated until interpretable differences were established between the cluster groups.

Cluster and Discriminant Analysis

A cluster analysis was conducted using the summed scales of the constructs as the variables of interest following the procedures established by Punj and Stewart (1983), and Milligan and Cooper (1985). Twelve clusters were originally specified based on the 12 types of relationships described in Figure 1. Each observation was identified with the appropriate cluster assignment, and a discriminant analysis was conducted using the same independent variables, but using the cluster assignments as the dependent variables. The test of the discriminant function indicated significance of the clusters represented by the data. However, an assessment of the discriminant territorial map indicated three groups had common properties that caused them to overlap on the map. This finding led to a second phase in which the cluster analysis was conducted using nine clusters as the point of initial evaluation. Again, two clusters (out of the nine) were centrally located on the territorial map. A third analysis was conducted using seven clusters. The seven-cluster solution was tested using discriminant analysis, and was found to offer statistically significant distinct groups, with four significant discriminant functions (See Table 2 for the cluster positions, Table 3 for the discriminant functions, and Table 4 for the final territorial map of the discriminant analysis) with a classification rate of 93%. The territorial map also indicated significant group differences with one exception. One cluster (#2) was centrally located based on the relationship variables evaluated. This cluster's distances from the other clusters were minimal relative to the positioning of the other clusters.

TABLE 2

FINAL CLUSTER/GROUP CENTERS*

	Group Name						
	Non-Strategic Transactions	Administered Relationship	Contractual Relationship	Specialty Contract Relationship	Partnership	Joint Venture	Alliance
Personal Character	3.38	3.20	4.31	4.89	4.72	3.53	5.22
Communication Frequency	1.48	3.68	2.51	2.05	2.96	4.45	4.73
Perceived Dependence	2.24	3.72	2.96	2.45	3.06	4.32	4.31
Organizational Capability	4.07	3.46	4.92	5.55	5.19	3.71	5.10
Business Volume	4.24	3.97	5.45	1.78	2.71	4.16	4.39
Investment	1.77	3.23	3.31	2.14	3.51	5.27	4.63

*Final cluster center values are based on the Likert scales (1 = strongly disagree with the statement, 7 = strongly agree with the statement) used to measure each of the six construct areas. A value of 1 on the scale of any of the constructs identifies the relationship as having a limited level of that construct, while a 7 identifies the relationship as having a significant level on each scale.

TABLE 3

SUMMARY OF CANONICAL DISCRIMINANT FUNCTIONS

Eigenvalues Function	Eigenvalue	% of Variance	Canonical Cumulative %	Correlation
1	4.243[a]	54.8	54.8	.900
2	1.906[a]	24.6	79.4	.810
3	1.380[a]	17.8	97.2	.761
4	.203[a]	2.6	99.8	.411
5	012[a]	.2	100.0	.108
6	001[a]	0	100.0	.028

[a]First 6 canonical discriminant functions were used in the analysis.

TABLE 3 (CONT.)

SUMMARY OF CANONICAL DISCRIMINANT FUNCTIONS

Wilks' Lambda Test of Function(s)	Wilks' Lambda	Chi-square	df	Sig.
1 through 6	.023	1732.968	36	.000
2 through 6	.119	974.900	25	.000
3 through 6	.345	486.911	16	.000
4 through 6	.821	90.178	9	.000
5 through 6	.988	5.752	4	.218
6	.999	.350	1	.554

Standardized Canonical Discriminant Function Coefficients

	1	2	3	4	5	6
Personal Character	.318	-.278	.380	.405	-1.236	.181
Communication Frequency	.502	-.111	-.043	.347	.295	-.784
Perceived Dependence	.380	.055	-.193	.341	.349	.838
Organizational Capability	-.353	-.146	.613	-.259	1.189	-.087
Business Volume	-.035	.911	.423	.088	.013	-.039
Investment	.568	.002	.186	-.803	-.281	-.051

TABLE 4

CLUSTER/GROUP TERRITORIAL MAP

Canonical Discriminant
Function 2

```
           -6.0           -4.0           -2.0            0            2.0            4.0            6.0
           +----------------+----------------+----------------+----------------+----------------+----------------+
   6.0 +                   43                                              35
     I                     43                                              35
     I                      43                                            35
     I                       43                                          35
     I                       43                                         35
   4.0 +                      43                                        35
     I                        43                                       35
     I                        43                                      35
     I                        43                                     35
     I                        43                                    35
     I                        43                                   35
   2.0 +                      43                                  35
     I                        43                               325
                              43                              3225
     I                        43                          332   25
     I                       43                        322      255
     I                      43          32                   211555
    .0 +                  4333332                  21        111555
     I                    4477777222221                   11555
     I                 4477            77771              111555
     I                 4477                711             111555
     I            444444477                771              111555
     I      444444444466666666667          71               111555
  -2.0 +  444666666666          67                 71                          11155
     I    666                   67                71                                  11
     I                          67                71
     I                         67                71
     I                        677               711
     I                        667               771
  -4.0 +                      67                71
     I                        67                71
     I                       67                71
     I                      67                71
     I                     67                71
     I                     67                71
  -6.0 +                    67               711
           +----------------+----------------+----------------+----------------+----------------+----------------+
           -6.0           -4.0           -2.0            0            2.0            4.0            6.0
```

Canonical Discriminant Function 1

Symbols used in territorial map

Symbol Group Label	Symbol Group Label	Symbol Group Label
1 Alliance	4 Non-Strategic Transaction	6 Specialty Contract Relationship
2 Administered Relationship	5 Joint Venture	7 Partnership
3 Contractual Relationship		

These findings indicate that relationship differences do exist based on the dimensions of personal trust, communication frequency, dependence, capability, business volume, and investment. They are largely consistent with findings in related research conducted by Cannon and Perreault (1999) who found eight different relationship types in supplier – customer relationships in business markets.

Delphi Group: Labeling the Clusters

Following the determination of the cluster characteristics, a Delphi study of 75 experienced relationship managers was conducted in three meetings consisting of executive MBAs and executives (one-third were part of the previous participant base) to determine appropriate descriptive terms for each cluster. Each participant was provided with a description of the six primary constructs of interest. The descriptions included profiles of the means and distances of the construct scales for each of the seven clusters (See Table 2) and the relationship characteristics of each cluster. Each Delphi participant was asked to assess and compare the clusters based on this information and identify a *descriptive term* for each cluster that he/she felt most accurately represented the relationship. Each respondent was provided with the following commonly used terms generated from academic and trade literature sources to describe the relationships: Administered Relationship, Contractual Relationship, Equity Investment Relationship, Franchise Contract, Full Investment Joint Ventures, Functional Contract, Internal (Supplier or Customer) Relationship, Joint Venture, License Agreement, Multiple Transaction Situations, Non-Strategic Transactions, Partial Investment Joint Ventures, Partnership, Service Driven Contracts, Single Transaction Situations, Specialty Contract Relationship, and Strategic Alliance. Participants were also encouraged to use their own terms if they felt none of these were appropriate; they were not limited to the list provided by the researchers. Next, a discussion took place to allow for group interpretation of the different relationship clusters. After the discussion, each participant was given an opportunity to modify their previous selection (both their pre-discussion and post-discussion terms were recorded for consideration in the analysis). See Table 5 for Delphi results including the top five terms selected for each relationship type.

TABLE 5

RELATIONSHIP NAME RESULTS FROM THE DELPHI STUDY*

Relationship Group and Name	First Choice	Second Choice	Third Choice	Fourth Choice	Fifth Choice
Observation Group 1 Group Name: Alliance	Alliance 23	Strategic Alliance 16	Partnership 13	Administered Relationship 4	Internal Relationship 3
Observation Group 2 Group Name: Administered Relationship	Administered Relationship 26	Functional Contract 11	Contractual Relationship 7	Franchise Contract 5	Multiple Transactions 5
Observation Group 3 Group Name: Contractual Relationship	Contractual Relationship 34	Functional Contract 8	Multiple Transactions 8	Strategic Alliance 4	Administered Relationship 3
Observation Group 4 Group Name: Non-Strategic Transactions	Non-Strategic Transactions 21	Contractual Relationship 12	Single Transactions 9	Multiple Transactions 7	Franchise Contract 6
Observation Group 5 Group Name: Joint Venture	Joint Venture 25	Full Investment Joint Venture 8	Partial Investment Joint Venture 6	Internal Relationship 5	Strategic Alliance 5
Observation Group 6 Group Name: Specialty Contract Relationship	Specialty Contract Relationship 17	Administered Relationship 8	Single Transactions 8	Functional Contract 6	Service Driven Transactions 5
Observation Group 7 Group Name: Partnership	Partnership 36	Alliance 8	Strategic Alliance 7	License Agreement 4	Internal Relationship 3

*The top five terms selected for each relationship are represented in this table (the numbers below each represent the number of responses for each). All other terms suggested for each relationship type received less support than those identified above.

Relationship Characteristic Measures

In addition to the behavioral measures used to understand the core constructs, we asked a series of questions intended to assess some of the more traditional views of how supplier – customer relationships have been defined. Those traditional elements included the nature and scope of the products or services exchanged between the firms, the level of formalization of the relationship between the parties in terms of contractual development and specification, and the extent of monetary investment or ownership that may exist between the parties. These elements have traditionally been iden-

tified as the foundation for joint ventures or internal corporate ownership of entities as structured in Figure 1. The expectation was that the construct measures just discussed would generate groups that would also be distinct on these traditional relationship characteristic measures. For example, it was expected that Non-Strategic Transactions would include a preponderance of single product trans-actions, while Alliances would have a preponderance of multiple product exchanges. However, while there is a slight trend toward multiple product applications when comparing the relationship types from left to right in Table 6, this trend is not as strong as might be expected. Product charac-teristics seem to be similar across six of the seven relationship types, with only Specialty Contract Rela-tionships including more service offerings than the other groups (See Table 6).

TABLE 6

SUPPLIER – CUSTOMER RELATIONSHIP TYPES – RELATIONSHIP CHARACTERISTICS

Group Names:	Non-Strategic Transactions	Administered Relationships	Contractual Relationships	Specialty Contract Relationships	Partnerships	Joint Ventures	Alliances
Relationship Dynamics:							
– Group Size & Percentage of Total Sample	76 (16%)	67 (14%)	85 (18%)	27 (6%)	55 (12%)	73 (16%)	82 (18%)
– Average Distance Within Group	1.57	1.72	1.65	1.44	1.57	1.78	1.60
– Group Distance Range	.49 – 2.68	.68 – 3.36	.48 – 3.12	.43 – 2.68	.93 – 2.56	.72 – 3.98	.50 – 3.10
– Group Distance Range Differential	2.19	2.68	2.64	2.25	1.63	3.26	2.60
Type of Product or Service Exchanged:							
– Materials or Finished Goods	72%	70%	78%	59%	81%	84%	72%
– Capital Assets or Equipment	10%	11%	9%	0%	10%	6%	7%
– Services	18%	19%	13%	41%	9%	10%	21%
Total	100%	100%	100%	100%	100%	100%	100%
Breadth of Products or Services Exchanged:							
– One Product or Service	30%	25%	24%	41%	22%	15%	24%
– Multiple Products or Services with Common Properties	30%	34%	30%	18%	24%	25%	18%
– Multiple Products or Services with Unique Properties	40%	41%	46%	41%	54%	60%	58%
Total	100%	100%	100%	100%	100%	100%	100%

TABLE 6 (CONT.)

SUPPLIER – CUSTOMER RELATIONSHIP TYPES – RELATIONSHIP CHARACTERISTICS

Group Names:	Non-Strategic Transactions	Administered Relationships	Contractual Relationships	Specialty Contract Relationships	Partnerships	Joint Ventures	Alliances
Contractual Design, Structure, and Involvement:							
– No Formal or Written Agreement	26%	30%	14%	30%	21%	18%	22%
– Standard Form Contract	31%	26%	43%	22%	43%	41%	28%
– Agreement Designed by Non-Legal Personnel	29%	22%	27%	37%	21%	21%	32%
– Contract Designed by Legal Personnel	7%	9%	9%	4%	10%	10%	4%
– Internal Corporate Policies	7%	3%	7%	7%	5%	10%	14%
Total	100%	100%	100%	100%	100%	100%	100%
Extent of Investment or Ownership Between the Parties:							
– Independent	86%	80%	89%	96%	86%	73%	72%
– Partial Ownership	3%	2%	2%	0%	2%	4%	1%
– Fully Owned Subsidiary	1%	8%	2%	0%	3%	13%	12%
– Internal Corporate Units	10%	10%	7%	4%	9%	10%	15%
Total	100%	100%	100%	100%	100%	100%	100%

In addition, it was expected that the traditional perspectives of relationship formalization would also be reflected in the behavioral results of this research. For example, the traditional definitions of conventional channels and administered relationships were conceptualized to have limited formalization, while contractual channels were controlled through formal contractual terms, and corporate systems were dictated through corporate policy. In other words, as the relationship moved from "arms-length" interactions to managed relationships, the level of formalization increased. However, the findings presented in Table 6 do not indicate observable differences of formalization across the behavioral relationship types identified in this research.

The extent of ownership between the parties to the relationship was also assessed. Again, the expectation was that one group identified through the behavioral assessment would include all internal corporate relationships, and one or two other groups would include all responses that indicated full or partial ownership between the parties. The findings in Table 6 demonstrate that the behavioral structuring of supplier – customer relationships is not consistent with the traditional classification structure. For example, all seven relationship types included as few as 4% and as many as 15% of their responses as internal corporate relationships. However, the group ultimately identified as Joint Ventures using the behavioral criteria did have the greatest percentage of partial and full ownership subsidiaries (17%). However, our classification structure also had a group (identified as Alliances by the Delphi study) with 13% of that classification with partial or full ownership. Since Joint Ventures and Alliances possess different levels of trust based on the behavioral assessment, these findings indicate that ownership classification cannot be the sole basis on which to determine how the parties will interact with each other.

Finally, Table 6 shows how the sample demographics were distributed across the seven types of relationships identified, and provides descriptive information concerning the nature of the exchange relationship. In addition, the group sizes ranged from 6% to 18% of the total sample, indicating that no group was solely dominant relative to the other groups in the sample.

DISCUSSION AND MANAGERIAL IMPLICATIONS

Each of the seven types of relationships identified in this research will be discussed in terms of distinguishing attributes as shown in Table 2. The attributes are described in relative terms based on the cluster centers of each of the seven relationships (using a 1-7 scale with 1 representing a low score on the behavioral dimension and 7 representing a high score). Also, the characteristics of the relationships included in the sample are discussed using the terms selected to describe the various types of relationships established in this research as shown in Table 5.

Non-Strategic Transaction

The most basic cluster in our framework was identified as a Non-Strategic Transaction. These situations included one-time as well as multiple transactions between parties. Of the seven relationship types, Non-Strategic Transactions had the lowest cluster center points on communication frequency

(1.48), perceived dependence (2.24), and organizational investment in the relationship (1.77). In addition, Non-Strategic Transactions were below the median cluster center point for personal character (3.38) and organizational capability (4.07). Of the six constructs, only business volume (4.24) was identified as being above the median relative to the other relationship types. These situations might have been classified in the traditional marketing channels literature as conventional channels (Stern and El-Ansary 1977). Sixteen percent of the relationships or situations that were identified between suppliers and customers in our sample fell into this transactional classification. These situations reflect the reality of economic based transactions where one or both parties feel little obligation to the other, since alternative sources of supply or markets are readily available. A good example of this type of relationship would be between a purchasing manager and a supplier of standard, off-the-shelf capital equipment or commonly ordered supplies.

At the personal level, there is little to base a relationship on. This may be partly due to the limited communication that occurs, restricting opportunity for the parties to get to know one another on a personal basis. For example, in these data, 10% of the exchanges involved capital assets and equipment transactions. Since these situations are not everyday transactions on the part of the customer, there is little reason for a relationship to evolve. In such cases an "arms-length" approach may dominate the negotiations for these types of purchases. Organizationally, the characteristics of these transactions reflect the underlying knowledge that the transactions that occur are based on the economic capability of the other party, such as, when a single transaction is for a significant level of revenue such as a capital investment. Or it might involve multiple transactions between a supplier and customer in a highly competitive market creating revenues and volumes that are substantial.

Administered Relationship

Administered Relationships are the most basic cluster that can be classified as a true "relationship." These situations also can include one-time or multiple transactions between parties, but there is a stronger emphasis on attempting to manage the relationship through non-formalized influence strategies. Relative to the other six groups identified in this research, these relationships exhibit the lowest concern for the personal character of the other party (3.20) and capability of the other organization (3.46). Business volume (3.97) and organizational investment (3.23) are below the median score, while the personal dimensions of communication frequency (3.68) and perceived dependence on the other party (3.72) are above the median relative to the other relationships established in this research. These relationships called Administered Relationships represent 14% of the total relationships in the sample. These would include efforts related to merchandising support or business process consulting by representatives of one party with the other. A good example would be a firm that helps to facilitate improved operations for the supplier or customer through supplier development programs, or in distributor-retailer relationships requiring assistance with product merchandising.

In contrast to Non-Strategic Transactions, Administered Relationships have a higher percentage of transactions across multiple products and services (See Table 6). While there is some commonality with Non-Strategic Transactions, these relationships require some investment in the

relationship to maintain transaction flows. However, those investments are probably for modest resources that support the relationship. For example, suppliers are increasingly providing on-line supplier catalogs for ease in facilitating purchase orders of supplies. Also, firms will attempt to influence the other party's actions through supplier development meetings, or distributor councils as a mechanism of getting both suppliers and customers to work together within the informal structure of the Administered Relationship.

Contractual Relationship

Relationships governed by contracts comprise a large proportion of supplier – customer relationships in the sample (18%). Identified as Contractual Relationships by managers in the study (See Table 5), these relationships cover a broad range of activities as shown in the profile in Table 6. Relative to the other relationship types, Contractual Relationships are characterized by levels of communication frequency (2.51) and perceived dependence (2.96) that are below the median. Contractual Relationships scored at the median level relative to the other relationship types on personal character (4.31), organizational capability (4.92), and organizational investment (3.31). Business volume (5.45) scored the highest of all relationship types.

Contractual Relationships reflect the need for formalized control over business activity between suppliers and customers. At the organizational level, managers recognize a strong supply or market-based need for the relationship based on the business volumes conducted with the other organization, without a desire to raise the level of required investment in the relationship. Contractual Relationships require a higher level of personal character by the parties than in Administered or Non-Strategic Transactions, but not as high as in other types of relationships. This may be due to the creation of a formal relationship. As the parties negotiate the contract, they get to know each other better which can increase their perception of each other's personal character. In addition, a formal contract reduces the need for direct communication between boundary spanners and therefore reduces interaction frequency. For instance, a contractual relationship might exist between a manufacturer and component part supplier to supply a wide range of component parts according to the terms outlined in a detailed contract.

Specialty Contract Relationship

Specialty Contract Relationships are contracts for unique products or services that are exchanged between suppliers and customers. In these situations, few alternatives exist in the supply/customer base. The characteristics of these relationships include several elements that distinguish them from the other situations (See Table 6). First, Specialty Contract Relationships represent the smallest segment of supplier – customer relationships as classified in this research (6%), and comprise the largest percent of service-based situations (41%). Another unique element of these relationships is that they seem to be less formal than other relationships (67% of responses indicated no formal written agreement between the parties).

Specialty Contract Relationships, relative to the six other relationship types, scores lowest on business volume (1.78), and below the median on communication frequency (2.05), perceived dependence

(2.45), and organizational investment (2.14) (See Table 2). These relationships possess above median levels regarding perception of personal character of the other party (4.89), and the highest level of organizational capability (5.55) of all relationship types. These findings indicate that the relationships rely on one-to-one interactions and assessments of significant organizational capability to contribute to the relationship. However, the level of business conducted between the parties is very limited relative to the other relationships. The characteristics of these relationships, as identified through the data responses, are similar to properties of "Intermistic Relational Exchange" as introduced by Lambe, Spekman, and Hunt (2000).

Partnership

The term partnership is used frequently in the academic literature and in industry (Anderson and Narus 1990; Ellram 1995; Ellram and Cooper 1990; Ellram and Edis 1996; Ellram and Hendrick 1995; Lambert, Emmelhainz, and Gardner 1999; Speckman, Kamauff, and Myhr 1998). In our research, relative to the other relationships, Partnerships demonstrate above median levels of personal character (4.72), organizational capability (5.19), and organizational investment (3.51). Communication frequency (2.96) and perceived dependence (3.06) are at the median relative to the other relationships, and business volume (2.71) in Partnerships is below the median. The Partnership classification group represents 12% of the relationships in this study. Based on the profiles in Table 6, Partnerships spanned a wide range of product-oriented transactions (even though the percentage of exchange over multiple products is less than for Joint Ventures and Alliances, which will be discussed in the following sections). An example might be a supplier of a critical component for a manufactured product that delivers on a weekly basis.

Some Partnerships also appear to reflect the need for formalized control over business activity between suppliers and customers (43% of the responses in this category use a standard form contract), while other Partnerships (44%) indicate that less formalization in contractual design is appropriate (no written agreement or agreements designed by non-legal personnel) (See Table 6). This hints at potential uncertainties that may exist in Partnerships. The lack of a formal agreement may at times create confusion between the parties and possibly result in differences of opinion regarding performance. This can even result in legal actions taken by one party against the other (Mottley 1998).

Joint Venture

Sixteen percent of the relationships in this research were called Joint Ventures in the Delphi Study. Joint Ventures are generally associated with some form of financial investment by the parties in the relationship to achieve mutual benefits. In this research, 27% of the relationships classified as Joint Ventures show some form of investment or ownership in the relationship (See Table 6).

The behavioral dimensions of Joint Ventures are somewhat similar to Contractual Relationships. Relative to other relationships, Joint Ventures possess the highest scores on perceived dependence (4.32) and organizational investment (5.27) and are above the median for communication frequency (4.45). However, Joint Ventures score at the median for business volume (4.16) and below the

median for personal character (3.53) and organizational capability (3.71). What differentiates Joint Ventures from Contractual Relationships is the level of investment that the parties make to the relationship. Seventeen percent of Joint Ventures have some form of ownership investment, while only 4% of Contractual Relationships have full or partial investment properties (See Table 6). In addition, the perception of dependence by one party on the other is greater in Joint Ventures than Contractual Relationships. In addition, Joint Ventures can also be associated with a slightly lower level of trust in the other party as evidenced in the low levels of personal character and organizational capability. This causes the firms to engage in greater levels of investment in the relationship to ensure adequate performance and control over the relationship. In other words, the investment may occur because there is a lack of trust in the other party, and the firm uses the investment as a mechanism to maintain control over the relationship (Williamson 1985). For example, a manufacturing firm may jointly invest in manufacturing capacity with another manufacturing firm to produce a specialty product that the former has little expertise with, but the other party has the necessary expertise but only limited interest in expanding their capabilities. The lack of trust by the former may prompt them to invest in the Joint Venture to secure the commitment of the other party.

Alliance

The final relationship type identified here is Alliance. This term is used commonly in the academic literature and in discussions between suppliers and customers in industry (Cooper et al. 1997; Ellram 1992). However, as was pointed out earlier, the definitional properties of Alliances are not well established in the literature. Establishing these definitional properties is critical since this group represents 18% of the total number of relationships in our sample (See Table 6). In this research, 28% of Alliances involve some form of investment by the parties to achieve joint benefits. The investment similarities with Joint Ventures are apparent in the profile data. However, Alliances reflect different behavioral dimensions relative to the other relationships. They scored above the median in perceived dependence (4.31), organizational capability (5.10), business volume (4.39), and organizational investment (4.63). In addition, Alliances possess the highest level of personal character (5.22) and communication frequency (4.73) of all seven relationship types. What differentiates Alliances from Joint Ventures is the greater level of trust in the other party based on perceptions of the personal character of the other party and on the capability of the other organization. Relative to the other relationships, Alliances indicate a high level of importance in the personal character of the other party and greater communication frequency between the parties. In addition, Alliances demonstrate the second highest level of importance to be perceived dependence, business volume, and investment. Organizational capability yielded the lowest score of the behavioral dimensions, but still scored higher than Non-Strategic Transactions, Administered Relationships, Contractual Relationships, and Joint Ventures. Therefore, Alliances are identified in this research as possessing the highest levels of trust, interaction frequency, and commitment. Alliances are reflective of the relational characteristics commonly discussed by academics and managers. This type of situation is reflective of a manufacturer investing in storage facilities with a "third party logistics provider" so the third party provider can achieve

maximum efficiencies in providing either inbound or outbound logistics services for the manufacturer. Both parties recognize the joint benefits derived through the efficiencies of the new facilities. In this situation, the trust between the parties enhances the already established relationship.

CONCLUSION

In this research, we use empirical data to identify the existence of seven different types of supplier – customer relationships based on analysis of three behavioral constructs measured at both the personal and organizational levels. Relationship differences were found on the dimensions of trust, interaction frequency, and commitment to the relationship. The empirical approach used here, along with the Delphi method to name the resulting relationships, offers new definitional parameters for relationships. The contribution of this research is to provide managers and academics with more specific criteria for studying and interpreting specific relationships. For example, the characteristics of a partnership outlined in this research can assist a manager who "thinks he has a partnership with the other party, but feels that his 'partner' has mistreated the relationship and consequently caused mistrust in the other party." The findings from this research would help that manager to understand that a partnership did not exist originally, and the correct interpretation of the relationship may have allowed the manager to develop more appropriate relationship interaction strategies consistent with other forms of relationships, such as Non-Strategic Transactions or Administered Relationships. On the other hand, managers or academics who are able to assess relationships using the criteria suggested in this research, will be better able to differentiate when Partnerships or Alliances truly exist between suppliers and customers. Managers in these circumstances will be in a better position to know when to trust the other party, or give the other party greater levels of business, or invest in resources that can support the relationship. Consequently, the findings from this research can offer greater specificity for both managers and academics in understanding business-to-business relationships.

These results provide new opportunities for understanding the design and management of supplier – customer relationships. First, the research provides clarity of relationship interpretation that supports the trend toward managed relationships as 36% of the relationships identified (Specialty Contract Relationships, Partnerships, and Alliances) require high levels of trust between the parties. Second, it offers a different perspective from some of the current literature by suggesting that a large percent of supplier – customer relationships still have limited levels of trust between the parties (Non-Strategic Transactions – 16%, Administered Relationships – 14%, and Joint Ventures – 16%). In addition, the low level of trust in Joint Ventures offers an interesting finding that can provide insight into investment justification decisions. It is possible that our results indicate that the low level of trust in the other party in Joint Ventures may be the result of firms making investments because they do not trust the other party to meet their needs without the investment commitment.

Third, the results provide a critical starting base for future theory development by academics. Since this research is exploratory, further research should be pursued to confirm the relationships evolving from these findings as well as offering greater specification of supplier – customer relationships. With empirically based definitions, the academic community has a stronger foundation from which

to conduct more specific research of supplier – customer relationships and understand the effects of those relationships on other elements of marketing and purchasing activities. For example, the definitions introduced here can be used to help identify future types of relationships within the categories presented in this research. Such research may identify different types of alliances or specify differing types of transactional situations. In addition, these findings can also provide greater opportunities for assessment of relationship performance outcomes such as satisfaction and profitability.

Fourth, the sampling procedure using a convenience sample does limit the generalizability of the findings from a scientific perspective. However, due to the sensitive nature of the supplier – customer relationship issues, we believe that the convenience sample may have provided data more reflective of the reality of the range of business-to-business relationships than a random sample may have generated.

Fifth, the midwestern sample may limit the interpretation of the findings from a geographic perspective. Future research could contribute from the base created in this research to confirm or disconfirm the seven relationships across the U.S. and beyond to global supplier – customer relationships.

Sixth, the significant participation by the automobile industry in this study minimizes the generality of the findings. Future research studying relationships in other industries (using the same methodology) will also contribute to generalizability of the typology introduced.

In addition, these findings provide the academic community with a foundation for further investigation of supplier – customer relationships using dyadic matches of suppliers and customers. This assessment could help the understanding of the perceptual differences that can exist between suppliers and customers. For example, in this research the group classified as Specialty Contract Relationships included a substantial number of logistics service providers (e.g., transportation companies and public warehouse companies). It may be found in future research that the logistics service provider views the relationship very differently than the customer, as could be evidenced in the outcome of the Ryder Integrated Logistics vs. Office Max case mentioned earlier in this paper (Mottley 1998).

The findings from this research also provide a foundation for construct and measure expansion that can contribute to future understanding of supplier – customer relationships. For example, communication frequency could benefit from an extension to include communication quality and quality of information exchanged between the parties. Obviously, this is a starting point for future research of the area. In addition, relationship success is dependent on the terms of the relationship and the surrounding environmental conditions. These factors certainly substantiate the need for future research of different types of supplier – customer relationships as presented in this paper within a temporal context as well as consideration of differing environmental settings. Methodologically, the study of temporal and environmental issues that surround the relationship may benefit from future laboratory research settings.

This research also included a limited set of measures that historically were used as definitional parameters of the traditional conceptualization of supplier – customer relationships (i.e., conventional channels, administered vertical marketing systems, contractual systems, and corporate

systems). Those traditional elements included: product characteristics, formalization of the relationship, and the level of ownership by one party over the other. The findings, presented in Table 6, indicated a lack of observable differences on these dimensions across the seven supplier – customer relationships identified in this research. This lack of specific differences between the seven relationship groups on these traditional relationship criteria indicates potential confusion in managerial practice of supplier – customer relationships as evidenced in the Ryder Integrated Logistics vs. Office Max case (Mottley 1998). For example, what might have been referred to as an Alliance during negotiations, might actually have been behaviorally interpreted as a Contractual Relationship by one of the parties, which led to the resulting litigation. This indicates that the traditional approaches to classifying those relationships do not fully reflect the differences that are faced in current business-to-business relationships.

Finally, the managerial contributions of this research are also significant. They provide an initial definitional base for account managers, purchasing managers, and logistics managers to discuss parameters within current relationships and those that may be negotiated in the future. In addition, the questions included in Table 1 can be used by managers to assess their current relationships and classify those relationships into the seven groups presented in this paper. That classification structure can assist them in developing negotiation strategies and even assist them in making decisions on boundary spanning personnel assignments. Consequently, those parameters can affect negotiation strategies used in one situation (ex: Non-Strategic Transaction) but not used in another situation (ex: Partnership). Therefore, if managers use the dimensions of trust, interaction frequency, and commitment as a basis for differentiating their supply or customer base, they can develop more effective relationship strategies. For example, understanding customer differences can help firms make decisions on how to assign marketing personnel to accounts and which accounts to make technology or capital investments in for improved benefits to their organizations. Hopefully, the terms identified for each relationship type may become common in daily business practice and improve marketing, purchasing, and logistics strategies for both supplier and customer firms.

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