

A CONCEPTUAL LOOK AT THE INFLUENCE OF RELATIONSHIP STRUCTURE ON THE DISCONFIRMATION PROCESS IN A BUSINESS-TO-BUSINESS CONTEXT

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ABSTRACT

Although many believe close inter-organizational relationships and customer satisfaction are interrelated, limited business-to-business research explores the interrelationship between these variables. This paper integrates the interorganizational relationship literature and the disconfirmation theory literature from consumer behavior to fill this gap. A conceptual model is presented to suggest how the structure of a buyer-seller relationship, which is composed of the two dimensions of magnitude and type, influences the process of disconfirmation and customer retention in the business-to-business context. Propositions are offered along with an agenda to guide further research in this area.

INTRODUCTION

A large element of managing supply chains consists of managing multiple relationships among the member organizations (Cooper et al. 1997; Mentzer et. al. 2001a and b), with connections between member organizations ranging from single transactions to complex interdependent relationships. As the business environment becomes increasingly complex, organizations realize that many benefits, including sustainable competitive advantage, can be obtained from long-term, committed relationships (Day 2000; Ganesan 1994). Thus, many firms are moving away from adversarial, transactional exchanges toward closer and more long-term relationships (Holmlund and Kock 1993; Kalwani and Narayandas 1995).

Much has been written in both the popular press and academic literature about the drivers, expected benefits, and behavioral outcomes from various supply chain relationships such as

alliances, partnerships, and collaborative relationships. However, a high level of ambiguity still exists regarding the different relationship terms (Cravens, Shipp, and Cravens 1993). Various terms describing these relationships are often used interchangeably, creating confusion for both practitioners and academicians. Recent work has begun to address this issue by clarifying the difference between two components of relationship structure, the type and the magnitude of a relationship (Golicic, Foggin and Mentzer 2003). Relationship type is defined as *the group or class of relationships that share common governance characteristics*, such as an arm's length or cooperative relationships. Relationship magnitude is *the extent or degree of closeness or strength of the relationship between or among organizations*; for example, a relationship can range from distant (low level of magnitude) to close (high level of magnitude).

Strong and cooperative relationships may provide opportunities for firms to develop sustainable competitive advantages and inherent barriers to competition, and to potentially increase customer satisfaction (Berry and Parasuraman 1991; Day 2000; Patterson, Johnson and Spreng 1997). However, there is not much evidence in the business-to-business literature supporting or refuting these linkages. Gwinner, Gremler, and Bitner (1998) identify customer benefits from long-term business-to-business relationships, and Gassenheimer, Houston, and Davis (1998) examine the economic and social value of close business-to-business relationships in order to maintain them, but neither directly discusses satisfaction. Given that there is little clarity on the different relationship forms, there is no research on how relationship structure affects the determination of satisfaction by the customer in the relationship. In contrast, much research has

been done on the consumer satisfaction evaluation process. This knowledge can be applied to business-to-business relationships.

The purpose of this article is to integrate the consumer satisfaction and business-to-business relationship research to begin addressing the question: What is the impact of interorganizational relationship structure on the evaluation process leading to customer satisfaction? For clarification, the terms "satisfaction" and "customer satisfaction", as used in this paper, will refer to a buying organization's satisfaction with a supplying organization. The word "consumer" will be used whenever discussing existing consumer behavior theories of satisfaction. The next section reviews current theory on consumer satisfaction, followed by insights gained from marketing, logistics, and psychology research to discuss the structure of relationships between businesses in a supply chain. These areas are then integrated into a model to propose how they are interrelated and to highlight research opportunities. Our conceptual model proposes that the structure of the relationship through the dimensions of type and magnitude impacts the components of the evaluation process used by customers to determine satisfaction. This paper concludes by offering a research agenda and discussion of implications for organizational relationship theory.

SATISFACTION

Consumer satisfaction has received a great deal of attention in the behavior literature since the late 1970's. Often defined as both a psychological state of mind and a process to explain how consumers arrive at the state of being satisfied (Oliver 1999), disconfirmation models typically indicate that consumer satisfaction or dissatisfaction feelings arise out of a comparison process. The comparison takes place between some initial, prepurchase standard created from a frame of reference and the perceived postpurchase performance of a product or service occurring in a usage situation. If there is no discrepancy, confirmation results and if the comparison outcome is better (poorer) than the standard, then

positive (negative) disconfirmation results.

Initially, "expectations" received most attention as the standard for comparison (Oliver 1980). Day (1982) added clarity to this concept by proposing that expectations are predictions made by consumers about product/service performance. However, later research has shown that other standards may be used by consumers as the frame of reference (Cadotte, Woodruff and Jenkins 1987); Woodruff et al. 1991). Consequently, the original disconfirmation-of-expectations process is an instance of a larger class of disconfirmation-of-standards processes, each differing in the standard used during comparison.

Consumers' propensity to use different standards suggests that the actual standard(s) selected may be constructed after experiencing a product/service performance (Woodruff, Cadotte and Jenkins 1983). In contrast, expectations likely arise prior to actual product/service use, as an outgrowth of the selection process. This difference means that consumer satisfaction states need not be linked to prior choice processes, as would be the case if "expectations" were the only standard used.

In addition to the disconfirmation paradigm, other theories on consumer satisfaction have begun to surface (for example, see Fournier and Mick 1999; Gardial et al. 1994). However, all of these have the common thread of an evaluation process in which performance of the product or service is compared to some type of standard.

Woodruff et al. (1991) provide a summary of earlier standards research, and present expectations, equity, experienced-based norms, desires or values, ideals, and seller's promises as the different types of standards. These researchers referred to equity as the comparison between a consumer's perceived benefit/cost ratio and the seller's corresponding ratio. Equity has since been broadened to a fairness, rightness, or deservingness judgment (distributive justice) in reference to a comparison of what others receive (Szymanski and Henard 2001). Experience-based norms reflect desired performance based on prior experiences beyond just the focal brand, such as with other brands and/or other products and

services. Garver and Flint (1995) distinguish between standards and sources of information used to create standards, which include word of mouth and perceptions of alternatives. Woodruff and Gardial (1996) add industry norms to the types of norms used for comparison. Finally, Neeley and Schumann (2000) present perceived social approval, which reflects a consumer's consideration of other persons' reactions to a purchase, as a new comparison standard.

Comparison standards are believed to vary over these many experiences (Woodruff, Cadotte, and Jenkins 1983) as well as between pre and postpurchase evaluations (Gardial et. al. 1994). But at what stage in the experience do the standards develop and what prompts them to vary? Consumers may use multiple comparison standards simultaneously (Cadotte, Woodruff, and Jenkins 1987; Gardial et. al. 1993). If this is the case, do multiple standards lead to multiple feelings of consumer satisfaction or even satisfaction and dissatisfaction simultaneously? More research is needed on the formation and use of comparison standards.

Businesses tend to develop and use formal measures against which to judge their supplier's performance. Events may occur, such as the consolidation of suppliers, change in company goals, or turnover of employees, that would trigger the development of new or revision of existing standards. Perhaps this is an area where research on satisfaction in the business-to-business context could contribute to consumer research.

The importance of satisfaction and dissatisfaction feelings lies in their outcomes – the ability to motivate consumers' behavior. Anderson and Sullivan (1993) identify repurchase intentions as an outcome of consumer satisfaction. In addition, several other outcomes have been proposed. For instance, Szymanski and Henard's (2001) meta-analysis of 15 satisfaction studies found that satisfaction influences multiple behaviors, including repeat purchase, word of mouth, and complaining behaviors. An additional consequence of satisfaction, a higher share of purchases, was found by Reynolds and Beatty (1999).

While consumer satisfaction research tells us

a lot about how individual consumers form motivating satisfaction or dissatisfaction feelings, it has not been extended to business-to-business relationships. We know that an organization's personnel may be highly satisfied, satisfied, or dissatisfied with another organization, but just how does the interorganizational relationship impact the evaluation process? To address this question, we need to examine the characteristics of business-to-business relationships, which we do in the next section.

RELATIONSHIP STRUCTURE

Interorganizational relationships have historically been categorized by where they fall on a governance spectrum. The channels literature was the first to propose a range of relationships from arm's length transactions (or market governance) to vertical integration (or hierarchical governance). More recently it has been recognized that integration of more than one firm may be more appropriate for the end of this range since one firm cannot effectively accomplish the control and management of the whole channel (or supply chain). Several authors have since acknowledged these two end points, arms length and integration, and placed interfirm cooperative relationships (types of relationships where there is cooperation between or among the firms involved such as partnerships, alliances, joint ventures, network organizations, franchises, license agreements to name a few) in the middle (Contractor and Lorange 1988; Heide 1994; Landeros and Monczka 1989; Rinehart et al. 2003; Webster 1992). These studies attempted to categorize the relationships, and therefore the behaviors motivated by the relationship, based on its characteristics or type. Type is defined as *the group or class of relationships that share common governance characteristics* (Golicic, Foggin, and Mentzer 2003).

Much of the existing research on different cooperative relationship types (e.g., alliances or partnerships) views types as interorganizational governance structures that straddle the two ends of markets and hierarchies (Thorelli 1986). However, some authors argue a single type, such

as alliances, can span a variety of structures along a continuum with varying levels of collaboration throughout its evolution (Iyer 2002). Personal relationships are structured based on needs and the level of attraction or intimacy between two or more people. In social psychology, attributes such as trust, commitment and dependence often describe the intimacy or level of closeness of the relationship as opposed to the type of relationship (e.g., friendship, marriage). Thus, the type of the relationship explains only part of the structure of a relationship. Another dimension of structure that is similar to the idea of intimacy is necessary to fully explain the multitude of possible relationships.

Bove and Johnson (2001) review the literature on relationship strength, closeness and quality in an attempt to determine when it is appropriate to use each. The authors propose that the distinction is the context in which they are used, but that all three are descriptors of the *magnitude* of a relationship. In addition, the authors discuss closeness varying as a function of the type of relationship, thus conceptualizing the two as distinct constructs. Golicic, Foggin, and Mentzer (2003) discuss the same concept in the context of the structure of interorganizational relationships. Through analysis of existing literature and focus group research, the authors differentiated between two components of relationship structure -- relationship type and relationship magnitude. According to those authors, magnitude is defined as *the degree or extent of closeness or strength of the relationship among organizations*. Magnitude contributes to the structure of the relationship in that it varies from distant to close within different relationship types allowing a multitude of possible relationship structures.

Psychology literature discusses different levels of intimacy as part of the structure of personal relationships. Aune, Buller, and Aune (1996), Collins, Kennedy, and Francis (1976), and Guerrero and Andersen (1994) provide examples of the variation in intimacy as personal relationships progress through different types (identified as casual dating, serious dating, engagement, and marriage). While the formation and maintenance of interpersonal relationships

differ from interorganizational relationships, the notion of varying levels of intimacy within types could also apply to organizational relationships.

Some interorganizational research has indirectly described different magnitudes within one type of relationship. Birnberg (1998) proposed that strategic alliances have varying levels of relationship strength depending on factors such as the degree of commitment to the relationship, the symmetry of rewards, and the degree of mutual trust. In their research on partnerships, Lambert, Emmelhainz, and Gardner (1996) distinguish among three different levels based on the interactions and closeness between trading partners. These levels are: (1) coordination between the partners (what the authors term Type I), (2) beyond coordination to integration (Type II), and (3) significant integration (Type III). Various other terms commonly used to refer to closeness in relationships include coordination, cooperation, and collaboration. In focus group interviews with company executives that manage their supply chains, Golicic, Foggin, and Mentzer (2003) found the respondents used these same terms to describe the strength or magnitude of relationships within their supply chains. Interestingly, the respondents described different intensities within the context of a single type of relationship, highlighting the difference between relationship magnitude and type.

Golicic (2003) empirically tested the notion that relationship magnitude and type were distinct constructs. There was statistical evidence that they were distinct and also highly related to each other. Both constructs exhibited variation with antecedents and consequences (e.g., trust, commitment, dependence, value) often included in interorganizational relationship research, lending support to the contention that the two are components of the structure of relationships. The structure, through the levels of magnitude and type, is expected to influence the behaviors of the firms within the relationship.

Relationship structure is likely to vary over time between two organizations as well as across pairs of organizations within supply chains. Similarly, satisfaction varies in the same ways. In

the next section, we suggest how the structure of the relationship through the levels of magnitude and type may influence the business-to-business customer's satisfaction process.

THE INFLUENCE OF RELATIONSHIP STRUCTURE ON THE DISCONFIRMATION PROCESS

Suppliers frequently try to evaluate their customers' levels of satisfaction through customer surveys. However, potentially serious problems may limit the usefulness of these surveys. For example, the measurement of satisfaction is too often based on the supplying firm's notion of what customers should value (Fawcett and Swenson 1998; Piercy 1998; Woodruff and Gardial 1996). In addition, these surveys do not always capture the comparison standards that customers use, or the processes customers go through to evaluate the supplying firm's performance. Research on business-to-business satisfaction is more limited than consumer satisfaction research, possibly because the business-to-business context involves more variables when evaluating satisfaction. This point was expressed in Swan and Trawick's (1993, pg. 30) view that, "almost nothing" has been done with regard to industrial buyer satisfaction.

Only recently have specific studies emerged. One study addresses the comparison standards during business relationship formation (Garver and Flint 1995). Another describes how customer satisfaction may enhance supply chain relationships (Fawcett and Swenson 1998) by eliminating service gaps and helping suppliers meet their customers' needs. Patterson, Johnson, and Spreng (1997) were the first to empirically test the determinants of satisfaction in a business-to-business context, providing support for applying consumer behavior theory to customer interactions in the services industry.

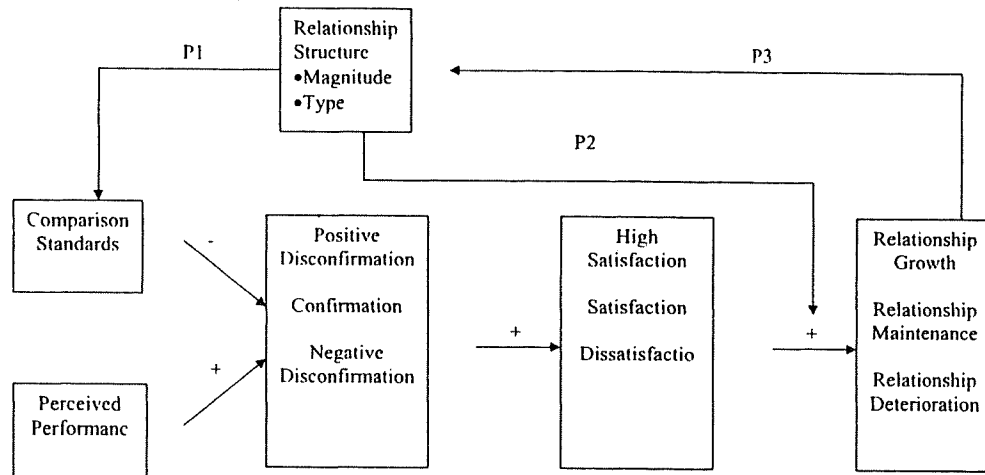
In 1999, Geyskens, Steenkamp, and Kumar published a meta-analysis of 71 studies that included satisfaction in their channel relationship models. The original studies focused on satisfaction as a consequence of channel relationships and related satisfaction to more than 80 different variables, often with inconsistent

findings across the studies. More recently, trust and commitment have replaced satisfaction as a focal consequence of channel relationships. For example, Geyskens, Steenkamp, and Kumar (1999) group relationship antecedents into channel conduct and structure, and they place satisfaction as a mediating consequence between conduct and the consequences of trust and commitment.

Within recent satisfaction research, Patterson, Johnson and Spreng (1997) empirically tested the disconfirmation theory in the business-to-business context with customers of management consulting services. They recognized that the disconfirmation process in this context is somewhat different than in the consumer context. Variables surrounding the purchase situation were included and found to impact the determination of customer satisfaction. Patterson, Johnson and Spreng found that the disconfirmation paradigm can be applied to industrial buying situations. However, the research did not take into account how the existing relationship between firms, an extremely important variable, might impact the satisfaction process. The conceptual model described in the following sections addresses this research gap by tying the evaluation of customer satisfaction to the levels of relationship magnitude and relationship type between companies in a supply chain.

The influence of relationship structure on the evaluation of customer satisfaction in the business-to-business context is presented in Figure 1. This model shows the general constructs involved in a business-to-business relationship satisfaction process as well as the interaction among them. The relationships among the satisfaction constructs (comparison standards, perceived performance, confirmation, satisfaction, and relationship maintenance) have been empirically tested in the consumer behavior literature, as well as in the business-to-business context (Patterson, Johnson and Spreng 1997). These interactions are therefore not shown as propositions, but as the empirically tested relationship. Each construct is discussed in the following sections with propositions about the influence of relationship structure offered to guide research in this area. The model prompts

Figure 1
A Model of Business-to-Business Customer Satisfaction



numerous research questions, which are discussed in detail in the final section of the paper.

Comparison Standard(s)

Similar to consumer evaluations, companies are thought to use a comparative process to evaluate their satisfaction with a channel partner (Garver and Flint 1995). They compare the performance of an interaction incident against one or more selected standards that serve as a frame of reference. In a buyer-seller context, standards are frequently documented as measures or performance indicators. Thus, suppliers know the standards against which their performance is compared (Garver and Flint 1995). These standards are expected to vary over experiences and may be composed of multiple criteria. Garver and Flint (1995) propose that standards may differ with the stage in relationship development and will be influenced by the nature of business-to-business buying.

For example, early in relationship formation when the magnitude and type of relationship are generally low, buyers typically have standards that are based on their needs or desires. As the relationship intensifies and the parties explore its costs and benefits, Garver and Flint (1995) suggest

that buyers may also use equity as a comparison standard. Thus, as a relationship develops, both parties want to feel as though it is equally beneficial. This is supported by Gassenheimer, Houston, and Davis's (1998) relationship retention model and their view that companies use principles of distributive justice to assess relationships.

Experience is another comparison standard that people rely on for evaluating their satisfaction (Garver and Flint 1995). If the companies are not familiar with each other, they will rely on their knowledge of other suppliers and industry norms, or industry experience, to evaluate performance. As the relationship grows closer or more intense and the parties become increasingly committed to each other, interpersonal norms based on experience with the firm are more likely to be used (Garver and Flint 1995).

Park and Choi (1998) support the usage of certain standards argued by Garver and Flint (1995). In their study, Park and Choi (1998) tested the influence of both experience and involvement on chosen comparison standards. They found that normative standards are more likely in high-involvement/high-experience situations, and ideals are more likely when experience is low. Therefore, we propose that the

relationship structure will influence the comparison standard(s) used in the evaluation of satisfaction. Companies with lower levels of relationship magnitude and type will rely more on needs, desires, ideals, and industry experience as comparison standards. In contrast, companies with a higher magnitude and type will rely more on firm experience and equity as comparison standards.

P1: The structure of the relationship influences the kinds or types of comparison standards used in the disconfirmation process.

Disconfirmation and Satisfaction

Disconfirmation is a result of the evaluation of the perceived performance against the comparison standard. If the perceived performance matches the comparison standard, confirmation occurs and satisfaction results. If perceived performance is higher (lower) than the comparison standard, disconfirmation occurs and the result will be feelings of high satisfaction (dissatisfaction).

Research has shown there is a negative relationship between comparison standards and evaluation. The higher the comparison standards, the more likely the evaluation will produce negative results (Patterson, Johnson and Spreng 1997; Cadotte, Woodruff and Jenkins 1987). Research has also shown there is a positive relationship between perceived performance and the evaluation. The higher the performance, the more likely the evaluation will produce positive results (Anderson and Sullivan 1993; Cadotte, Woodruff, and Jenkins 1987; Patterson, Johnson, and Spreng 1997; Spreng, MacKenzie, and Olshavsky 1996). As noted earlier, these relationships are recognized in our model.

Relationship Retention

Feelings of satisfaction by channel members have positive consequences for the relationship (Frazier 1983). The anticipated outcome of satisfaction includes intentions toward and behaviors of repeat purchase and loyalty (Reynolds and Beatty 1999). This view is

supported by Rusbult's (1983) study of interpersonal relationships, which found that satisfaction leads to committed, long-term relationships. It is further supported by Garver and Flint's (1995) position that satisfaction can be instrumental in moving relationships toward mutual dependence and solidification of the relationship. If customers experience feelings of satisfaction, the relationship is maintained.

Consistency theory indicates that a highly satisfied customer should exhibit greater attraction to the relationship (Frazier 1983). This is supported by Gassenheimer, Houston, and Davis (1998); they found that when dissatisfaction arose, relationships deteriorated or failed. Satisfaction research, however, has not adequately explored the role that feelings of high satisfaction plays as a motivator for interorganizational relationship retention.

How do customers' feelings of high satisfaction or dissatisfaction that arise from the disconfirmation process affect their intention toward retaining the relationship? Limited evidence suggests the potential of a non-linear linkage (Bitner 1990; Bloemer and Poiesz 1989; Broyles and Myers 2003; Grewal 1995; Kang 1990; Spreng and Olshavsky 1993). For example, feelings of satisfaction may not be sufficient to motivate relationship retention (Bloemer and Poiesz 1989; Oliva, Oliver and MacMillan 1992). This negative linkage appears to be further supported by findings that sometimes repeat purchasing occurs even when feelings of satisfaction do not occur (Bloemer and Poiesz 1989; Anderson and Sullivan 1993).

What causes this non-intuitive behavior to happen in business-to-business relationships? It may be that the structure of the relationship moderates the linkage between feelings of satisfaction and relationship retention. For example, when relationship magnitude and type are high, customers may want to maintain a relationship even when performance does not meet the standards of comparison. However, if relationship magnitude and type are low, anything less than feelings of high satisfaction may not motivate customers to remain in the relationship.

Reynolds and Beatty (1999) provided

additional insight into relationship retention when they found a link between the length of a relationship and salesperson loyalty. In addition, Hewitt, Money and Sharma (2002) studied the correlation between the quality of a business-to-business relationship and repurchase intentions. They found a positive association between buyers' perceptions of the quality of the relationship with sellers and their intentions to purchase from those sellers. Based on these various views and findings, we expect the structure of the relationship to moderate the intention toward relationship retention.

P2: Relationship structure moderates the strength of the linkage between feelings of satisfaction and the intention toward relationship retention.

Woodruff, Cadotte, and Jenkins (1983) posited that feelings of high satisfaction might reinforce the decision to use a brand. They stated that the "reinforcement can lead to maintenance or even strengthening of prior brand attitudes and intentions to use the brand again," (pg. 300). Similarly, each usage experience provides feedback to customers, potentially resulting in a change in the standards for subsequent interactions with a supplier (Oliver 1980; Schwartz 1992; Sheth 1968). Interestingly, this is supported by the opposite finding that while satisfied customers will have heightened standards for subsequent usage of a product or service, dissatisfied consumers that repeat usage of a product or service maintain the same standards for subsequent usage (Bloemer and Poiesz, 1989; Anderson and Sullivan, 1993).

The level of satisfaction and subsequent decision to retain a relationship will impact that relationship (Cullen, Johnson and Sakano, 2000; Lambert, Emmelhainz, and Gardner 1996). For example, if a firm experiences high satisfaction and therefore intends for the relationship to grow, the levels of relationship magnitude and type will increase. A similar, but opposite affect on structure will occur should the firm choose to end the relationship. So while the level of satisfaction and the intention to retain a relationship influence

comparison standards, they do so through the relationship structure (i.e., through both P3 and P1). Consequently, we propose the following.

P3: Intention toward relationship retention influences the relationship structure.

IMPLICATIONS FROM THE MODEL

Managerial Implications

Recently, supply chain relationships are increasingly acknowledged as a source of sustainable competitive advantage (Day 2000; Ganesan 1994). Yet, sustaining competitive advantage depends on maintaining these relationships, which will only occur if the companies are satisfied with their supply chain members' performances. While there has been a great deal of research on consumer satisfaction over the past 25 years, the application of these theories to business relationships in the supply chain has been limited. This paper attempted to integrate these two research areas to gain insight into the disconfirmation process in the business-to-business context and to begin understanding the impact of the structure of the relationship on this process.

Practitioners have much to gain from this research. If they can better understand the process their customers or suppliers go through to appraise satisfaction in a relationship, companies may be able to anticipate problems and better maintain the relationship. In addition, companies need to understand the dynamic nature of customers' choice of comparison standards so they can be better prepared to adjust to any changes in the standards. Supplier companies also may be able to influence their customers' comparison standards in order to improve the satisfaction of the relationship. Understanding the effect of the relationship structure on perceived performance and comparison standards will help companies decide what levels of relationship magnitude and type may be appropriate in certain situations. It is important to understand the effect of satisfaction and dissatisfaction on relationship success, both initially and over time. Knowing the implications

of the evaluation outcomes will better equip companies to improve their supply chain relationships in the hunt for competitive advantage.

Research Implications

The overall objective of this research is to understand and explain the influence of relationship structure on the disconfirmation process in the business-to-business context. This will pave the way for predicting which relationships will grow, which will be maintained, which will fail, and how companies can influence this outcome. Future research should verify the components of the model presented in this paper. The model should then be tested, followed by additional research in different contexts.

Incorporating relationship structure in the disconfirmation process enhances the understanding of the differences in interfirm relationships. Application of consumer satisfaction theories to the business-to-business context will open up new areas for research that will advance the knowledge of satisfaction in both contexts. Because these two contexts are very different, research identifying the differences would benefit any future research applying theories from one context to the other.

Both business-to-business relationships and satisfaction are important research areas because of the benefits companies can realize. Practitioners are trying to get their arms around these issues and look to research for guidance on how to succeed. Researchers can help minimize the "trial and error" that practitioners typically use in many areas by leading the knowledge development and dissemination in this integrated area. Some areas that should be pursued by researchers are discussed in the following sections.

Model Validation. The first step to validate the model would be to adapt existing or create new measures for each concept, including customer satisfaction. The nature of relationship structure is not yet fully understood. In order to measure this variable, a distinction must be made between the components of this construct and its

antecedents. Then each proposition can be restated to form operational hypotheses for empirical testing. We suggest conducting these tests in multiple supply chains from different industries to determine if the relationships are generalizable.

In addition, other adaptations of the model may be necessary. The evaluation process described in this article is the disconfirmation paradigm. Perhaps there are other theories that could contribute to this research. *Do other theories, such as means-end theory or transaction cost theory provide better explanations of these phenomena?* If applicable, the model may need to be extended or revised and retested.

Following validation of the model, additional questions about the constructs in the model and the propositions should be addressed. *What are the comparison standards used by companies at different relationship levels? When does customer satisfaction lead to relationship growth as opposed to maintenance or deterioration? How does a customer's desire to stay in a relationship affect a change in comparison standards or a reevaluation of satisfaction? Is the heightening of expectations limited to existing standards and/or the development of entirely new standards for subsequent usage?* Qualitative research methods have recently become more popular for investigating consumer behavior concepts such as satisfaction. Depth interviews or case studies with select companies may be the best way to begin this part of the research based on the nature of the questions.

There could be additional relationships among the constructs in the model as well. *Does the structure of the relationship affect the perception of product or service performance?* In personal relationships, higher levels of relationship type (e.g., marriage) often mean higher performance expectations of the other person in the relationship (Guerrero and Andersen 1994). The same may be true of business-to-business relationships. Customers in closer relationships may hold suppliers to stricter performance standards than those in a lower level of relationship and may be more critical when evaluating the performance. The opposite is also possible. For example,

because they have a close relationship, some customers may become biased and perceive their supplier's performance as higher than if they objectively evaluated the performance. Customers might occasionally tolerate a performance slip without it affecting the perception of performance, indicating that the higher the magnitude of the relationship, the higher the perceived performance. Survey research would be effective for testing alternative relationships in models.

New research is needed to expand the explanatory power of the model in Figure 1. Patterson, Johnson and Spreng (1997) include situational and individual variables as antecedents to expectations and performance in their customer satisfaction model. These types of variables should be explored. Our discussion also suggests looking for moderator variables, such as size of the companies, positions in the supply chain, length of relationship, or importance of the supplier or customer relationship.

Future Research on Business-to-Business Relationships. Companies are generally part of many supply chains. Often they are in different positions within varying supply chains, meaning they compete with their own suppliers and customers. Consequently, we need to know more about how satisfaction affects relationships across supply chains. *Do other relationships within the supply chain impact satisfaction evaluations? If a company competes against a customer, does that influence that customer's satisfaction with the company?* Also, as satisfaction affects the intention to maintain a relationship and thus the structure of a relationship, there may also be an influence on the stages of relationship development presented by Garver and Flint (1995). *Does high satisfaction in a relationship move firms through development stages faster than they would normally progress?* Finally, e-commerce affects supply chain structures and relationships through the connectivity possible among companies. The impact of this as well as any other different business environments should be explored.

SUMMARY

This paper attempts to initiate a stream of research applying the disconfirmation process to the business-to-business context. Research in this area has great implications for interfirm relationships. Understanding what leads to satisfaction and high satisfaction could aid the development of protocols and procedures for forming and maintaining relationships among firms. We propose accomplishing this by applying existing theory in consumer satisfaction to business-to-business relationships. Customer satisfaction is thought to help companies achieve a competitive advantage. In this age of supply chains competing with other supply chains, it is imperative for management to understand how to attain satisfaction and high satisfaction among the members.

Although some research has been conducted that integrates customer satisfaction research into business-to-business relationship research, additional research in this direction specifically in the area of relationship structure is needed. For example: *How does satisfaction affect the development of business-to-business relationships longitudinally? Does the feeling of satisfaction directly impact the levels of relationship magnitude or relationship type? Do varying levels of satisfaction impact the buying firms' commitment to the relationship with the supplying firm? Is the performance of the relationship affected by varying levels of satisfaction?* Building a model of business-to-business relationship structure that incorporates satisfaction would begin another stream of research that would be of significant importance.

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