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INCREASING RESPONSIVENESS THROUGH THE FIRM-LSP RELATIONSHIP STRUCTURE: A BEHAVIORAL PERSPECTIVE

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ABSTRACT

This study investigates the behavioral aspects of the firm-logistics service provider (LSP) relationship in order to better understand the avenues through which LSP responsiveness to changing customer needs can be enhanced. Because the research examining the behavioral aspects of the firm-LSP relationship is sparse, a dyadic qualitative research approach was taken to explore the development of a relationship structure that will facilitate the level of responsiveness that the firm desires. This study revealed that the key to enhancing LSP responsiveness lays in the structure of the firm-LSP relationship. Specifically, it was found that the level of cooperation, coordination, communication, and bonding between the focal firm and the LSP have a direct effect on the LSP's level of responsiveness to the firm's needs.

INTRODUCTION

In the current business environment, firms are dealing with a myriad of challenges including constant change, shorter product life cycles, diverse customer requirements, and increased uncertainty of demand (Brown and Eisenhardt, 1998; Christopher, 2000; Agarwal, Shankar and Tiwari, 2007; Nachtmann, Waller and Rieske, 2010). While any of these issues alone are difficult to deal with, combining them makes it increasingly difficult for the firm to satisfy the demands of their customers in a timely and cost effective manner. Often the firm looks to external parties such as logistics service providers (LSPs) to assist them in achieving this objective. The result has been a significant growth in the outsourcing of logistics services in the last decade (Maltz and Ellram, 2000; Sanders et al., 2007). The organizational practice of contracting out part or all of the logistics activities that were previously performed in-house has proven to be beneficial to both parties in some but not all cases (Langley, Newton and Allen, 2000).

When successful, the firm-LSP relationship can provide both parties involved with a competitive advantage (Ellinger, Keller and Bas, 2010). A review of the LSP literature shows that successful relationships can provide a variety of benefits for the firm such as reduced logistics cost, improved access to and application of technology, end customer satisfaction, reduced capital investment in facilities, equipment, and manpower, increased flexibility and productivity, improved employee morale, increased access to wider markets and new competencies (Bowersox, 1990; Larson and Gammelgaard, 2001; Selviaridis and Spring 2007). Moreover, Zacharia, Sanders and Nix (2011) state that as the firm's competitive pressures rise, the LSP has in many instances been able to acquire specific assets and build a wide range of capabilities it can offer at a lower cost. In some cases the LSP takes on a more strategic role where it coordinates activities more broadly across the supply chain.

While successful relationships can provide a variety of benefits for LSPs as well, such as a long-term source of business volume, service

innovation and growth opportunities (Halldorsson and Skjoett-Larsen, 2004), there is a long history documenting the fact that every firm-LSP relationship is not successful. A testimony to the LSPs' failure to fully satisfy the firm's (their customer's) increasingly diverse and unexpected demands is the large number of firms reporting that logistics outsourcing has resulted in failure and disappointment (Boyson et al., 1999). Early research (Gulisano, 1997) revealed that 55% of logistics alliances were terminated after three to five years, while the Outsourcing Institute reported that more than half of third-party partnerships had failed (Foster, 1999).

A review of logistics outsourcing literature reveals that one of the problems causing the failure of logistics alliances is the inability of LSPs to deal with special product/service needs and emergency circumstances (Selviaridis and Spring, 2007). Furthermore, it is argued that success in the highly competitive LSP industry is largely dependent upon the LSP's responsiveness to the firm's needs and the ability to provide reliable service to achieve often complex and unplanned customer requirements (van Damme and Ploos Van Amstel, 1996; Ellinger, Keller and Bas, 2010).

This study investigates the behavioral aspects of the firm-LSP relationship that can impact the LSP's responsiveness to those needs. It is the premise of this paper that the key to increased success in firm-LSP relationships lays in the *development of specific firm-LSP relationship structures that facilitate the level of responsiveness that the firm requires to maintain or increase competitive advantage*. Specifically, the purpose of this study is to increase the understanding of how the behavioral aspects of the firm-LSP relationship impact the LSP's level of responsiveness.

In her recent comprehensive review of logistics service provider literature Marasco (2008) specified a need for this type of research, calling

directly for studies that would lead to a "deeper understanding of the behavioral complexities that emerge through the interaction between the buyer and provider of logistics services" (p. 141). A dyadic qualitative research methodology with a focus on behavioral aspects of the firm-LSP relationship was designed to address the research question and develop mid-range theory. The dyadic method is used to pose theory from both parties' perspectives: the firm and its LSP.

The choice of a research method should flow directly from the nature and content of the phenomenon to be studied. Because research examining the behavioral aspects of the firm-LSP relationship that impact LSP responsiveness is sparse, qualitative methods are considered most appropriate. The research question addressed in this study deals with dynamic human behavior, therefore the grounded theory method was utilized following the Strauss and Corbin (1990) tradition. Furthermore, the use of this method responds to recent calls for increased use of qualitative methodologies within the logistics discipline when studying phenomena with complex behavioral dimensions (Mello and Flint, 2009).

RESEARCH DESIGN

Mentzer and Kahn (1995) suggest that future logistics research needs sufficient field observations to provide the underlying logic needed to justify the literature and theory used. While various aspects of the firm-LSP relationship have been explored in the literature, dyadic research to capture the behavioral complexities of such relationships is minimal. Developing a trustworthy interpretation and understanding of the type of relationship structure that the firm and its logistics service provider need to develop in order to increase the LSP's responsiveness does require such a dyadic perspective.

The purpose of this study is to take a first step toward additional theory development in this area. To execute this research a qualitative study

was conducted by integrating the literature bases relevant to the research question and the managerial perceptions gained from field interviews. In-depth interviews provide a powerful method because their revealing nature allows the researcher to delve into the respondents' mental world (McCracken, 1988). As such, they help achieve the purpose of qualitative research, that is, to accumulate sufficient knowledge to lead to understanding or explanation (Lincoln and Guba, 1985).

This research began with a review of the *logistics service provider literature* as well as the *agility literature*. Strauss and Corbin (1998) encourage a brief literature review at the beginning of the research project to facilitate theoretical sensitivity and help design the initial interview guide. As theory emerges through data analysis, additional literature can be reviewed and integrated with the findings of the study.

Existing literature suggests that *agility* helps firms overcome challenges brought about by constant change, shorter product life cycle, diverse customer requirements, and increased uncertainty of demand (Yusuf, Saradi and Gunasekaran 1999; Mason-Jones and Towill, 1999; Naylor, Naim and Berry, 1999; van Hoek, 2001). Although the concept originated in the manufacturing realm, agility principles can be adapted to other functional areas (Katayama and Bennett, 1999). Consequently, the concept has been extended to "agile competitor" (Goldman, Nagel and Preiss, 1995), "agile business relationships" (Preiss, Goldman and Nagel, 1996), "agile enterprises" (Goldman and Nagel, 1993), "agile decision support systems" (Huang, 1999), "agile workforce" (Van Oyen, Gel and Hopp, 2001), and "agile supply chains" (Christopher, 2000), to name a few.

Agility is a broad and multi-dimensional concept (Swafford, Goshm and Murthy, 2006) bridging many disciplines. Frequently suggested dimensions of agility are *responsiveness*, *flexibility* and *speed* (Sharp, Irani and Desai,

1999; Christopher, 2000; Giachetti et al., 2003; Jain, Benyoucef and Deshmukh, 2008). Following this logic, enablers of *agility* can also be considered direct enablers of *responsiveness*. The literature on *agility* was reviewed in an attempt to better understand the avenues through which LSP *responsiveness* to changing firm needs can be enhanced. (e.g., the firm is considered the LSP's customer). We explored managers' knowledge and experiences in a dyadic context; thus allowing increased focus on the phenomenon under investigation, trading generalizability for internal validity and contextual understanding.

Dyadic Data Sampling and Collection

Since buyer-seller relationships have been shown to develop differently based on their industrial context (Frazier, 1983), it was also considered important to include managers from multiple industries to facilitate theory building. The final sample consisted of six logistics service providers and six buyers of logistics services. The logistics service providers ranged from national trucking companies to international freight forwarders. The buyers of logistics services were manufacturers of consumer goods ranging across a variety of industries.

Following McCracken's (1988) guidelines for conducting in-depth interviews, we relied on the perspectives of logistics managers representing these companies to investigate and analyze the phenomenon. The interviews were conducted in the respondents' offices (18) and over the phone (4). While grounded theory practice traditionally recommends the use of theoretical sampling; in order to gain a dyadic perspective we employed purposive sampling, where particular settings, persons, or events are selected deliberately in order to provide important information that cannot be captured as well from other choices (Maxwell, 1996). However, we allowed the emerging theory to guide the interview processes for each dyad. Each manager was asked to identify his/her most critical supplier of logistics

services. It was not specified what “critical” meant in order not to impose any bias into the sample, so each manager used personal judgment to decide which supplier should be contacted.

A total of 22 individual manager interviews were conducted-11 buyers and 11 sellers of logistics services (Table 1). This is in line with qualitative research guidelines. McCracken (1988) states that eight respondents are sufficient for many research questions, therefore the number of participants for this research was sufficient to tap the domain of interest. The interviews were open-ended and discovery oriented, and typically lasted about one hour. Each interview was initiated with a grand tour technique (McCracken, 1988) and designed to be open-ended. Managers were asked to describe the relationship that they’ve developed with another manager, and then through laddering questions, we explored in more depth the specifics related to the constructs of interest. An example of the interview guide is provided in Appendix A. All interviews were audio-recorded and transcribed verbatim by the members of the research team.

Validating the Results: Analysis of Research Trustworthiness

In theory-testing studies that attempt to elicit generalizable findings the predominant criteria for evaluating research include assessment of

internal validity, external validity, and reliability. However, these criteria are inappropriate or nonsensical in qualitative exploratory studies (Hirschman, 1986). While there are no standardized boilerplate criteria to apply in qualitative research (Pratt, 2008; 2009), certain guidelines analogous to that of the “theory generalizable” criteria described above have emerged. Specifically, earlier social sciences research focused primarily in marketing recommends that credibility, transferability, dependability, confirmability, and integrity should be the area of focus (e.g., Lincoln and Guba, 1985; Hirschman, 1986; Wallendorf and Belk, 1989) for such research. These criteria were evaluated holistically and thoroughly in this research project as follows:

- 1) *Credibility* (extent to which the results seem to be acceptable representations of the data) - provided a summary of initial interpretations to participants for feedback,
- 2) *Transferability* (extent to which the findings in a context have applicability in other contexts) – use of respondents from multiple industries,
- 3) *Dependability* (extent to which the findings would be the same if the study was repeated with similar subjects and context) - strictly followed guidelines for data collection and interpretation,
- 4) *Confirmability* (extent to which the findings are determined by the subjects and context and not by the researcher’s

**TABLE 1
DYADIC SAMPLE ILLUSTRATION**

<u>Buyers of Logistics Services</u>		<u>Sellers of Logistics Services</u>	
<u>Participant Title</u>		<u>Participant Title</u>	
James	Logistics Manager	John	Customer Service Manager
Brad	Operations Manager	Alison	Customer Service Supervisor
Richard	Supply Chain Manager	Dan	VP Operations
David	Purchasing Manager	Steve	Operations Manager
Robert	Import Manager	Tom	Customer Service Manager
Ethan	Import Manager	Mark	Account Manager
Glenda	Logistics Manager	Barbara	Logistics Broker
Paul	Logistics Manager	Peter	Operations Manager
Blake	Inventory Manager	Wayne	Transportation Manager
Tony	Operations Manager	Dwight	Sales Manager
Brian B	Global Accounts Manager	Jeff	President

bias and motives) - used auditor to confirm interpretations prior to journal submission, and
5) *Integrity* (extent to which the findings are influenced by participant misinformation) - assured participants of anonymity.

Data Analysis

Analyses were conducted after each interview using grounded theory procedures (Strauss 1987; Strauss and Corbin 1990). Three different types of coding are suggested in Strauss' coding paradigm and used in this study: open coding, axial coding, and selective coding. The interview transcripts were analyzed on a sentence by sentence basis and coded for conceptual content by the analysts. Initially, during open coding, the analysts independently broke down the data into discrete incidents, ideas, events, and acts, and assigned a name/code to represent these. A total of 126 open codes were initially generated from the data. These codes emerged through a process called the "comparative method" (Glaser and Strauss 1967; Strauss and Corbin 1998) where the researchers moved back and forth between transcripts and within transcripts to compare and contrast conceptual codes. The qualitative research computer software QDA Miner was used to facilitate this task. Throughout the data collection and analysis processes, theoretical memos (the researcher's record of analysis, thoughts, interpretations, questions, and directions for future data collections) were used to facilitate data interpretation and keep a trail record of the analysts' logical schema employed during interpretation.

As data analysis continued, when another object, event, act, or happening was identified through comparative analysis as sharing some common characteristics with an object or a happening, it was placed under the same code. Using this process, each incident was compared to other incidents at the property (general or specific characteristic of a category which allows a

category to be defined and given meaning) or dimensional level (range along which properties of a category vary; used to provide parameters for the purpose of comparison between categories) for similarities and differences and placed into a category. Two types of theoretical comparisons were used: the "flip-flop technique" (looking at opposites or extremes to bring out significant properties) and the "systematic comparison" approach (comparing an incident in the data to one recalled from experience or the literature reviewed). Following this dynamic reiterative process we grouped concepts into categories (e.g., relationship integration, communication) for content analysis.

Once categories emerged through open coding, intense content analysis was done around each category, one at a time. This is known as axial coding. The purpose of axial coding is to begin the process of reassembling data that were fractured during open coding. During this stage relationships between categories are formed to provide more precise and complete explanations about phenomena focusing on how categories crosscut and link. When coding axially we looked for answers to questions such as "why" or "how come" (Strauss and Corbin 1998) in order to uncover potential relationships among categories. In axial coding, as in open coding, we continued to make constant comparisons and use of the analytic tools described previously. It is important to specify that while axial coding differs in purpose from open coding, these are not necessarily sequential analytical steps. Therefore, the analysts iterated between open and axial coding.

As the final type of coding performed, selective coding is the process of integrating and refining revealed categories. This was performed in order to delimit coding to only those variables that relate to the core variables of interest that have emerged from the study. Applying the coding steps suggested in the grounded theory methodology results in a variety of concepts and

categories; and as expected, some of these categories end up not being relevant to the core phenomenon studies. Therefore these categories are purposefully excluded in order to facilitate the emergence of theory regarding the phenomenon of interest. Although a variety of categories and relationships emerged during the previous two stages (open and axial coding), it was during axial coding that the major core categories were finally integrated to form a larger theoretical scheme.

To summarize, during open coding the analysts were concerned with generating categories and their properties and sought to determine how these concepts vary dimensionally. In axial coding categories were systematically developed and linked, and finally, during the selective coding stage the process of integrating core categories took place.

DISCUSSION OF FINDINGS

The data analysis of the dyadic interviews led to the emergence of several key themes/categories. This section provides detailed description of these themes. The additional literature reviewed during the analysis stage is integrated as well in order to provide further support for our interpretation of the findings.

Coordination and Cooperation

The first structural element of the firm-LSP relationship that emerged as a key enabler of LSP responsiveness was *coordination*. Coordination entails the alignment of actions between participating parties (Foss, 2001). Participants consistently emphasized throughout their interviews the role of firm-LSP coordination in enhancing the LSP's responsiveness. Consider James (buyer)' story, "...when I see the bookings in there, that they're ready to be picked up from the facility, I immediately notify the truckers about the pick-up location, date and time and also coordinate with our export department to ensure the container is cleared

to enter the port. This puts them (trucking company) in a position where they can respond to my work order in a timely manner and deliver the cargo before the port cut-off."

John (seller) had a similar story that confirmed the importance of firm-LSP coordination in enhancing LSP agility,

"I have a customer that only calls us as a last resort. How can I successfully handle his emergency situations if I never know what he's got going on? He's setting us up for failure. With James on the other hand, he works closely with me, I know what's important to him, he proactively gives me all the information that I need, so of course I can better respond when he's got a rush delivery."

Previous research confirms that coordination is often difficult due to a lack of shared and accurate knowledge about the decision rules that others are likely to use, and how one's own actions are interdependent with those of others (Geanakoplos, 1992).

Cooperation was the second structural element of the firm-LSP relationship that emerged as a key enabler of LSP responsiveness. Cooperation entails the alignment of interest between participating parties (Camerer and Knez, 1996). This is often difficult, because individuals/firms are often driven by the achievement of private benefits at the expense of collective benefits. Managers confirmed the importance of developing a cooperative relationship in order to enhance the LSP's responsiveness. Consider Brad (buyer)'s story,

"All truckers can deliver any container, that's the easy part. It's dealing with issues that come up with it that separates them. Some truckers are just so focused on their needs that they don't accommodate our customers' delivery needs. They call and say 'hey, we can only make it at this time, so hopefully your facility is open'. This is

unacceptable because in our line of business it's all about the customer. If the customer's not happy it will have repercussion for all of us. That's why we try to have the right incentives in place to facilitate the responsiveness that we need from the trucker. We're all in business to make money."

This perspective was shared by managers representing logistics service providers (sellers) as well. Consider the following excerpts,

"As a broker I only make \$50 profit per load. So I'm up-front with customers, if you want this rate you need to have flexibility in moving it (Alison), "it needs to be a win-win for both parties. If I lose on a load I'm going to feel the pinch, I'm not going to meet my quota and my performance will suffer" (Dan).

Coordination (aligned actions) problems can still arise even when cooperation is achieved (aligned interests). Incentives, sanctions, monitoring, rewards, and punishments can help to achieve cooperation but are not sufficient to achieve coordination (Gulati and Singh, 1998). This is due to the fact that cooperation problems are rooted in motivation; while coordination problems are due to cognitive limitations of parties, limitations that deny them comprehensive knowledge of how others will behave in situations of interdependence. Combined, *cooperation* and *coordination* encompass the multi-dimensional concept of *integration* (Camerer and Knez, 1996; Foss, 2001).

Support for considering *integration* (e.g., combination of *cooperation* and *coordination*) as an enabler of responsiveness can also be found in the literature on supply chain agility. It has been noted that a key to achieving supply chain agility is that all members (suppliers, manufacturers, distributors, and even customers) must work together to achieve an integrated supply chain (Christopher, 2000; Christopher and Towill, 2001). As a result of a

comprehensive literature review, Lin et al. (2006) further identified integration as an essential enabler of agility. Based on the content analysis of the interview transcripts corroborated with support from the literature review, the following research propositions about the relationship between the firm-LSP structure and LSP responsiveness are put forth:

RP1: The higher the level of firm-LSP cooperation the higher the level of LSP responsiveness.

RP2: The higher the level of firm-LSP coordination the higher the level of LSP responsiveness.

Communication

Communication was the third structural element of the firm-LSP relationship that emerged as an enabler of LSP responsiveness. Communication, the formal as well as informal sharing of meaningful and timely information between firms (Anderson and Narus, 1990), is considered an important element in logistics alliances (Moore and Cunningham, 1999). Within an alliance, communication can create a shared interpretation of goals and can also facilitate the creation of trust and a closer working relationship among actors (Ring and Van de Ven, 1994). In fact, Bowersox, (1990) argue that complete and open exchange of operating and strategic information is the glue that holds logistics alliances together. As the earlier definition suggests, communication channels can be either formal or informal.

Formal communication refers to communication resulting from specified authority relationships and formal mechanisms for the coordination of work (Johnson et al., 1994). It includes agreed upon routines and schedules for presenting and reviewing data, operating status and analysis of current and past performance. Both, buyers and sellers of logistics services consistently emphasized the importance of formal communication in enhancing LSP

responsiveness. Consider some excerpts from buyers,

“It is great communication that’s very important. Dwight is my primary contact. We keep each other informed, he lets me know if he’s having any problems whatsoever, trying to be proactive with issues and just very open. As a result he can quickly respond to our needs because he’s always up-to-date on our situation. When an emergency happens, he’s more likely to handle it successfully” (Richard), “When I send out emails they return them pretty quickly, and they always pick up the phone and call if there’s something urgent. For instance, they tell us upfront ‘hey, the driver had a flat tire, just prepare for that, is there anything we need to change, to adjust or we’re still good to deliver later today?’ This type of communication allows us to contact the end customer in a timely manner, and in the end allows the trucker to recover from the incident” (David).

Interviews with the LSPs managers’ confirmed the importance of communication in facilitating quick response,

“We get daily reports from them with empty container inventory. When a work order comes in I don’t have to call and ask where I can pull an empty from. I can just go ahead and send a driver to the right location, and this allows us to be proactive (Steve/seller).

Informal communication is a response to the social needs that underlie organizational communication and facilitates communication outside the formal communication channels. Both, buyers and sellers of logistics services emphasized the importance of informal communication. Consider the following excerpt,

“Tom is on vacation this week, but he gave me his cell phone number because we developed a relationship to where we call each other outside of work. Typically, I would not call him if he was on vacation, but

if I have an emergency, I know how to get a hold of him” (Robert/buyer).

Support for considering communication as a key enabler of responsiveness was also found in the review of agility literature across the domains of manufacturing and supply chain management (Burgess, 1994; Gunasekaran, 1998; Yusuf, Sarhadi and Gunasekaran, 1999; Tolone, 2000; Agarwal, Shankar and Tiwari, 2007). This leads to the following research proposition regarding the affect of formal and informal communication on LSP responsiveness:

RP3: The higher the level of formal firm-LSP communication the higher the level of LSP responsiveness.

RP4: The higher the level of informal firm-LSP communication the higher the level of LSP responsiveness.

Bonding

The fourth structural element of the firm-LSP relationship that emerged as an enabler of LSP responsiveness was bonding. Extensive and repeated contact between the concerned parties, combined with elements of affect and interpersonal liking lead to personal bonds (Granovetter, 1973). Bonds can be formed through a process of social integration wherein individuals become psychologically linked to each other in the pursuit of common goals (Harrison, Price and Bell, 1998). Building social bonds can take a lot of resources because social bonds evolve only gradually through repeated satisfying interactions (Ring and Van de Ven, 1994; Madhok, 1995).

The content analysis of the interviews revealed that bonding plays a key role in enhancing LSP responsiveness. The level of bonding between the parties involved was found to have a direct effect on the LSP’s level of responsiveness to the firm’s needs. Consider the following stories, *“We’ve built such a relationship with the company at a team level that if any new*

business comes up we're probably the first get a shot at it. By the same token, if they have an emergency shipment we'll drop any other piece of business just to move their freight" (Dan/seller), "In the 90's I was a shipper here in X, and I knew the guys at the rail road. We have a good relationship, we share a lot in common, we both just had grandchildren. Now that I'm back they do so much for me. Let's say I have a hot shipment and the rail cut was today and they're low on flat cars. They'll take another container off the train and put my container on!" (Barbara/seller).

Support for the possibility of deriving business benefits from bonding abounds in the logistics literature (Folta, 1998; Marasco, 2008; Schreiner, Kale and Corsten, 2009). Strong bonds within an alliance can enhance the efficiency of the alliance by reducing the costs associated with safeguarding against opportunistic behavior and lead to informal transfer of customer-related knowledge and the acceptance of risks and uncertainties associated with a higher degree of joint action (Schreiner, Kale and Corsten, 2009). Consider Mark's story as an illustration; he is Ethan's logistics service provider and describes how because of the relationship he has with Ethan he can be more proactive,

"Because of our personal relationship he might be able to tell me something about his business that's not even for public consumption yet so that I can start digesting that information behind the scenes and already be thinking and planning with Ethan... it gets us off the starting block a lot sooner than it would otherwise. He doesn't have to wait until it's ready for public communication to share it with me."

Scholars argue that close personal relationships and bonds among individuals are responsible for establishing norms of trust and reciprocity in economic exchange (Granovetter, 1973; Gulati, 1995). Interpersonal bonds have also been

shown to facilitate conflict resolution and foster continuity (Folta, 1998). Schreiner, Kale and Corsten (2009) assert that the absence of social bonds can lead to unstable relationships or even alliance dissolution. An extensive review of the logistics service provider literature by Marasco (2008) shows that the stability and overall performance of alliances is likely to be strongly influenced by the multiplicity of economic, technical, and social bonds that develop between the parties. Consequently, the following research proposition is put forth:

RP5: The higher the level of firm-LSP bonding the higher the level of LSP responsiveness.

Summary of Findings

The review of the relevant literature along with the results of the qualitative study led to the development of key emergent themes that are summarized in Table 2. The relational view (RV) paradigm provides additional support for our interpretation of how firms and their LSPs can achieve a competitive advantage (e.g., *responsiveness*) through the development of specific relationship structures. This is unlike the resource-based view of the firm (RBV), which proposes that a firm's superior performance originates in its resource-based advantages over its competitors and focuses on those resources housed within the firm (Wernerfelt, 1984; Barney, 1991; Rumelt, 1991). The relational view of the firm suggests that a firm's sources of competitive advantage may extend beyond firm boundaries (Dyer and Singh, 1998). Research suggests that partners who are willing to make relation-specific investments and combine resources in unique ways can achieve superior levels of performance (Asanuma, 1989). Furthermore, idiosyncratic inter-firm linkages can be a source of competitive advantage over firms who are unable or willing to form similar linkages (Dyer and Singh, 1998). The inter-firm *cooperation* and *coordination* which are elements of relationship integration, and the *communication*

TABLE 2
QUALITATIVE STUDY RESULTS ON FIRM-LSP RESPONSIVENESS

Resulting Themes		Mentioned by Percentage of Respondents	Sample Excerpts
Key Enablers of LSP Responsiveness	Coordination	Buyers: 95% Sellers: 98%	<ul style="list-style-type: none"> • “Capacity tends to be a problem so we try to coordinate with each other. If they know what I have going on they can better prepare for it. This reduces the number of service failures on their end”
	Cooperation	Buyers:82% Sellers:87%	<ul style="list-style-type: none"> • “You can catch someone on the front end, but it won’t take too long for them to realize that they’re just being used to achieve your own goals. You have to be able to understand what the other person is trying to accomplish, and find a way to provide that service and look up for their best interest as well. If you can do that, they’ll do the same for you.”
	Formal Communication	Buyers:100% Sellers:100%	<ul style="list-style-type: none"> • “Communication back and forth is crucial. If they pick up a hazardous load I call them to give them the heads up. They do the same if I miss it. As a result we can be more proactive with the end customer”
	Informal Communication	Buyers:93% Sellers: 100%	<ul style="list-style-type: none"> • “Sometimes we just call each other to talk ‘hey how’s the weather down there? Here it’s raining cats and dogs’. I do believe my requests will be handled with a little bit more responsiveness as compared to someone who only calls when he needs something”
	Bonding	Buyers: 68% Sellers: 91%	<ul style="list-style-type: none"> • “The friendship pushes me to perform better. I’d be personally embarrassed to let Tony down. If he called me with a hot shipment I’d go out of my way to help”

process along with *bonding* can be considered such idiosyncratic inter-firm linkages that enable the relationship partners to achieve superior levels of performance, in this case, *responsiveness*.

CONTRIBUTIONS AND FUTURE RESEARCH

While logistics service providers (LSPs) have enabled firms to improve their operating efficiency and effectiveness, the ability to deal with unexpected or unplanned customer requirements remains a difficult challenge for LSPs (Selviaridis and Spring, 2007). This is an important capability for LSPs to possess considering that success in the highly competitive LSP industry is largely dependent upon a firm's responsiveness to customer needs and the ability to provide reliable service to achieve often complex and unplanned customer requirements (van Damme and Ploos Van Amstel, 1996; Ellinger, Keller and Bas, 2010). The qualitative dyadic study presented in this paper explores how the behavioral aspects of firm-LSP relationship structure affect the ability of the logistics service provider to sense and respond to their customer's needs. These findings, along with a review of the relevant logistics service provider and agility literature, led to the development of research propositions regarding the association between the relationship structure and LSP responsiveness. This research contributes to the existing body of knowledge by exploring the avenues through which the firm-LSP relationship can enhance the LSP's responsiveness to dynamic customer needs. The research confirmed the premise of this paper: the key to enhancing LSP responsiveness lies in the structure of the firm-LSP relationship. Specifically, it was found that the levels of cooperation, coordination, communication, and bonding between the focal firm and the LSP have a direct effect on the LSP's level of responsiveness to the firm's needs.

Managerial Implications

The research has several implications for managers. Firm managers can benefit from this research in a number of ways. First, they are encouraged to examine the structure of the firm-LSP relationship before deciding that a LSP is not responsive enough. This lack of responsiveness would possibly lead to a loss of confidence in the LSP's ability and ultimately contracting services from another LSP. Secondly, the research findings suggest that accountability for LSP responsiveness does not rest with the LSP alone. If a specific LSP is not as responsive as the firm would expect, it could be because the firm has failed to invest the necessary resources in the relationship with the LSP. Firms need to proactively develop relationship structures with their LSPs that allow for the desired level of LSP responsiveness. Third, managers can also use the propositions introduced in this paper to identify what structural elements of the firm-LSP relationship to primarily focus on (e.g., coordination, cooperation, communication, and bonding) in order to increase the LSP's level of responsiveness.

Theoretical Implications and Future Research

As an important step in theory building, the research presented in this paper has attempted to provide direction for future research on the antecedents of LSP responsiveness. The elements of the relationship structure offer a framework for further theory building on the firm-LSP relationship using the relational view. While the findings from this qualitative research contribute to the understanding of the behavioral aspects of the relationship structure, they are based on the perceptions and opinions of a limited number of participants. Although the inductive method leads to theory development through the development of theoretical propositions, it is not generalizable to a broader population.

The next phase of this research is to test the generalizability of the proposed relationships empirically. After operationalizing selected constructs specific measures should be developed. In addition, future research could examine the firm-LSP relationship structure through other theoretical frameworks such as social network theory. Social network analysis techniques could be used to analyze power, cooperation, flows of information, and conflict resolution and the management of expectations (Phillips and Phillips, 1998). Future research should also empirically examine the propositions developed in this study in failed and successful firm-LSP relationships. Comparing successful relationships to failed ones on the proposed dimensions can reveal additional insights into the complexities of firm-LSP relationships.

Just as important, future research should also explore additional behavioral dimensions of the process of logistics outsourcing as these “soft” aspects of the partnership are largely unexplored. To conclude, the following quote by one of the LSP managers summarizes the message of this paper:

“The relationship itself drives the success of the partnership-we can’t do it alone. From a business perspective, you can anticipate their approach to a certain initiative, or perhaps their approach to the resolution of specific problems. The structure of the relationship facilitates that. As a result we can be more proactive and more responsive to their needs”.

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APPENDIX A INTERVIEW PROTOCOL

Interview Questions

- Could you please tell me about your position here at (name firm) and what your responsibilities include? (Probe as needed to fully understand the person's role, background and orientation)
- Can you think of your most critical supplier of logistics services? (assuming yes) Please place your interactions with them clearly in your mind first.
- Now, what is it like to work with them?
- Can you tell me about that relationship?

Floating Prompts

- Can you tell me more about that?
- Can you explain that in more detail?
- That's interesting. Please go on
- Can you give me an example?
- What do you mean by that?
- What happened next?
- How did you deal with that?

Wrap up

Thank you very much for taking time out of your busy schedule to meet with me. You have been very helpful. You will receive a copy of our report when we're done collecting and analyzing the data. This should be towards the end of this year. Where would you like this report sent? If you have any questions, or if you can think of anything else you'd like to share with us, please feel free to contact me.

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