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I am submitting herewith a dissertation written by Madhav Pappu entitled "The Three Faces of Inter-Organizational Relationships: Towards a Theory of Logistics Relationships, Strategy, and Inter-Organizational Learning". I have examined the final copy of this dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Business Administration.

Ray A. Mundy, Major Professor

We have read this dissertation and recommend its acceptance:

Accepted for the Council:

Associate Vice Chancellor and
Dean of The Graduate School

THE THREE FACES OF INTER-ORGANIZATIONAL RELATIONSHIPS: TOWARDS A THEORY OF LOGISTICS RELATIONSHIPS, STRATEGY, AND INTER-ORGANIZATIONAL LEARNING

A Dissertation
Presented for the
Doctor of Philosophy Degree

THE UNIVERSITY OF TENNESSEE, Knoxville

Madhav Pappu
December 1999

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DEDICATION

This dissertation is dedicated to my parents
Kameshwara Rao Pappu
and
Lakshmi Pappu
whose immeasurable love, support and encouragement were invaluable at every stage in my life

to my wife
Kameshwari
whose understanding, patience and love is my strength
and
to my daughter
Shefali
who is the joy of my life.

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ABSTRACT

A growing concern of today's business executives is the increasing volatility of their organization's environment. In order to manage these turbulent environments, inter-firm collaborations are becoming more and more pervasive. A critical question, however, is *"are such inter-organizational relationships working?"* According to several researchers they are apparently not very successful.

The purpose of this research is to develop a rigorous, comprehensive, well-grounded theoretical model describing inter-organizational logistics relationships (IOLRs). It began with the following research questions in mind:

- How do IOLRs form?
- How do strategic and non-strategic IOLRs differ?
- Finally, is the learning perspective more effective than existing ones, in describing and explaining IOLRs?

To find answers to these questions, more than 40 logistics professionals, at various levels – ranging from Directors to Managers and Supervisors – in 8 organizations were interviewed and their responses were recorded, transcribed and carefully analyzed. Following an extremely rigorous analysis, involving one – at times two – other colleague(s) three dimensions were identified:

(1) *Designed – Evolutionary dimension* (based on the nature of IOLR formation);

(2) *Operational – Strategic dimension* (based on the of criticality of the IOLR);

(3) *Individual – Organizational dimension* (reflecting the level of involvement).

In doing so, characteristics of IOLRs which emerged from the study were identified. Thus on "Face One", which was formed between the *Designed – Evolutionary* and *Operational – Strategic dimensions*, a typology of IOLR formation, was developed. This typology is shown to have its roots in Mintzberg's (1978) typology of strategies; sharing many of the characteristics therein. A 3x3 matrix, forms "Face Two" of the "Three Face" model. 'Occupants' to six of the nine cells (Cells 1, 2, 3, 5, 6, and 9) were identified while three others (Cells 4, 7, and 8) were found to be empty. A careful review of cell-features clearly supports the lack of 'occupants'; transaction costs of managing and monitoring IOLRs in these cells is too high to warrant their existence. Bringing the two "Faces" together automatically resulted in "Face Three", which was formed between the *Designed – Evolutionary* and *Individual – Organizational* dimensions. Learning characteristics of the IOLRs identified in the study were found identical to those identified by earlier researchers such as Shrivastava (1983) and DiBella *et al.* (1996). Finally, based on the characteristics of the IOLRs identified through this research, several propositions for future research are presented.

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CHAPTER 1: Introduction

1.1 Background

In the last two decades, the business world has experienced dramatic changes. The effects of turmoil and upheaval in the erstwhile Soviet Union and other East European nations, the changing of the guard in Communist China and the transfer of power in Hong Kong from Britain to China are still reverberating around the globe. As they open their own markets to greater foreign investment, the newly evolving economies of nations like India, Brazil and Thailand are increasing their competitive presence across the globe. Countries like China and Japan, which are still causing political friction by adopting policies that on the one hand protect their own national markets, on the other hand yet seek to expand operations in other countries. The business environment has become more complex, dynamic and uncertain.

The rapid proliferation of technology, intensifying global competition, the lowering of trade barriers, and the establishments of global communication

networks are profoundly affecting our traditional ways of organizing businesses. Functional hierarchies are giving way to inter-functional teams, multilevel organizations are eliminating entire levels of management, and front-line empowerment is becoming more than just an overused buzzword. New forms of organization continue to emerge – ranging from global ocean liner alliances to network organizations, and "hollow" corporations to "virtual" enterprises.[1] There also is a growing interdependency among firms, which is evidenced by the proliferation of inter-organizational ventures in the last quarter of the century.

In the last few decades, studies on organizational evolution and development have generated several theoretical perspectives. Most of the proposed approaches fall into one of three broad perspectives of organizational behavior (see Scott 1992, for a more detailed discussion of these three perspectives):

(1) *Rational Systems:* Taylor's scientific management approach, Fayol's administrative theory, Weber's theory of bureaucracy, and Simon's views on administrative behavior typify this perspective. The central theme is that organizations are like well-oiled machines, designed to attain specified goals. It is characterized by theories that specify goal specificity, formalization, efficiency, optimization and implementation

[1] For example, Dess, Rasheed, McLaughlin and Priem (1995), describe "corporate architecture" as *modular, virtual,* and *barrier-free,* based on the configuration of value chains and the extent of organizational boundaries.

(2) *Natural Systems:* This view is represented by models described by Mayo and the human relations school, Barnard's cooperative systems, Selznick's institutional approach and Parson's social systems models. While the rational perspective focused on the internal features of the organization, this perspective places an emphasis on the behavioral structure. Organic models describe organizational structures, while evolution, natural growth, natural spontaneity and survival characterize several of these theories.

(3) *Open Systems:* Buckley (1967) describes this aptly when he states that "a system is open means, not simply that it engages in interchanges with the environment, but that this interchange is an essential factor underlying the system's viability." Selected schools of thought representing this perspective include the systems design approach, the contingency approach popularized by Jay Galbraith, and Weick's social psychological model of organizing. The central theme in this perspective is the interdependence of the organization and its environment.

Of the three, the open-systems perspective incorporates the critical role of an organization's environment. Organizations are often dependent on the environment for scarce, valued and critical resources. The environment affects several organizational factors, including strategy, structure, internal processes and managerial decision-making (Daft, Sormunen, and Parks 1988).

> Organizations are systems of interdependent activities linking shifting coalitions of participants; the systems are embedded in – dependent on continuing exchanges with and constituted by – the environment in which they operate.
>
> – Scott (1992: 25)

One way of managing such dependence is "to control the source of the dependence" (Pfeffer and Salancik 1978: 143). Thus, consistent with this view

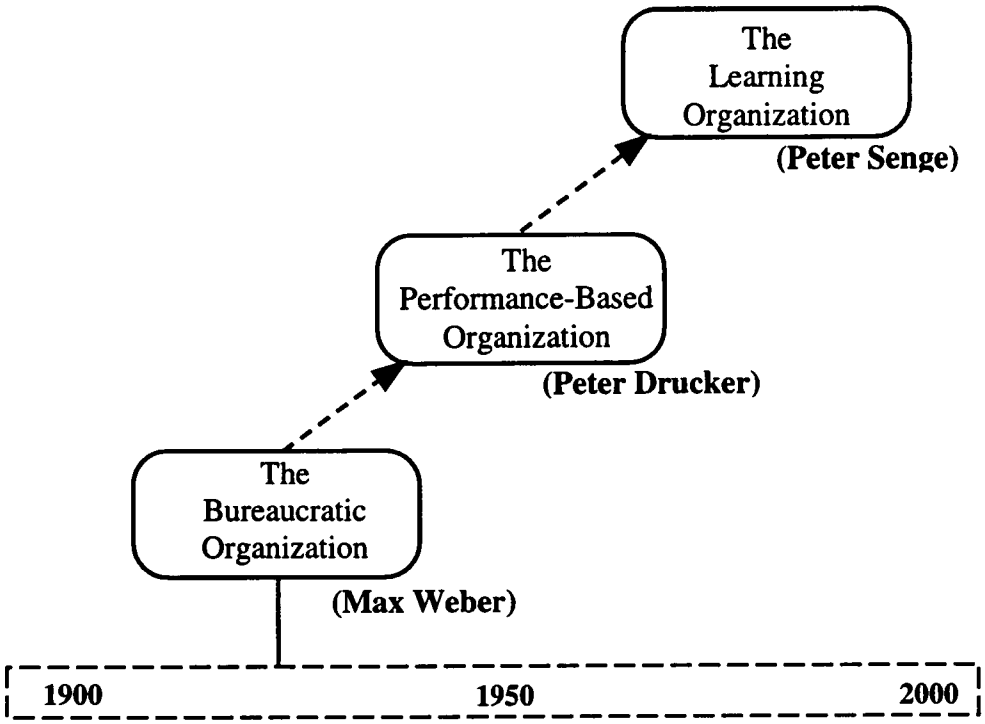
and the open-systems perspective discussed above, *inter-organizational relationships* (IORs) are a form of organizational response to environmental complexity, dynamism and uncertainty.

While establishing IORs is one mode of coping with environmental uncertainty, 'scanning' the organization's environment is another (Daft *et al.* 1988). Senior executives are constantly engaging in scanning activities, i.e. seeking information that will assist them in understanding their environments and making the right decisions. As Ginsberg (1994: 156) states, top management and strategic decision-makers rely on mental models and cognitive maps to organize complex issues and phenomena. The information they extract from the environment is often filtered into simplified sets of categories and constructs. Research also indicates that not only does such scanning increase when executives perceive greater environmental uncertainty, but they also use a wider array of scanning methods (Daft *et al.* 1988). In order to survive, organizations must adapt to their environment (Hambrick 1982; Daft *et al.* 1988) – *i.e.* organizations must *learn* how to survive: *learn* through scanning activities and *learn* from inter-organizational relationships (IORs). This is what makes *inter-organizational learning* critical. Research indicates that when the organization's goal is performance, long-term survival and growth then it is

imperative that the organization 'fits' into its environment, and in order to do so it must first *learn* about its environment (Fiol and Lyles 1985). Hitt's (1995) description of the evolution of new organizational paradigms (Figure 1-1) reflects this linkage between organizational structures and organizational learning.

According to Hitt (1995), the early form of organization was typified by Max Weber's *Bureaucratic* organizational perspective – an organization governed by rationality and efficiency. In the 60s a paradigm shift then occurred to a structure best described by Peter Drucker's *Performance-based* organization. Today, Hitt (1995) argues, organizations are best served if they adopt Peter Senge's *Learning* organization paradigm. These three paradigms, Hitt (1995) states, are differentiated by their varied emphasis on efficiency ("doing things right"), effectiveness ("doing the right things"), and learning ("continually expanding an organizations' capacity to do the right things, right").

The learning perspective views organizations as processors of information, whose response (or lack thereof) is determined by the processing outcome.



Source: Hitt, William D., (1995). "The Learning Organization: Some Reflections on Organizational Renewal," *Leadership & Organization Development Journal*, v. 16, no. 8, p. 18.

Figure 1-1 Organizational Evolution

There are several elements that are critical to this learning process. Scanning and interpreting are two of them. These and other characteristics (discussed in detail in Chapter Two) of the learning process in turn affect the organizations' (or individuals') knowledge base, its values, beliefs, norms, its 'theories-in-use' (Argyris and Schön 1978), and it routines or standard operating procedures.

With regards to learning capabilities, Lewis (1990: 64) states:

> Companies that learn faster than others can move farther ahead even when information flows are balanced. Increasingly, learning is a core strength worthy of substantial attention.

Similarly, according to Osland and Yaprak (1995: 52), global competitiveness depends on an organization's receptivity, efficiency and absorptive capacity in organizational learning. Simonin and Helleloid (1993) concur that learning within an IOR enhances 'collaborative know-how.'[2] However, they state that since each firm has its own "administrative heritage or organizational routines" (Simonin and Helleloid 1993: 223), the manner in which firms process information and react to the same situation will vary.

---

[2] Simonin and Helleloid (1993) describe collaborative know-how as the knowledge to search, negotiate, manage and terminate an IOR effectively and efficiently.

Hence viewing IORs through an 'organizational learning lens' may be the best way to understand them. In fact, many of today's researchers are already using this perspective (Dodgson 1993; Hamel 1991; Inkpen and Crossan 1995; Lyles 1988; Osland and Yaprak 1995; Parkhe 1991; Pucik 1988; Simonin and Helleloid 1993):

> When seen in a learning context, a host of issues about joint venturing activities may be better understood by both the researcher and the practitioner.
>
> – Lyles (1988: 85)

At this point, a word of caution is necessary. Learning does provide a source of competitive advantage. Those who learn faster – whether they are individuals, groups, firms, or nations – do have an advantage. Whether they also *use* it to their advantage is a different matter. Thus companies, especially those that look for magical solutions to problems, need to *understand* what learning is all about before they embark on a learning 'venture'.

> Along with *Total Quality Management* and *Process Reengineering*, organizational learning has become a buzzword.
>
> – Senge (1994: 11)

The purpose of the current research is to investigate strategic, inter-organizational relationships established for logistics purposes. The conceptual model shown in Figure 1-2 serves as a broad, overarching framework for the study. As seen, this model combines the two elements critical to IOR

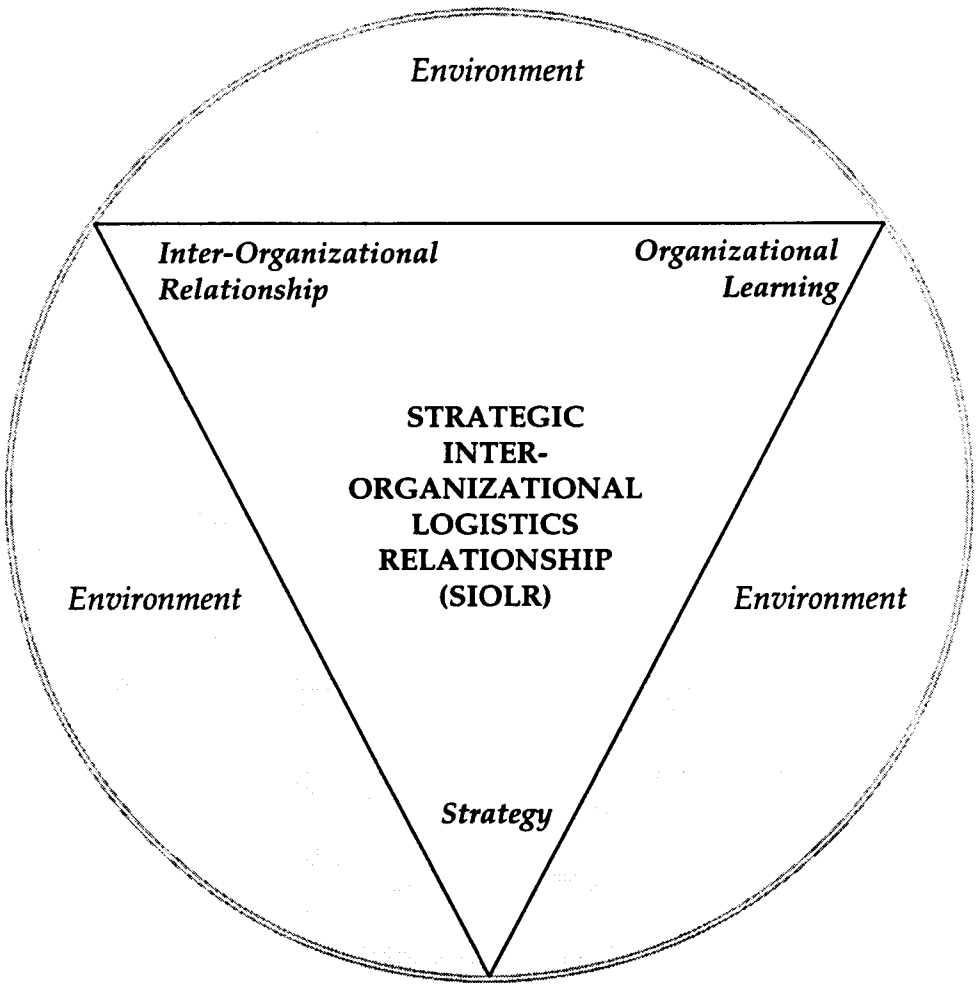


Figure 1-2 Conceptual Model Of Strategic Inter-Organizational Logistics Relationships (SIOLRs)

understanding and success – the environment plus an organizational learning perspective. Specifically, the study attempts to address the following question:

Can strategic inter-organizational logistics relationships (SIOLRs) be described more effectively from an Organizational Learning perspective?

1.2 *Overview*

> In all industries, in every nation, firms have gained real power through cooperation ... We have entered the age of strategic alliances.
>
> – Lewis (1990: xi)

A growing concern of today's business executives is the increasing volatility of their organization's environment. Accelerating globalization, intensifying competition and rapidly changing technology are some of the factors contributing to this environmental complexity and uncertainty. In order to manage these turbulent environments, inter-firm collaborations are becoming more and more pervasive. Terms such as strategic alliances and partnerships are no longer sacred – in fact, they may be a key to survival (Gooley 1993).

Collaborative efforts have been a part of human evolution throughout history. Instances of such efforts are seen in the fields of politics, religion, sports, war,

education, journalism and business. In the past decade alone, the business field has witnessed a phenomenal growth in the number of collaborative ventures (Hergert and Morris 1988; Park 1992) and research indicates that this trend is expected to continue well into the next millennium (Harrigan 1987). By the year 2000, inter-organizational relationships could be the dominant form of industrial organization (Achrol, Scheer and Stern 1990) as well as the focus of functions such as logistics management (Mentzer 1993). According to a report by David Ernst and Joel Bleeke of McKinsey & Co., the number of ventures between U.S. and international firms has been growing at the rate of 27 percent annually since 1985 (Sherman 1992). Another report, published by the Conference Board (Hart and Garone 1994), anticipates growth in nearly every form and type of inter-firm relationship. While the largest increase (approximately 25 percent) is expected in marketing alliances, increases of 3 percent in mergers, 6 percent in joint ventures, 8 percent in acquisitions and 9 percent in limited partnerships are also anticipated.

The phenomenal growth in IORs – ranging from R&D consortiums to joint ventures and from symbiotic cooperation to competitive collaboration – can be attributed to several motives. They may be used to cope with rapid changes in the firm's external environment (Park 1992) or to share the rising R&D costs of

rapidly changing technology (Ring and Van De Ven 1992). In other instances, alliances circumvent increased competition (Lorange and Roos 1992; Ring and Van De Ven 1992) or provide access to new markets (Day 1995; Varadarajan and Cunningham 1995). Other motives often cited are meeting higher consumer expectations for products and services, and the increasing demands of stockholders, accessing scarce resources, and shifting from a quality focus to a responsive and flexible orientation (Alter and Hage 1993). Furthermore, either a single objective or a multiplicity of interrelated objectives may be the driving force behind an organization's decision to establish an alliance. A survey of 350 CEOs showed the most important drivers to be market share (17.1 percent), geographical expansion (16.5 percent), marketing synergies (14.1 percent), technology sharing (12.2 percent), and vertical integration (less than 5 percent) (Hart and Garone 1994). Figuratively put, IORs are "fundamentally a tool for gaining competitive advantage" (Day 1994: 297). Pragmatically speaking, alliances are "a fact of life in business today" (Kanter 1994: 96).

A critical question, however, is "*are such inter-organizational relationships working?*" According to Geringer and Herbert (1991), they are apparently not very successful. Levine and Byrne (1986) report that independent studies by McKinsey & Co., and Coopers & Lybrand found failure among 70 percent of all

partnerships they surveyed. Similarly, half of the sample Harrigan surveyed (Harrigan 1986) and a third of Franko's (Franko 1971) failed too. Stafford (1994) reports that a study conducted by Rubicon Group International on Silicon Valley firms partnering with Asian companies found 95 percent of those surveyed failed to meet their objectives. "[T]wo-thirds of the organizations claim to be less profitable after joint venturing, and more than sixty percent declare their operating expenses have changed for the worse" (Stafford 1994: 64).

Evidence also points to a disparity in rates of failure among the different types of alliances. While some forms of IORs are more successful, others are more prone to failure. For example, in a study of international strategic alliances, Hart and Garone (1994) found that acquisitions were the most successful type of IOR. Slightly over 60 percent of the American, European, Canadian and Mexican ventures they surveyed succeeded.[3] There is some evidence that "equal" (or 50:50) partnerships have a higher success rate (Bleeke and Ernst 1993), but some researchers disagree. According to Ohmae (1987: 59-60), for

[3] Note: when Mexican examples were excluded from the sample, the majority of alliances, of *any* type, had 50 percent or less chance of success.

example, "Emotions (and partners) can never be bought with a controlling majority".

The staggering failure rates presented appear to be paradoxical. On the one hand, strategic alliances are being used with greater frequency than ever before. According to one source, as many as 20,000 alliances were established by U.S. companies between 1988 and 1992 alone (Day 1995), and this pace is expected to continue well into the 21st century. Overall, alliances are deemed essential and crucial for businesses to survive. On the other hand, most strategic alliances fail to achieve their objectives. Many are terminated ahead of time and the firms involved bear substantial "out-of-pocket costs" (Day 1995) in the process. The alliance may even result in the appropriation of a firm's unique competencies. This is most likely in the case of competitive collaborations. While in some cases erstwhile collaborators part under friendly terms (example: the alliance between Vitro and Corning), in others the partners split with bitter experiences (example: Coors and Molson). "Dilbert's" views (Figure 1-3) and the following reflect the deep skepticism businesses and practitioners have

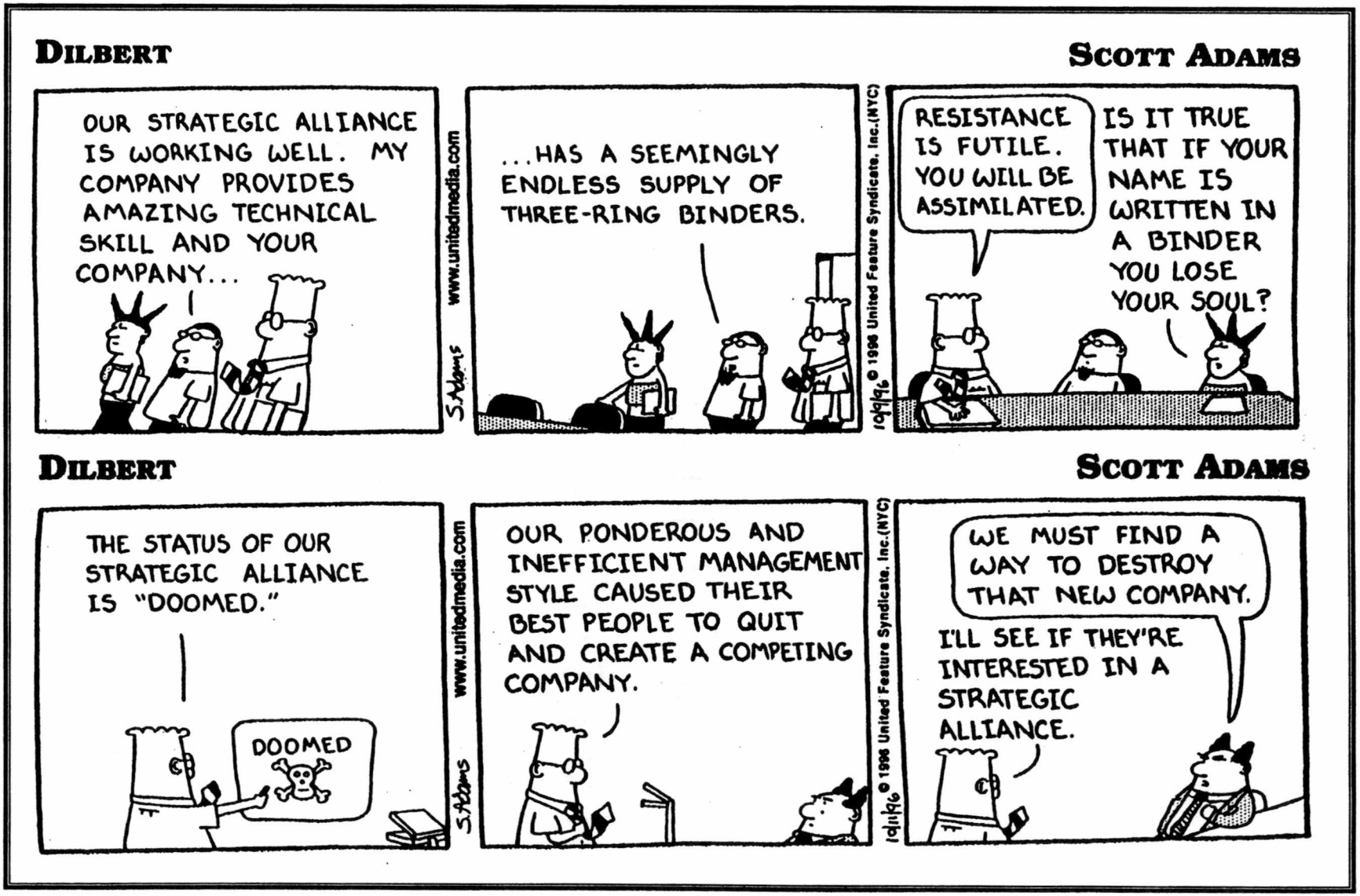


Figure 1-3 "Dilbert's" Views On Strategic Alliances

DILBERT reprinted with permission of United Feature Syndicate, Inc.

about strategic inter-organizational relationships (Savona 1992: 48-49):

> The first law of joint ventures: They don't work
> – William Krivsky, VP & CFO, Bird Corp

> Joint Ventures often are sort of a "Hail Mary" into a foreign market
> – Daniel Schwartz, MD, Ulmer Brothers Inc.

> Fishing is still more art than science. It is a description one might often apply to international cooperative ventures...
> – Dave Savona

1.2.1 Logistics Alliances

> ...carriers building global logistics capability increasingly will use joint ventures and partnerships instead of mergers and acquisitions as they realize they do not have to own all the resources to provide door-to-door service
> – Richardson (1991: 31)

Many consider logistics as the 'next frontier' of competitive advantage, and logistics alliances thus are crucial to achieving this advantage. Logistics and supply chain issues are some of the most hotly discussed and researched topics in today's business and academic environments. While some companies like Becton Dickinson (Bonnoy 1994) are increasing their competitive advantage by excelling in logistics and supply chain management, others are reaping the benefits of strategic, inter-organizational logistics relationships. The latter especially are realizing that when they team up with their logistics service

providers, a 'win-win' situation is being created for everyone involved – including the final consumer (Bowersox 1990).

More than a decade ago, while assessing the evolution of the logistics concept and discussing its implementation strategies within the firm Langley (1986) had, very accurately, predicted that firms would place greater strategic emphasis on logistics in the future. A few years later he again forecasted that the micro-computer would grow in importance to the field of logistics (Langley, 1988). Soon, with fewer areas being available to companies where they could differentiate themselves and create competitive advantages, logistics began to on a new meaning. Where once customer service and value were viewed as strictly operational, it was seen as a strategic offering. This shift in strategic focus and the increased dedication of resources to logistics related activities is highlighted by Langley and Holcomb (1992) who studied the integrative aspects of logistics within the firm, and the critical nature of partnerships in generating overall customer value. They note that logistics is indeed a "suprasystem" that firms need to focus on if they were to be customer and service conscious. The field of logistics and logistics related activities had finally come to take on the importance once predicted.

While this concept of aligning with providers of logistics services is not new, it has become the focus of academic research only recently. For instance, an example of a "logistics alliance" is found as early as the Punic Wars of 218 BC, when the Carthaginian general Hannibal took his infantry and cavalry across the Alps. According to Jenkins (1995), the real hero was the "logistics partner" who supplied Hannibal with 37 elephants, and thus the means, to cross the Alps. Synonymous with today's business practice of outsourcing, Hannibal outsourced the transportation aspect to a logistics 'partner', while he concentrated on his core competency – military tactics (Jenkins 1995). Similarly, alliances between Toys "R" Us and American President Companies, IBM and Airborne Express, Chrysler Corporation and the Harper Group, and J.B. Hunt and Santa Fe reflect such tendencies – each partner brings to the relationship its own set of core competencies that *when combined, benefit both sides.*

Traditional buyer-seller behavior has often been adversarial in nature. Factors such as power and coercion have influenced many outcomes. For instance, large buyers of services traditionally rely upon a large supplier base. In such situations, suppliers are pitted against one another, to the benefit of the buyer. Decades of an eroding market share have forced U.S. businesses to look more closely at Japanese firms, who seemed to be doing better with fewer suppliers.

In contrast to an adversarial buying approach, the Japanese have been allying themselves with their suppliers, and thus sharing both the risks and the benefits of those alliances. This approach allows all parties to the alliance to have better control over product flows, at lower costs and with higher quality results. It was with this strategic competitive advantage that the Japanese gained a greater market share and consumer approval. Although such logistics relationships were virtually unheard of two decades ago, they are now becoming a desired way of lowering logistics costs and increasing customer satisfaction in the United States as well (Bowersox *et al.* 1992).

One example of a logistics relationship is that between American President Companies (APC) and Ford Motor Company. APC coordinates all the information, transportation, and inventory handling necessary to pick up parts and components from vendors and then sequence load them into containers for delivery on a Just-in-Time (JIT) basis to Ford's plant in Hermosillo, Mexico. The movement includes coordination over four railroads and with Mexican customs officials for delay-free clearance. Other logistics alliances include the warehouse venture of Lever Brothers and Distribution Centers, Inc., Schnieder National and 3M (Minnesota Mining & Manufacturing) Company, and the logistics network established by American President Companies and Union

Pacific Railroad to support R. H. Macy's garment movement operations (from the Pacific Rim countries to the warehouses in the U.S).

Logistics relationships are not limited to the domestic scene only. Regarding the international environment, Linda Darr of the American Trucking Association notes that "...one of the most effective ways to gain entry (into the European market) is to form strategic alliances" (Mitchell 1992). Many of North America's largest Less-than Truckload (LTL) motor carriers are adopting this approach. In the last several years, at least six of the largest haulers have announced single-source, door-to-door service to Europe, and nearly all of them rely on a European-based partner to handle the foreign operations of the movement. Con-Way Intermodal (CWI), a subsidiary of Consolidated Freightways Corp., has partnership agreements with trucking companies and freight agents in twelve countries, providing services between CWI's principal gateway in Rotterdam and the inland destination/origin. Triple Crown Service (TCS) is the product of a joint partnership between Norfolk Southern and Conrail. Santa Fe is actively involved in establishing relationships with Mexican carriers and has a successful partnership with Ferrocarriles Nacionales de Mexico (Krebs 1992). U.S. carriers are discovering the advantages of partnership with their Mexican counterparts, offering seamless cross-border

service (Bowman 1991). Transportation companies like Southern Pacific Lines (SP) are developing expanded strategies to develop partnerships with Mexico (Mohan 1992). Since the ratification of NAFTA (North American Free Trade Agreement), most carriers are exploring new routes and forging partnerships to ease cargo movement; shippers' increased emphasis on seamless cargo movement and an anticipated rise in freight volumes recently spurred American President Lines (APL) to form a Mexican subsidiary, APC de Mexico. APL and its affiliate APL Land Transportation, have also contracted with Union Pacific Railroad and Ferrocarriles Nacionales de Mexico to run six weekly stack trains for full Truck Load (TL) shipments between Mexico City area and the U.S. CF Motor Freight's new 'Mexico Plus' program (a partnership with one of Mexico's larger motor carrier) is yet another example (Ross 1992).

1.2.2 A Prefatory Note on Terminology

The terms 'Strategic Alliance,' 'Partnership' and 'Inter-Organizational Relationship' often are used interchangeably. For example, strategic alliances are defined as relationships that are established by members who do not belong to the same distribution channel (Varadarajan and Rajaratnam 1986; Cravens,

Shipp and Cravens 1993), or as "formal long-term relationships between two or more firms ... (which) links some aspect of the firm's business toward a common end, and includes sharing information and risks and rewards of the relationship" (Ellram 1990). While Cravens *et al.* (1993) specifically differentiate between strategic alliances and joint ventures, there are others who include joint ventures as a form of strategic alliance. Using the network perspective, Alter and Hage (1992) define alliances as relationships that are made while taking into account four main criteria: willingness to cooperate, need for expertise, need for financial resources and sharing risks and need for adaptive efficiency. Rinehart (1992) defines partnerships as a form of strategic alliance in which parties acknowledge interdependence and establish a mutual working relationship to achieve joint objectives. Recently, while discussing the many "facets" of strategic alliances, Varadarajan and Cunningham (1995) suggested that the term may be a form of "umbrella" for different types of inter-firm relationships such as symbiotic marketing, business alliances, strategic networks, collaborative agreements and corporate linkages.

While the literature review in Chapter Two discusses several of the studies mentioned earlier and highlights the definitional confusion that currently exists, in this work I use the term 'inter-organizational relationship' as an

umbrella term for all types of relationships: except mergers and acquisitions and spot-market transactions. Thus the term includes joint ventures, strategic alliances, partnerships, contractual agreements and supplier agreements. I also have incorporated a "watered-down" version of Varadarajan and Cunningham's (1995: 284) views of what it takes for an IOR to be *strategic:*

> Because the purpose of strategy is to achieve sustainable competitive advantage, an interorganizational partnership can realistically be viewed as a strategic alliance *only if* [the emphasis is mine] it would enable the cooperating firms to achieve a competitive advantage in the marketplace.

In this study, I define *Strategic IORs* as "any form of inter-organizational relationship between firms (excluding complete mergers and spot-market transactions) in which the firms involved *derive some form of competitive advantage* from that relationship." Thus, the definition proposed in this study differentiates clearly between strategic and non-strategic IORs. Also, this definition is broader than those offered by many others, yet specific enough to exclude complete internalizations (mergers and acquisitions), and single transaction or spot-market exchanges.

I also distinguish between horizontal and vertical relationships. On the one hand, strategic IORs could exist between firms whose "primary economic commitment is to the same set of value chain activities" (Varadarajan and

Cunningham 1995: 284). Examples of such horizontal or "competitive collaborations" include ventures between Dodge and Mitsubishi, Ford and Mazda, and Wal-Mart and Dillards. On the other hand, when primary economic commitments are to adjacent stages of the value chain, and involve either backward or forward cooperative arrangements (Day and Klien 1987: 40), the relationship is vertical. Examples of such arrangements include many of the traditionally discussed buyer-seller and supply chain arrangements (Saturn and Ryder or IBM and Airborne Express). Vertical, strategic IORs, in which at least one partner is a logistics or transportation services provider – i.e., strategic inter-organizational logistics relationships (SIOLRs) – are the focus of my study.

1.2.3 Research Outline

Literature Review

I reviewed literature from Strategic Management, Marketing, and Logistics and Transportation. Topics reviewed include definitions, concepts, characteristics and processes of various inter-organizational relationships including strategic alliances, joint ventures and partnerships. Many theoretical frameworks have been used to describe such relationships: *Transaction Cost Economics* (Park 1992;

Parkhe 1993b; Sengupta 1990; Williamson 1975, 1980), *Population-Ecology* (Aldrich 1979; Carroll 1984, 1988), *Political Economy* (Benson 1975), *Resource Dependency* (Hallen, Johanson and Mohamed 1991), *Game Theory* (Axelrod 1984; Nielsen 1988; Parkhe 1993a), and *Contingency Theory* (Fawcett and Closs 1993). In some cases, two or more theories have been combined to either build a theory (Parkhe 1993a) or develop models describing strategic alliances (Alter and Hage 1992; Fawcett and Closs 1993). However, as I will show, only recently has IOR research begun to explore the cognitive and behavioral implications of organizational learning on strategic alliances (examples: Lyles 1988; Inkpen and Crossan 1995; Osland and Yaprak 1995; and Pucik 1988). It is *this* perspective that I believe holds the greatest potential.

A review of organizational learning issues follows. The review presented in Chapter Two indicates that more theoretical development is needed before any empirical validation is attempted. However, the reviews stop short of presenting explicit propositions or hypotheses to pursue. This is done in order to minimize the influence of prior biases – a critical aspect in light of the methodology being proposed.

Methodology

The conceptual model presented in Chapter One (Figure 1-2) is a simple representation of my understanding of the IOR process. The literature review that followed it is largely supportive too. This model, however, was *not* derived from experimental or field data. Thus, through a process of inquiry and research, I expect this model to change. As my understanding of the issue evolves and my analysis of the data continues, elements may be added, deleted, complemented, revised and/or substituted. My intent is to allow the final model to evolve iteratively and naturally.

This study attempts to build theory in the field of Logistics and Transportation; a discipline in which theory is severely lacking (Mentzer and Kahn 1995). It is intended to provide a theoretical rationale for several phenomena that clearly need explication. The flexibility needed for this kind of exploration is only afforded through the use of one of the several qualitative methodologies available (described in Chapter Three). Of several possible approaches, the ones that have influenced mine most are: the *Grounded Theory* method developed by Glaser and Strauss (1967); the *Case Study* method described by Yin (1994) and Bonoma (1985); and the use of *Case Studies to Generate Theory*

proposed by Eisenhardt (1989). The actual procedures also incorporate the recommendations of Patton (1980). The unique nature of the current study necessitates this approach since no one method is adequate. While all these methods have some common features, their underlying philosophies are distinct enough to differentiate them. Chapter Three describes each method briefly, and presents the methodology I have adopted.

Data Analysis and Results

Chapter Four presents a detailed analysis of the data. The theoretical model of strategic, inter-organizational logistics relationships, or SIOLRs, is methodically and systematically developed, by piecing together information, data and evidence from the interviews. By the end of this chapter a solidly grounded, rigorous model is presented. Finally, in Chapter Five conclusions are drawn, several propositions are made, and both managerial and academic implications of the research are described. Limitations and strengths of this study and directions for future research complete this chapter.

1.3 *Conclusions*

Few have addressed the failures of inter-organizational relationships such as joint ventures and strategic alliances (Park 1992). However, the rationale for, the processes and the outcomes of IORs have been studied by many, including Kogut (1988a, 1988b), Harrigan (1988a, 1988b), Borys and Jemison (1989), Geringer and Herbert (1991), Niederkofler (1991), Bronder and Pritzl (1992), Lei and Slocum (1992), Parkhe (1993a, 1993b) and Varadarajan and Cunningham (1995). Despite the abundance of studies in the past two decades we still do not have a good understanding of this phenomenon. Definitions are confusing, terminology is inconsistent and the theoretical perspectives offered are sometimes contradictory. Definite, however, is the consensus that most IORs are not performing satisfactorily. This situation presents a rather interesting paradox: the almost certain failure of a strategic initiative deemed to be necessary to generate competitive advantage in the market place. While it may be an extremely expensive issue for companies, it *is* an intriguing one to academicians. Thus, it is natural that the issue of inter-organizational relationships be *revisited* and perhaps studied from a different perspective. Indications are that organizational learning and inter-organizational learning may hold the key to explaining IORs better. As seen earlier in this section the

organizational learning perspective has been fruitful in the past. It provides valuable insights into the dynamics of organizations' thinking, behaviors and actions – aspects that are all critical to IOR success.

In an age when companies are looking for *any* kind of competitive tool, logistics and logistics-related functions seem to hold the key; hence its choice for my research. At a time when globalization continues at a rapid pace and firms are reevaluating their approaches to global competition, the development, maintenance and success of competitive strategies such as strategic logistics relationships (SIOLRs) could be crucial to businesses. This study is intended to provide a framework grounded in a perspective that could prevent organizations from flying into the proverbial 'candle of disaster'

> There are among us those human moths who forever fly back into the same candles of disaster (Revans 1982: 495)

To the academician, this study attempts to fill a critical gap in our understanding of the phenomenon and may open several new avenues of research.

CHAPTER 2: Literature Review

2.1 *Overview*

The literature review is divided into four major sections. Section 2.2 studies several prominent works on inter-organizational relationships (IORs)[4] in detail. Definitions and terminology are reviewed, structural underpinning and IOR characterizations are examined, determinants of IOR strategy are identified, and a synthesis of the review is presented. The concept of "strategy" is clarified in this section.

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[4] Clarification on the usage of the terms IOR, IOLR and SIOLR:
Inter-Organizational Relationships (IOR): Is used when generally describing any type of inter-organizational relationship. Hence, in Chapter 2 especially, 'IOR' will be used widely in the initial stages. This term will also be used if the original reference/citation includes it as such.
Inter-Organizational Logistics Relationships (IOLR): This abbreviation is coined by me, and thus will be used when I refer to *logistics* relationships evolving from my study or through my discussions.
Strategic Inter-Organizational Logistics Relationships (SIOLR): This term will be used to differentiate *strategic* IOLRs from *non-strategic* IOLRs.

In Chapter One it was mentioned that there is a large body of knowledge dealing with concepts such as learning and organizational learning. However, there is very little research on learning *between* organizations and literally none on learning between vertically related organizations – as is the case in most logistics relationships. In Section 2.3 I present some of this literature on learning and organizational learning and in Section 2.4 I discuss the literature that addresses learning issues *between* firms. Finally, in Section 2.5 the reviews from sections 2.2, 2.3 and 2.4 are integrated. However, this integration stops short of making any *a priori* predictions on the nature of a more specific model than the conceptual one shown earlier in Figure 1-2. Hence, the literature I reviewed is presented as an exposition of my understanding of the issues at hand; namely inter-organizational relationships, strategy, and inter-organizational learning.

2.2 *Inter-Organizational Relationships (IORs)*

According to many of today's managers, terms such as "strategic alliances" and "partnerships" are overused buzzwords (O'Brien and Tullis 1989). Levine and Byrne (1986) even scoff at such usage: "In simpler times these liaisons were

called joint ventures. They've got a fancy new name now – 'strategic alliances' – and everybody seems to want one" (p. 100). Some managers however are not as skeptical. Mariotti (1996) notes that, "In the euphoria over strategic partnering, the concept is sometimes misunderstood. Partnership can be an extremely overused word...It's gotten to the point that if a vendor and buyer split a lunch tab, they call it a strategic partnership. True strategic partnerships, however, go way beyond the traditional relationships between buyer and seller"(p. 78). Finally, there also are those firms that are involved in such relationships to whom strategic alliances are for real, are good and are here to stay (Gooley 1993; Vyas, Shelburn, and Rogers 1995). There *is* a wide disparity in our understanding of this phenomenon, and a need for clarification – especially given the growing infatuation with IORs. It would be useful to have a clearer understanding of the terminology and processes pertaining to IORs.

2.2.1 IOR Definitions & Terminology

A review of the literature will support Stafford's (1992) assertion that there are several disagreements and inconsistencies in the literature on inter-organizational relationships (IORs). Even defining and categorizing IORs is

inconsistent. For example, Varadarajan and Rajaratnam (1986) and Adler (1966) do not agree on how to categorize mergers and acquisitions (M&As). Tyebjee (1988) contends that joint ventures (JVs) do not necessarily require the establishment of a separate entity while Harrigan (1986) insists that they do. And Cravens, Shipp, and Cravens (1993) *exclude* vertical, distribution-channel relationships from their category of strategic alliances. Strategic alliances, they claim, are relationships between manufacturers, and not between buyers and sellers. To add to this lack of consensus (Simonin 1991), terms such as strategic alliance, partnership and joint venture are often used interchangeably (Cravens, Shipp and Cravens 1993; Stafford 1992).[5]

Levine and White's (1961) classic study views IORs as systems facilitating exchanges between organizations in *need* of resources – resources that are

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[5] In addition to the terms joint venture, strategic alliance and partnership, there are several other popular terms describing IORs: coalitions (Porter and Fuller 1986), hybrids (Powell 1987; Borys and Jemison 1989), symbiotic marketing (Adler 1966; Varadarajan and Rajaratnam 1986), domesticated markets (Arndt 1979), collaborative agreements (Hergert and Morris 1988), co-marketing alliances (Bucklin and Sengupta 1993), co-partnerships (Buckley and Casson 1988), competitive alliances (Business International Corporation 1987), networks (Benson 1975; Thorelli 1986; Jarillo 1988), good business relationships (Cooper and Gardner 1993), strategic partnerships (Doz and Prahalad 1987; Gentry 1993), transorganizational strategic alliances (Achrol, Scheer, and Stern 1990), strategic supplier partnering (Hendrick and Ellram 1993), symbiotic logistics (Mitchell, LeMay, Arnold, and Turner 1992) and supplier partnerships (Poirier and Houser 1992; Ellram and Krause 1994).

scarce *and* essential – for attaining goals and objectives. They assert that such IORs should be strategically conceived, keeping in mind the 'shadow of the future' (Parkhe 1993a).[6] In other words, companies should look beyond the "gratifications of the immediate present" (Levine and White 1961: 588) and look at long term benefits. Broad definitions of strategic alliances that express similar views include:

> [A]ny relationship between companies involving a sharing of common destinies (Vyas, Shelburn, and Rogers 1995: 47)
>
> An alliance can be defined as any structure that is more than a standard customer-supplier relationship or a venture capital investment but falls short of an outright acquisition (Business International Corp. 1987: 21)

While these definitions are not too specific, they do highlight certain characteristics of strategic IORs: (1) strategic IORs are *not* 'standard' (Business International Corp. 1987), (2) they have *future implications* (Levine and White 1961), and (3) they involve a *sharing* of 'common destinies' (Vyas *et al* 1995).

There are narrower definitions too. For example, Devlin and Bleackley (1988)

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[6] Future expectations from a continued interaction affects the likelihood of continued cooperation by encouraging strategic reciprocity. Thus, "the future casts a shadow back upon the present, affecting current behavior patterns" (Parkhe 1993a: 304).

state:

> Strategic alliances take place in the context of a company's long-term strategic plan and seek to improve or dramatically change a company's competitive position (p. 18).

This definition marries two critical concepts: (1) strategic alliances need to fall *within* the company's broader strategic initiative and (2) their *intent* should be to generate a *competitive advantage*. In other words, *strategic* alliances are crafted with care and diligence; they are intentional and not accidental. Strategic alliances also are long-term relationships.[7] Bronder and Pritzl (1992), Harrigan (1988a) and Varadarajan and Cunningham (1995) use definitions that similarly describe strategic alliances as being "competitive advantage seeking."

Rinehart's (1992) descriptions of strategic alliance and his definition of partnership are derived from a logistics context. He states that partnerships are a form of strategic alliance in which parties acknowledge interdependence and establish a mutual working relationship to achieve joint objectives. The definition is more specific than earlier ones and highlights the importance of characteristics such as *compatibility, mutuality,* and *interdependence* –

---

[7] While 'long-term' does not refer to any specific length of time, it is generally accepted that it exceeds the duration involved in market- or arms-length transactions (Root 1988). Kalwani and Narayandas (1995) choose six years to define 'long-term' in their study.

characteristics reiterated in Mohr and Spekman's (1994) definition of partnerships:

> [P]artnerships are defined as purposive strategic relationships between independent firms who share compatible goals, strive for mutual benefits, and acknowledge a high level of mutual interdependence (p. 135).

Another definition which is useful from a logistics perspective is the one provided by Anderson and Narus (1990) on manufacturer and distributor working partnerships:

> [T]he extent to which there is mutual recognition and understanding that the success of each firm depends in part on the other firm, with each firm consequently taking actions so as to provide a coordinated effort focused on jointly satisfying the requirements of the customer marketplace (p. 42).

While Anderson and Narus' (1990) definition is limited to most vertical channel relationships, it is nevertheless indicative of the importance of *coordination* and *customer focus* for successful IORs. Yet another version pertaining to logistics and distribution channels is Ellram's (1990) definition: "...formal long-term relationships between two or more firms...(which) links some aspect of the firm's business toward a common end, and includes sharing information and risks and rewards of the relationship". Additional characteristics stressed in this definition are *sharing risks and rewards.*

IORs also have been defined as:

> ***Strategic Alliance***
> An arrangement for economic collaboration between firms at more or less the same level of distribution, involving an exchange of critical skills aimed at extending or buffering the core business strategy, technology, or markets of the partner (Achrol, Scheer and Stern 1990: 3)
>
> [W]hen value chain activities between at least two companies with compatible goal structures are combined for sustaining and/or achieving significant competitive advantages (Bronder and Pritzl 1992: 412)
>
> Interorganizational relationships where partners make substantial investments toward developing long-term collaborative efforts for meeting individual goals (Stafford 1992: 101)
>
> ***Transorganizational Strategic Alliance***
> A strategic alliance involving reciprocal functional interfaces between partners, and organized as a direct, boundary-spanning network of interfirm linkages (Achrol, Scheer, and Stern 1990: 3)
>
> ***Symbiotic Marketing***
> An alliance of resources or programs between two or more independent organizations designed to increase the market potential of each (Adler 1966: 60)
>
> ***Logistics Alliance***
> A close and long-term relationship between a customer and provider encompassing the delivery of a wide array of logistics needs (Bagchi and Virum 1996: 95)

The next few descriptions indicate how confusing the literature is on classifying various forms of IORs. In attempting to be clear and precise, Cravens, Shipp and Cravens' (1993) classification of IORs is perhaps the most confusing one of all. In their view, the relative position of alliance partners in the value chain is

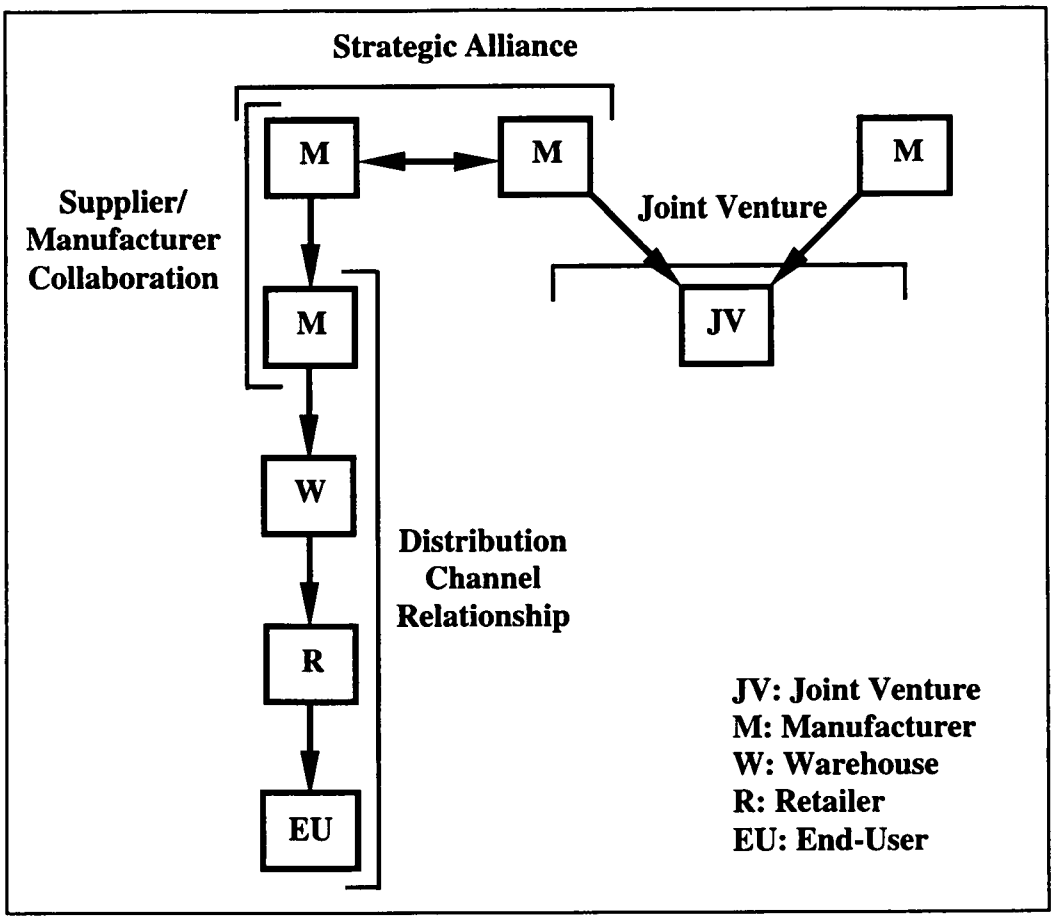
critical. They develop a conceptual framework (Figure 2-1) for classifying IORs and state that:

> [M]uch of the vertical channel research *cannot* [emphasis mine] be directly transferred to horizontal alliance relationships...designating collaborative channel relationships as *strategic alliances* in not appropriate...the concept of strategic alliances more appropriately describes a horizontal agreement between two or more organizations to co-operate to achieve one or more common strategic objectives (p. 56-57).

In her study, Harrigan (1988b) uses 'strategic alliance' as an umbrella term to include any form of inter-firm agreement, including joint ventures and cooperative agreements.[8] This broad treatment of all IORs as strategic alliances is confusing, since the earlier definition *explicitly* stated that these two forms of IORs (i.e. strategic alliance and joint venture) are *different* (Cravens *et al.* 1993). Parkhe's (1991, 1993a, 1993b) usage of the term strategic alliance also hints at excluding joint ventures:

> Strategic alliances are (the) relatively enduring interfirm cooperative arrangements, involving flows and linkages that utilize resources and/or governance structures from autonomous organizations for the joint accomplishment of individual goals linked to the corporate mission of each sponsoring firm (Parkhe 1993b: 795).

[8] A joint venture according to Harrigan (1988b) is a business agreement between two or more owners to create a *separate entity*.



Source: Cravens, Shipp, and Cravens, (1993). "Analysis of Co-operative Interorganizational Relationships, Strategic Alliance Formation, and Strategic Alliance Effectiveness," *Journal of Strategic Marketing*, (1), p. 57.

Figure 2-1 Interorganizational Relationships

The term "hybrids" is used by Borys and Jemison (1989) to describe IORs. Hybrids, they say are "organizational arrangements that use resources and/or governance structures from more than one existing organization" (p. 235). Examples of hybrids include mergers, acquisitions, joint ventures, license agreements and supplier arrangements – effectively covering most types of both 'horizontal' and 'vertical' IORs and contradicting once again the view of Cravens *et al.* (1993).

Thus, the confusion resulting from these seemingly contradictory classification systems highlights the importance of clearly establishing the relative position that collaborating firms occupy with respect to each other, *i.e.* do they occupy positions in the same value chain (non-competitive collaboration) or in different value chains (competitive collaboration)?

The next two definitions are in many ways different from the earlier ones and have had more influence on my research. Varadarajan and Cunningham (1995) provide the first one. Based on an in-depth analysis of the IOR literature, these authors suggest that strategic alliances can be structured in a number of ways.

They can be categorized as (Varadarajan and Cunningham 1995: 284).

(1) distinct corporate entities or distinct inter-organizational entities
(2) equity and non-equity alliances
(3) vertical and horizontal alliances
(4) finite ventures versus ventures that "exist in perpetuity," or
(5) operational versus strategic alliances

It is the last categorization that is especially important. Varadarajan and Cunningham (1995: 284) state

> Although interorganizational cooperation is a key facet of strategic alliances, this is by no means their only defining characteristic. Because the purpose of strategy is to achieve sustainable competitive advantage, an interorganizational partnership can realistically be viewed as a strategic alliance only if it would enable the cooperating firms to achieve a competitive advantage in the market place. As pointed out by Sheth and Parvatiyar (1992), the primary purpose underlying close cooperation between organizations could either be *strategic* (e.g. entry into a new product-market domain) or *operational* (e.g. streamlining operations activities such as automatic reordering and invoicing through electronic data interchange systems).
>
> ...Thus, although the terms "strategic partnership," "strategic partnering," and "strategic alliances" are sometimes used to describe close cooperation between manufacturers and retailers in areas such as the development of systems for electronic data interchange (EDI) and procedures for efficient consumer response (ECR), these relationships are operations oriented. They do not evidence important characteristics of strategic alliances such as exclusivity and nonimitability, and therefore cannot result in a sustainable competitive advantage.

In this definition Varadarajan and Cunningham (1995) strongly differentiate between *strategic* and *operational* alliances and emphatically state that the intent

of a strategic alliance should be to generate *sustainable* competitive advantage.[9] This definition complements much of the recent literature on strategic marketing (Hunt and Morgan 1995, Hunt 1995).[10]

In the second definition Lei and Slocum (1992) do not define IORs in traditional terms such as interdependence, mutual goals, longevity or compatibility. Instead, they describe alliances as "coalignments between two or more firms in which the partners hope to *learn* [emphasis mine] and acquire from each other the technologies, products, skills, and knowledge that are not otherwise available to their competitors" (p. 81-82). According to this definition, learning and knowledge are *the* critical dimensions.[11] The authors do not specify what type or form of IOR it should apply to.

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[9] Also addressed by Sheth and Parvatiyar (1992).

[10] Based on research coming mainly from strategic management Rumelt (1991) and Hunt and Morgan (1995) stress the importance of looking 'within' firms and business units for explanations of differential advantage. Rumelt's (1991) study found that 'firm effects' explained 46% of the variance in profitability, as opposed to the 8% due to 'industry effects.'

[11] While not explicitly stated, this definition raises several concerns. For example, while trying to generate competitive advantage for themselves, companies should be concerned with the possibility of losing proprietary knowledge, appropriation of core competencies, or being 'taken-over' – aptly captured by the old Chinese adage: One bed, different dreams.

Hence, if an example of a 'firm effect' is its *learning* capability, then any definition or conceptual development describing IORs should include a dimension reflecting the learning process between firms. Additionally, if this *inter-organizational learning* resulted in generating competitive advantages for the firms involved, then such IORs can be described as being *strategic*. Thus, *Strategic IORs* can quite simply be defined as

> any form of inter-organizational relationship between firms (excluding complete mergers and spot-market transactions) wherein the firms involved derive some type of competitive advantage from that relationship

When the positions these firms occupy relative to each other is in the *same* value-chain, then such IORs can be described as a *Strategic Inter-Organizational Logistics Relationships (SIOLRs).*

2.2.2 Strategy and IORs

Several authors have studied strategic alliances, joint ventures and other manifestations of inter-organizational relationships. Many theoretical frameworks have been used to describe such relationships: *Transaction Cost Economics* (Park 1992; Parkhe 1993b; Sengupta 1990; Williamson 1975, 1980), *Population-Ecology* (Aldrich 1979; Carroll 1984, 1988), *Political Economy* (Benson

1975), *Resource Dependency* (Hallen, Johanson and Mohamed 1991), *Game Theory* (Axelrod 1984; Nielsen 1988; Parkhe 1993a), and *Contingency Theory* (Fawcett and Closs 1993). In some cases, two or more theories have been combined to either build a theory (Parkhe 1993b) or develop models describing strategic alliances (Alter and Hage 1993; Fawcett and Closs 1993). Detailed literature reviews of these issues have been discussed earlier by other researchers, including Schermerhorn (1975), Van de Ven (1976), Laumann, Galaskiewicz, and Marsden (1978), Whetten (1981), Galaskiewicz (1985), Oliver (1990), and more recently by Varadarajan and Cunningham (1995). Thus, the literature reviewed here, refrains from presenting an in-depth analysis or synthesis of the various perspectives. Also, the earlier section has already established the need to clarify definitions and terminology. Therefore, a two-step approach is adopted instead: first the term *strategy* is briefly reviewed.[12] A case is made to incorporate an explicit understanding of this concept in IOR descriptions. Next, several IOR process models and perspectives are described. The intention is to

[12] Before reviewing some of the literature, it is important to understand the concept of *strategy* itself. In most IOR studies, especially those *not* originating from the management discipline, strategy is treated as a 'given' – especially if the IOR is described as having all the typical traits such as long-term implications, interdependence, commitment, importance, top management involvement, etc.

build support for *revisiting* the issue while highlighting the diversity in existing studies.

Fundamental Issues in Strategy

According to Rumelt, Schendel and Teece (1994), the birth of strategic management took place in the 1960s "against a background of tremendous ferment in organization theory" (p. 15). The 'ferment' they are referring to is the discontent of researchers with the use of conventional economic theories to explain strategy and strategic actions. Classical economic theories of business competition have traditionally ignored the role that managers and individuals play in the formulation and implementation of strategy. From Adam Smith to many of today's economists, the view of the firm is that firms are propelled solely by market prices. Economic theories assume that all firms have equal access to information and technology, that decisions are rational and predictable, and that all decisions are solely compelled by economic considerations (Rumelt *et al.* 1994). Managerial choice, institutional settings and arrangements, organizational structures and characteristics, and other similar issues were not considered – 'learning' was never even mentioned. As calls for more realistic approaches to strategy conceptualization and research grew, the

attacks on economic approaches increased. Henderson (1989: 8) states, "Their frame of reference is 'perfect competition,'" which is "a theoretical abstraction that never existed and never could exist."

In response to the need for better and more realistic conceptualization of strategy, three works emerged in the 1960s: Alfred Chandler's *Strategy and Structure* (1962); Igor Ansoff's *Corporate Strategy* (1965), and Andrew's text in the Harvard textbook, *Business Policy: Text and Cases* (Learned, Christensen, Andrews and Guth 1965). Additionally, authors such as March and Simon (1958), Cyert and March (1963), Burns and Stalker (1961), Thompson (1967), Lawrence and Lorsch (1967), contributed to the growth of the field in its infancy.

According to Rumelt *et al.* (1994), the 70s witnessed intense efforts to explain business performance in terms of strategy. The 'brewing studies' at Harvard and Purdue, and Porter's study of the performance-strategy relationship considered from an industrial organization (IO) economics perspective are examples (Rumelt *et al.* 1994). Porter's research (Porter 1980, 1985), and the 'Five Forces' model that subsequently emerged from it, is perhaps the most influential study of this period. It was a 'normative' theory of competitive

strategy in that it guided managers in making key strategy decisions and was thus 'intuitively appealing.'

However, there were several issues that continued to impact strategic management research. The 'theory of the firm' was continually being re-written. Long-held theories and doctrines were being questioned. For example, one study that questioned the validity of the industry-oriented basis of IO strategy is Rumelt's (1991) work. The author showed empirically that the variances in profitability are explained more by 'firm effects' (45-55%) and less by 'industry effects' (8-10%). Choosing which industry to compete in is therefore less strategic, while firm-specific competencies and factors such as resources that the firm owns or has access to are more critical. Of the many issues that affected research in strategic management, Rumelt *et al.* (1994) refer to the five principle ones as "five conceptual monkey wrenches" (p. 26): *uncertainty, information asymmetry, bounded rationality, opportunism,* and *asset specificity.* In an attempt to address or accommodate one or more of these critical issues, several perspectives have emerged. Some of these perspectives are *Agency Theory* (accommodates information asymmetry and opportunism), *Transaction Cost Economics* (based on bounded rationality, opportunism, and asset specificity), *Resource Dependence* (addresses uncertainty), *Game Theory*

(information asymmetry and asset specificity), *Evolutionary Economics, Organization Ecology, New Institutionalism,* and more recently the *Resource-Based View.* As discussed earlier in this section, several of these approaches have been used in the past to address IOR issues.

Of the several perspectives discussed above, the one that has received the most attention in the recent past, in both marketing (Varadarajan and Cunningham 1995; Hunt and Morgan 1995; Hunt 1995) and strategy fields (Penrose 1980; Teece 1982; Winter 1986; Barney 1991; Peteraf 1993), is the *Resource-Based View.* This new view of the 'theory of the firm' has attracted attention (Mahoney and Pandian 1992), since it addresses many of the concerns that have been stressed as crucial by strategy researchers (Rumelt 1991; Rumelt *et al.* 1994) and encourages "a dialogue between scholars from a variety of perspectives" (Mahoney and Pandian 1992: 363).

Strategy Defined

While different authors have defined strategy differently, a common thread flowing through most definitions is the idea that strategy involves some form of 'commitment' of resources for the 'long-term.' For example, Chandler (1962)

describes *strategy* as "...the determination of the basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying them out" (p. 13). Learned *et al.* (1965) suggest that strategy is a "pattern of objectives, purposes, goals, and major policies and plans for achieving these goals." Hofer and Schendel (1978) state that it is a "fundamental pattern of present and planned resource deployments and environmental interactions that indicate how the organization will achieve its objectives."

Andrews (1980) defines strategy as a "pattern of decisions in a company that determines and reveals its objectives, purposes or goals..." and Chakravarthy (1986) defines it as "the process through which managers ensure the long-term adaptation of the firm to its environment." Finally, on a lighter note, Weick (1987) states that strategy is "good luck rationalized by hindsight; a theory about the reasons for the past and current success of the firm."

Mintzberg (1991) tends to agree with the above notion of 'hindsight'

> Ask almost anyone what strategy is, and they will define it as a plan of some sort, an explicit guide to future behavior. Then ask them what strategy a competitor or a government or even they themselves have actually pursued. Chances are they will describe consistency in *past* behavior – a pattern in action

> over time. Strategy, it turns out, is one of those words that people define in one way and often use in another, without realizing the difference (p. 404).

Mintzberg's (1978) description of strategy consists of two main components:

(1) *Intended Strategy: a priori,* conscious and explicit process, and

(2) *Realized Strategy:* pattern in a stream of decisions.

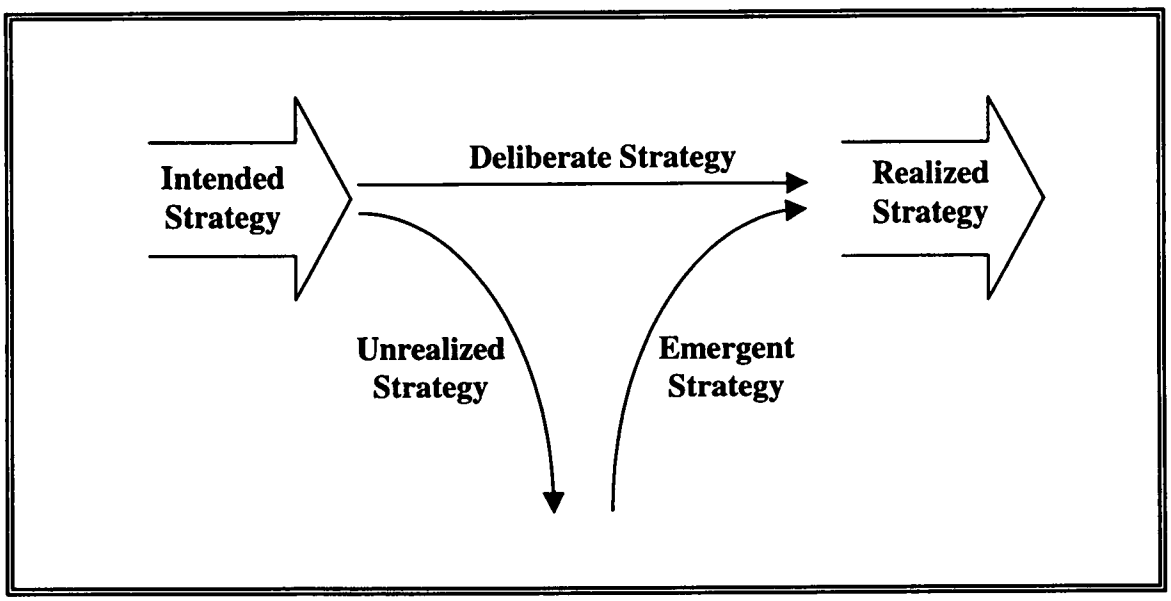
In a study of the strategies of Volkswagenwerk from 1920 to 1974 and of the U.S. strategy in Vietnam from 1950 to 1974, Mintzberg (1978: 945) identifies these two kinds of strategy, and then links them together using three other types of strategy (Figure 2-2):

(3) *Deliberate Strategies:* Intended strategies that get realized

(4) *Unrealized Strategies:* Intended strategies that do not get realized, perhaps because of unrealistic expectations, misjudgments about the environment, or changes in either during implementation, and

(5) *Emergent Strategies:* Realized strategies that were never intended, perhaps because no strategy was intended at the outset, or perhaps because, as in (4), those that were got displaced along the way.

Along with this typology, Mintzberg (1978) adds a footnote: strategy formation is a result of the 'interplay' between environmental dynamism and 'bureaucratic momentum' mediated by managerial leadership. Other important concepts that Mintzberg (1991, 1994) links to this typology of strategy



Source: Mintzberg, Henry, (1978). "Patterns in Strategy Formation," *Management Science*, v. 24, no. 9, p. 945.

Figure 2-2 Types Of Strategies

are *learning* and *control:*

> [W]e believe the strategy making process is better characterized as a process of learning – formation in the place of formulation (1994: 286).
>
> Purely deliberate strategy precludes learning once the strategy is formulated; emergent strategy fosters it ... [J]ust as purely deliberate strategy making precludes learning, so purely emergent strategy making precludes control ... Learning must be coupled with control (p. 409).
>
> Some of the most effective strategies we uncovered in our research combined deliberation and control with flexibility and organizational learning (p. 411).

Similarly, Makridakis (1990) reinforces the connection between strategy making, environmental changes and appropriate organizational responses.

> Strategy...should not change at the first sign of difficulty. A fair amount of persistence will be required to get beyond difficulties and problems. On the other hand, if substantial environmental changes are occurring, if competitors' reactions have been misjudged, or if the future is turning out contrary to expectations, strategy must be modified to take such changes into account. In other words, strategy must adapt: it better follow a side alley that leads somewhere than to finish at a dead end (p. 173).

This statement by Makridakis (1990) is crucial; it emphasizes the link to learning between an organization's environment and strategy. *Adaptation* to changes in the environment is only possible if organizations (and their members) are capable of detecting them. To be able to do so (and discussed in much more detail in Section 2.3) the organization should have a 'learning capability.' Additionally, Makridakis (1990) cautions against the folly of persisting on paths of 'deliberate strategy'. Doing so and ignoring the 'white water' like environments (Kauppinen and Ogg 1994) that characterize most

businesses is evidenced by the numerous failures and bankruptcies in today's business world – a phenomenon that can be described metaphorically as *Passchendaele*.[13]

2.2.3 Characterizing IORs

As shown in earlier sections, there is little consensus on the issue of defining IORs. Usage of terms such as strategic alliance and partnership is ambiguous too. For example, some theorists characterize IORs along a single dimension and others across many. Researchers have either conceptually "typed" various

---

[13] The folly of persisting on paths of 'deliberate strategy' is poignantly captured by Feld's (1959) and Stokesbury's (1981) accounts of the infamous World War I battle of Passchendaele:

> "The critics argued that the planning of Passchendaele was carried out in almost total ignorance of the conditions under which the battle had to be fought. No senior officer from the Operations Branch of the General Headquarters, it was claimed, ever set foot (or eyes) on the Passchendaele battlefield during the four months that battle was in progress. Daily reports on the condition of the battle were first ignored, then ordered discontinued. Only after the battle did the Army Chief of Staff learn that he had been directing men to advance through a sea of mud" (Feld 1959: 21).

> "[A] staff officer ... came up to see the battlefield after it was all quiet again. He gazed out over the sea of mud, then said half to himself, "My God, did we send men to advance in that?" after which he broke down weeping and his escort led him away. Staff officers ... complained that infantrymen failed to salute them" (Stokesbury 1981: 241-242).

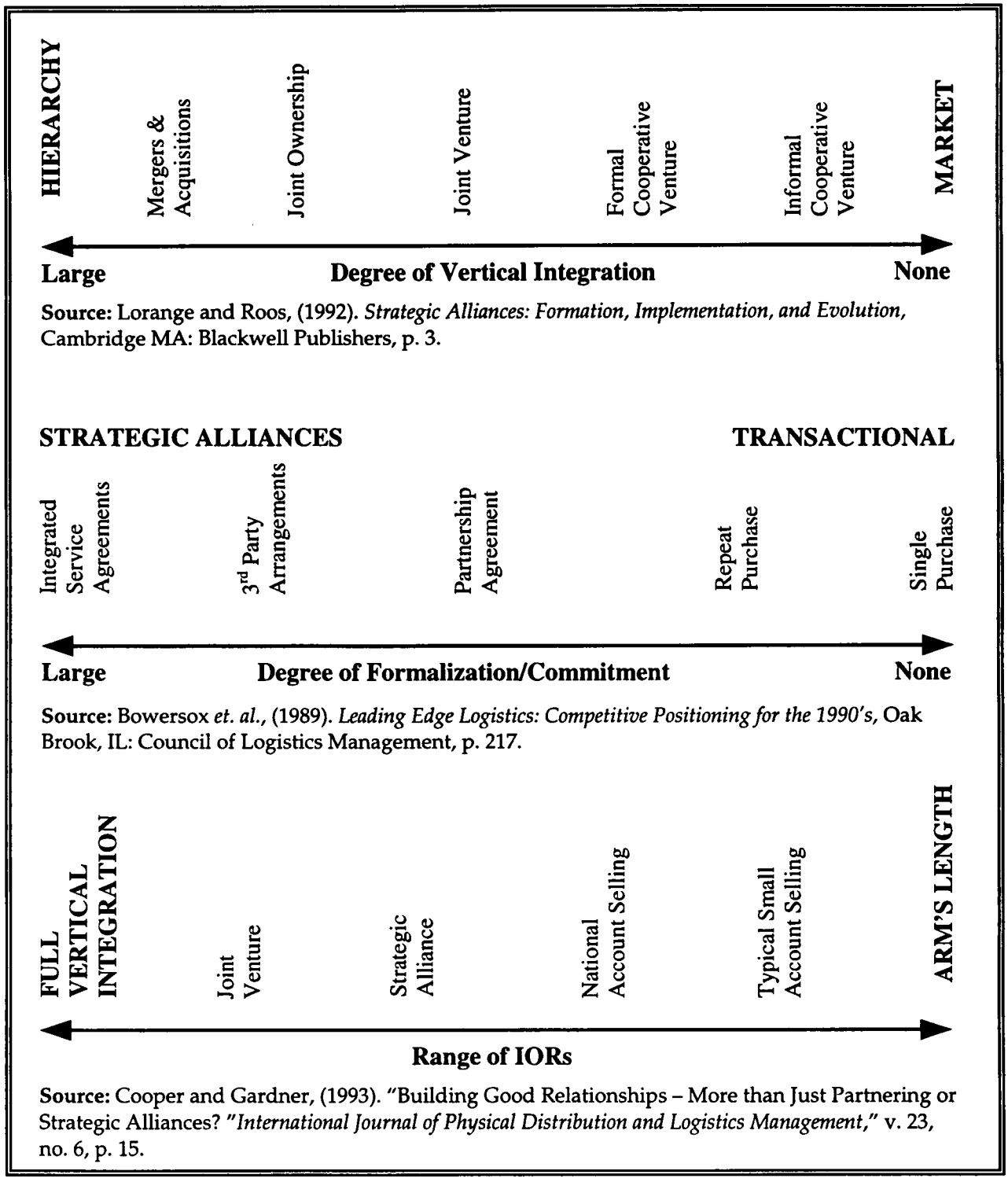
As a result, 250,000 British troops fell at the Battle of Passchendaele.

forms of IORs, or have developed different taxonomies[14] based on empirical evidence. The result is a number of different and often confusing formats of IOR characterization. Of the several different IOR characterizations that are available, I select some, which are more frequently cited to discuss in more detail.

Characterizations along Single Dimensions

IOR characterizations (Figure 2-3) that fall under this category are usually based on explanations offered from a *transaction cost economics* (TCE) viewpoint (Bowersox *et al.* 1989; Cooper and Gardner 1993; Doorley 1994; Lorange and Roos 1992; Stafford 1994). The TCE perspective argues that a firm's decision to enter into an IOR is based on costs of transacting with the other firm. These

[14] Typologies are derived conceptually. Examples of typologies include: (1) Weber's (1947) reference to organizational classifications, based on social domination, (2) Parsons (1956) typology of organizations based on their chief function for society, and (3) Etzioni's (1961) typology of compliance relationships in organizations - Coercive, Utilitarian, and Normative. Burns and Stalker (1961), and Miles and Snow (1978) developed their typologies in advance and then verified them empirically. One typology of IORs suggested by Lewis (1990) has *Informal cooperative ventures, Formal cooperative ventures* (e.g., contractual alliances), *Equity alliances* (e.g., minority investments, joint ventures, consortia), and *Strategic networks* (composed of any or all the other kinds of alliances) as possible categories. On the other hand, taxonomies are usually derived formally by using multivariate analysis. Examples of taxonomies include Mintzberg's (1979) organizational structures – Simple Structure, Machine Bureaucracy, Professional Bureaucracy, Divisionalized Form, and Adhocracy. Similarly, Root (1988) provides several taxonomies of IORs.



Source: Lorange and Roos, (1992). *Strategic Alliances: Formation, Implementation, and Evolution,* Cambridge MA: Blackwell Publishers, p. 3.

Source: Bowersox *et. al.*, (1989). *Leading Edge Logistics: Competitive Positioning for the 1990's,* Oak Brook, IL: Council of Logistics Management, p. 217.

Source: Cooper and Gardner, (1993). "Building Good Relationships – More than Just Partnering or Strategic Alliances? *"International Journal of Physical Distribution and Logistics Management,"* v. 23, no. 6, p. 15.

Figure 2-3 Single Dimension IOR Characterization

costs determine where on the *market-hierarchy* continuum the resultant governance mechanism falls.

For example, Doorley (1994: 20) develops a typology of strategic alliances based on an *investment-control* spectrum. At the ends of this continuum are: acquisitions (High Investment, High Control) and marketing alliances (Low Investment, Low Control). In between lie limited partnerships, joint ventures and mergers. Contractor and Lorange (1988) provide a characterization of IORs based on the degree of *inter-organizational dependency* between the parties involved. Thus IORs range from technical training/start-up assistance agreements, in which interdependence is low or negligible (and easy to reverse), to equity joint ventures in which it is high (and hard to reverse). In between these two extremes are (from low to high interdependence): production/assembly/buyback agreements, patent licensing, franchising, know-how licensing, management/marketing service agreements, and non-equity cooperative agreements in exploration, research partnership and development/co-production.

Similarly, Bowersox, Daugherty, Dröge, Rogers, and Wardlow (1989) present interfirm relationships between buyers and sellers, on a continuum determined

by the degree of *formalization* and *commitment*. Broadly classified, relationships on this continuum are categorized as either transactional or strategic alliances. These categories are further broken down into single purchase, repeat purchase, partnership agreement, third party arrangement and integrated service agreement.

Stafford (1994) uses a *degree of integration* continuum. He visualizes relationships between firms on a continuum ranging between arms-length transactions on one end, and fully integrated relationships such as mergers and acquisitions on the other. Strategic alliances, which occupy the middle ground on the above continuum, are represented by three distinct forms – contracts, creative joint ventures, and acquisitive joint ventures. Cooper and Gardner (1993) also use a similar continuum. They study 'good business relationships', which are defined as "relationships customized to fit the appropriate position on a continuum of possible relationship styles" (p. 14). These relationships are similar to partnerships and range from arms-length relationship style to full vertical integration. In between, on this continuum lie other forms of relationships: typical small account relationships, national account selling, strategic alliances and joint ventures.

Multi-Dimension Characterizations

Root (1988) offers several taxonomies of international cooperative arrangements. He proposes a number of pairs of characteristics that can be used to characterize IORs:

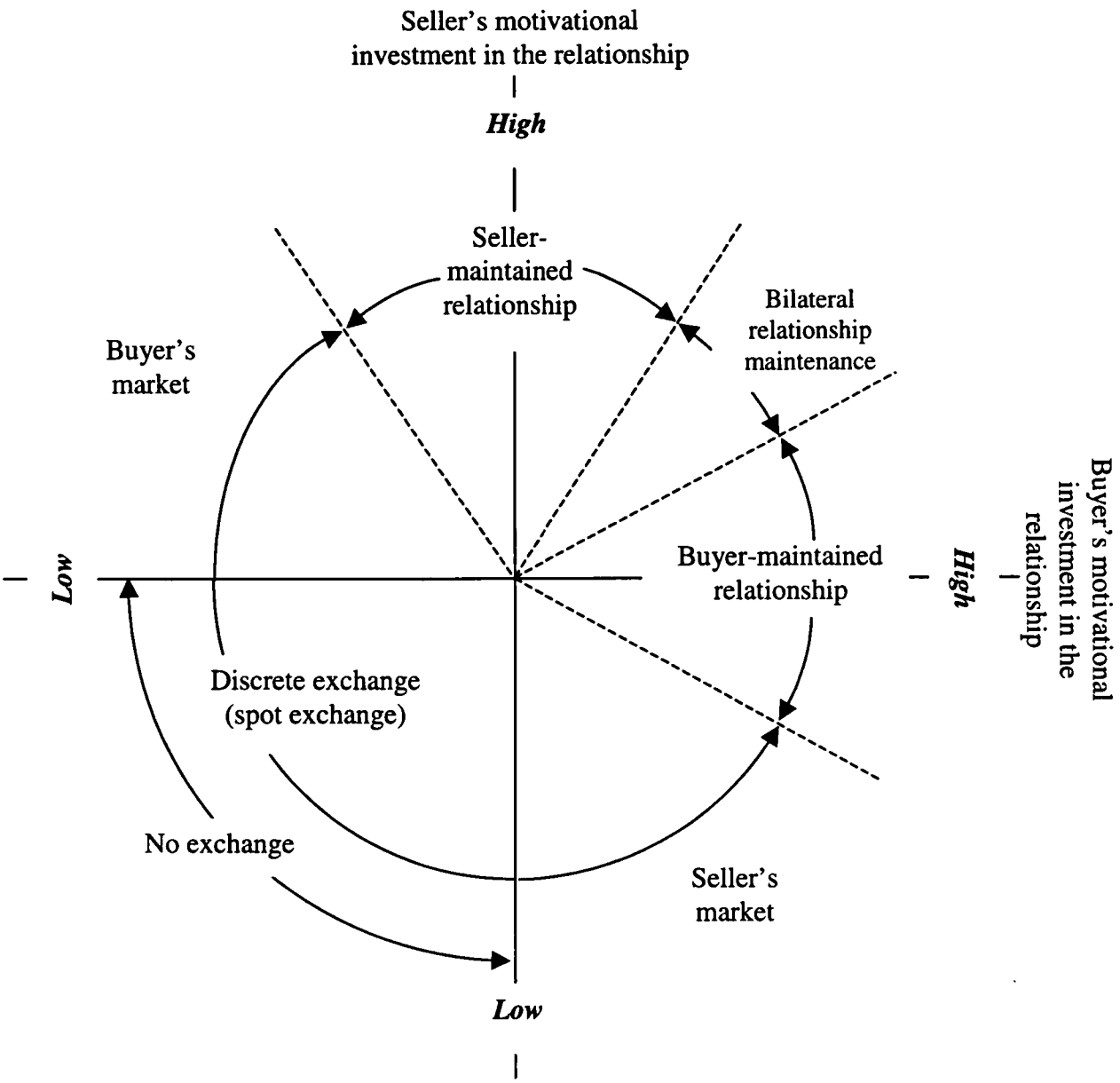
(1) *Ownership* (contractual agreements, equity joint ventures) and the linking activity in the *Value-chain* (R&D, assembly, manufacturing, etc.)
(2) *Geographic scope* (home country, foreign country, global/regional) and *Mission* (technology sourcing, market entry, etc.)
(3) *Fiduciary risk* (high, middle, low) and *Environmental risk* (high, middle, low); and
(4) *Ownership/Control* (less than 50%, 50%, more than 50%) and *Relative bargaining power* (inferior, equal, superior).

He also provides a 'dynamic taxonomy' characterizing cooperative arrangements on the basis of *net benefits* of each partner (positive, zero, and negative benefits).

Killing (1988) uses *task* and *organizational complexity* to develop a 'complexity grid' (p. 55) on which he plots a number of alliance types. Three critical forces determine task complexity: scope of alliance activities, environmental uncertainty, and relevance of partner resources and skills. On the other hand, number of partners, role of each partner, level of trust and task complexity determine organizational complexity.

Ring and Van de Ven (1992) present a broader set of alternative governance mechanisms by adding *recurrent contracting transactions* and *relational contracting transactions* to Williamson's (1975, 1979) 'markets' and 'hierarchies'. These four forms of transactions are differentiated on a number of dimensions. For example, the nature of the exchange in 'markets' are one-time transfers, in 'hierarchies' they are on-going processes, in 'recurrent transactions' they are episodic, and in 'relational transactions' they are sustained exchanges (p. 486). Additional distinguishing characteristics include terms of exchange, temporal aspects, mechanisms for dispute resolution and the role of investments. These four governance structures also are represented within a 2x2 matrix consisting of 'risk of deal' and 'trust among partners' as the determinants.

Dwyer, Schurr and Oh (1987) present an interesting typology of buyer-seller relationships (Figure 2-4). Based on 'high' vs. 'low' buyer and seller *motivational investment* in the relationship, the authors map different forms of intra-channel exchange relationships. *Discrete transactions* (or spot contracts) and *bilateral relational exchanges* (the equivalent of strategic alliance and joint venture) anchor each end of a continuum.



Source: Dwyer, Schurr and Oh, (1987). "Developing Buyer-Seller Relationships," Journal of Marketing, v. 51, April, p. 15.

Figure 2-4 Hypothesized Realm Of Buyer-Seller Relationships

In addition to the unique classification mentioned earlier Cravens *et al.* (1993)[15] develop a 2x2 prescriptive matrix placing "hybrid organizational arrangements" (HOAs) in each of the four cells. The two dimensions chosen are *environmental turbulence/ diversity* ('low' and 'high') and *skill/resource gaps* ('low' and 'high'). A strategic alliance is advocated when both conditions are high whereas an in-house strategy when both are low. Joint ventures are recommended when environmental turbulence is high and skill/resource gaps are low, and mergers and acquisitions are appropriate when conditions are reversed.

Robicheaux and Coleman (1994) present a different perspective of channel structures. Political Economy, Transaction Cost, and Relationship Marketing theories are reviewed, and integrated with the Strategic Network approach (Jarillo 1988; Miles and Snow 1984; Thorelli 1986). Using *Decision-Making Structure* (Clan versus Bureaucracy) and *Operational Integration* (Discrete versus Integrated) as the two dimensions, five structural forms of channels are presented: discrete exchanges, moderately integrated clans and bureaucracies, and integrated clans and bureaucracies.

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[15] see Figure 2-1

Frazier and Antia (1995) present a 2x3 matrix – two dimensions of *environmental uncertainty* ('low' and 'high'), and three dimensions of *interdependency* ('low balanced', 'unbalanced', and 'high balanced'). Within the cells they present a typology of six forms of channel relationships, of which two are more relevant to the present study. Under 'low environmental uncertainty' and 'high-balanced interdependency' conditions (Cell 5), long-term relationships are optimal, while under conditions of 'high environmental uncertainty' and 'high-balanced interdependency' (Cell 6) one could expect bilateral relationships (Frazier and Antia 1995: 323). In either instance, commitment levels are expected to be high. Citing trends in relationship marketing, the authors contend that "the trend toward relational exchanges are likely to be quite strong in Cells 5 and 6. Investments in relationships make clear economic sense in these cells" (p. 324).

Young, Gilbert and McIntyre (1996) reiterate Heide's (1994) concern regarding the lack of research on IOR governance processes and forms, and they attempt to fill the void by investigating relationalism across a variety of marketing relationships and alliances. They choose a few 'popular' forms of IORs, and

categorize them as *Non-Alliance Exchanges* and *Strategic Alliances*.[16] The former includes traditional supply agreements and JIT relationships, while the latter covers vertical supply alliances and co-marketing alliances. These authors also identify several governance influencing factors: *involvement, formalization, solidarity, role integrity, flexibility* and *power*; they empirically test the impact of each of these on the four forms of IORs.

Finally, Sheth and Parvatiyar (1992) propose a typology of business alliances based on the dichotomous levels of two dimensions: *purpose* (strategic and operations) and *parties* (competitors and non-competitors). This categorization results in four types of business alliances: Cartels (operations-competitors), Cooperatives (operations-noncompetitors), Competitive Alliances (strategic-competitors), and Collaborative Ventures (strategic-noncompetitors). A comprehensive comparison of these four IORs is shown in Table 2-1. Interestingly, while inter-organizational learning is one of the characteristics listed, the authors do not elaborate on its role.

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[16] Young, Gilbert and McIntyre (1996) use Parkhe's (1993b) definition of strategic alliance.

Table 2-1 Characteristics Of Business Alliances

Characteristics	Cartels	Co-operatives	Competitive Alliance	Collaborative Venture
Entry barriers	Low	Moderate	High	High
Exit barriers	Low	High	Moderate	High
Alliance governance	Market transaction	Multilateral	Bilateral	Consortium
Asset specificity	Low	Moderate	High	High
Commitment to alliance	Low	Moderate	High	High
Management control	High	Low	High	Moderate
Autonomy of alliance	Low	Moderate	Low	High
Cross-functional co-operation	Limited	Widespread	Bounded	Widespread
Information	Guarded	Open	Proprietary	Open
Interorganizational learning	Incidental	Widespread	Focused	Widespread

Source: Sheth, J. N. and Parvatiyar, A., (1992). "Towards a Theory of Business Alliance Formation," *Scandinavian International Business Review*, v. 1, no. 3, p. 82.

2.2.4 IOR Perspectives

Organizations establish relationships with other organizations for a variety of reasons. Harrigan (1987) lists several such motives, including new product development and introduction, keeping pace with rapidly changing technology, establishing or sharing technical standards, economic deregulation and globalization. Similarly, Lorange (1990: 23) notes that the reasons for establishing IORs include market access, technological access, infrastructure access, capital access, human resources access, government relations, internalization of partner's skills, externalization of one's own risk exposure, leverage, restructuring, achieving scale, saving time and preempting a competitor. It may be noted that many of these motives originate from a *need* for resources (human, capital or otherwise) or from a desire to manage or mitigate *environmental* forces (governmental relations, risk exposure). By focusing on these and other issues, researchers have used or developed several approaches for analyzing IORs.

An Environmental and Resource Dependence Perspective

Warren (1967) emphasizes the need to focus on the environment or field within which IORs function and interact. Citing Emery and Trist (1965), he contends that turbulence in the environment adds to an IOR's complexity, and that "the dynamic properties arise not simply from the interaction of the component organizations, but also from the field itself. The ground is in motion" (p. 399). Similarly, Kogut (1988b) states that "changes in the environment, of strategies, and of bargaining power over the life of the venture can affect dramatically the longevity of cooperation" (p. 45). Referring to the relative amount of fuzziness within alliance environments, Lynch (1993) uses an 'ambiguity/certainty' continuum (p. 207) to discuss alliances. He states, for example, conditions of high ambiguity within alliances will call for more information to be processed, more collaboration, lower-level decision making, and stronger lateral relations and *vice versa*. Thus, the *external environment* of an alliance is presented as being critical in determining an IORs outcome. Still others recommend the inclusion of *both* the external and internal environments. Borys and Jemison (1989), for example, suggest that the *open systems approach* may be the most appropriate method to study IORs since it accommodates the simultaneous analysis of external and internal influences.

In an analysis of inter-organizational networks, Benson (1975) identifies six dimensions of environment structure:

(1) resource concentration/dispersion
(2) power concentration/dispersion
(3) network autonomy/dependence
(4) environmental dominance patterns
(5) resource abundance/scarcity, and
(6) environment-network control mechanisms.

Benson (1975) focuses on *resources* and *power*, and uses the *Political-Economy* perspective.[17] In one sense, he extends *Exchange Theory* (i.e. goal attainment as the basis of exchange relationships) by incorporating resource acquisition – money and authority in particular. He proposes analyzing such networks in terms of service delivery processes and resource acquisition processes. While there are several other important resources to consider, Benson (1975) asserts that money and authority are the two basic and critical ones that are central to the "political economy of networks" (p. 232). Internal network structure and external linkages are sources of power; the degree of which is determined by the size of support groups, the degree of mobilization of supporting groups, and social rank. He states that for cooperative strategies to be successful and

[17] This approach views a social system as "comprising interacting sets of major economic and sociopolitical forces which affect collective behavior and performance" (Stern and Reve 1980: 53).

effective, "each party must hold something of value for the other party and be capable of resisting the other's demands" (p. 241). According to Benson (1975) the reason many cooperative relationships collapse is the failure to appreciate the underlying power equations.

Stern and Reve (1980) extend the Political-Economy framework to marketing channels and relationships. They develop a distribution channel framework, categorized by internal and external polity and economy and defined in terms of structure, processes, economic environment, power, dependence and socio-political forces. While they provide no empirical support they propose that: (1) minimal levels of power result in low levels of cooperation and cooperation in the channels leads to greater over-all profits, (2) centralized power results in centralized planning, a high level of conflict, cooperation and competitiveness, and (3) greater channel power results in a greater share of the profits for the firm. Similarly, in a discussion of distribution channels and inter-firm power within these channels, Frazier and Antia (1995) present six types of IORs based on degree of interdependence (internal) and amount of environmental uncertainty (external).

Harrigan (1988b) identifies several crucial internal and external environmental traits that need to be considered when formulating cooperative strategies. In the process, she develops two key categories: (a) *Demand Traits* (demand uncertainty, customer sophistication and bargaining power, and product differentiation), and (b) *Competitor Traits* (firms' competitive behaviors, asset configurations, rates of technological innovation, and other variations of competitors' strategies). Finally, Lewis (1990: 96) divides the causes of uncertainty in alliances into external uncertainties and internal uncertainties. External uncertainties include the economic environment, market responses, partner's reactions, liabilities and government approvals. On the other hand, internal uncertainties include goals, partner's abilities, latent conflict, planning gaps, authority, relationships, performance, benefits, commitments and opportunism.

A Transaction Cost Perspective

When motives for IOR formation are described as uncertainty reduction, transaction cost reduction, and the possibility of realizing synergistic benefits (Arndt 1979), researchers have found it useful to focus on the *transactions* between organizations. In a seminal article on channel relationships, Arndt

(1979) coins the term "domesticated" markets – to represent the act of absorbing all (or most) transactions 'into' the firm. As opposed to competitive and open markets, transactions in domesticated markets are "coordinated *ex ante* by centralized control procedures. Information is consciously and directly managed" (p. 70). In their discussion of "complementary product" or "co-marketing" alliances Bucklin and Sengupta (1993: 32) also present evidence supporting transaction cost theory. Based on a survey of 493 middle-level managers (20% response rate), they found that (1) perceptions of power imbalance are heightened by the existence of relationship-specific investments and (2) interactive effects between IOR elements such as formality, exit barriers and exclusivity reduce perceptions of power imbalance.[18] Similarly, Park (1992) finds strong support for transaction cost theory on alliance formation and failure explanation.

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[18] Other findings include: (1) power imbalances affects alliance success and effectiveness, (2) disparity in resource base potential and managerial contributions of partners leads to conflict, (3) alliances with higher payoffs are more successful, (4) prior relationships between partners leads to more successful, current relationships, and (5) alliances tend to be more successful in turbulent environments (Bucklin and Sengupta 1993).

The "Strategic" View

A third approach to understanding IORs is to look at the strategic behaviors of organizations. Day and Wensley (1983) study the implications of a strategic orientation for marketing issues such as exchange relationships within distribution channels. They state that such IORs can provide a competitive advantage only as long as they contribute to product differentiation and create barriers to switching. Niederkofler (1991) uses a case study methodology and the "grounded theory" approach, advocated by Glaser and Strauss (1967), to study alliances between companies. He stresses that *strategic fit* and *operational fit* are two main factors that determine the evolution of strategic alliances. While the first factor addresses the issue whether the firms should cooperate in the first place, the second asks "can we, and, if so how do we make it work?" Results indicate that: (1) strategic fit is often not achieved, principally due to hidden agendas; (2) the not-invented-here (NIH) syndrome tends to surface often; (3) negotiation processes are critical, yet often do not include key (operational) managers; (4) confronting operational misfit is critical, for if it is allowed to persist, conflict will result; (5) partners' interests and resource needs shift with time; and finally (6) "goodwill and trust are important, yet volatile assets of a relationship" (p. 250).

Lorange and Roos (1991) reiterate that strategic alliances are extremely difficult to manage since decision-making involves more than one company, often two different cultures are working together, and the firms may have different and sometimes conflicting strategic objectives. For the alliance to be successful it has to have both internal and external 'stakeholder' support.

The "Learning" Perspective

Finally, some researchers propose understanding IORs from an organizational learning perspective. After discussing the formation of joint ventures from two frequently used theoretical perspectives – Transaction Cost and Strategic Behavior, Kogut (1988a) presents a third (less used) perspective – Organizational Learning. He asserts that while the first two perspective are useful and often complementary (rather than substitutes for each other), the third perspective is equally important. Thus, most motivations for joint ventures can be reduced to three key factors, represented by the three perspectives: (1) evasion of small numbers bargaining (Transaction Cost); (2) enhancement of competitive positioning or market power (Strategic Behavior); and (3) mechanisms to transfer organizational knowledge (Organizational Learning).

Lyles (1987) documents some of the common mistakes witnessed in joint ventures and emphasizes the importance of organizational learning.

> One of the key distinctions of successful firms, however, involves learning from one's mistakes and taking corrective actions. The term "learning" refers to the development of insights, knowledge and associations between past actions, the effectiveness of those actions, and future actions...Part of learning is unlearning and reframing past behaviors that are no longer appropriate. To determine if unlearning occurs, one must look for environmental jolts, mistakes, failures, critical incidents, or changes in standard methods for managing the operations of joint ventures. (p. 79)

Lewis (1991) states that an organization's ability to learn is critical. "High learning" (p. 15) organizations have a strong, natural ability to seek and adapt new ideas from all sources – including outside contacts such as IORs and other forms of inter-firm connections. Similarly, Lei and Slocum (1992) insist that companies must learn how to better utilize alliances as "vehicles for learning" new technologies and skills (p. 81). They state that in many instances alliances are never meant to last for more than a few years (this is especially the case when the collaborating firms are in competing markets). In such cases, these firms should realize that their capability to learn and improve their skills might be the only competitive advantage they have. Finally, Williams (1995) discusses the importance of learning within supply chains. Several important characteristics of *learning-based* supply chain management teams are identified: (1) shared vision, (2) constructive conflict, (3) creative spirit, (4) education, (5)

risk taking, and (6) intrapreneurship. Barriers to the implementation of such learning strategies, according to Williams (1995), include organizational systems, structure, strategy, style and people.

2.2.5 Allying Processes

Frazier (1983) provides a 'broadened' perspective of inter-organizational exchange behavior in marketing channels. The framework is comprised of three principal processes based on several theories, including Expectancy theory, Exchange theory, Financial Investment theory, and Dependency theory. First, the *Initiation* process is triggered by the firm's perception of a need to form an exchange relationship. Linked closely to this process are rewards (both "intrinsic" such as psychological pleasures, approval and status in the industry, and "extrinsic" such as market share, profits and sales). Next in this framework is the *Implementation* process. Elements in this stage include perceptions that members form of each other, beliefs, behaviors, role satisfaction (clarity, ambiguity, and agreement), conflict (and conflict resolution), power (and the use of influence), cooperation and effort. Third is the *Review* process through

which outcomes are evaluated in terms of intrinsic and extrinsic rewards. The third stage then leads back to the first stage.

A report published by the Business International Corporation (1987) discusses "Competitive Alliances." These are ventures between strong international companies that generally remain competitors outside the relationship and "are based on reciprocity; partners offer complementary products, facilities, skills and technologies. Most competitive alliances are related to the core business of the partners ... they are among equals" (p. ii). Based on the internal processes and experiences of about fifty multi-national companies (MNCs), the report suggests that firms considering such IORs should be very careful and systematic about developing and ranking a list of potential candidates to working out tax, financial and exit questions. The report also cautions that it is just as critical to focus on managing the alliance as it is on establishing it. "As a general rule of thumb, companies spend 90% of their time structuring the alliance and only 10% on human resource and management issues" (p. 43).

Dwyer, Schurr, and Oh's (1987) characterization of buyer-seller relationships was discussed earlier. Based on *Relational Exchange* theory and drawing support from other exchange theorists, they develop a framework built on

motivational investments made by the parties to the exchange. The "Relationship Development Process" is characterized by five distinct phases: *Awareness, Exploration, Expansion, Commitment* and *Dissolution*. Within the *Exploration process* itself are a number of sub-processes: Attraction, Communication & Bargaining, Power & Justice, Norm development, and Expectation development. The net result of this process is the evolution of a relationship in which, sellers and buyers share values, norms and governance structures that foster a sound relationship of mutual dependence.

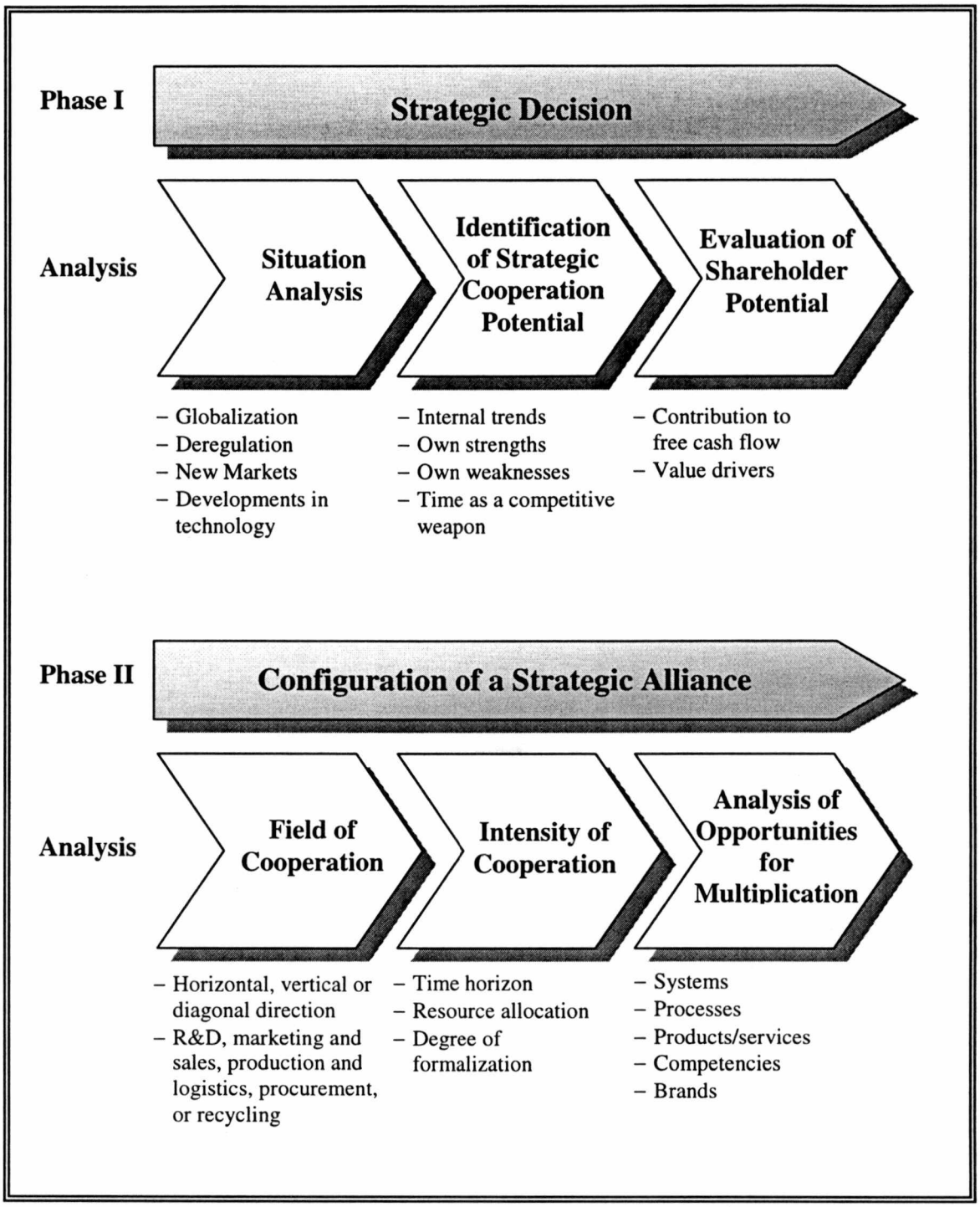
Lewis (1990) suggests that in a strategic alliance firms cooperate out of mutual need and share the risks to reach a common objective. He notes that "An alliance lasts as long as mutual need exists. As soon as one partner's value erodes, the other has reason to take over or leave" (Lewis 1990: 3). Lewis (1990) also looks at some of the management practices a firm needs to support alliances. He suggests that in order to manage contractual alliances firms need to: build commitment, designate project champions, assemble inter-firm teams, communicate often and well, solve problems early and set up a joint management process (p. 103). He also has recommendations pertaining to issues of technology, information, knowledge and learning. "Technology is a core strength if it provides a critical competitive advantage...Such know-how

can be used for alliances as long as it is not disclosed" (p. 57). He states that information should be protected by a "Chinese Wall" (p. 57). People should access information on a right-to-know and need-to-know basis. Other measures should include restricting computer access, clearly marking documents and locking them up when not in use, and destroying rather than discarding outdated materials (p. 57). Regarding knowledge: "In this age of technology, Knowledge is king – not just technical knowledge about how to make things, but understandings of markets, best work force practices, basic trends, and so on. When change is rampant, as it is for more and more businesses, the ability to find and create knowledge and to translate it into new strengths is essential for lasting independence" (p. 63).

Hendrick and Ellram (1993) report on the buying and selling activities (termed Strategic Supplier Partnering or SSP) of companies. SSPs are "seamless" relationships between independent buying and supplying organizations in which the two partners collaborate and cooperate closely together for their joint competitive advantage (p. 7). These are special relationships characterized by long-term commitments, confidential information sharing, cooperative continuous improvement efforts, and sharing of risks and rewards. They suggest that SSPs do not develop rapidly but typically go through an extended

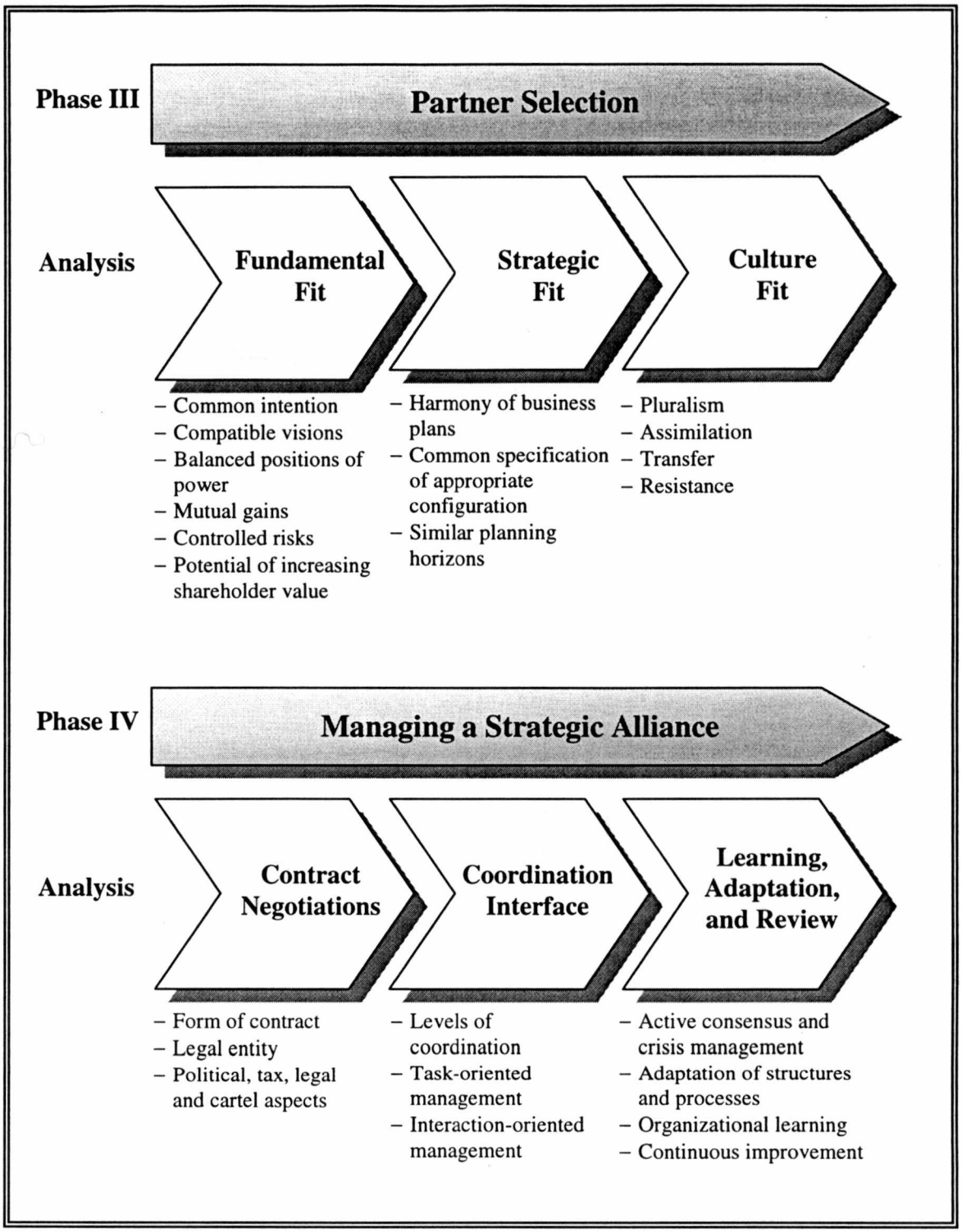
period of "dating and courtship" before achieving "marriage." Once begun, a joint multi-disciplinary team is in place to ensure that the relationship stays fresh and pursues a "continuous improvement" philosophy towards quality, service, and total cost of material acquisition and ownership. Additionally, Hendrick and Ellram (1993) state that there is frequent high-level executive communication between both parties. Technical, design, process, cost, quality and scheduling information that is confidential is shared both ways between firms during the early and ongoing stages of design, and also during the production life-cycle of the supplying relationship. There exists the "sincere intent" of a commitment to a long-term relationship of mutual benefit between the two firms. There are formal and comprehensive supplier evaluation and performance measurement mechanisms that are in place and are taken seriously by both parties. In order to manage SSPs successfully, Hendrick and Ellarm (1993) suggest that establishing a task force early in the process, training buyers in partnering philosophies and methods, site visits to the supplier, multiple points of contact between buying and supplying firms and early communication to suppliers of specification changes all are important (p. 34).

Bronder and Pritzl (1992) present a structured procedure for establishing and developing strategic alliances (Figure 2-5). In the process they look at four



Source: Bronder, C. and Pritzl, R., (1992). "Developing Strategic Alliances: A Conceptual Framework for Successful Co-operation," *European Journal of Management*, v. 10, no. 4, p. 413.

Figure 2-5 Management Concept for Strategic Alliances



Source: Bronder, C. and Pritzl, R., (1992). "Developing Strategic Alliances: A Conceptual Framework for Successful Co-operation," *European Journal of Management*, v. 10, no. 4, p. 413

Figure 2-5 (contd.)

critical phases: (Phase I) strategic decision to form an alliance, (Phase II) alliance configuration, (Phase III) partner selection, and (Phase IV) alliance management. However, they assert that strategic alliances "cannot be conceived in a 'cosmic freedom'. They must emerge from an evolutionary process of mutual learning and continuous adaptation." While the authors elaborate their conceptual model, little is said with regards to the role of organizational learning.

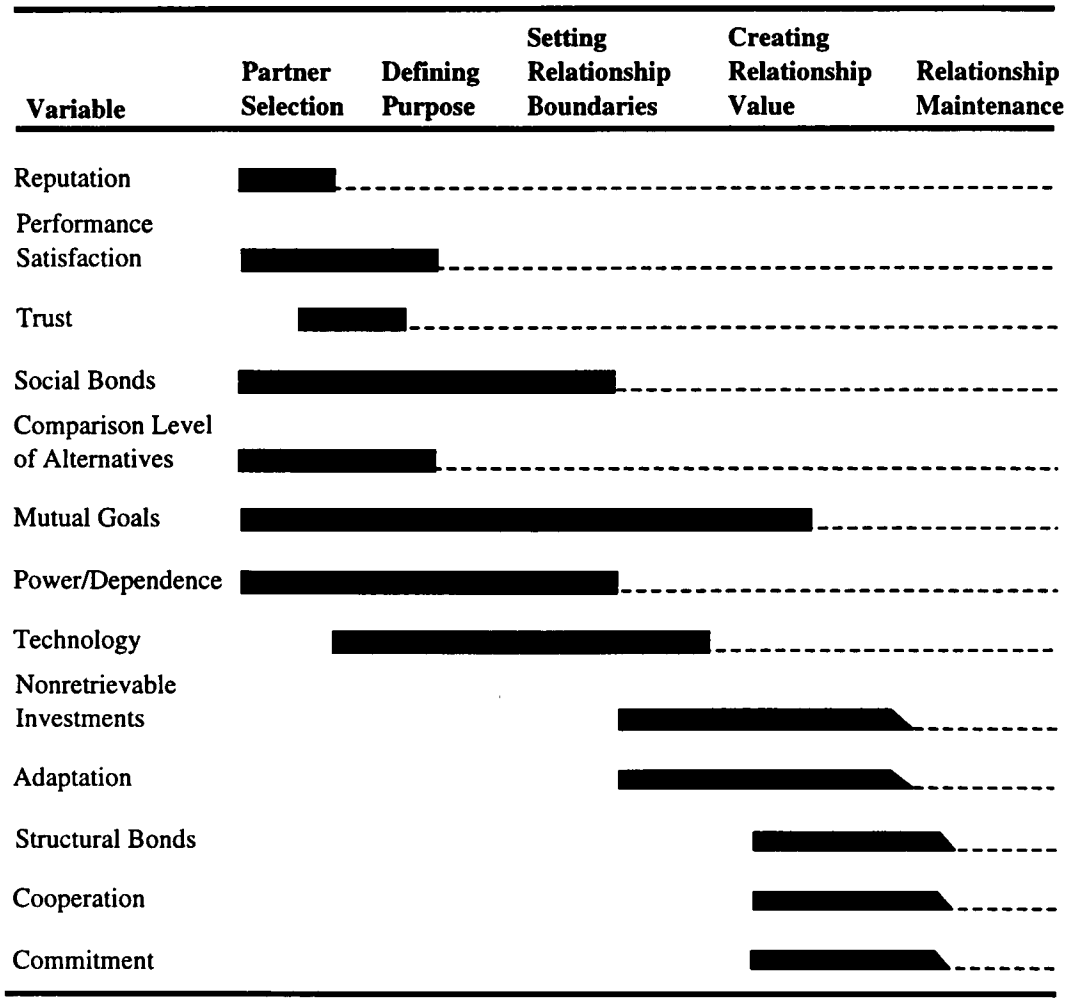
Heide (1994) [19] draws on Resource Dependence, Transaction Cost, and

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[19] Heide (1994) proposes that non-market governance is a heterogeneous phenomenon, and that different relationship management strategies are appropriate under different conditions. While management theorists define 'governance' as a method of organizing (Willimson & Ouchi 1981), Heide (1994) prefers to view it in more formal terms as: "a multidimensional phenomenon, encompassing the initiation, termination, and ongoing relationship maintenance between a set of parties" (p. 72). According to her, the *Resource Dependence Theory* views inter-firm governance as a strategic response to *uncertainty* and *dependence* – identified as the key antecedent variables for relationship formation. Firms will seek to reduce uncertainty and manage dependence by establishing formal and informal links (including contracting, joint ventures and mergers) with others, creating "negotiated environments" (Cyert and March 1963). While this perspective deals with *effectiveness, transaction cost* (which is basically a choice between "markets" and "hierarchies") deals with *efficiencies*. Dimensions of transactions giving rise to transaction costs are *asset specificity, internal* and *external uncertainty*. This perspective is similar to the earlier one, in that it cites market failures and adoption of hierarchical systems as responses to environmental uncertainty and resource dependence. *Relational Contracting* is based on Macneil's (1978) typology, i.e., discrete vs. relational exchange mechanisms. This concept of relational exchange is similar to Ouchi's (1980) *Clan* mechanism, in which members adopt norms of the larger system through a socialization process. As stated earlier, opportunism and deviance are thus dealt with proactively.

Relational Contracting perspectives to develop a formal typology of approaches to relationship management. She presents a "trichotomy" of conceptual forms of governance, and details the process of relationship formation in terms of *Relationship Initiation, Relationship Maintenance* (role specification, nature of planning, nature of adjustments, monitoring procedures, incentive system, and means of enforcement), and *Relationship Termination.*

Finally, Wilson (1995) reviews a substantial portion of the literature on IORs, and presents a synthesized "list" of variables that have received both theoretical and empirical support in earlier studies. These 'relationship variables' include (p. 337): (1) commitment; (2) trust; (3) cooperation; (4) mutual goals; (5) interdependence/power imbalance; (6) comparison level of the alternative; (7) adaptation; (8) non-retrievable investments; (9) shared technology; (10) summative constructs; (11) structural bonds; and (12) social bonds. 'Learning' is not one of the variables. The author then presents a model (Figure 2-6) in which he integrates these variables into a process for creating, establishing and maintaining a relationship.



Source: Wilson, David T., (1995). "An Integrated Model of Buyer-Seller Relationships," *Journal of the Academy of Marketing Science*, v. 23, no. 4, p. 340.

Figure 2-6 Integrating the Relationship Variables and the Relationship Development Process

2.2.6 IOR Performance Issues

Researchers who have addressed alliance performance factors include Berg, Duncan and Friedman 1982; Berg and Friedman 1980; Harrigan 1985; Holton 1981; Janger 1980; Killing 1980; Root 1988; Young and Bradford 1977; Bleeke and Ernst 1991; Harrigan 1986 (Borah 1993). For example, following a review of the literature, Borah (1993) reveals that some of the critical factors influencing strategic alliance performance include partner congruity, organizational endorsement, governmental issues and cultural concerns. In addition, several other studies highlight specific factors that help IORs succeed and those that hinder IOR performance. Some of these studies are described below.

IOR Success Factors

With few exceptions,[20] IOR researchers in general agree that cultural similarity or cultural compatibility is one of the important factors that insure IOR success (Harrigan 1988b, Coyle and Andraski 1990, Lorange 1990). Several researchers

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[20] Based on questionnaires sent to 350 pairs of buying and supplying firms, Ellram (1995a, 1995b) identifies factors that are important for establishing and maintaining partnerships. While she found two-way information sharing, top management support, shared goals, flexibility, and TQM initiatives to be most important, surprisingly, personal relationships and compatible corporate cultures were *least* important.

cite trust as critical. These include: Poirier and Houser (1992), Lorange (1990) and Mohr and Spekmen (1994). Other writers mentioning additional keys to IOR success include: asset sizes (Harrigan 1988b); technical competence, financial stability, information systems (Coyle and Andraski 1990); and loyalty and mutual benefit (Poirier and Houser 1992).

Lorange (1990) presents an extensive list of conditions for IOR success, which includes: significant interaction prior to partnering, high working level commitments, long-term contracts, cost competitiveness, price setting/adjustment, the ability to deliver promises, a well-defined corporate strategy, the active daily participation of top management, a win-win strategy, realistic goals and personal compatibility and friendship. Mohr and Spekmen's (1994) findings on vertical relationships between manufacturers and dealers indicate that partnership success[21] characteristics include partnership attributes of commitment, coordination, and trust; communication quality and participation; and the conflict resolution technique of joint problem solving.

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[21] Satisfaction (an affective measure) and sales (an objective measure) describe partnership success.

IOR Failure Factors

Benson (1975) notes that the reason many cooperative relationships flounder is due to the failure to address underlying power equations. Similarly, Burrows (1992) cites several reasons for failure, including: lopsided organizational links, false expectations, inconsistent communication, manufacturing inflexibility, and a rampant rumor mill, which results in cynicism, mixed allegiances and unnecessary turnover (p. 87). Stafford (1994) finds that alliances fail when companies concentrate on the short-term instead of the long-term, when they expect too much too soon, when resources or technologies do not deliver as promised, and when environments change. To this listing, Lorange (1990: 15) adds: Physical distance, lack of honesty, ill-formed business ideas, existence of internal attitudes, set values and established management processes, lengthy internal decision making processes, lack of an internal "champion", too much top management delegation, lack of communication of management's "vision" to lower operational levels, extensive "feeling out" phase and "hidden agendas" of the two companies.

In a survey of 1,250 U.S.-based manufacturers, Hart and Garone (1994) identified two categories of failures – *Logic failures* and *Process failures*. While

the latter can be remedied, the authors state, the former cannot. Included under process failures are "poor leadership" (22.6%), "cultures too different" (21.7%), and "poor integration" (21.2%). Responses under logic failures include "environment changed drastically" (27.5%), "insufficient information about partner" (18.4%), "wrong partner" (18.4%), and "overestimated market" (16.7%).

2.3 *Organizational Learning*

The literature review in the previous section indicated that the research actually linking IORs and learning is limited. In fact, in this chapter we will see that most of this research pertains to learning within *horizontal* IORs (such as joint ventures (JVs) and R&D alliances). Firms having similar areas of interests, and who in normal circumstances would have otherwise competed against each other, usually establish such IORs. Examples of such relationships include those between Toyota and General Motors (automobile manufacturing), Honeywell, Bull and NEC (computers), General Electric and Fanuc (robotics), IBM and Matsushita (office automation equipment), and Credit Suisse and First Boston Corporation (finance) (Pucik 1988). Biotechnology (Powell, Koput and

Smith-Doerr 1996; Dodgson 1993) is yet another area where a number of such IORs have been established, with the explicit intention of learning from each other as long as the 'window of opportunity' presents itself. Many of these studies focus on learning within *international* IORs (Parkhe 1991; Hamel 1991; Simonin 1991; Levinson and Asahi 1995).

The issues addressed in previous research have included *competitive advantage* and *organizational learning* (Reed and DeFillippi 1990; Lengnick-Hall 1992; Hosley, Lau, Levy and Tan 1994; Ginsberg 1994; and Moingeon and Edmondson 1996), and *quality management* and *organizational learning* (Hackman and Wageman 1995; Barrow 1993; and Sitkin, Sutcliffe and Schroeder 1994). However, despite the "steadily increasing number of articles on learning" (Miner and Mezias 1996), there remains a vital gap. To my knowledge, no study to date addresses *logistics relationships* and *inter-organizational learning*.

In this section I review some of the literature on organizational learning. Several definitions of organizational learning are presented. I also look at some of the different approaches to this subject.

2.3.1 What is Organizational Learning?

In the past few years, the concept of organizational learning has enjoyed great popularity, both among practitioners and academics. Many scholars, including Cyert and March (1963), Argyris and Schön (1978), Shrivastava (1983), Mintzberg (1994) and Senge (1990, 1994, 1995) to name just a few, have written about the issue. The literature has also been reviewed by several researchers, including Shrivastava (1983), Fiol and Lyles (1985), Daft and Huber (1987), Levitt and March (1988), Huber (1991), and Miller (1996). However, it *still* is a concept – in that it is still in its early stages of development and still lacks a clear definitional or theoretical consensus. The literature on organizational learning is "haphazard and eclectic", according to Miller (1996: 485), who also asserts that "[I]t remains unclear just what learning is, how it takes place, and when, where and why it occurs." Similarly, Shrivastava (1983) states, "Despite these extensive theories about organizational learning, there exist few well accepted and sharply defined sets of concepts which describe the means by which organizations learn." Fiol and Lyles (1985: 803) observe "Although there exists a widespread notion of organizational learning and its importance to strategic performance, no theory or model of organizational learning is widely accepted." Acknowledging that his review of the literatures reveals "a lack of

cumulative work and a lack of integration of work from different research groups," Huber (1991: 88) notes:

> The literature on organizational learning is in an early stage of development. Although growing, the number of empirical studies dealing with organizational learning is quite small. Consequently, there is virtually no consensus as to what and how organizations learn (Bedeian 1989: 193)

So, what is organizational learning?[22] According to Miller (1996), the definition of learning remains "somewhat obscure" (p. 485). Reasons for this may be attributed to the diversity and variety of learning processes. The researchers themselves have both concurred and differed on everything from definitions and mechanisms, to the indications and impacts of learning. Fiol and Lyles (1985: 803) state that "as a result of this confusion, theorists have referred to learning as (a) new insights or knowledge (Argyris and Schön 1978; Hedbrg 1981); or (b) new structures (Chandler 1962); or (c) new systems (Jelinek 1979; Miles 1982); or (d) mere actions (Cyert and March 1963; Jelinek 1979); or

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[22] While the terms Organizational Learning and Learning Organization are used interchangeably, Argyris and Schön (1996) draw a distinction between the two. They consider learning organizations to be practice-oriented and prescriptive; a concept promoted mainly by consultants and practitioners. On the other hand, Argyris and Schön (1996) contend that organizational learning is a concept arising from the scholarly literature of academics. While these two perspectives use different forms of language, appeal to different audiences, and have different thrusts they stress the same key issues. Hence in my study, while the term 'organizational learning' is used, it is also intended to incorporate all of the issues in 'learning organizations.'

(e) some combination of the above (Bartunek 1984; Shrivastava and Mitroff 1982)".

Definitions of Organizational Learning

The definitions of learning shown in Table 2-2 reflect the views of several scholars. For example, Stata (1988) states that organizational learning involves "new insights and modified behaviors...occurs through shared insights, knowledge, and mental models...builds on past knowledge and experience" (p. 64). This definition captures the essence of learning that is generally accepted. It emphasizes information processing resulting in cognitive and behavioral changes in the organization. Similar observations are made by Campbell and Cairns (1994: 11) who state that the tendency of most definitions of organizational learning focus on:

- the importance of acquiring, improving, and transferring knowledge
- facilitating and making use of individual learning; and
- modifying behavior and practices to reflect the learning

Table 2-2 Some Definitions of Organizational Learning

Argyris (1977: 115) – "Organizational learning is a process of detecting and correcting error"

Revans (1982: 494) – Definition of learning: "any organism may therefore be said to have learned, or to have created, when its observable behavior after learning or creative association is permanently and significantly different from its observable behavior before"

Fiol and Lyles (1985: 803) – "Organizational learning means the process of improving actions through better knowledge and understanding"

DeGeus (1988: 70) – Learning is "[T]he ability of a company's senior managers to absorb what is going on in the business environment and to act on that information with appropriate business moves" and Institutional learning is "[T]he process whereby management teams change their shared mental models of their company, their markets, and their competitors"

Stata (1989: 64) – "[O]rganizational learning entails new insights and modified behaviors ... occurs through shared insights, knowledge, and mental models ... [It] builds on past knowledge and experience – that is on memory"

Senge (1990: 14) – "[L]earning organization – an organization that is continually expanding its capacity to create its future"

Gupta and Fisher (1994: 17) – the central purpose of Organizational Learning is "a comprehensive continuous improvement mechanism to create knowledge, values and processes to deal with uncertainties of the global business climate"

Benoit and Mackenzie (1995: 120) – "Organizational learning is the evolution of organizational knowledge. Learning occurs as the key learning processes interact among and within themselves"

Levels of Learning

Where and at what *levels* does learning take place? It is widely accepted that learning takes place at the 'individual' and 'organization' levels. Levitt and March (1988) add two more, stating that learning also takes place at 'group' and 'population of organizations' levels. Describing the learning process, Argyris and Schön (1996: 16) observe that

> Organizational learning occurs when individuals within an organization experience a problematic situation and inquire into it on behalf of the organization. They experience a surprising mismatch between expected and actual results of action and respond to that mismatch through a process of thought and further action that leads them to modify their images of organization or their understanding of organizational phenomenon and to restructure their activities so as to bring expectations and outcomes into line, thereby changing organizational theory-in-use. In order to become organizational the learning that results from organizational inquiry must become embedded in the images of the organization held in its member's minds and/or in the epistemological artifacts (the maps, memories and programs) embedded in the organizational environment.

In this description, learning (individual) is seen as a reaction to something amiss in the individual's view of the surroundings; a reaction that is possible only if the individual is aware of the difference. How each individual does this may vary. For instance, Ginsberg (1994: 156) states that top management and strategic decision-makers, in addition to depending on mental models and cognitive maps for organizing complex issues and phenomena, often filter the

information they have scanned from the environment through simplified sets of categories and constructs.

When such individual learning becomes a part of the organization's memory, it is termed "organizational learning". As Argyris and Schön (1996) state, it gets 'embedded' into the organization in the form of routines, beliefs, and mental models.[23] Hence, organizational learning affects more people across a greater time span than individual learning, and it tends to be more permanent.

There is a general consensus that individual and organizational learning are linked. According to Swieringa and Wierdsma (1992: 33), "Without individual learning there can be no question of organizational learning." Researchers also agree that while individual learning is important to organizational learning the organization's learning is *not simply a sum* of each individual's learning. As Hedberg (1981: 6) puts it:

> Although organizational learning occurs through individuals, it would be a mistake to conclude that organizational learning is nothing but the cumulative result of their members' learning. Organizations do not have brains, but they have cognitive systems and memories. As individuals develop their personalities, personal habits, and habits over time, organizations develop

[23] Benoit and Mackenzie (1995) state that the degree to which organizational learning is deployed through out the entire organization is organizational *intelligence.*

> world views and ideologies. Members come and go, and leadership changes, but organizations' memories preserve certain behaviors, mental maps, norms, and values over time.

Argyris and Schön (1978) share these views and they observe that in many organizations the sum of the 'whole' tends to be *less than* the sum of the parts, attributing the difference to problems of communication between various parts of the organization and between organizational members.

Indications of Learning in the Learning Organization

There are diverse views on *what* the indicators are when learning has occurred.[24] As seen from the earlier description of organizational learning, Argyris and Schön (1978) contend that *cognitive* changes accompany learning. Others contend that organizational learning is reflected in *behavioral* changes. For instance, Swieringa and Wierdsma (1992) state that just as learning changes an individual's behavior, organizational learning corrects the organization's behavior itself; they point to changes in the organization's behavior-controlling functions, such as its rules, insights and principles (Swieringa and Wierdsma 1992: 14). There also are those who contend that learning is reflected in *both*

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[24] See Fiol and Lyles (1985: 809) for a more detailed listing.

behavioral and cognitive changes. Shrivastsva (1983) notes that the rich and distinguished research on individual learning provides the basis for the relatively newer stream of research on organizational learning. He traces the emergence of some of today's ideas on information processing, problem solving, knowledge organization and memory structures back to early theories of learning and the *stimulus-response* model of behavior, and observes that many of these ideas emphasize the importance of the cognitive component *along with* the behavioral component. Similarly, Fiol and Lyles (1985) find consistent agreement on two critical dimensions of organizational learning: *content* of learning and *level* of learning. The first is further dichotomized into *cognitive* development and *behavioral* development. According to Fiol and Lyles (1985), cognitive changes result in new and shared understandings, insights and conceptual schemes of the organization's members. Behavioral changes on the other hand result in new responses, actions or structures. Wishart, Elam and Robey (1996: 8) observe that an organization's 'memory' is made up of two components, a *cognitive* component and a *behavioral* component. "The *cognitive* component is reflected in shared mental models about the identity of the organization and how specific actions are related to desired outcomes. The *behavioral* component of organizational memory involves procedures and routines, the steps followed in accomplishing organizational tasks" (p. 11).

Thus, the general consensus seems to be that *both* kinds of changes will be observed in learning organizations.

Degrees of Organizational Learning

As described earlier, learning is said to take place when information is processed, which in turn alters one's knowledge structure. Based on the quality of learning, this alteration may be one of several degrees or levels. Authors distinguish these degrees of learning in a number of ways, including: (a) single-loop and double-loop learning (Argyris 1977); (b) low-level and high-level learning (Fiol and Lyles 1985); (c) convergence and reorientation (Tushman and Romanelli 1985) and (d) adaptive and generative learning (Senge 1990).[25]

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[25] The difference between these levels can be illustrated using a simple example. A thermostat is designed to maintain room temperature at a pre-set value. Any deviation from this pre-set value is sensed by the thermostat, and signaled to the correcting mechanism. Once room temperature reaches the pre-determined value, the thermostat shuts off – only to be reactivated when the next discrepancy occurs. In essence, the thermostat 'learns' nothing new after the first instance. This is often termed as single-loop/low-level/convergence/adaptive learning. While this form of learning is necessary for organizational survival, it may not be sufficient for growth. In this form of learning, an individual or organization compares information sensed or received with existing knowledge structures, and if a difference is perceived, acts to rectify it or else does not respond. Underlying corporate philosophies, organizational norms, and behaviors are *not* altered by this form of learning. However, *if* the thermostat could "question its *own* behavior," and somehow change its response every time: we would have a case for potential double-loop/high-level/ reorientation/ generative learning. In such a situation, the system has questioned, tested and altered its own 'mental model'. This is difficult and often dangerous – in that organizations could be radically 'reengineered,' causing upheavals and lay-offs.

Whatever the level or degree of learning may be, it is generally accepted that neither is learning easy, nor is it readily accepted. In order to learn one needs to look foolish and often ignorant; yet one must be a willing participant. Senge (1994:12) refers to this as a 'paradox' of learning:

> A 'paradox' of learning: "Even when we claim we want to learn, we normally mean that we want to *acquire* some new tool or understanding. When we see that to *learn*, we must be willing to look foolish, to let another teach us, learning doesn't always look good anymore".

Not only does it not look good, learning could entail pain for those involved (Miner and Mezias's 1996) – very much akin to the results of some business re-engineering attempts. However, most writers and scholars concur that organizations should not only learn but they should also become 'double-loop' learners or else, as Argyris (1977) cautions, "they will be taken over" (p. 124). According to Argyris (1977) the necessary conditions which precipitate double-loop learning are (p. 117):

- a crisis is precipitated by some event in the environment (e.g. a recession or a competitor producing a better product)
- a revolution from within (e.g. a new management) or from without (political interference or takeover)
- a crisis created by existing management in order to shake up the organization

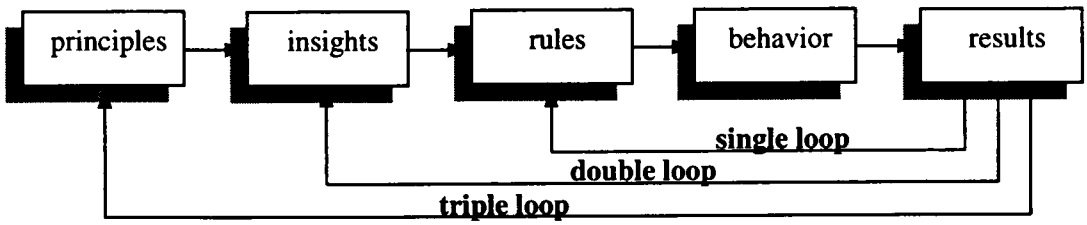
Argyris (1977) states that his model of double loop learning "emphasizes the building of trust and risk taking" (p. 123), and highlights the importance of

open, frank and clear communication channels between organizational members: "[D]ouble loop learning always requires an opposition of ideas for comparison" (p. 123-4). Such communication channels leave the organization's underlying assumptions, norms and objectives open to confrontation, and mismatches between 'practice and preaching' can be challenged.

As stated earlier, Fiol and Lyles' (1985) review of the literature finds consistent agreement on two critical dimensions of organizational learning: the *content* of learning and the *level* of learning. The second dimension is categorized into *lower-level* and *higher-level* learning. These levels of learning are described in the following manner (p. 810):

> *Lower-level Learning:* Focused learning that may be repetition of past behaviors – usually short term, surface, temporary, but with associations being formed. Captures only a certain element – adjustments in part of what the organization does. Single-loop. Routine level.
>
> *Higher-level Learning:* The development of complex rules and associations regarding new actions. Development of an understanding of causation. Learning that effects the entire organization. Double-loop learning. Central norms, frames of reference and assumptions changed.

Swieringa and Wierdsma (1992) identify *three* levels of learning: single loop, double loop and triple loop learning (Figure 2-7). According to them, single-loop learning addresses issues of the 'rules' of an organization and changes



Source: Swieringa, Joop and Wierdsma, André, (1992). *Becoming a Learning Organization*, Reading, MA: Addison-Wesley Publishing Co., p. 36.

Figure 2-7 Collective Learning Loops

result in *improvements*. Double-loop learning addresses issues related to the organizations 'insights,' resulting in *renewal* of its knowledge, understanding and insights. Triple-loop learning questions the very foundations upon which the organization is built. Such learning questions the will and being of the organization and is described as *development*.

Miner and Mezias's (1996) review of the literature on organizational learning suggests that: (1) separation of incremental and radical organizational learning[26] is useful and relevant; and (2) both types of learning can produce advantages and disadvantages. The problem with the first type of learning is that you can fall into a 'competency trap' (Levitt and March 1988), *i.e.* gain short-term, current-competency advantages at the expense of long-term, more useful competencies.[27] The second type of learning could be risky and dangerous. However, there is a consensus in prior research (Fiol and Lyles 1985) that when the organization's goal is performance, long-term survival, and growth, it is imperative that the organization 'fits' into its environment. In order to do so it must learn (or unlearn) things about its environment.

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[26] 'Incremental' and 'Radical' learning: yet another manner of describing the degree of learning.

[27] The tradeoffs between 'exploitation' vs. 'exploration' (Levitt and March, 1988).

Contextual Factors of the Learning Organization

Fiol and Lyles (1985) state that there also is agreement in the literature on the importance of such contextual factors as (a) corporate culture, (b) strategy, (c) structure and (d) environments. Prior research suggests that each of these factors affects the learning process significantly. Similarly, while stating that "a characteristic feature of learning organization is *variety*," Swieringa and Wierdsma's (1992: 77) sources of variety include contextual factors such as:

- *people* - thinkers alongside doers, reflectors along deciders, individualists alongside team players, technically oriented alongside commercially oriented;
- *strategies* - planned rational strategies alongside pragmatic intuitive strategies;
- *structures* - simple lines alongside complex matrices;
- *cultures* - task culture alongside individual culture, role culture alongside power culture;
- *systems* - complex alongside simple, systems for action and systems for reflection

Characteristics of a Learning Organization

What are the distinguishing characteristics of the learning organization? As seen in the definitions cited earlier, these organizations tend to foster dialogue, encourage experimentation, shrug off failures, and adopt an inquiry-orientation (Argyris and Schön 1996). Similarly, organizational adaptability, flexibility and a readiness to rethink both the means and the ends, all describe the learning

organization (Argyris and Schön 1996). Researchers have identified additional characteristics. For example, Wishart, Elam and Robey (1996) assert that such organizations will be (1) skillful at acquiring information, (2) storing it in memory, (3) retrieving it selectively to guide appropriate courses of action, (4) seek to revise organizational memory on a regular basis so that new responses to new challenges can be effected, and (5) bring key assumptions about important business issues to the surface where they can be examined and modified (i.e., willing and able to surface, test, and improve mental models and behavioral routines).

Stata (1988) states that learning organizations will be characterized by *openness* (a willingness to put all cards on the table; the elimination of hidden agendas; making ones motives, feelings and biases known – resulting in trust); *objectivity* (searching for the best answers based on reasoned positions and objective criteria, as opposed to political influence and parochial interests; making judgements based on facts and not on rumors and opinions), and *rewards*.

Finally, learning organizations are also capable of *learning to learn*, i.e., they are not only able to become competent but also *remain* competent (Swieringa and Wierdsma 1992). Learning organizations master the art of adapting quickly.

Learning organizations are continually transforming themselves (Pedler, Burgoyne and Boydell 1994) by collecting, managing and using knowledge for corporate success (Marquardt 1995).

Organizational Learning Perspectives

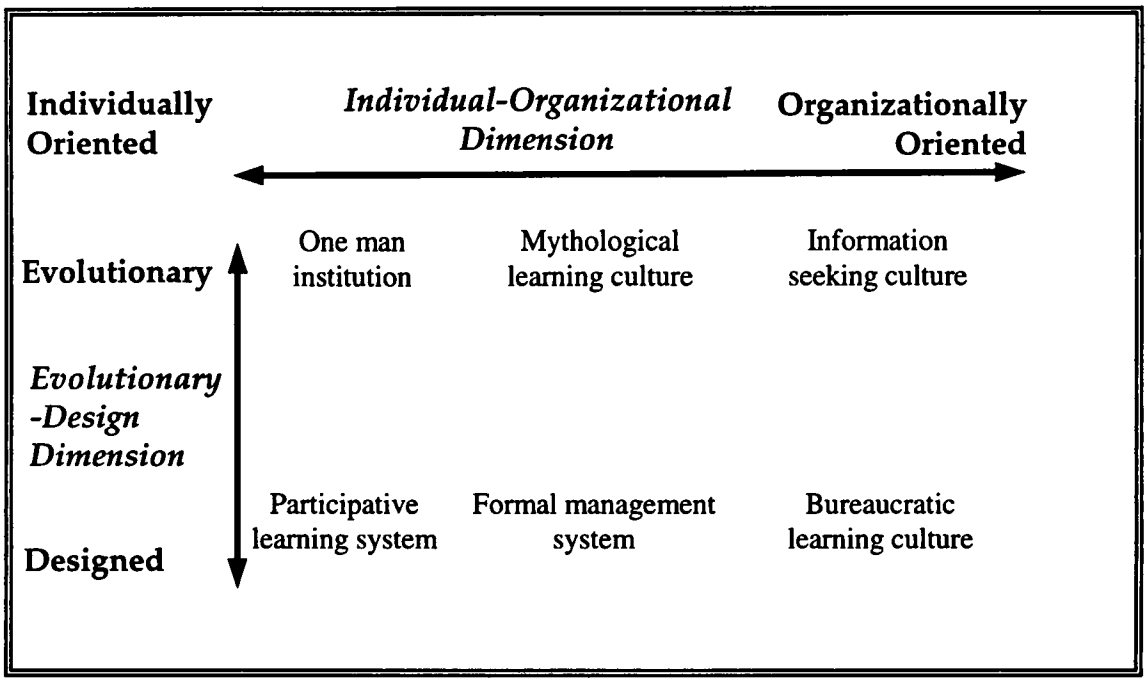
Acknowledging that the research on individual learning serves "as an anchor for research on organizational learning", Shrivastava (1983: 9) proposes a typology of organizational learning systems based on "mechanisms by which learning is perpetuated and institutionalized in organizations" (p. 7). Four organizational learning perspectives that emerge from his review are:

> *Organizational learning as adaptation* (Cyert and March 1963; March and Olsen 1976): suggest that organizations learn by adapting to changes in the environment by readjusting their goals, attention rules and search rules. Tends to take place incrementally; motivated by problems, imbalances, and difficulties. Takes place under ambiguity, incorporating cognitive and evaluative limits.
>
> *Organizational learning as sharing of assumptions* (Argyris and Schön 1978): theories-in-use result from sharing assumptions and cognitive maps among members; error-detection (due to a mismatch between cognitive map and information received) and error-correction; single-loop and double-loop learning; Weick's (1979) Enactment-Selection-Retention model: "Beliefs and assumptions form causal maps which enable members to 'see' and share organizational realities. This sharing of realities through mutual negotiation of cognitive maps constitutes learning by organizational members" (p. 12-13).
>
> *Organizational learning as the development of a knowledge base* (Duncan and Weiss 1978: 84): is defined as "the process within the organization by which knowledge about action-outcome relationships and the effects of the environment on these relationships is developed" (p. 13).

Organizational learning and experience (BCG 1968): learning curve effects are extended to describe learning and other activities such as managerial decision making.

Shrivastava (1983) presents a useful typology of six learning organization systems that vary along the *Individual-Organizational* and *Evolutionary-Designed* dimensions (Figure 2-8).

Daft and Huber (1987) state that their review of the literature on organizational learning highlights two basic perspectives – a *systems-structural perspective* and an *interpretive perspective*. The first perspective views the whole process as deterministic, rational, and logical – similar to Shrivastava's (1983) institutionalized-experience and development-of-knowledge approach. This perspective stresses the alignment between the organization and its environment. The acquisition process consists of *monitoring* the environment for problems and opportunities and *probing* by organizational members when an observed discrepancy calls for deeper examination. *Message routing* and *message summarizing* characterize the distribution process. The interpretive perspective on the other hand "focuses on the underlying purpose and meaning



Source: Shrivastava, P., (1983). "A Typology of Organizational Learning Systems," *Journal of Management Studies*, v. 20, 1, p. 18.

Figure 2-8 A Typology of Organizational Learning Systems

of messages" (Daft and Huber 1987: 8). A summary of these two views is found in Table 2-3. Based on these two perspectives (and factors called *organization structure, communication strategy* and *technology*), Daft and Huber (1987: 25) develop four modes of organizational learning. Each mode of learning is said to have inherent strengths and weaknesses and is only appropriate in specific situations.

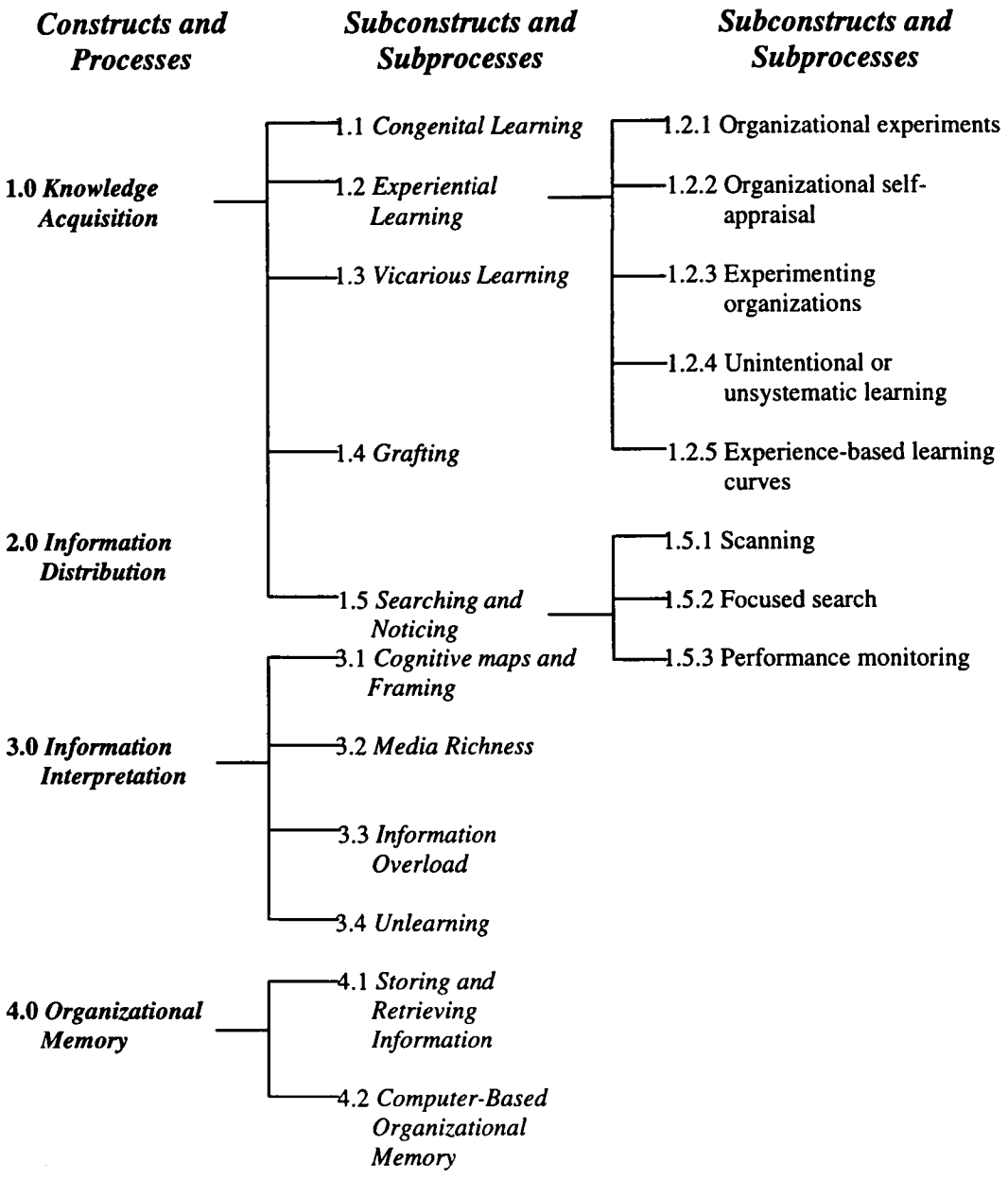
Huber (1991) takes a more behavioral perspective in dealing with organizational learning, stating that "an entity learns if, through its processing of information, the range of its potential behaviors is changed" (p. 89). Based on a broad and in-depth review of the literature and some of his earlier studies (Daft and Huber 1987: 90), he elaborates four critical and integrally linked constructs of organizational learning – *knowledge acquisition, information distribution, information interpretation,* and *organizational memory.* Each of these constructs is further treated in detail, providing a useful picture of various learning systems (Figure 2-9). Some of these are reflected in Miner and Mezias's (1996) discussions, which include:

- *Trial-and-error learning* (repetition of successful routines; behavior and competencies; standard operating procedures)
- *Inferential learning* (informed observation; active experimentation; interpretation and information acquisition

Table 2-3 Two Perspectives of Organizational Learning

Systems-Structural Perspective		*Interpretive Perspective*
The organization is a system for transmitting data.	vs.	The organization is a system for giving meaning to data.
Amount, frequency, direction, physical characteristics of messages.	vs.	Purpose, meaning of symbols, sense making by participants.
The environment is objective and can be learned through data acquisition.	vs.	The environment is equivocal and is learned through shared definition and enactment.
Organizations learn by acquiring data; rational analysis and new behavior is then directed by top decision makers.	vs.	Organizations learn by discussion and shared interpretation of events, changing assumptions, and trial and error.
Understanding leads to action.	vs.	Action leads to understanding.

Source: Daft, Richard L. and Huber, George P., (1987). "How Organizations Learn," *Research in Sociology of Organizations*, v. 5, p. 9.



Source: Huber, George P., (1991). "Organizational Learning: The Contributing Processes and Literatures," *Organization Science*, v. 2, no. 1 (February), p. 90.

Figure 2-9 Constructs and Processes Associated With Organizational Learning

- *Vicarious learning* (observation and copying of successful routines; deduction from outcomes) and
- *Generative learning* (active and creative discovery process) as various learning types.

In an extensive survey of 1,359 managers from companies around the world, a study sponsored by the International Consortium for Executive Development Research (Rheem 1995) found four basic types of organizational learning:

- *Competence Acquisition:* cultivate new capabilities in individuals or teams; continuously seek new ways to work; promote learning as a fundamental part of their business strategy;
- *Experimentation:* learn by experimentation; trying out new ideas; attempt to be first to market with new processes or products;
- *Continuous Improvement:* strive to master each step of the process before they move on; goal is to become the recognized technical leader for a particular product or process;
- *Boundary Spanning:* continuously scan other companies' efforts by benchmarking their progress against competitors and by pursuing information from sources outside the organization.

Interestingly, the survey found that companies that experiment scored the highest in terms of competitiveness and ability to change. They were followed by those that learned through competence acquisition, continuous improvement and last were those companies that learned through boundary spanning activities.

2.3.2 How to Become a Learning Organization

Peter Senge's *The Fifth Discipline* (1990) is perhaps one of the most influential books on learning organizations. According to him, organizations that excel in the future will be those that discover *how* to tap people's commitment and capacity to learn. Such organizations, termed "learning organizations," are those in which people continually expand their capacity to innovate, where radical thinking and creativity are nurtured, where collective aspiration is unbridled and where people are continually 'learning to learn'.[28] Senge's (1990) book describes five disciplines that organizations should integrate and foster from within if they truly want to 'learn': (1) systems thinking, (2) personal mastery, (3) mental models, (4) building a shared vision, and (5) team learning (p. 6).[29]

Senge's (1990) views are reflected in the works of others. According to Wishart,

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[28] When the goal is 'learning to learn', it also is called deutero-learning.

[29] Rylatt shares similar views when she presents her principles for becoming a learning organization: (1) build systems that output learning, (2) sponsor personal excellence, (3) create new mental models, (4) mould a shared vision, (5) promote teamwork and (6) perfect double loop learning.

Elam and Robey (1996: 8), "Many accounts of learning organizations suggest that the path to becoming a learning organization is often wildly experimental, intensely focused around team processes, structured into non-hierarchical clusters, and operating in virtual time/space through electronic networks." They suggest that, while there is no single best approach, a number of 'prescriptions' have been proposed. Common features among these many methods are (1) shared vision; (2) self-examination; (3) radical new structures/learning teams and (4) external alliances. Simultaneously, they caution that the most effective learning organizations are the ones that not only acquire and use knowledge as required, but also learn how to learn.[30]

Agreeing with many of Senge's (1990) views in *The Fifth Discipline*, Hitt (1995) states that in order for firms to survive they need to learn.[31] Using McKinsey's '7-S' framework Hitt (1995) contrasts traditional organizations and learning organizations along eight characteristics. For example, while traditional

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[30] Wishart, Elam and Robey (1996) caution against the emphasis on 'exploration' over 'exploitation' – "Many accounts of learning organizations, however, seem to emphasize exploration (gathering of information) over exploitation of existing organizational memory" (p. 16), they call for a more balanced approach.

[31] In order to survive, Hitt (1995) claims that Revan's (1982) equation should be satisfied *i.e.*, *Learning* must be greater than or equal to the amount of *environmental change* (L >= EC).

organizations focus on efficiency and effectiveness, Hitt (1995) claims that learning organizations strive for excellence and organizational renewal. Similarly, while the former follow road maps (for strategy), are hierarchically structured and use adaptive learning skills, the latter follow 'learning maps, are structured as dynamic networks and use generative learning. Finally, in traditional organizations there are 'controllers' for leaders and 'working groups' while in learning organizations leadership is 'catalytic' and members function as 'synergistic teams.' Similarly, Gupta and Fisher (1994) state that to become a learning organization, firms should include a "high degree of experimentation with new ideas, learning from the experiences and best practices of others, and diffusing knowledge quickly throughout their organizations" (p. 17).

The comparison of traditional versus learning organizations is exemplified by DiBella, Nevis and Gould's (1996) rendition of organizational learning as a capability that may be increased by building on existing capabilities or developing new ones. Based on their studies of Motorola, FIAT Auto, Electricite de France (EDF), and Mutual Investment Corporation, DiBella *et al.* (1996) present seven bi-polar 'learning' orientations. Viewed carefully, one can find traditional companies adhering to all the items on the left, while learning

organizations are those that lean more towards the right-hand items in the "Approach" column (Table 2-4).

De Geus (1988) insists that successful outcomes in a company's operations are never automatic – they are the result of careful planning. Similarly, Hosley *et al.* (1994: 7) see 'learning' as an active *and* passive process, as concrete *and* abstract, and taking place in stages. They state that the learning cycle is continuously recurring, revolving around a process very similar to the one described earlier by De Gues (1988). Finally, Revan's (1982) *System Beta,* which describes 'action learning,' also advocates similar steps if an organization wants to become a learning organization (Figure 2-10).

Levitt and March (1988) suggest that organizations develop their own conceptual frameworks and models, which they encode, store (in organizational memory) and retrieve as needed. Campbell and Cairns (1994)

Table 2-4 Learning Orientations

Name	Approach
1. Knowledge source	Internal .... External
2. Product-process focus	Product .... Process
3. Documentation mode	Personal .... Collective
4. Dissemination mode	Formal .... Informal
5. Learning focus	Adaptive .... Innovative
6. Value-chain focus	Design/make.....Market/deliver
7. Skill development focus	Individual .... Group

Source: DiBella, A. J., Nevis, E. C., and Gould, J. M., (1996). "Understanding Organizational Learning Capability," *Journal of Management Studies*, v. 33, no. 3, p. 373.

Absorption:	**Hearing:**	*Digestion:*	*Confirmation:*	*Action:*
paying attention to new information	➡ incorporating the new information into mental models	➡ drawing conclusions from the refined mental models	➡ testing these new models against experience	➡ acting on the basis of the altered model

Adapted From: De Gues, Arie P., (1988). "Planning as Learning," *Harvard Business Review,* March-April

Concrete Experience	*Observations and Reflections*	*Formation of Concepts and Generalizations*	*Hypothesis to be Tested in Future*	*New Experiences*
➡	➡	➡	➡	

Adapted From: Hosley, *et. al.,* (1994). "The Quest for the Competitive Learning Organization," *Management Decision,* v. 32, no. 6.

Survey:	*Policy:*	*Operations:*	*Inspection:*	*Control:*
observations of the external world	➡ formulation of theories based on these observations	➡ design and conduct of experiments to test these theories	➡ comparison of experimental and predicted results	➡ rejection/ modification/ confirmation of these theories

Adapted From: Revans, Reginald W., (1982). *The Origins and Growth of Action Learning,* Studentlitteratur, Lund, Sweden.

Figure 2-10 Learning Processes

concur with Garvin (1993)[32] and reiterate that a learning organization should be *meaningful, manageable* and *measurable.*

Easterby-Smith (1990) states that in order to be truly successful companies must add another dimension to their portfolios – learning. However, he says that organizational learning is *not* an easy concept to understand. Based on a survey of some 60 managers from five different companies, Easterby-Smith (1990) states that in order to become learning organizations they should:

> *Learn about organizational learning*: *i.e.* learn about individual vs. organizational learning; understand how values, myths, hierarchies, power, formal systems, and processes affect learning;
>
> *Promote experimentation*: *i.e.* take risks, and pay attention to people, structures, reward systems, and information and control systems; increase heterogeneity to improve creativity and innovation; create flexible structures; reward risk taking, and focus on good *and* bad news too; and
>
> *Regulate awareness*: *i.e.* improve external and internal information gathering.

Stata (1988) highlights the importance of 'management' innovation along with

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[32] Garvin (1993: 12) proposes a three-stage process of organizational learning:
Organizational learning can usually be traced to three overlapping stages. The first stage is cognitive. Members of the organization are exposed to new ideas, expand their knowledge, and begin to think differently. The second step is behavioral. Employees begin to internalize their new insights and alter their behavior. And the third step is performance improvement, with *changes in behavior leading to measurable improvements in results:* superior quality, better delivery, increased market share or other tangible gains.

product, technology and process innovations and supports the use of systems dynamics to improve the thinking within organizations. He states that "[T]he rate at which individuals and organizations learn may be the only sustainable competitive advantage, especially in knowledge-intensive industries" (p. 64). He also found that the 'either/or' strategy of differentiation or low-cost (Porter) was not true. You *could do both, i.e.* innovate and be low-cost. Stressing the importance of logistics, Stata (1988) states that "on-time delivery of products that work has become the major factor in vendor selection and performance evaluation. We can no longer win by sheer force of being first to the market with the latest products and technology" (p. 68).

Examples of Learning Organizations

Senge (1995) cites several examples of organizations with learning infrastructures: (1) Ford Motor Company - experimenting with "learning laboratories" that are a part of the product development process; (2) Federal Express - a group of managers have formed a customer sales learning laboratory that focuses on creating real partnerships with customers to increase knowledge about global logistics; (3) AT&T - set up learning sessions called forums, in which teams meet to discuss strategic issues. Gupta and Fisher

(1994) cite Analog Devices, Chaparral Steel, Xerox, Alcoa and British Petroleum as examples of learning organizations.

2.3.3 Organizational Learning and ...

The Environment

Hedberg (1981) notes that the literature on organizational learning "borrows heavily from research on individuals' cognition and learning" (p. 6). He draws heavily from March and Olsen's (1976) *stimulus-response* learning cycle in which individual actions lead to organizational actions that result in environmental responses. These responses in turn affect the individuals' cognition, beliefs and preferences, which in turn affect future actions. Hedberg (1981) stresses the strong influence that the external environment exerts on an organization's learning. Referring to Duncan's *et al.* (1978) classification of environments along two dimensions (simplicity-complexity and static-dynamic), he states that organizations experiencing either extremes (both dimensions are low or both are high) will find learning difficult. Highly complex organizations with rapidly changing environments overload the organization's information processing systems. At the other extreme, static environments with little

complexity offer few challenges for any kind of learning. Hedberg (1981) finds that a firm's internal environment (reward structures, etc.) can influence learning too.

In summary Hedberg states that (1981: 15)

> There are many ways in which organizations can influence their own learning. They can select and enact their outer environments, and they can redesign their inner environments. Organizations learn when they interact with their environments, but their environments are largely artifacts of the organizations' mental maps.

Fiol and Lyles (1985) acknowledge the prevailing confusion and lack of consensus on several issues of organizational learning research, yet find many areas for agreement. In an extensive review of the literature they find that a common premise is that for organizations to be competitive they must be aligned with their environments. In order to be in synchronization, such organizations must have the "potential to learn, unlearn, or relearn based on past behaviors" (p. 804).

Daft and Huber (1987) recommend that every organization must be aware of its external environment and have systems to acquire, distribute and make sense of any and all information received from it. Their perspective emphasizes "the

acquisition and distribution of information as a resource that is necessary for an organization to learn about its external and internal environments" (Daft and Huber 1987: 5).

Total Quality Issues

Gupta and Fisher (1994) propose three continuous improvement processes as an integral part of organizational learning to achieve 'world-class status'. They assert that in order for companies to be more competitive, Total Cost Management, Benchmarking, and Business Reengineering should be viewed *within* a learning context. Accordingly, the central purpose of organizational learning is "a comprehensive continuous improvement mechanism to create knowledge, values and processes to deal with uncertainties of the global business climate" (p. 17). Similarly, Stata (1988) states that "[O]rganizational learning serves as an umbrella to unify my approach to systems thinking, planning, quality improvement, organizational behavior, and information systems" (p. 64).

Key percepts emerging from Sitkin, Sutcliffe and Schroeder's (1994) review of the literature on Total Quality Management (TQM) are that most

studies/definitions (1) focus on customer satisfaction; (2) stress on continuous improvement; and (3) treat the organization as a total system. For example, they mention Snell and Dean's (1992: 470) description of the core concepts of TQM as reflecting these percepts: "total quality is characterized by a few basic principles – doing things right the first time, striving for continuous improvement, and fulfilling customer needs – as well as a number of associated practices." They also contend that the existing TQM literature is oriented more towards issues of *control*, highlighted by theories of cybernetics.[33] Ignored in most approaches is the goal of learning, which these authors say is critical – especially in highly dynamic or uncertain environments. Based on contingency theory and works by other contingency theorists (Lawrence and Lorsch 1967; Perrow 1967), Sitkin *et al.* (1994) suggest that it is essential for firms to *match* their organizational structures to their environments. They claim that organizational effectiveness is dependent on how well firms adapt to the requirements of the task, and to organizational or environmental conditions. They separate Total Quality Management (TQM) into – Total Quality Control

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[33] Cybernetic control involves "a process in which a feedback loop is represented by using standards of performance, measuring system performance, comparing that performance with standards, feeding back information about unwanted variances in the system, and modifying the system" (Green and Welsh 1988: 289).

(TQC) and Total Quality Learning (TQL) and present the three TQM percepts in terms of TQC and TQL (Table 2-5). Finally, they hypothesize that there is an *interactive effect* between environmental uncertainty and TQM (in terms of TQC and TQL) on effectiveness, instead of the previously hypothesized *direct effect*

- TQM is more effective under *low* Task, Product/Process and Organizational uncertainties
- TQL is more effective under *high* Task, Product/Process and Organizational uncertainties

Hosley, Lau, Levy and Tan (1994) explore individual, team and organizational learning in dynamic organizations. They describe a competitive learning organization as "a continuously adaptive enterprise that promotes focused individual, team, and organizational learning. This is achieved through satisfying changing customer needs, understanding the dynamics of competitive forces and encouraging systems thinking" (p. 5). In many ways this description reflects the common perceptions of TQM that Sitkin *et al.* (1994) refer to as customer satisfaction, continuous improvement and organization as a total system.

Table 2-5 Linking the Distinctive Principles Associated with TQC and TQL to Common Underlying TQM Percepts

Shared TQM Percepts	Principles Derived From Common Percepts	
	Control-Oriented Principles (TQC)	**Learning-Oriented Principles (TQL)**
Customer Satisfaction	Monitor and assess known customer needs	Scan for new customer needs, or issues
	Benchmark to better understand existing customer needs	Test customer need definitions
	Respond to customer needs	Stimulate new customer need definitions and levels
Continuous Improvement	Exploit existing skills and resources	Explore new skills and resources
	Increase control and reliability	Increase learning and resilience
Treating the Organization as a Total System	First-order learning (cybernetic feedback)	Second-order learning
	Participation enhancement focus	Diversity enhancement focus

Source: Sitkin, Sim B., Sutcliffe, K. M., and Schroeder, R. G., (1994). "Distinguishing Control From Learning in Total Quality Management: A Contingency Perspective," *Academy of Management Review*, v. 19, 3, p. 546.

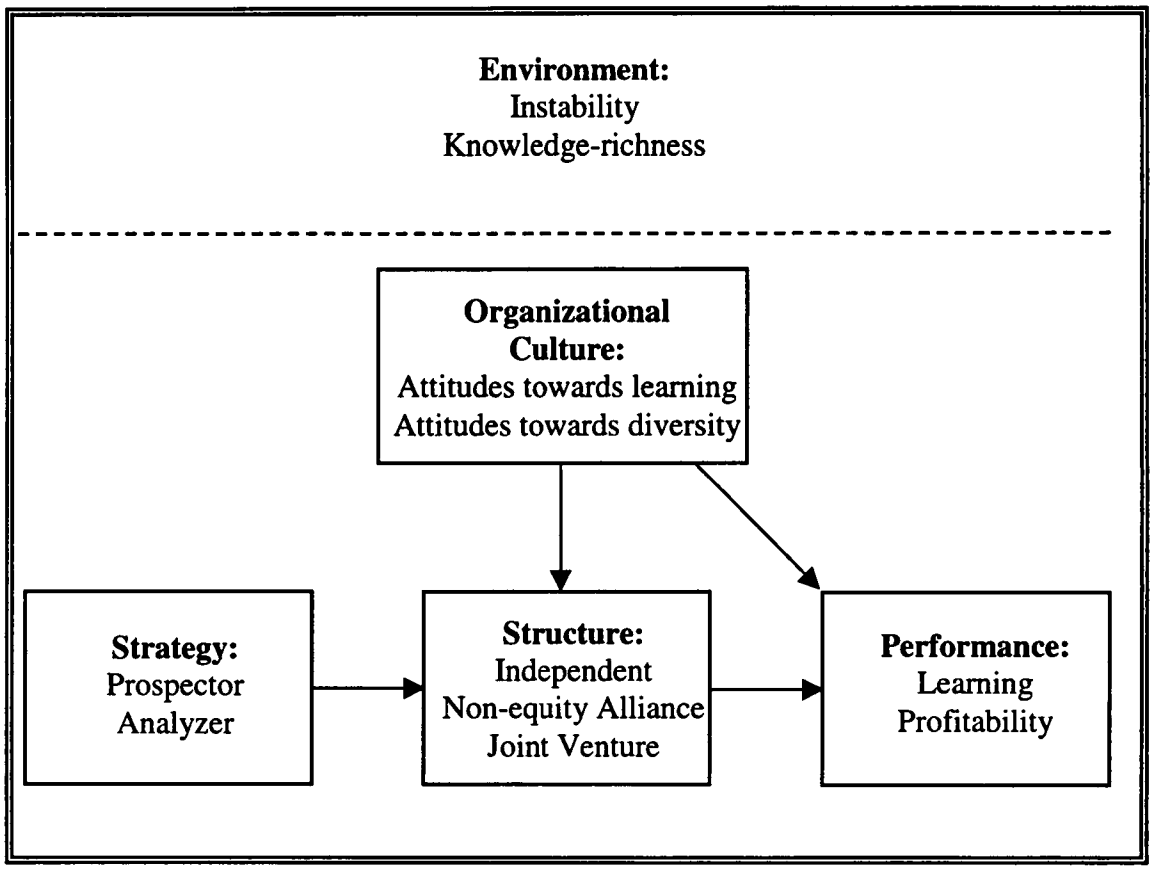
2.4 *IORs & Organizational Learning*

As mentioned at the outset, in recent times there has been a tremendous growth in various forms of inter-organizational relationships (Hergert and Morris 1988; Park 1992; Gulati 1995). However, I had also mentioned that there are very few studies linking organizational learning and IORs; moreover there are none linking organizational learning and IORs that have been established for logistics purposes. In this part I review a few studies on IORs and organizational learning.

In an attempt to extend the literature on organizational learning into strategic alliances, Osland and Yaprak (1994: 53) build on research from strategic marketing. They suggest that in order for firms to remain competitive they should be able to gain and apply new knowledge in a business environment that is being increasingly driven by knowledge

> [T]he firm is (now) viewed as a portfolio of core competences and value-creating disciplines. As these competences are not distributed equally among firms, global competitiveness depends on the firm's receptivity, efficiency, and absorptive capacity in organizational learning (p. 52)

They propose an integrative framework that positions 'learning' as an outcome that affects the performance of an organization (Figure 2-11). The conceptual



Source: Osland, G. E., and Yaprak, A., (1995). "Learning Through Strategic Alliances: Processes and Factors that Enhance Marketing Effectiveness," *European Journal of Marketing*, v. 29, no. 3, p. 55.

Figure 2-11 A Framework of Learning through Alliances

model they offer is based on Chandler's (1962) strategy-structure-performance paradigm. Additionally, the Miles and Snow (1978) strategic typology is used to differentiate the types of learning,[34] and the open-systems views of political economy theory is used to emphasize the importance of the firm's environment. Finally, they propose that (p. 56-61):

- the greater the environmental instability, the greater the number of inter-firm partnerships for learning purposes;
- firms that have 'learning' as a shared norm in their organization culture are more likely to learn from alliances;
- firms that seek employee diversity are more likely to learn;
- Prospectors are more likely to initiate strategic alliances for synergistic learning purposes and Analyzers for imitative learning;
- Defenders operate in a stable environment, therefore do not tend to form alliances with the explicit intention of learning, while Reactors are often unable to learn;
- learning leads to better performance.

Inkpen and Crossan (1995) develop a conceptual model of organizational learning and apply it to learning in joint ventures. They reiterate many of the views mentioned earlier, including the assertion that learning occurs at different levels (individual, group and organizational) and that it involves both behavioral and cognitive changes. In fact, based on the presence and/or

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[34] Four types of 'Learning' - *Experience* (Learning curves, R&D departments), *Imitation* (Follow-the-leader), *Grafting* (acquisitions or long-term alliances) and *Synergism* (collaborate to produce new knowledge). Osland and Yaprak (1994) state that the last method has the highest potential for producing discontinuous innovations that create new markets.

absence of these changes, they present six forms of learning at the individual level (Figure 2-12). They state that "In a JV, two or more organizations are brought together because of their complementarity and their differences. The differences or discrepancies in partner competency areas are the fuel for learning. Whether or not the discrepancies are identified and resolved determines whether learning occurs" (p. 596). Based on the interviews of 58 managers from 40 joint ventures established between North American and Japanese automotive parts companies, Inkpen and Crossan (1995) present several findings:

(1) firms with explicit learning objectives were unable to put in place mechanisms for transfer of knowledge from the joint venture to the parent organization;

(2) while joint venture managers were enthusiastic, parent company personnel were reluctant. This hampers institutionalization of knowledge; and

(3) a rigid set of managerial beliefs and an unwillingness to learn impedes organizational learning.

Fiol and Lyles (1985) differentiate between cognitive and behavioral changes in learning. They state that while the former is really *learning*, the later is *adaptation*. They describe the learning process as the detection of a mismatch between one's beliefs (cognitive dissonance), perceptions, and then modification of those beliefs to resolve that mismatch. Open-ended interviews

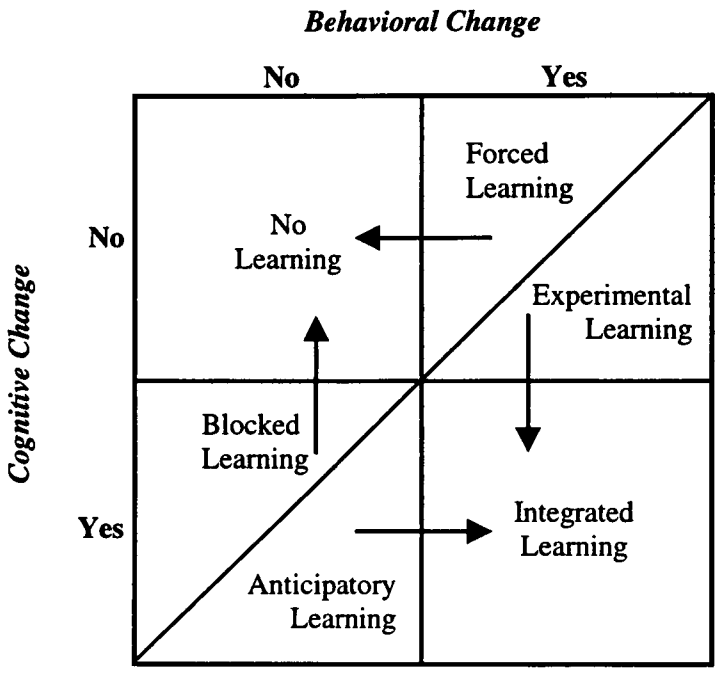


Figure 2-12 Relationship Between Behavior and Cognition

with management (vice-president and president level) of 40 North American-Japanese automotive supplier joint ventures revealed several recurrent themes:

- existing sets of managerial beliefs constrained learning;
- American firms focused on learning from visible information (or know-how or 'migratory knowledge – knowledge that can be clearly and fully articulated, and which is therefore mobile);
- three types of mechanisms that convert individual to collective learning are (1) personal facilitation by a leader or influential person guiding the integration process, (2) shared facilitation where the individuals in the group share trust, respect, etc., for each other, and (3) artefactual facilitation in which the organizations' systems and structures act as the integrating mechanism;
- rather than use institutional mechanisms to transfer learning, information was transferred from group to group on a piecemeal basis;
- managers expected to find gaps in their knowledge, but found subtle discrepancies, which were difficult to detect;
- noticing discrepancies is more likely when an individual has a complex belief system (experts are therefore more likely to notice discrepancies); and
- resolution is more likely in individuals whose belief systems are more flexible. Firms with poor competitive positions had managers with the most entrenched belief systems, who therefore were unwilling to cast off old ideas or unlearn.

Parkhe (1991) discusses the performance of 'Global Strategic Alliances' (GSAs) in terms of inter-firm diversity and organizational learning. He defines GSAs as "relatively enduring interfirm cooperative arrangements, involving cross-border flows and linkages that utilize resources and/or governance structures from autonomous organizations headquartered in two or more countries, for the joint accomplishment of individual goals linked to the corporate mission of

each sponsoring firm" (p. 581).[35] He separates inter-firm diversity into two categories (p. 580), and focuses on the second one

> Type I: familiar interfirm differences; ones that positively effect the alliance; differences that actually facilitate the formulation, development, and collaborative effectiveness of GSAs; reciprocal strengths and complementary resources; all the motivations listed by various alliance authors (Contractor and Lorange 1988: 10);
>
> Type II: differences that negatively effect the longevity and effective functioning of the GSA (examples are: societal/national/corporate cultures, strategic direction, managerial practices).

However he states that Type II differences can be overcome through "iterative" cycles of organizational learning. Parkhe (1991) describes the connection between longevity, organizational learning and strategic alliances (p. 589-590):

> Miles and Snow (1978) demonstrate for example, that a firm's posture (defender, prospector, etc.,) is tied closely to its culture, and that shared norms and beliefs help shape strategy and the direction of organizational change. These broad norms and belief systems clearly influence the behavioral and cognitive development that a GSA partner can undergo; in turn, learning and adaptation in the organization often involves a restructuring of these norms and belief systems (Argyris and Schön 1978).
>
> Strategy can affect organizational learning, and through learning alliance longevity, in various ways. Since strategy determines goals and objectives and the breadth of actions available to the firm, it influences learning by providing a boundary to decision making and a context for the perception and interpretation of the environment (Daft and Weick 1984). In addition, as Miller and Friesen (1980) show, a firm's strategic direction creates a momentum for

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[35] This definition eliminates single-transaction market relationships, as well as unrelated diversification moves, while including a variety of strategic motives and organizational forms that accompany global partnerships.

> organizational learning, a momentum that is pervasive and highly resistant to small adjustments.

Parkhe (1991) concludes that "[T]he relationship between diversity and longevity is dynamic, and is strongly influenced by the amount of learning and adaptation occurring between the GSA partners" (p. 597). He states that the shrinkage of Type I diversity leads to a *planned* termination of the alliance, while an escalation of Type II diversity leads to an unplanned end to the alliance and a failure to achieve the initial objectives.

Hamel (1991) asserts that firms are endowed with varying bundles of core competencies and disciplines (total quality control, just-in-time manufacturing systems, value engineering, flexible manufacturing systems, total customer service). Since these are not distributed equally, competitive firms seek to *internalize* these through collaborative strategies and inter-partner learning. Hamel (1991) uses case studies to develop a better understanding of the determinants of inter-partner learning. Based on interviews with seventy-four individuals, across eleven companies involving nine international alliances[36] he

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[36] These alliances involved firms of sizes ranging from $500 million to $50 billion in sales, in industries such as aerospace, chemicals, semiconductors, pharmaceuticals, automobiles, computers and consumer electronics.

identifies concerns over asymmetry in the 'learning' process. The concerns he identified fell into three broad categories (p. 85): (1) the *intent* of partners (competitive versus collaborative, internalization of partner's skills versus mere access); (2) *transparency* (openness of the firm to its partner); and (3) *receptivity* (ability to actually absorb skills and knowledge from the partner). Other facts that emerged in the initial stages of Hamel's (1991) 'Grounded Theory' approach were linkages between learning and inter-partner bargaining power and the notion that the collaboration also was a 'race-to-learn' (p. 85). Finally, Hamel (1991) presents six major findings from his study, which are summarized below (p. 87)

(1) Alliances were regarded as a transitional stage during which internalization of the others' skills was primary.
(2) Asymmetries in learning could lead to a shift in dependencies.
(3) Internalization intent is the strongest in competence-based competitiveness rather than in product-based.
(4) Transparency was evident; some firms are more transparent than others.
(5) Receptivity was evident too; some firms were more receptive than others.
(6) The determinants of sustainable learning include possessing the discipline for continuous improvement.

Citing several examples of competitive collaborations[37] between two or more multinational firms, Pucik (1988) asserts that the inability of a firm to protect its competitive advantage in such relationships and to control the strategic direction of the cooperative venture is a sure formula for failure. The author cites examples of companies that gave up more than they received: Allied/Bendix, General Electric, General Foods, International Harvester, Renault, USX and Westinghouse (p. 81). Pucik (1988: 80) states that benefits (visible and invisible) of such competitive collaborations are often appropriated differently. While visible benefits (profits, etc.) can be allocated efficiently and monitored easily, invisible benefits are appropriated as a function of the organization's learning capacity. Questioning their viability, the author lists several obstacles relevant to organizational learning in such competitive, international strategic alliances:

- strategic intent not communicated (since cooperation takes place at different levels in the organization, the degree and nature of cooperation may vary);
- short term and static planning horizon;
- low priority given to learning activities (since invisible assets and activities that generate such assets cannot be financially evaluated, hence are never funded);
- insufficient lead-time for staffing decisions;
- resource-poor staffing strategy;

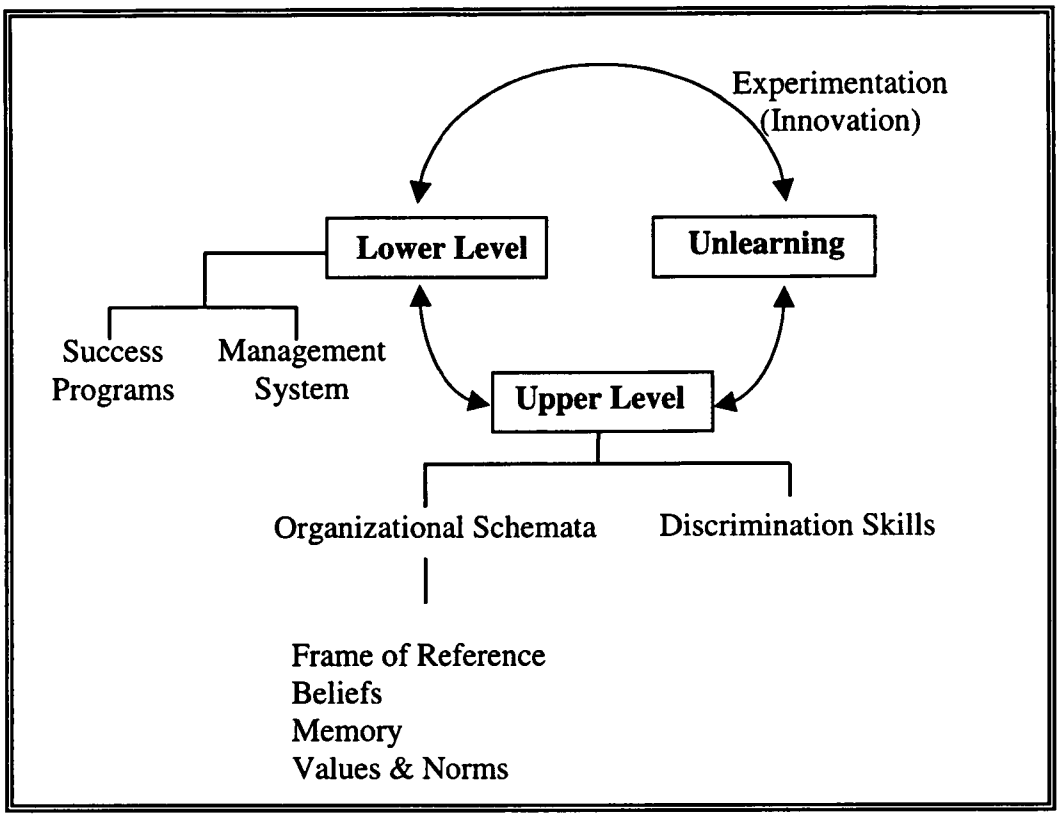
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[37] Cooperative relationship versus Competitive collaboration: a common desire for a long-term, *mutually* beneficial, win-win outcome versus a 'strategic intent' of achieving dominance quickly (making the long term, mutually beneficial, win-win outcomes unlikely).

- low quality staff assigned to manage the alliance, etc.

Lyles (1988) also uses the 'Grounded Theory' methodology advocated by Glaser and Strauss (1967) to explore the issue of learning in joint ventures. Using this methodology and triangulating data from multiple interviews in two American and two European firms, and from the company's archival data and publicly available information, Lyles (1988) addresses three basic issues – *whether* learning occurred, *how* it occurred, and *what* was learned. She presents a learning framework (Figure 2-13) that identifies two levels of 'learning' – Lower level (or mere adjustment decisions) and Higher level (deeper changes to belief structures, values and norms). Lower level learning involves repetition and routine and involves association building (e.g., SOP, decision rules, etc. – context is well understood) (p. 86). Higher level learning often results in new frames of reference, new skills for problem formulation or agenda setting, new rules or the unlearning of past success programs. Additionally, she identifies three types of higher level learning: (1) discrimination skills, (2) unlearning, and (3) innovation.

Chan and Wong (1994) state that "Corporate culture is the outcome of lengthy organizational learning and is extremely difficult to change. In short, strategic



Source: Lyles, M. A., (1988). "Learning Among Joint Venture Sophisticated Firms," *Management International Review*, v. 28, Special Issue, p. 87.

Figure 2-13 Learning Framework

alliances should not be used to compensate for cultural weaknesses, but rather to create competitive strength or to create a strategic position" (p. 31). They look at three cases of cooperation in the automotive industry: Ford and Mazda, General Motors (GM) and Toyota, and GM and Daewoo. A key observation the authors make is that in all three cases "crucial aspects of organizational knowledge are aspects of corporate culture...knowledge of quality control and teamwork was closely related to the culture of empowering the employees" (p. 35).

Levinson and Asahi (1995) state that understanding the role played by *culture, structure, technology,* and *absorptive capacity*[38] is critical to ensuring success of cross-national alliances. In the process they identify four steps in inter-organizational learning' (p. 61)

(1) *knowledge identification:* becoming aware and identifying new knowledge; (involves scanning activities);

(2) *knowledge transfer:* transferring/interpreting new knowledge;

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[38] *Culture*: national, corporate, occupational, and small group cultures; *Structure*: patterns of structure - networks; position in the network - central or peripheral; type of 'coupling' - tight or weak; number of linkages, etc., *Absorptive Capacity*: the ability to learn from a multitude of sources; refers to the ability of the organization to pick up new ideas and adapt to them; it is the foundation for technical learning; etc.

(3) *first-order learning:* using knowledge by adjusting behavior to achieve intended outcomes; and

(4) *second-order learning:* institutionalizing knowledge by reflecting on what is happening and adjusting alliance behavior.

Lei and Hitt (1995) state that "High levels of merger and acquisition activity, as well as leveraged buy-outs (LBOs), are expected to produce a diminished resource base for organizational learning and technology development. Continued reliance on outsourcing, in turn, can potentially "lock out" the firm from participating in future technologies and new industries" (p. 835). They build a conceptual framework that captures the relationships among restructuring activities such as mergers and acquisitions (M&As), leveraged buy-outs (LBOs), and outsourcing. They assert that skills and capabilities that are human-embodied often contribute to tacit knowledge and that excessive dependence on outsourcing has negative implications for the firm's knowledge base, as well as its ability to acquire new skills, technologies and capabilities (p. 840).

Simonin and Helleloid (1993) provide one of the few studies that empirically evaluate 'learning.'[39] They attempt to answer questions such as: "Do firms learn from past successful and failed collaborative experiences? Do they then apply this knowledge in future collaborations?" Results from a survey indicate that *collaborative experience* affects the development of *collaborative know-how*, and this know-how is then used in latter alliances to develop *tangible* and *intangible* benefits.[40]

Finally, Lukas, Hult and Ferrell (1996) provide a theoretical perspective for the antecedents and consequences of organizational learning in marketing channels. On the basis of the existing research and a number of their own case studies, they propose several relationships between several of the constructs I have stressed. For example, they posit that (1) when a firm's task environment is stable and predictable, and its channel functions are routine and repetitive,

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[39] Two other studies are by Dodgson (1993) and Hamel (1991).

[40] *Collaborative experience* includes all forms of inter-firm relationships. *Collaborative know-how* is composed of: (1) partner searching know-how; (2) negotiation know-how; (3) management know-how; and (4) termination know-how. Development of *Collaborative know-how* is through - direct experience or through non-experiential, congenital, vicarious, or grafting modes (see Huber 1991). *Tangible benefits* include: (1) profits, (2) market share, (3) sustaining competitive advantage; *Intangible benefits* include: (1) Learning about inter-firm collaboration; (2) Learning skills/competencies from partner; (3) learning skills/competencies independently from partner; and (4) Learning how to learn from collaboration.

single-loop learning takes place, and (2) when the task environment is rapidly changing and unpredictable and channel functions are non-routine and irregular, *double-loop* learning takes place. They assert that as learning increases, performance of the marketing channel does too.

2.5 *Conclusions*

> St. Paul's illustration is more aggressive (I Corinthians Chap. 3, v.18): "Let no man deceive himself. For if any among you think himself wise in this world, let him become a fool that he may be wise." It is becoming as a little child (or as a fool) that one is able to shake off the fetters of predisposing mental sets, or to cast out any library of antiquated subroutines that block one's access to the present – Reg Revans (1982: 527)

Ray Bonner, retired IBM senior executive, offers his view of alliances: "[T]here are a lot of good mechanics and technicians out there in this alliance business, and a few good deal makers. But there aren't any true architects. In fact, there really isn't even an architecture for alliances. Until there is, alliances will not be as successful as they should be. It's a shame" (Lynch 1993: 47). While Lynch (1993) attributes the lacuna to a lack of systematic models and lack of a shared vision from conception to implementation, one is reminded of Revan's (1982) reference to St. Paul's call to mankind and Senge's (1994: 12) 'paradox' of

learning. The former assumes that one needs to look foolish in order to learn, while the latter laments that since learning involves looking foolish, people shy away from learning situations. This aspect, coupled with the fact that there has been very little research on IORs and learning, leads back to Ray Bonner's observations. The literature review in Sections 2.2, 2.3 and 2.4, in addition to finding support for Bonner's assertions, provides a blueprint for building a conceptual model describing strategic inter-organizational logistics relationships (SIOLRs)– the architecture to which Ray Bonner might be referring.

The discussion of IORs highlighted how different and sometimes conflicting our analyses are of this complex and important phenomenon. First, several definitions and terms were presented. While only a few were discussed, the wide range indicates how rich, yet diverse the literature is. Table 2-6 presents a few of the recurring themes drawn from some of these definitions. Similarly, the discussion of IOR characterizations revealed several recurrent factors; of these the *environment* (Root 1988; Killing 1988; Cravens *et al.* 1993; Frazier and Antia 1995) figured most prominently.

Table 2-6 Definitionally Implied Dimensions/Themes

Dimensions/Themes	Author(s)
Competitive & Strategic Advantage	Devlin & Bleackely (1988); Bronder & Pritzl (1992); Harrigan (1988a); Varadarajan & Cunningham (1995)
Learning & Knowledge	Lei & Slocum (1992)
Information Sharing	Ellram (1990)
Immediate & Future Benefits	Levine & White (1961)
Long Term Orientation/ Enduring	Devlin & Bleackley (1988); Root (1988); Ellram (1990); Parkhe (1993b)
Relative Position of Firms in Value Chain	Borys & Jemison (1989); Achrol, Scheer, & Stern (1990); Varadarajan & Rajaratnam (1986)
Mutual Need/Interdependence	Mohr & Spekman (1994); Rinehart (1992); Anderson and Narus (1990)
Compatibility	Mohr & Spekman (1994)
Joint Action/Common Goals	Parkhe (1993b); Rinehart (1992); Anderson and Narus (1990)
Equity	Stafford (1992)
Boundary Spanning	Achrol, Scheer, & Stern (1990)

The discussion of IOR perspectives highlighted four major ones, and all indications were that the learning perspective, although it appears promising, is not yet fully developed. Neither are linkages between the IORs and learning (Bronder and Pritzl 1992). That learning is a critical skill/capability and a possible source of competitive advantage is clearly acknowledged by many, yet learning is incorporated in few models (at least not explicitly). Finally, the discussion of IOR processes showed that most approaches follow a linear, lock-step process: one stage of the process leading into the next and so on. Many of the IOR processes reviewed, begin with the identification stage and end with termination.

The discussion of 'strategy' reveals three very important issues. First, any description of strategy should include the environment and the generation of competitive advantage. For example, Hofer and Schendel (1978) state that strategy is a "fundamental pattern of present and planned resource deployments and environmental interactions that indicate how the organization will achieve its objectives." Several of the Open-Systems theorists endorse such views – especially where it concerns IORs.

Second, strategy, as posited by Mintzberg (1978), and the associated strategy typology seem to be more applicable to strategic IORs than other descriptions such as the Miles and Snow (1978) typology. For example, Devlin and Bleackley's (1988) definition clearly insists that (1) strategic alliances need to fall *within* the company's broader strategic initiatives and (2) their *intent* should be to generate a *competitive advantage*. In other words, *strategic* relationships are crafted with care and diligence; they are an *intended* part of the organization's overall strategy; how they get *realized* and what the outcomes are depend on several other factors, *e.g. learning capabilities*.

Third, modifications made by Mintzberg (1991, 1994) that incorporate learning make it even more appropriate to IORs. Such modifications address concerns voiced by both Benson (1975) and Day and Wensley (1983). The former states that for a relationship to be successful "each party must hold something of value for the other party" (Benson 1975: 241). The latter claim that unless the IOR can contribute to some type of competitive advantage (product differentiation or creating barriers to switching), it will not succeed. Both of these concerns can be addressed through continuous improvement processes, constant innovation and experimentation, etc., – *i.e.* through *learning*.

Thus, any model describing strategic inter-organizational logistics relationships (SIOLRs) should explicitly include strategy and be viewed through a learning "lens" (Figure 2-14).

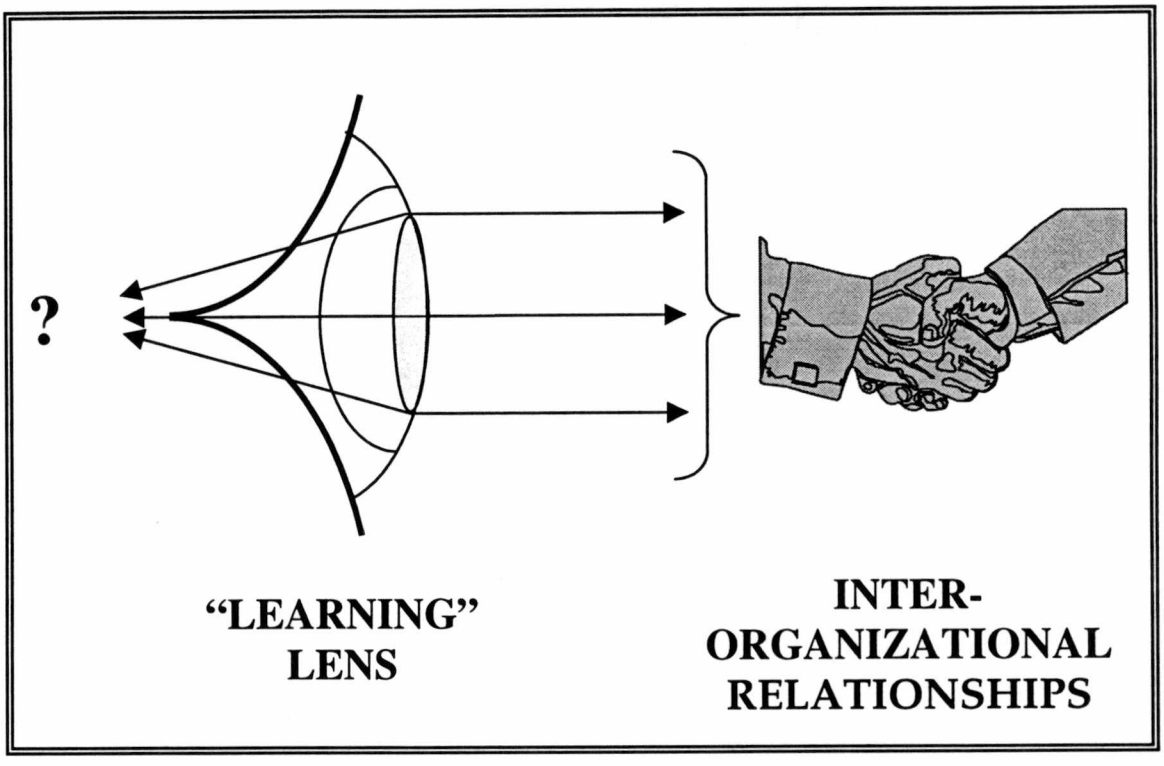


Figure 2-14 Viewing Inter-Organizational Logistics Relationships through a Learning "Lens"

CHAPTER 3: Research Methodology

3.1 Introduction

The literature review highlighted several important issues and identified critical lacunae in the research on inter-organizational relationships (IORs), especially IORs formed for logistics and transportation purposes. First, disagreements over fundamental issues such as definitions were presented. Second, distinct research methodologies from different disciplines were discussed, compared and contrasted. In the process, strong arguments for revisiting these issues were made. Third, a review of the literature pertaining to logistics' IORs revealed a dearth of adequately grounded research. It was apparent that the research in this area uncritically accepted existing theories instead of first examining the compatibility between the theory and the context of its application. In the course of my search for an adequate theory to explain logistics IORs, I have proposed a new concept – *'inter-organizational learning.'*

The literature review indicates that in the past few years, concepts such as 'organizational learning', 'learning organizations' and organizational learning *within* firms have been substantially researched, especially in fields such as organizational behavior (Senge 1990) and strategic management (Shrivastava 1983). However, *inter-organizational learning*, the learning which occurs *between* organizations (such as in IORs), is still a relatively unexplored concept. Furthermore, research in inter-organizational learning within a *logistics context* is virtually non-existent. A preliminary review of the literature reveals that more groundwork is needed before this concept can be usefully applied to enhance our understanding of IORs. Hence, before inter-organizational learning can be presented as an alternative, some theory building is necessary. This chapter presents my methodology for this endeavor.

Chapter Three is structured as follows. First, a discussion justifying the appropriateness of a *qualitative* research paradigm is presented. Next, I provide a brief description of three qualitative methodologies. These are (1) *"Grounded Theory"* advocated by Glaser and Strauss (1967) and Strauss and Corbin (1990); (2) the *"Case Study Method"* developed by Yin (1994) and Bonoma (1985); and (3) a *modified* case study method developed by Eisenhardt (1989). These approaches are singled out from the "dozens" (Miles and Huberman 1994: 5;

see Table 3-1) that are available, since these three have influenced the research method I used in this study. Finally, the research methodology itself is discussed in detail.

3.2 *Choice of a Methodological Paradigm*

According to McGrath (1982) the research process is

> [A] series of logically ordered... choices. Those choices run from formulation of the problem, through design and execution of a study, through analysis of results and their interpretation. *The series of choices is locally directional:* Plan must come before execution; data collection must come before data analysis. *But the set of choices is systematically circular:* It starts with a problem, and gets back to the problem. The end result of the process, however, never arrives back at the exact starting point, even if all goes well. So, the process really should be regarded as a series of spirals, rather than as a closed circle (p. 71-72).

McGrath (1982) categorizes various research methodologies (both qualitative and quantitative) into eight categories[41] and the "choices" he refers to are those decisions made by the researcher that result in the adoption of one of these strategies. McGrath (1982) cautions that no matter which research strategy is

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[41] McGrath's (1982) eight research strategies: (1) Laboratory experiment; (2) Experimental simulation; (3) Field experiments; (4) Field studies; (5) Computer simulations; (6) Formal theory; (7) Sample surveys; and (8) Judgement tasks.

Table 3-1 Different Approaches to Qualitative Research

Action research	Ethnography	Interpretive interactionism
Case study	Ethnographic content analysis	Interpretive human studies
Clinical research	Ethnography of communication	Life history study
Cognitive anthropology	Ethnomethodology	Naturalistic inquiry
Collaborative enquiry	Ethnoscience	Oral history
Conversation analysis	Experiential psychology	Panel research
Dialogical Research	Field study	Participant observation
Delphi study	Focus group research	Participative research
Descriptive research	Grounded theory	Phenomenography
Direct research	Hermeneutics	Phenomenology
Discourse analysis	Heuristic research	Qualitative evaluation
Document study	Holistic ethnography	Structural ethnography
Ecological psychology	Imaginal psychology	Symbolic interactionism
Educational ethnography	Intensive evaluation	Transcendental realism
Educational connoisseurship and criticism		Transformative research

Adapted from: Tesch, R., (1990). *Qualitative Research: Analysis Types and Software Tools*, Philadelphia, PA: Falmer Press, p. 58.

adopted, the investigator is always confronted by the *three-horned dilemma.*[42] Thus whether the choice is a Qualitative (*inductive, naturalism, interpretivism,*[43] *logico-inductive*) or Quantitative (*deductive, logical empiricism, positivism,*[44] *hypothetico-deductive*) research paradigm, investigators have to deal with the fact that there is no best method, only one that is more appropriate than another.

Research in social science, especially in marketing (Bonoma 1985), has traditionally emphasized the quantitative approach. While the research problem in itself may have mandated the use of a quantitative methodology, the scientific community's views on 'research methodologies' in general may have exerted an even *greater* influence. Patton (1980) reflects this feeling

> [R]esearch is dominated by the largely unquestioned, natural science paradigm of hypothetico-deductive methodology. This dominant paradigm assumes quantitative measurement, experimental design, and multivariate, parametric statistical analysis to be the epitome of "good" science.

---

[42] McGrath (1982) asserts that there is no single best research strategy. All methods are inherently flawed since the researcher is confronted with the *three-horned dilemma.* Optimally, researchers would like to maximize (1) *generalizability;* (2) *precision;* and (3) *realism.* However no single research strategy allows such maximization. He states that, in the process of designing and conducting a research study, the researcher optimizes on any two "horns" and minimizes on the third.

[43] *Interpretivism* attempts to understand a phenomenon, not predict or explain it. (Mentzer and Khan 1995: 232).

[44] *Positivism* is where reality is considered objective, tangible and "fragmentable" (Mentzer and Khan 1995: 232).

> The label "research" has come to mean the equivalent of employing the "scientific method," of working within the dominant paradigm (Patton 1978: 203-204, 207).

However, while tracing the dominance of quantitative techniques to the growth in sophistication of statistical tools and mathematical manipulations, Dey (1993) states that the past few years has in fact witnessed a resurgence of the 'other' paradigm. He goes on to state that the growing challenge to the 'dominant paradigm' may be the result of a reaction to the "perceived predominance of quantitative methods" (Dey 1993: 4). In other instances the choice of a qualitative approach stems from a "disenchantment" (Bonoma 1985: 203) with the adequacy of the quantitative tools currently available to study certain phenomena – particularly those phenomena that suffer when removed from their natural settings (and thus become 'impaled' by one of McGrath's (1982) three horns – *realism*). Examples of such contexts include the study of the dyadic interactions between buyers and sellers and the nature of "good practice" in marketing management (Bonoma 1985). In either context, quantitative instruments such as survey questionnaires may be inadequate for capturing the essence of the phenomenon.

For others, the choice of a qualitative methodology may result from pure distaste for the quantitative approach. Supporting the use of a "naturalistic" mode of inquiry, Geertz (1973) states:

> To set forth symmetrical crystals of significance, purified of material complexity in which they were located, and then attribute their existence to autogeneous principles of order, universal properties of the human mind, or vast a priori *weltanschauungen*, is to pretend a science that does not exist and imagine a reality that cannot be found (p. 20).

Similarly, Lincoln and Guba's (1985) contrast of the two paradigms suggests disdain for the "positivistic" approach. Their comparison of the two dominant paradigms along five dimensions: ontology, epistemology, generalization, causality and axiology is shown in Table 8. Whatever one's reasons might be, the qualitative research paradigm is more popular today than it ever was. As Patton (1980) observes

> The dominant paradigm no longer seems so ominous (p. 19).

Dey (1993) states that quantitative data deals with *numbers*, while qualitative data deals with *meanings*. The former *quantifies* and *measures* constructs of interest, permitting the comparison between different sets of measurements. The latter, on the other hand, allows the researcher to *look into* the research setting and *understand* the concept itself. Thus, while the quantitative methodology permits *enumeration*, a qualitative approach fosters

Table 3-2 Contrasting Positivism and Naturalism

	POSITIVISM	NATURALISM
Ontology	Reality is single	Realities are multiple
Epistemology	Knower and known are independent	Knower and known are inseparable
Generalization	Nomothetic statement is possible	Only idiographic statement is possible
Causality	Cause and effect can be identified	Impossible to separate cause and effect
Axiology	Inquiry is value free	Inquiry is value bound

Adapted from: Lincoln, Y. S., & Guba, E. G., (1985). *Naturalistic Inquiry,* Beverley Hills, CA: SAGE Publications, Inc. p. 37.

conceptualization. What seems to be ignored in these debates concerning the choice of research paradigms is that *both* may be necessary to *complete* research projects, that without adequate conceptualization, enumeration is incomplete and *vice versa* (Dey 1993). Therefore, instead of an either/or proposition, researchers should attempt to achieve a balance between the two approaches. Dey (1993: 23) describes this dynamic interdependence of the two paradigms using the *T'ai-chi T'u* diagram. Mentzer and Kahn provide a framework of logistics research covering both research paradigms (Mentzer and Kahn 1995: 234). Similarly, Glaser and Strauss (1967) emphasize the importance of both approaches in the verification and/or generation of theory

> We believe that each form of data is useful for both verification and generation of theory, whatever the primacy of emphasis (p. 18).

A review of research methodologies in logistics reveals that most studies (if not all) have evolved from positivistic research paradigms, and not from interpretive ones (Mentzer and Kahn (1995). However, the intent of this study is *exploratory* and not *explanatory*. Reasons cited in earlier chapters, and reiterated in this next section, are the basis of the *phenomenological* design adopted in the present research.

3.3 *A Qualitative Approach*

The conceptual model presented in the earlier chapters is simply a representation of my "mental model" or understanding the IOR process. This model, however, was formulated through interpretation of the literature and *not* from experimental or field data. Thus, through a process of inquiry and research, this model will presumably change. As my understanding of the issue evolves and my analysis of the data continues, elements may be added, deleted, complemented, revised and/or substituted. The intent is to allow the final model to evolve in its natural setting.

The flexibility needed for this kind of exploration is only afforded through the use of one of the several qualitative methodologies listed in Table 3-1. Of the several approaches, those that have influenced the one developed in this study are the *Grounded Theory* method developed by Glaser & Strauss (1967), the *Case Study* method described by Yin (1994) and Bonoma (1985), and the use of *Case Studies to Generate Theory* proposed by Eisenhardt (1989). The unique nature of the current study necessitated this approach since no single method was adequate. While all three methods have some common features, their

underlying philosophies are distinct enough to differentiate them. The next few sections describe each method briefly.

3.3.1 Grounded Theory Methodology

According to Glaser and Strauss (1967) "Grounded Theory" is the discovery of theory from data that is systematically obtained from research. It is a theory that is "derived from data and then illustrated by characteristic examples of data" (Glaser and Strauss 1967: 5). In other words, it is theory that is "inductively derived from the study of the phenomenon it represents" (Strauss and Corbin 1990: 23). This analytical approach is often referred to as a *"constant comparative method"* in which the researcher is constantly moving back and forth between (1) coding and analyzing data, and (2) inspecting the data for new properties and theoretical categories at every stage in the research. That is, the researcher is constantly making comparisons while simultaneously asking questions (Strauss and Corbin (1990). When followed correctly, the Grounded Theory process is very much like the spiral seen in Figure 3-1 Dey (1993).

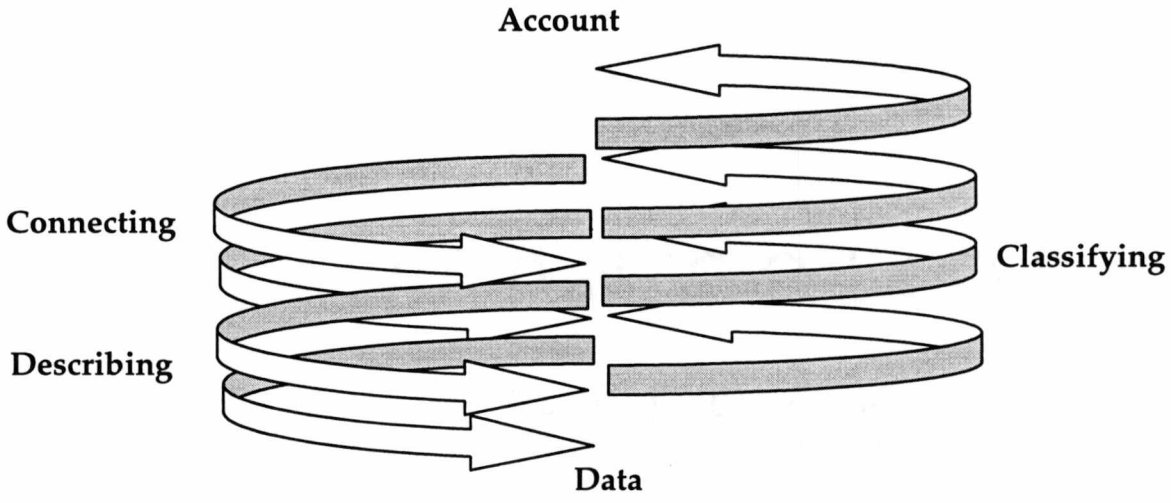


Figure 3-1 The Grounded Theory Research Process

The grounded theory methodology is often recommended to either investigate "relatively uncharted waters" or "gain a fresh perspective in a familiar situation" (Stern 1994: 116). As seen in Table 3-3, early grounded theorizing evolved from verifying an existing theory, to modifying it, to finally generating an entirely new theory. Replying to their critics, grounded theorists such as Glaser and Strauss (1967) assert that the process is as rigorous as any quantitative approach (if not more so), and that it includes all the necessary elements of good research, e.g. parsimony, consistency, clarity, reliability, validity, generalizability and replicability (Charmaz 1994). Within the qualitative research fraternity, supporters claim that this is "the only true method" (Stern 1994: 116) and that it generates more rigorous studies and a more robust theory *than any other qualitative methodology.*

Table 3-3 Studies Using "Grounded Theorizing"

Author	Subject of Case	Use of "Grounded Theorizing
Evans-Pritchard, 1937	Formulation of substantive theory about magic and witchcraft	Comparisons among several factors within a single case to generate theory
LaPiere, 1938	Study of personality development	Comparisons among several groups to build a new frame of reference
Park, 1950	Study of race relations in social situations	Generation of theory based on personal observation, personal experience and archival data
Eisenstadt, 1956	Analysis of social systems	Verification of existing theory in the light of new data
Swanson, 1960	Building theory from the analysis of supernatural experiences	Comparisons among several groups to verify well-grounded theory
Etzioni, 1961	Study of compliance structures within companies	Comparisons among several groups to build theory with categories from existing theory
Goffman, 1963	Study of social stigma within companies	Comparisons among several groups to build theory with illustrations to verify the theory
Geertz, 1963	Study of social and cultural patterns of economic development of towns	Comparisons between two major groups to build theory
Blauner, 1964	Study of alienation in industry and its consequences	Comparisons among several groups to verify existing theory
Janowitz, 1964	Study of the military's influence on the political development of nations	Comparisons among several groups to build theory based on the logic of verifying old theory
Strauss et al., 1964	Study of emotional diseases in social settings	Generation of theory based on integration of the various levels of analysis
Shibutani & Kwan, 1965	Analysis of race and ethnic relationships	Comparisons among several groups and regularities within groups to build theory

Adapted from: Glaser, B. and Strauss, A., (1967). *Ethnography and Qualitative Design in Educational Research,* Chicago, IL: Aldine.

3.3.2 The Case Study Method

> A case study is an empirical inquiry that
> - investigates a contemporary phenomenon within its real-life context, especially when
> - the boundaries between phenomenon and context are not clearly evident
>
> (Yin 1994: 13)

It is an effective qualitative approach that answers the "how" and "why" questions about the phenomenon of interest, especially so when the focus of research is on a contemporary phenomenon that needs to be researched in its natural setting (Yin 1994).

Bonoma (1985) suggests a four-stage process to "guide and explain qualitative applications of case method" (Bonoma 1985: 204). These four stages are: "drift," "design," "prediction," and "disconfirmation" (Figure 3-2). While the description and the figure may give this approach a 'linear look', Bonoma reiterates that his case study process is *not* a sequential process nor is it strictly hierarchical; instead it is an "*iterative* [emphasis mine] evolution to understanding" (Bonoma 1985: 206), reaffirming the stance taken by many qualitative researchers (Dey 1993, Strauss and Corbin 1990, Glaser and Strauss 1967).

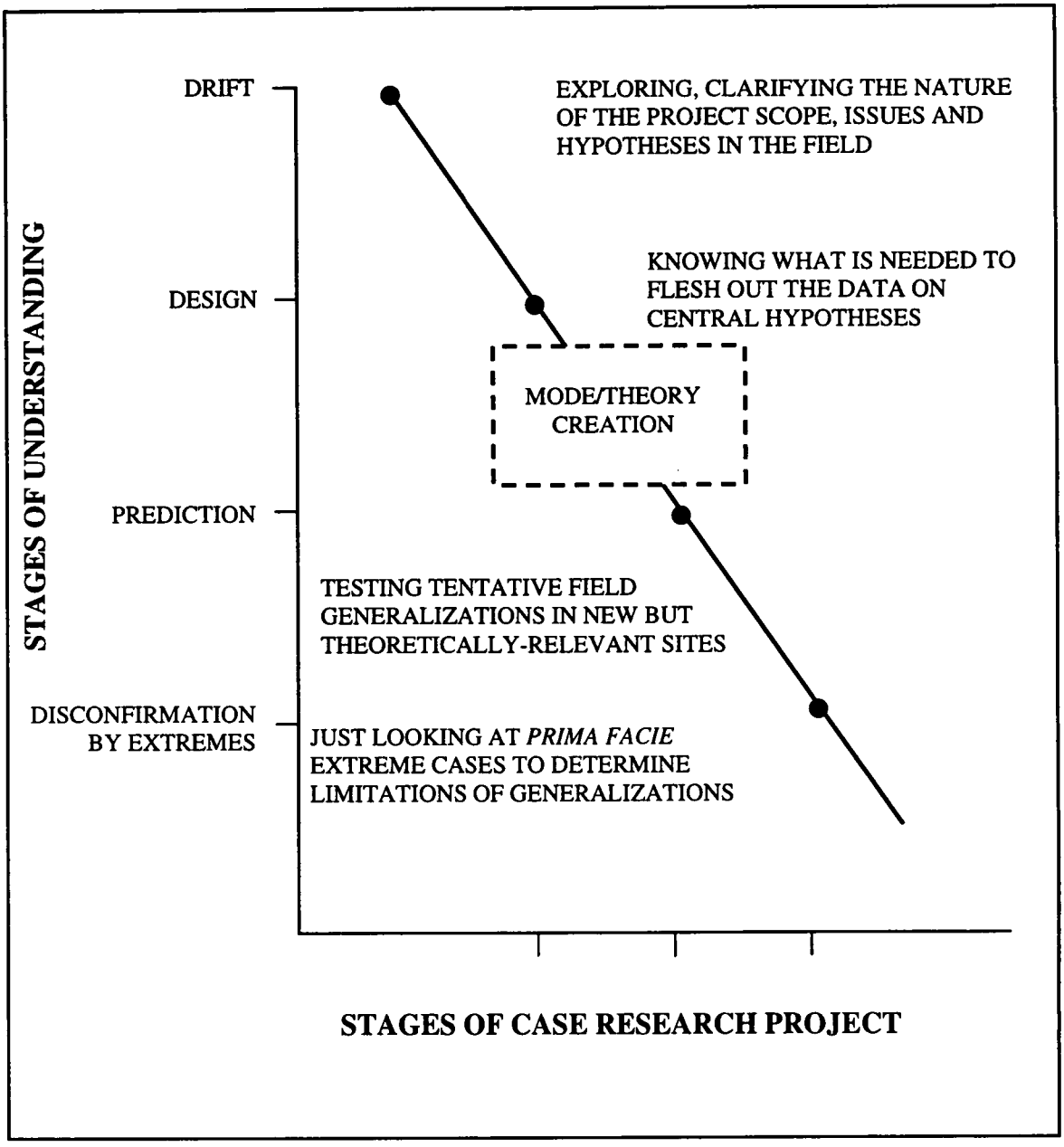
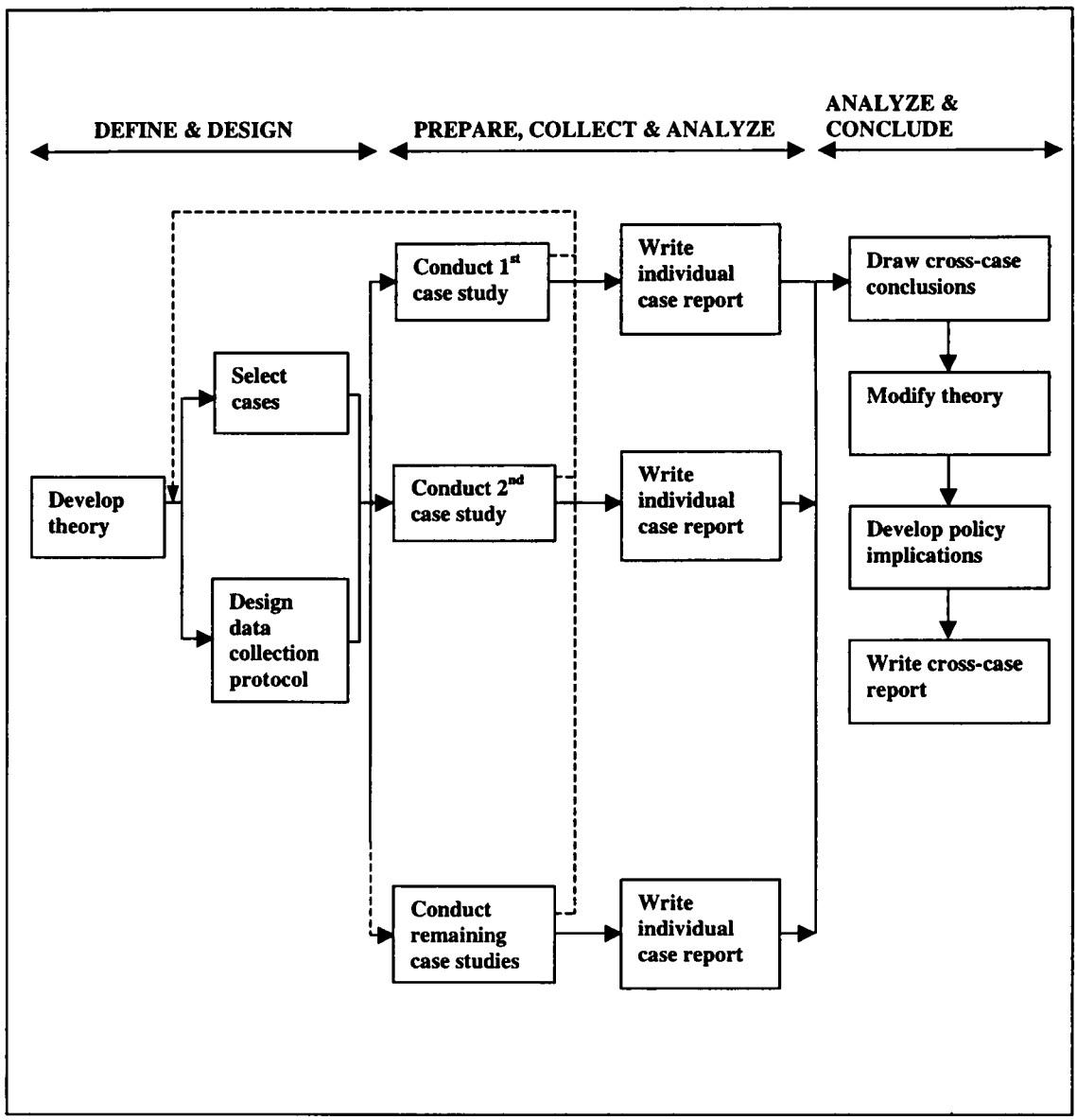


Figure 3-2 A Process Model for Case Research

According to Yin (1994: 13) "the case study enquiry

- copes with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result
- relies on multiple sources of evidence, with data needing to converge in a triangulation fashion, and as another result
- benefits from the prior development of theoretical propositions to guide data collection and analysis."

This posturing by Yin (1994) clearly separates his case study methodology from the grounded theory process recommended by Glaser and Strauss (1967) or Strauss and Corbin (1990). Yin (1994) and Bonoma (1985) recommend reliance on literature review *prior* to conducting research. Unlike grounded theory, in which specifying any theoretical propositions *a priori* are deliberately avoided, Yin (1994) recommends the development of propositions to guide the researcher in interviewing and in other data-gathering processes. And if the intent of the study is to generate theory (as is subsumed in a grounded theory approach), Yin (1994) recommends the use of multiple cases and "analytical generalization" (Yin 1994: 31). He recommends using the theoretical propositions, developed early in the study, to guide the researcher in explicating meaningful insights, patterns and other theories generating information from the collected data. The specific analytic techniques recommended are (1) pattern-matching, (2) explanation-building, (3) time-series



Adapted from: Yin, Robert K., (1994). *Case Study Research: Design and Methods*, New York: SAGE Publications, p. 49.

Figure 3-3 Case Study Method

analysis and (4) program logic models (Yin 1994: 106). Yin's case study methodology is shown in Figure 3-3. In many ways, the model is similar to Bonoma's (1985) approach.

3.3.3 Using Case Study Method to Generate Theory

A review of the literature reveals an extensive use of case studies for generating theory. Eisenhardt (1989) provides several examples from the field of strategic management (Table 3-4). As seen in the table, the number of cases in a study range from two to eight, multiple data sources are used, results either complement or generate existing or new theory respectively and many of the outcomes are about processes.

Eisenhardt's (1989) description of the use of a case study *to generate theory* is shown in Table 3-5. She provides a clear step-by-step process – from "Getting Started" to "Reaching Closure." In the process, she addresses the concerns expressed about qualitative research or for that matter *any* kind of research. These concerns include issues of achieving construct validity, internal validity, external validity, replicability and generalizability.

Table 3-4 Examples of Inductive Case Study Research

Study	Description of Cases	Research Problem	Data Sources	Investigators	Output
Burgelman (1983)	6 internal corporate ventures in 1 major corporation	Management of new ventures	• Archives • Interviews • Some observation	Single investigator	Process model linking multiple organizational levels
Mintzberg & McHugh (1985)	1 National Film Board of Canada, 1939-1975, with 6 periods	Formulation of strategy in an adhocracy	• Archives • Some interviews	Research team	Strategy-making themes, "grass roots" model of strategy formation
Harris & Sutton (1986)	8 diverse organizations	Parting ceremonies during organizational death	• Archives • Interviews	Research team	Conceptual framework about the functions of parting ceremonies for displaced members
Eisenhardt & Bourgeois (1988)	8 micro-computer firms	Strategic decision making in high velocity environments	• Archives • Questionnaires • Interviews • Some observation	Research team Tandem interviews	Mid-range theory linking power, politics, and firm performance
Gersick (1988)	8 project groups with deadlines	Group development in project-teams	• Observation • Some interviews	Single investigator	Punctuated equilibrium model of group development
Leonard-Barton (1988)	10 technical innovations	Internal technology transfer	• Interviews • Experiment • Observation	Single investigator	Process model
Pettigrew (1988)	1 high performing & 1 low performing firm in each of 4 industries	Strategic change and competitiveness	• Archives • Interviews • Some observation	Research teams	In progress

Adapted from: Eisenhardt, Kathleen M., (1989). "Building Theories from Case Study Research," *Academy of Management Review*, v. 14, no. 4, p. 535.

Table 3-5 Process of Building Theory from Case Study

STEP	ACTIVITY	REASON
Getting Started	• Definition of research question • Possibly *a priori* constructs	• Focuses efforts • Provides better grounding of construct measures
Selecting Cases	• Neither theory nor hypotheses • Specified population • Theoretical, not random sampling	• Retains theoretical flexibility • Constrains extraneous variation and sharpens external validity • Focuses efforts on theoretically useful cases – i.e., those that replicate or extend theory by filling conceptual categories
Crafting Instruments and Protocols	• Multiple data collection methods • Qualitative and quantitative data combined • Multiple investigators	• Strengthens grounding of theory by triangulation of evidence • Synergistic view of evidence • Fosters divergent perspectives and strengthens grounding
Entering the Field	• Overlap data collection and analysis, including field notes • Flexible and opportunistic data collection methods	• Speeds analysis and reveals helpful adjustments to data collection • Allows investigators to take advantage of emergent themes and unique case features
Analyzing the Data	• Within-case analysis • Cross-case pattern search using divergent techniques	• Gains familiarity with data and preliminary theory generation • Forces investigators to look beyond initial impressions and see evidence through multiple lens
Shaping the Hypotheses	• Iterative tabulation of evidence for each construct • Replication, not sampling, logic across cases • Search evidence for "why" behind relationships	• Sharpens construct definition, validity, and measurability • Confirms, extends, and sharpens theory • Builds internal validity
Enfolding Literature	• Comparison with conflicting literature • Comparison with similar literature	• Builds internal validity, raises theoretical level, and sharpens construct definitions • Sharpens generalizability, improves construct definition, and raises theoretical level
Reaching Closure	• Theoretical saturation when possible	• Ends process when marginal improvement becomes small

Adapted from: Eisenhardt, Kathleen M., (1989). "Building Theories from Case Study Research," *Academy of Management Review*, v. 14, no. 4, p. 533.

Some salient features of Eisenhardt's (1989) approach are

- An initial definition of the research issue and an *a priori* specification of constructs are recommended – especially the former.
- In the event the intent of the study is to generate *new* theory (as opposed to complementing or extending existing ones), investigation should begin with no prior biases or support from existing theory. Thus, a review of the literature is *not* recommended.
- Cases representing "extreme situations and polar types" (p. 537) should be chosen. Thus, cases are chosen based on theoretical considerations and not statistical reasons.
- Eisenhardt (1989) reiterates the need for multiple data sources and collection methods, asserting that triangulation achieved through such a process enhances construct validity and strengthens theoretical foundations. Additionally, she suggests the combination of qualitative data with *quantitative* data whenever the situation permits it.
- While in the field, Eisenhardt (1989) recommends that investigators take advantage of the flexibility offered in each case and be willing to accommodate newly emerging themes and patterns. She also cautions against being unsystematic.
- She presents three effective strategies to perform 'between-case' analysis (p. 540-41). The first is to select specific dimensions or categories and then look for similarities between cases. Another method is to select pairs of cases and list similarities and differences between them. Finally, investigators could divide the data "by data source" (p. 541).
- Eisenhardt (1989) recommends a review of extant literature *after* case analysis, and *after* hypotheses have been generated. This approach, she states, ensures that the emergent theory is not corrupted or influenced by exiting theory. Such review provides deeper insights into the emergent theory and thus ensures stronger grounding. According to her, "Overall, tying the emergent theory to the existing literature enhances the internal validity, generalizability, and theoretical level of theory building from case study research" (p. 545).

3.4 *The Research Method*

The epistemological approach I have chosen is neither that of the phenomenologist who practices *pure* hermeneutics, nor that of the "dyed-in-wool" inductivist (Miles and Huberman 1980: 20). The choice to take the "middle ground" is motivated by several factors. As seen in Chapter Two, there is a substantial amount of literature on inter-organizational relationships (IORs), both within and outside the field of logistics and transportation. To ignore this and rebuild the whole edifice would be like 're-inventing the wheel.' While I made a strong case for *revisiting* the issue, *reinventing* is not called for. And there are other concerns too.

To develop a theory that is *truly* grounded is to strictly follow Glaser and Strauss's (1967) approach. This means the *constant comparative method* should continue until *theoretical saturation*[45] is reached – which is an extremely lengthy and resource-intensive process. Hence a purely inductive, hermeneutic

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[45] According to Glaser and Strauss (1967) "*Saturation* means that no additional data are being found whereby the sociologist can develop properties of the category. As he sees similar instances over and over again, the researcher becomes empirically confident that a category is saturated" (Glaser and Strauss 1967: 61).

and phenomenological study, such as the Grounded Theory approach described by Glaser and Strauss (1967), is not an option – at least not without compromises.

However, while the concept of IORs is well researched, its *understanding* in the business world remains ambiguous and with great variation. As the literature review in Chapter Two indicates, there is widespread confusion regarding its definition, implementation, management and outcome. Thus reliance on the existing literature, which in large part is derived from quantitative studies of the phenomenon, should be limited. The gaps in our understanding of the field can only be filled by *revisiting* the issue, in as unbiased a way as possible, and using a qualitative analysis. Questions one has about IORs can only be answered by those who are involved in them through interviews that are open-ended – interviews that allow respondents to express themselves in *their own words*. In short, a new theoretical framework is necessary – one that could be appended to existing theory or emerge as an independent endeavor. Thus, the "Case Study" methodology, suggested by Yin (1994) and Bonoma (1985), is restrictive – unless some modifications are made. Therefore, taking a "middle ground" is proposed.

Eisenhardt's (1989) suggested case study methodology tends to somewhat occupy this "middle ground", and the method adopted in this study reflects much of it. However, to accommodate the specificities of my research some major modifications are made. The method itself is described in detail next.

3.4.1 Getting Started

The research statement made in Chapter One was *before* reviewing the literature. Following an in-depth review of the literature, the research statement guiding my study is a little more sharply defined and is as follows:

> Despite the immense popularity of strategic, inter-organizational logistics relationships (SIOLRs), there is growing concern over their performance – too many end in failure and are terminated prematurely for one reason or another. A re-visit and review of the phenomenon is imperative, as research findings have clearly failed to explain this apparent paradox. In order to do so, the following issues need to be addressed:

- How do inter-organizational logistics' relationships (IOLRs) form?
- How do strategic and non-strategic IOLRs differ?
- Finally, is the learning perspective more effective than existing ones, in describing and explaining IOLRs?

These research questions have provided guidance and direction in selecting cases and crafting the instruments and protocols.

3.4.2 Selecting the Cases

This research explores those inter-organizational relationships (IORs) established for logistics purposes within eight business units representing a cross-section of industries. Instead of *random* sampling, *purposeful* sampling is used, since the desire is to gain a detailed understanding of the cases and thus of the phenomenon, rather than to generalize. As Eisenhardt (1989) states, selection for statistical purposes is "neither necessary, nor even preferable" (p. 537). However, since the intent is to understand and extend the theory, the cases chosen represent those extreme situations which are likely to bring out polar situations quite clearly. Other considerations included a company's willingness to participate in the study, accessibility, and proximity to the researcher. Appendix A.3 gives brief profiles of the eight companies selected for this study.

3.4.3 Data Gathering, Instruments and Protocols

According to Patton (1980),

> The purpose of interviewing is to find out what is in and on someone else's mind. The purpose of open-ended interviewing is *not* to put things in someone's mind ... but rather to access the perspective of the person being interviewed.... The assumption is that that perspective is meaningful, knowable, and able to be made explicit (p.196).

There are three basic approaches to conducting open-ended interviews.[46] The first is the *informal conversational interview* in which the process relies entirely on spontaneous generation of questions. The second is the *general interview guide approach*, in which the interviewer follows a checklist of relevant topics that need to be addressed – in no particular order, sequence, and not necessarily

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[46] While collecting qualitative data remembering *Halcolm's Laws* (Patton 1980: 119) is helpful:

- Always be suspicious of data collection that goes according to plan.
- Research subjects have been known to be people.
- The evaluator's scientific observation is some person's real-life experience. Respect for the latter must precede respect for the former.
- Total trust and complete skepticism are twin losers in the field. All things in moderation, especially trust and skepticism.
- Evaluators are presumed guilty until proven innocent.
- Make sure when you yield to temptation in the field that it appears to have something to do with what you are studying.
- A fieldworker should be able to sweep the floor, carry out the garbage, carry in the laundry, cook for large groups, go without food and sleep, read and write by candlelight, see in the dark, see in the light, cooperate without offending, suppress sarcastic remarks, smile to express both pain and hurt, experience both pain and hurt, spend time alone, respond to orders, take sides, stay neutral, take risks, avoid harm, be confused, seem confused, care terribly, become attached to nothing ... The nine-to-five set need not apply.
- Always carry extra batteries and getaway money

From *Halcolm's Evaluation Law*

framed ahead of time. The final one is the *standardized open-ended interview.* A set of questions are carefully worded and framed before the actual process of interviewing. This final approach is usually adopted when multiple investigators are involved and cross-comparisons are needed. Whatever the approach may be, the fundamental principle of qualitative interviewing is "to provide a framework within which respondents can express their own understandings in their own terms" (Patton 1980: 205). In this research the *general interview guide approach* is used, and is discussed in the next section.

The Interview Guide

This approach utilizes a list of issues and questions that are central to the study and need to be explored in greater detail. The guide provides a framework within which "the interviewer would develop questions, sequence those questions, and make decisions about which information to pursue in greater depth" (Patton 1980: 201). This method has a number of advantages when compared with the other approaches. Unlike the *informal conversational interview* method with which a large amount of time is needed to collect systematic information, the *interview guide* approach allows the interviewer to carefully decide "how best to use the limited time" (Patton 1980: 200) – and

time is limited when seeking an interview with today's busy executive. Data gathered from informal conversational interviews pose other problems – it is broad, diverse and often requires several iterations before any coherent and systematic patterns may be induced. By contrast, the *interview guide approach* focuses the interviewee on the study at hand. It provides the topic area, within which the interviewer is "free to explore, probe and ask questions that will elucidate and illuminate that particular subject" (Patton 1980: 200). It provides leeway and flexibility for the individual's expressions and impressions on that subject. "The interview remains free to build a conversation within a subject area, to word questions spontaneously, and to establish a conversational style – but with the focus on a particular subject that has been predetermined" (Patton 1980: 200). Table 3-6 compares the strengths and weaknesses of the different evaluation approaches. Finally, keeping in mind the time frame, questions are framed with reference to the past, present or future.[47]

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[47] According to Patton (1980) there are six kinds of questions that can be asked by an interviewer in a qualitative study. These kinds of questions are: (1) *Experience/Behavior Questions;* (2) *Opinion/Value Questions;* (3) *Feeling Questions;* (4) *Knowledge Questions;* (5) *Sensory Questions;* and (6) *Background/Demographic Questions.*

Table 3-6 Variations in Evaluation Research Interview Instrumentation

Type of Interview	Characteristics	Strengths	Weaknesses
1. Informal Conversational Interview	Questions emerge from the immediate context and are asked in the natural course of things: there is no predetermination of question topics or wording.	Increases the salience and relevance of questions: interviews are built on and emerge from observations: the interviews can be matched to individuals and circumstances	Different information collected from different people with different questions. Less systematic and comprehensive if certain questions don't arise "naturally." Data organization and analysis can be quite difficult.
2. Interview Guide Approach	Topics and issues to be covered are specified in advance, in outline form: interviewer decides sequence and working of questions in the course of the interview.	The outline increases the comprehensiveness of the data and makes data collection somewhat systematic for each respondent. Logical gaps in data can be anticipated and closed. Interviews remain fairly conversational and situational.	Important and salient topics may be inadvertently omitted. Interviewer flexibility in sequencing and wording questions can result in substantially different respondents, thus reducing the comparability of responses.
3. Standardized Open-ended Interview	The exact wording and sequence of questions are determined in advance. All interviewees are asked the same basic questions in the same order.	Respondents answer the same questions, thus increasing the comparability of responses: data are complete for each person on the topic addressed in the interview. Reduces interviewer effects and bias when several interviewers are used. Permits decision-makers to see and review the instrumentation used in the evaluation. Facilitates organization and analysis of the data	Little flexibility in relating the interview to particular individuals and circumstances: standardized wording of questions may constrain and limit the naturalness and relevance of questions and answers.
4. Closed Quantitative Interviews	Questions and response categories are determined in advance. Responses are fixed: respondent chooses among these fixed responses.	Data analysis is simple: responses can be directly compared and easily aggregated: many questions can be asked in a short time.	Respondents must fit their experiences and feelings into the researcher's categories: may be perceived as impersonal, irrelevant, and mechanistic. Can distort what respondents really man or experienced by so completely limiting their response choices.

From: Patton, Michael Q., (1980). *Qualitative Evaluation Methods*, Beverly Hills, CA: SAGE Publications, p. 206.

3.4.4 Data Analysis

> What you do not see you cannot describe. What you cannot describe you cannot interpret.
> But because you can describe something does not mean you can interpret it.
> From *Halcolm's Evaluation Proverbs*

Organizing the Data

Data generated by any kind of qualitative study are voluminous; hence the critical task is to organize the data from the beginning of the study. Field notes are to be meticulously maintained and interviews carefully recorded and filed. Transcribing audio recordings must be carefully done – the exact conversations that have been made and exact words that people have spoken, with relevant expressions and emphases should be recorded.

Analyzing Data

In the process of reading through all field notes and interview transcripts, data is organized into topics and files. In the process, different patterns, themes, streams of thought and purposes are sought for. Several readings should result in classifying the data – which is the first step in data analysis. As Patton (1980: 300) states "A classification system is critical; without classification there is

chaos. Simplifying the complexity of reality into some manageable classification scheme is the first step of analysis." This is similar to the coding and memoing processes recommended by Glaser and Strauss (1967) and described by Strauss and Corbin (1990). Such coding and memoing is made easier through the use of computer software packages designed for the purpose.[48]

Analyzing Case Studies

To facilitate the search for patterns and themes, it is important to "pull together and organize the voluminous case data" (Patton 1978: 303). This process involves the analysis of interview data, interviewer observations, company documents, and program reports on a *case by case* basis, thereby building a comprehensive, systematic and in-depth *case record* (Patton 1980: 303).

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[48] Listings and detailed descriptions of some of the most popular computer packages is provided by Weitzman, Eben A., & Miles, Matthew B., (1995). *"Computer Programs for Qualitative Data Analysis,"* Thousand Oaks, CA: SAGE Publications.

As Patton states:

> The case record includes all the major information that will be used in doing case analysis and case study. Information is edited, redundancies are sorted out, parts are fitted together, and the case record is organized for ready access either chronologically and/or topically. The case record must be complete and manageable; it should include all the information needed for subsequent analysis, but it is organized at a level beyond that of the raw case data (Patton 1978: 303)

The case record is then used to develop a case study narrative (Table 3-7). Eisenhardt's (1989) "Within-Case Analysis"(p. 539-540) recommends several of these same steps. Each case study is a stand-alone, allowing readers to consider each one independently. Later in the analysis, such a stand-alone process facilitates easier cross-case comparison. Once case studies are complete, further analysis can be done.

Inductive Analysis

The next stage of the analysis is to draw inferences from the data. This process results in the identification of distinct patterns, streams, themes, and categories as they emerge from the data. According to Patton (1980), there are two methods of identifying these evolving issues. The first is to develop and articulate categories based upon that which emerges from within the data, i.e. develop typologies that are indigenous to the study (anthropology researchers,

Table 3-7 The Process of Constructing Case Studies

Step ONE:	*Assemble the raw case data.* These data consist of all the information collected about the person or program for which a case study is to be written
Step TWO:	*Construct a case record.* This is a condensation of the raw case data organizing, classifying, and editing the raw case data into a manageable and accessible package.
Step THREE:	*Write a case study narrative.* The case study is a readable, descriptive picture of a person or program making accessible to the reader all the information necessary to understand that person or program. The case study is presented either chronologically or thematically (sometimes both). The case study presents a holistic portrayal of a person or program.

From: Patton, Michael Q., (1980). *Qualitative Evaluation Methods,* Beverly Hills, CA: SAGE Publications, p. 304.

who seek to preserve the richness of experiences and concepts of the study population, often recommend this).

The second approach has the analyst generating the typologies; i.e. based upon the emerging data, patterns, and personal observations, the researcher constructs different typologies. Examples of this approach include typologies of strategic archetypes generated by the Miles and Snow (1978) study, which were called *Analyzers, Prospectors, Defenders,* and *Reactors,* or the one generated by Wolfe and Tymetz (1978), which categorized visitors to a certain Smithsonian exhibit as *The Commuter, The Nomad, The Cafeteria Type* and *The V.I.P – Very Interested Person* (Patton 1978: 310). The main objective of the typological approach is to describe patterns or themes that emerge from the data in terms that reflect most of its principle characteristics.

In order to convert qualitative data (interview material, field observations and notes) into meaningful and systematic categories, Guba's (1978) approach is proposed. According to him, the researcher must look for "recurring regularities" in the data, which can be sorted into categories. Also, these categories should meet two conditions: they must be internally homogeneous and externally heterogeneous. According to Guba (1978: 53), the first criterion

insists that the data belonging to a category should "dovetail in a meaningful way," while the second concerns the differences between categories. However, he also cautions on the difficulty of this process:

> The task of converting field notes and observations about issues and concerns into systematic categories is a difficult one. No infallible procedure exists for performing it (Guba, 1978: 53).

Logical Analysis

Patton's (1980) cross-classification system, between different dimensions identified in the earlier stages of the data analysis is proposed. Such an exercise results in matrices that present the data in a new light, i.e. new insights that may not otherwise be obvious may be generated through such logical analysis of the data. In this process, dimensions (or categories/classifications) that are either participant-generated (*in vivo* – Strauss & Corbin 1990) or evaluator-generated are cross-classified, and the resulting matrices then contain 'cells' with new meaning and descriptions. According to Patton (1980), several methods such as metaphors, themes and quotations can be used to represent this new data. Eisenhardt (1989: 540-541) suggests several methods to detect "Cross-Case Patterns." This exercise also allows the evaluator to develop linkages and relationships between the various dimensions that evolve in the first place.

3.5 *Conclusions*

This research proposes to resolve critical issues first, before building theory from case studies in an iterative manner. The research statement elucidated in earlier sections will guide this research effort by providing boundaries within which to work. Outcomes of this study will include

- A clearer understanding of strategic, inter-organizational logistics relationships (SIOLRs)
- A theoretically grounded process model, elucidating the critical components affecting such SIOLRs

The methodology proposed to achieve the above objectives does not go "back and forth" to the extent recommended by Glaser and Strauss (1967). Nevertheless, it does to the limits practically possible (given the circumstances) *and* goes beyond that described by Yin (1994) and other case study methodologists. Thus, while the process described and followed *may* seem sequential and linear, it constantly sifts through incoming data, even as new questions are being formulated or existing ones reshaped. While multiple interviewers are not utilized, it is proposed to use more than one research analyst during the data analysis stage – to overcome any individual biases. Finally, while empirical validation of the emergent theoretical framework is not

proposed, conclusions based on these thorough research methods should facilitate qualitative conformation easily.

CHAPTER 4: Analysis & Research Findings

The Three Faces of Inter-Organizational Logistics Relationships (IOLRs)

4.1 Introduction

This chapter presents the analysis of 45 in-depth interviews carried out at eight companies. It begins with brief overviews of the eight companies[49] and the backgrounds of some interviewees in order to reflect the setting of data gathered and its relevance to the topic at hand. In both cases pseudonyms are used to conceal the identity of the companies and people interviewed, as anonymity was a precondition for their participation in the study. This overview is followed by guidelines for reading the interpretations and findings. The rest of the chapter is devoted to developing a rigorous and well-grounded theoretical model of strategic, inter-organizational logistics relationships.

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[49] Most of the information relating to the "background" is taken from that company's Annual Report

As seen in Figure 4-1, three dimensions identified through an exhaustive and rigorous scrutiny of the data, and supported by the literature, represent the foundations of my model[50]. In the next several sections, the "three faces" formed between each of two dimensions are described in detail. Evidence from the data is used to support the assertions that are made, characteristics identified, and profiles that are developed.

"Face One" is formed between two dimensions that were identified from the data analysis: (1) *Operational-Strategic dimension* and (2) *Designed-Evolutionary dimension*. The former represents the nature, scope and criticality of the inter-organizational logistics relationship (ILOR), while the latter focuses on the conception or 'coming-into-existence' process of the ILOR. Based on careful analysis of the interview data, two dominant types of IOLRs were identified. These two types of relationships, labeled as *Designed* (or *Intended*) and *Evolutionary* (or *Emergent*), are differentiated based by the manner in which they come into existence and the nature of their development into strategic relationships. In the process of discussing these two types of

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[50] It must be noted that the three dimensions are treated as continuums. Thus, while the corners of the figure represent the "pure" types" (Shrivastava 1983, p: 18) those lying in-between on the continuum are equally important.

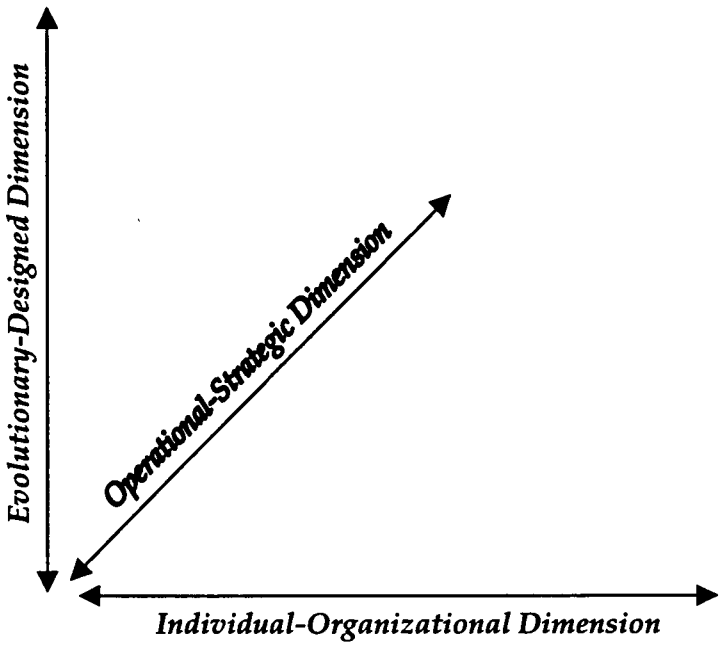


Figure 4-1 Dimensions of Strategic Inter-Organizational Logistics Relationships

relationships, the views of interviewees, descriptions and interpretations of strategy and strategic relationships are presented, *albeit* briefly.

Analysis of the data based on yet another perspective resulted in "Face Two". The two dimensions forming this face are the *Operational-Strategic dimension* identified earlier and the *Individual-Organizational dimension*. The *Individual-Organizational* dimension represents IOLRs that range from being dependent, monitored and managed by single individuals on one extreme to those that have the active participation and involvement of the organization as a whole on the other. Properties of the resulting types of relationships, motives and characteristics, and their many facets are then discussed, with supporting evidence from the interview data.

Finally, "Face Three," linking the types IOLRs identified earlier to learning systems identified in the data is discussed. As the discussion progresses it will be noticed that the learning system characteristics that emerged from the data resemble those in the six organizational learning systems identified by Shrivastava (1983). In that study too, the dimensions identifying the six types of learning systems were *Individual-Organizational*, and *Evolutionary-Designed*. In addition, several other learning characteristics are identified.

Thus, viewed together, the three "faces" integrate into a single, cohesive theoretical model of inter-organizational logistics relationships (IOLRs) when considered from an organizational learning perspective (Figure 4-2).

4.2 *Overview*

Backgrounds of the Eight Companies[51]

CHEM was formed from the merger of two internationally known chemical and pharmaceutical giants. The company was formally incorporated in 1996, following regulatory approvals in key markets. CHEM is a global leader in the Life Sciences. Nearly 72% of its 1996 sales of CHF 36 billion (approximately $23.7 billion) were generated in health care (59%), agribusiness (28%), and nutrition (13%). The business unit involved in this study is in CHEM's agribusiness area. Several factors impact CHEM's business including: globalization, the introduction of new technologies, spiraling health care costs,

[51] As mentioned earlier, much of the information about the 8 companies is taken from that company's Annual Report.

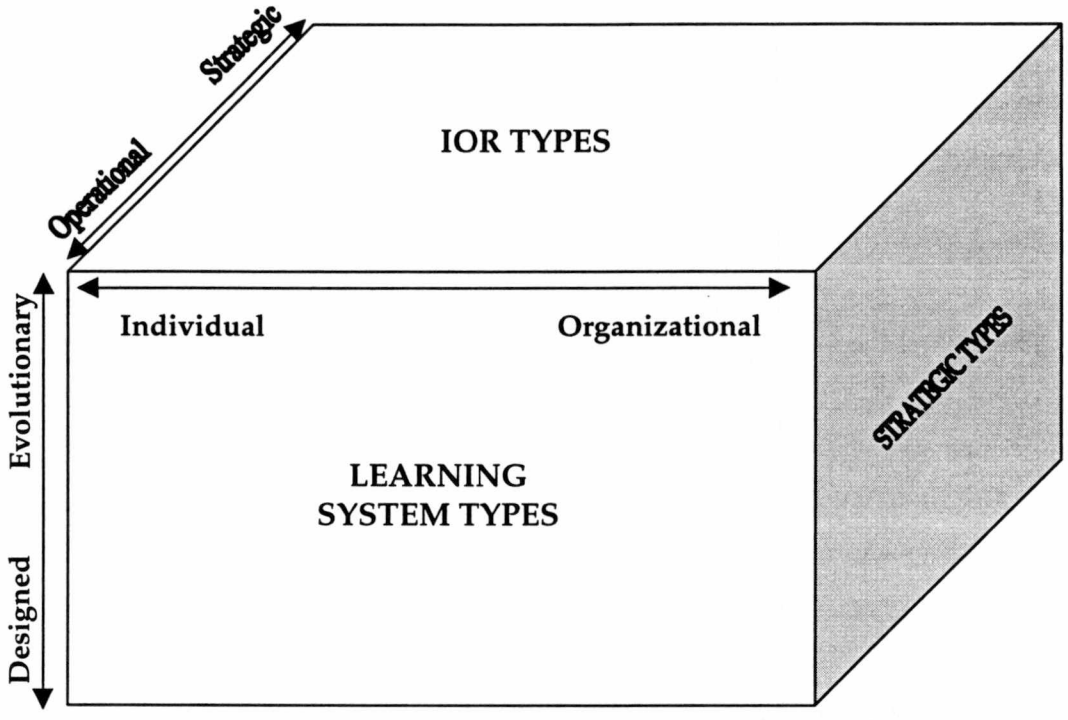


Figure 4-2 The Three Faces of IOLRs

need for constant improvement, increased expenditures, growing power of its customers, restructuring in the industry with job losses, and both vertical and horizontal consolidation[52]. CHEM believes in its solid business performance and in its potential for innovation. Its growth is based on both the expansion of its top products, and new product launches in all of its businesses. CHEM intends to follow activities strengthening its internal knowledge base, and further its research in its core areas of business[53].

The year 1996 was **HOMEIMP's** Golden Anniversary year. Sales were $8.6 billion, up 22% from the previous year, an increase mainly due to the opening of 66 new large stores and of merchandising initiatives. In the 90s, they have so far achieved a compound sales growth rate of 20% and compound earnings per share growth of 24%. Once a year, HOMEIMP's store managers gather to meet with corporate merchants and marketing staff, review the events of the past

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[52] In 1988, the 10 top companies had together, about 25% market share and in 1996 about 36% market share. CHEM has a market share of about 4.5%, which ranks it as number-one in the industry.

[53] Interview data reinforces CHEM's choice of strategy for growth. For example, Acker states: "...if I had to characterize CHEM, I'd say it is a marketing driven organization with a very strong research orientation and a very strong manufacturing component...this is a marketing, manufacturing, research company."

year, and make plans for the year ahead. While each store manager runs a unique operation, they all share a primary objective: to make HOMEIMP's the acknowledged leader in providing products to build, improve, and maintain American homes. HOMEIMP places great importance on its relationships with its "partners-in-interest", meaning its customers, its suppliers, the communities they serve, its shareholders and its employees. HOMEIMP believes that the progress of one contributes to the progress of the rest. To HOMEIMP, value does not just mean low prices. They realize that, according to the customer, it is made up of low prices, large selections, quality merchandise, and great service. HOMEIMP's strategy is to lower operating costs as a percent of sales, which results in lower retail prices. Lower prices attract more customers, generating more sales and in turn allowing for *further* reduction in prices. HOMEIMP's Supplier of the Year awards recognize manufacturers who contribute to HOMEIMP's success through product development, marketing, packaging, distribution, and support services. As an employer, HOMEIMP offers skills training and career development options "that far exceed the norm" in its industry. "HOMEIMP University," which is a part of this training and education initiative, provides employees avenues to explore some of the fast track opportunities that exist within the organization. Employee stock ownership and other initiatives instill a sense of "ownership" helping the

employees to understand that corporate success and personal success are intertwined.

AUTO is proud of its operating performance, competitiveness, products, brands, and employees. It has changed significantly in the recent past. AUTO's performance in recent years indicates it is on its way to sustained profitability and industry leadership in product innovation, product safety, cost effectiveness, and customer enthusiasm. In 1996 AUTO'S sales and revenues were $164 billion. In 1996 AUTO launched a record number of new models. AUTO believes that four priorities guide its efforts: getting common, running lean, competing on a global basis, and growing the business[54]. Common business processes and systems, as well as common vehicle platforms and components unify the way AUTO's automotive sectors think and operate today. This approach integrates our vehicle design, engineering, purchasing, and manufacturing efforts worldwide. By running lean, AUTO intends to cut

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[54] These views are reiterated in interviews at AUTO:
James (AUTO) "...the learning there is that we have expected so much so quickly that they're not staffed with people who really understand all that we're trying to achieve from a lean manufacturing standpoint."
Roger (AUTO) "OK. My assignment is intended to be temporary, I think. Basically, the assignment is to implement what AUTO has called "lean manufacturing", or call it the "lean vision" for transportation and materials handling."

costs and add value in all areas of the business, believing that only the lowest-cost and most efficient manufacturers can compete in an increasingly competitive industry. By reducing complexity, AUTO feels it can concentrate its efforts on what adds value and makes a difference to its customers. To succeed in the growth markets of tomorrow, AUTO realizes that it needs to be a truly global organization; it needs to compete on a global basis. Currently, 37% of AUTO's automotive sales are from outside North America. New plants are being planned in countries such as Argentina, China, Russia and India. In addition to its automobile business AUTO has also seen significant improvements in its other business areas.

COMM-1 believes that by working closely with its customers and enabling them to create and realize value, it has been able to deal with dynamic changes in its own business environment such as deregulation, technology, and globalization. Through its combination of network leadership, global presence, and breadth of services and products offered, COMM-1 believes it can help its customers prosper. The year 1996 was an outstanding year for COMM-1. Revenues reached a record $12.85 billion, which was a 20% increase over 1995. COMM-1's global presence is phenomenal too, and its focus on that aspect of its business is unrelenting. In the process COMM-1 is building a global

corporation that integrates its operations and rationalizes its engineering, manufacturing, research and development, and marketing resources globally. R&D investments increased to $1.81 billion in 1996 from $1.58 billion in 1995, driven primarily by increased investments in the wireless, enterprise, and broadband network portfolios. COMM-1 attributes the strong results to its commitment to customer satisfaction by establishing a "customer-first" mind-set throughout the corporation. This is driven by three key factors: continuous improvement, creating value for the customer, and employee involvement. Customer satisfaction is based on quantifiable and rigorous measurements that provide it with real-time information on its performance[55]. COMM-1 and its employees understand that quality, innovation, and execution are central to satisfying customers, growing globally, and enhancing shareholder value. COMM-1's goal is to be the most valued company in the industry – valued by its customers, its employees, its shareholders, and by the communities.

COMM-2 is one of the world's leading designers, developers and manufacturers of telecommunications systems, software and products.

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[55] The following comment supports this:
Steve-B (COMM-1) "...we are a *fairly big believer* in metrics and measuring performance, measuring costs so we would set a target metric and measure performance."

COMM-2 is a global market leader in the sale of public telecommunications systems, and is a supplier of systems or software to most of the world's largest network operators. COMM-2 is also a global market leader in the sale of business communications systems and in the sale of microelectronic components for communications applications to manufacturers of communications systems and computers. Further, COMM-2 is the largest supplier in the United States of telecommunications products for consumers. In addition, COMM-2 has provided engineering, installation, maintenance, and operations support services to over 250 network operators in 75 countries.

APPAREL-1 is a large company engaged principally in the manufacturing, marketing and sale of packaged textile and non-textile home furnishing products to consumer and industrial markets. Various divisions and subsidiaries, each of which operates within either the home furnishings or specialty fabrics industry segment, conduct these operations. Among the factors contributing to APPAREL-1's industry position are its highly automated manufacturing facilities, its well-known brands, and its commitments to fashion design and diverse product offerings in the home furnishings field. APPAREL-1 has 43 manufacturing plants. According to company sources and annual reports, a significant portion of APPAREL-1's expenses is capital spending for

equipment and information systems. While APPAREL-1 leads the industry in sales and net income, it is felt that it has opportunities to improve operating margins. In recent years significant investments had been made in certain capital projects and other initiatives, which were expected to improve its performance too. In future, according to company sources, investments will also focus on manufacturing equipment, distribution facilities and information systems intended to maintain the company's commitment to low-cost manufacturing and excellent customer service. Additionally, expanding partnerships with key customers and accelerating product development will be sought to improve APPAREL-1's ability to provide consumers with innovative products and greater value.

The year 1997 was **APPAREL-2's** 110th anniversary. APPAREL-2 believes its resilience is a reflection of the spirit of its people and their ability and resourcefulness to meet the ever-changing needs of customers. APPAREL-2 feels that it knows what it takes to be a focused supplier of products used in and around the home. Such market focus, it feels, is critical since its "world" has grown smaller. It anticipates that the administrative consolidations, new product placements, and continuing manufacturing and distribution economies will continue. As a result of technological improvements, the amount of space

and equipment required to produce a fixed amount of fabric declined, which allowed APPAREL-2 to produce equal or greater quantities of cloth from fewer manufacturing facilities. While its 1996 results were disappointing, APPAREL-2 believes its business is stronger in terms of its product offerings and the ultimate value it provides the consumer. APPAREL-2's home furnishings business offers a more complete product than it did at any time in its history. APPAREL-2 is especially cognizant of the importance of information systems and invests heavily in information and operating systems development and installation. Today, APPAREL-2 devotes more talent, capital, and space to information systems than ever before and believes that understanding the demography of market demand for its products, and the production scheduling and ordering systems that will assure its customers of rapid replenishment, are critical to its long-term success.

Decades of experience and envisioning where technology and commerce around the world were headed to have enabled **COMP** generate $75.9 billion in revenues for 1996, which was up 6% from 1995. The most encouraging sign that COMP's strategies are working is the broad base of its growth and its continued strength in businesses that represent the greatest long-term growth potential: Services revenue increased 25% to nearly $16 billion - the fourth

consecutive year that services grew more than 20%. COMP signed contracts worth $27 billion in 1996. The total value of professional services business already booked for 1997 and beyond in areas like systems integration and outsourcing of customers' data center operations is more than $38 billion. Software revenue grew 3%. COMP's PC business and market share expanded significantly worldwide. Its storage business performed well, particularly its hard disk drive sales. COMP continues to grow rapidly in the world's emerging markets. For the second consecutive year COMP increased its capital expenditures, especially in strategically important areas. COMP also spent $4.7 billion on research and development and received more U.S. patents than any other company. COMP is comfortable with its existing position within the industry sensing that its emphasis on doing what it has always done best – solving customer problems with innovative technology will keep it at the forefront. It feels like it has the right strategies and is focused on them, and it has committed resources to implementing them.

Backgrounds of Some Interviewees

Appendix A.4 gives the designations of all interview participants. Once again, for the sake of anonymity, names of companies and the participants themselves

have been concealed. It may be noticed that study participants ranged from Director of Logistics, Director of Logistics Processes and Engineering, to Vice-President Transportation and Distribution, Vice-President Merchandizing, Senior Manager of U.S. Logistics, Senior Regional Customer Service Manager, and Transportation Specialists. Also, approximately 10% of the interviewees are women. Interviewees represented both the inbound and outbound side of a firm's logistics operations, and technical and non-technical functions. Such a selective process, while being time-consuming and difficult, allowed for a more complete and accurate description of inter-organizational logistics relationships, thus generating a more complete understanding of the process. Given below are the job descriptions of some participants, highlighting this diversity in activities and responsibilities.

DARREL (AUTO)
Director of Physical Distribution & Supplier Management
- scheduling materials from suppliers
- moving material through supply chain
- inventory control systems
- transportation systems

ROGER (AUTO)
Director Material Flow Planning, Production Control & Logistics
- implementing "lean manufacturing"
- lowering inventories, transportation systems and smoothen flows
- working on future model programs
- laying out the operation plans for future transportation systems
- predicting what the costs will be for new programs

JAMES (AUTO)

Manager, Power Train

- transportation and packaging responsibility
- liaison responsibility to "platforms"
- puts out request for quotes and selects the single source
- does the day-to-day and management oversight of LLP partners

STEVE-B (COMM-1)

Senior Manager

- does all the transportation management
- ensures all the necessary logistics services from transportation, warehouse management, duty and customs transaction management over the life of a project
- involved from a sales and marketing standpoint in making supply chain decisions
- looks at trade agreements

STEVE-R (COMM-1)

Manager

- responsible for superstructure and supply materials to the field and installation workforce

WILL (COMM-1)

Engineering Manager

- responsible for developing processes
- ensures COMM-1 has space and capacity available to get out projected workloads
- works on requests for quotations (RFQs)
- evaluates relationships that COMM-1 has with third party providers

THOMAS (COMM-1)

Director of Logistics Processes and Engineering

- responsible for logistics tools – both existing tool sets and developing new ones, and for processes supporting them

ROBERT (COMM-2)

Manager, Transportation

- responsible for almost all the contracting of small package ground, small package air – domestic and international, domestic air freight, some international freight forwarding contracts, truck load, house hold goods, and almost all modes of transportation other than third-party logistics
- responsible for corporate contracts, claims, corporate plus damage claims

- responsible for activities ranging from contracting requirements to carrier selections to strategy for the corporation to a vendor reduction to almost anything that might come up where individual businesses units might be interested in

JOHN (COMM-2)

Transportation Manager Logistics, Contracting and Business Systems

- involved in supporting business units with local commercial warehousing contracts, distribution studies, contracts supporting sales channels, installation of the product, and all transportation business systems
- was in the process of "bolting" the transportation management system on to SAP
- responsibilities included areas of outsourcing logistics management contracts

GREG (COMP)

Manager World Wide Product Distribution

- responsible for processes, and strategies for the physical delivery of parts
- responsible for the warehousing of parts and finished goods, and for the physical distribution of finished goods to customers on a worldwide basis
- involved with the logistics at worldwide facilities and for distribution of product from those locations too

BURL (COMP)

Manager, Site Distribution and Dealer Identification

- responsible for all communications and the transportation and shipping of product to dealers
- involved in customer relations activities

DAN (CHEM)

Senior Manager of Operations

- responsible for everything that happens with the product from the time it is produced, up until the time it is delivered to a customer
- responsible for all transportation, warehousing, inventory deployment and all of the financial and planning aspects associated with those activities

AUSTIN (CHEM)

Regional Customer Service Manager

- involved in invoicing, taking orders, shipping and handling, getting product shipped on time, expediting shipments if need be, for the western sales region
- responsible for product allocations and product introductions
- work as a close liaison between supply-chain operations, field sales group, and product managers
- maintain and reconcile inventories
- ship product out to consignments for agency programs when CHEM owns the product even though it has been shipped to the customer level

MIKE (APPAREL-1)

Vice President of Warehousing and Distribution

- responsibilities cover 13 warehouses, about 600 people in the warehousing side, and 105 people on the transportation side

SUSAN (APPAREL-1)

Vice President, Merchandizing

- responsible for product development and putting together product lines
- has the logistics part of the business which is managing inventory levels, adjusting company dollars in products bought, servicing customers, and forecasting and projecting estimates
- works with suppliers in trying to get their lead-times, transportation times, customs requirements and all of the paperwork involved with bringing product into the country
- works with customers to put together the program of what they should be buying for six months basis and when they have inventory issues or what ever the business issues are
- works one every thing that one has to do to bring the product to the customer, including inventory and service issues once the product is out

TOM (APPAREL-1)

Manager of Customer Service for the National Account

- responsible for all aspects from order entry, through shipping the orders, doing inquiries, routing, arranging carriers

4.3 *"Reading" the Findings*

As described in Chapter Three, this is a qualitative research study in which data is primarily drawn from in-depth, participant interviews. Data was transcribed from audiotapes and analyzed. NUD*IST 4.0[56] was used for managing, sifting through, and generating items and constructs that form the basis of the theoretical model describing strategic inter-organizational logistics relationships. The interpretations and analysis of these transcripts are presented in the rest of this chapter.

The entire study is built upon views expressed by various interviewees. These views are quoted directly when making a point or while providing support for theoretical constructs being developed. In such cases the name of the particular interviewee (with company name alongside in brackets) is provided. Within the direct quotation itself, some text is italicized to highlight or emphasize a point being made. In most cases the text includes the context for the response being given by the interviewee. In instances where it is missing, text presented

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[56] NUD*IST 4.0 is an extremely versatile software package for analyzing qualitative data. A detailed description of it is available on the internet at www.qsr.com, or can be got by writing to: SCOLARI, 2455 Teller Road, Thousand Oaks, CA 91320, or calling (805) 499-1325.

between square brackets provides the context – "[ ]". Then, in other instances words between the [ ] provides the entire response, thus making it clearer and more understandable. In most situations original conversations have been preserved and presented 'as is' - except in a few cases where sentences were corrected for grammar and spelling to provide for better readability.

4.4 Data Interpretations

4.4.1 "Face One": Birth of Strategic IOLRs

> ...there's lot to be gained by having this strategic alliance with our vendor partners. The risk-rewards certainly. I think most companies today have to live on the edge a little bit to be competitive and not be behind and that's certainly our approach...being a little more risky...
>
> – Scott (HOMEIMP)
> Interview Conducted on June 09, 1997

Operational, Tactical or Strategic IOLRs?

Companies wanting to remain competitive do so by "living on the edge"; and the numbers of companies doing so grows every day. *"Become competitive... indulge in activities that generate competitive advantage!"* are refrains that are more commonly heard in corporate circles today, than ever before. A chairman's

annual report, the president's speech at a conference, or a manager's remarks at a department level meeting harp on the same message, extolling the virtues of being competitive. Competitiveness is being stressed at every level in the organization and drilled into everyone involved. It is only *how* one chooses to actually become competitive that tends to vary significantly.

As Scott notes above, there are companies like HOMEIMP that like "living on the edge" and indulging in activities that may be viewed as risky by others. Such behavior may be a deliberate strategy of the management of HOMEIMP or an option forced upon by its business environment. HOMEIMP also realizes that it is difficult to remain competitive on its own strengths, and that it *needs* partners to help out – strategic partners. However, even the most ardent supporter of strategic relationships believes that, while such partnerships *do* generate competitive advantages it is not meant to be so (strategic) in every relationship. Thus some relationships remain the way they were always intended – routine, simple and operational; in other words simply not strategic.

> MIKE (APPAREL-1)
> The thing about it [strategic relationships] is there is only so much time that these relationships...and everybody...but they've got 1000 other vendors and we've got other customers. *So what you do is you pick those that you think will give you the best knowledge and so you are more with them rather than all of them. So you don't always work with strategic partnerships.* You may work with a select number to help test what you've done, and to make sure...

Similar sentiments were expressed when interviewees were questioned regarding their impressions on the nature and evolution of IOLRs, and for reasons why they (the interviewee) thought it was *strategic*. Responses reflected the definitions and descriptions of strategy by such researchers as Andrews (1980), Chakravarthy (1986) and Mintzberg (1978, 1991). For instance, Andrews (1980) defines strategy as a "pattern of decisions in a company that determines and reveals its objectives, purposes or goals..." and Chakravarthy (1986) states that it is "the process through which managers ensure the long-term adaptation of the firm to its environment." Within the data too, these views are reinforced.

> DARREL (AUTO)
> ...strategic means to me...as you are *looking down the road* at where your business is going and that you are *making decisions*, some short term but most *long term* that will help you achieve the objectives of the organization...*it's the plan* that you use *to move your company* in that direction...

Relationships, even if they are a part of an organization's strategy, are not necessarily strategic. In many cases they are merely operational, in that they are simply the means to achieving an end. As seen in the following description, Dan states that most of the relationships CHEM has with its suppliers of logistics services are transactional or *operational*.

> DAN (CHEM)
> The majority of the relationships are "I have a transaction I'd like you to do and I'm willing to pay this amount of money. Will you do it?"
> "Yes I will."

"It's done."
"Good-bye, so long."

On the other extreme are those relationships that are absolutely critical to the organization or crucial to a division's survival, and thus *strategic*. These IOLRs facilitate the functioning of the company's main business. As James notes here, AUTO's IOLRs with SCH-LOG and CAL were established to service AUTO's inbound logistics needs; provide services that were *extremely critical* to AUTO's viability as a competitive manufacturer of automobiles. Any disruption in such services, according to James, can result in millions of dollars in losses.

> JAMES (AUTO)
> ...the automotive use of the lead logistics providers and focused on the inbound flow to support manufacturing. And in most of the other industries it is a focus on the outbound distribution to their customers. And the demands, I think, are entirely different. Well, significantly different, not entirely, significantly different in terms of performance expectations and the potential penalty for failure. Yeah, they might have a lost sale if something's late. *We shut down a manufacturing operation with 3500 people making 25 bucks an hour if there's failure. So delivery to the hour is far more critical in the inbound than it is on the outbound.* So I think the standard of service is something that caught the industry by surprise.

Similarly, the following descriptions of IOLRs between AUTO's logistics division and SCH-LOG and CAL (the two IOLRs highlighted by most of the interviewees in AUTO) place the two squarely in the "strategic" category.

> DARREL (AUTO)
> Well, I think it's a very vibrant relationship [relationship with SCH-LOG]. I think the capabilities they bring to the relationship has allowed us as an

organization to learn and ask those kind of questions. For example, the technology and the modeling capability that they bring to our system allows us to be more analytical. And we have people throughout our organization now who are asking different questions than they did not four years ago. Because they didn't understand and know the capabilities that were out in the real world. They didn't know to ask the questions. But now that they've seen the capabilities, we have people asking all sorts of "what if" kinds of questions that we can respond to now with, you know, theoretical data, theoretical results. But they've benchmarked the current system and said well here's how you're operating today and we can look at the numbers that come out of the models and say, "well yeah, you're right". They're the results we're getting. *You make these policy changes, you make these tactical changes, you make these strategic changes.* For example, *we made a significant change last year, a strategic change,* where we went to our, to the dealers. We want you to put more part numbers in your system. And because we know that inventory's important to you, rather than give you a weekly cycle to replenish your...

JAMES (AUTO)
I think it's successful [relationship with CAL] in that *it was a very rapid implementation of a real complex situation.* We went across 26 plants and got them all up and running in about 15 months from when we started. We probably broke a few things along the way. *I call it successful from an implementation standpoint and from a standpoint of meeting the strategic objectives.* I think we both were nominated for that. In fact, we were nominated for the thing and we were awarded this President's Council award. I think they give about 100 of those a year out. Anyway, I think both organizations recognized what we did was, the implementation was successful.

Then there are those IOLRs that are clearly neither operational nor strategic. These are IOLRs that have a significant amount of resources, time and money invested. The expectations from them are very high but not critical, since failure would be irksome but not dooming. The nature of these IOLRs is such that they are either poised to become more critical and thus strategic, or remain 'as-is' since they were always intended to render a service that is *tactical.*

JOHN (COMM-2)
...I think that *we do not have a lot of strategic partners right now.* I think we had some suppliers that have come back with some suggestions for changing operations that we have adapted. But, *none of them are of any significance.* Not to this date. But that is...not to say we are not hoping that some of this happens with the relationships that we are starting to develop. We look, *going forward at least with this one company* [S-WAY] *more than some of the others, as we form more of these relationships we are going to be looking for suppliers to provide a lot of that input and suggestions for us.* We...

Thus an appropriate continuum capturing such critical aspects of IOLRs is the *Operational-Strategic dimension* along which the various examples cited in this research were located. As the data analysis proceeds it will be shown that:

(1) Ron's relationships in APPAREL-2 are *operational*

(2) Tom's relationships in APPAREL-1, and COMM-1's with AB and GTES are *tactical,* and

(3) Thomas' relationships in COMM-1, HOMEIMP's inter-organizational relationship with VPAINT, AUTO's with SCH-LOG and CAL, and APPAREL-2's with HTRANS are *strategic.*

Designed or Evolutionary IOLRs?

Earlier in this section, Darrel (AUTO) talked about strategy being a plan where managers make decisions to achieve long-term organizational goals and objectives, and adapt to their environments. The one given below by James (AUTO) reiterates the same but includes a notion that IOLRs can be an *intended* and *designed* aspect of the company's strategy. Whether it *realizes* its strategic potential or not, and whether it *can* be called a strategic relationship is dependent on the *deliberate* actions and activities pursued by the firms involved.

> JAMES (AUTO)
> I guess the one underlying characteristic is that it [strategy] ought to be *intended* by both parties to be a *long-term* relationship. It's truly a *living contract*...how you can make each other more competitive...that really is the way we approached this thing [strategic relationships], *with the full intent* that it would *last an extremely long time*...

Similarly, in the following excerpt, Steve-B enunciates the company's expectations from a relationship that was clearly intended to be strategic from the onset. This intended or *designed* relationship (established most often through a formal "Request-for-Proposal" – RFP), is critical to COMM-1's overall strategy of achieving lower product cost, greater customer satisfaction and increased market share.

STEVE-B (COMM-1)
...first *we went out and looked* at...*we polled companies* that we had contacts with and found out who was providing warehousing distribution services for them and who they thought was best in class. *Went out and visited* about 15, 16 companies to bring back what we thought would be good ideas that we could *put into a request for a proposal* [RFP]. And one of the things we were looking to do is really changing the way that we do warehousing distribution today. Then we would go through a *fairly formal request for proposal solicitation process.* And from that, we'd look business solutions to come back. Not so much outlining the way we think business should be done but outlining a problem or a situation and asking how you would handle this, how you would put a warehousing distribution center together to meet these needs and those kind of things...through *a formal process looking for who has the best business solutions,* who we think is best in class and then once we make that decision, that selection, then actually have them on our staff and become part of our organization...

The *designed* nature of strategy in relationship formulation is also reflected in Roger's explanation of AUTO's strategy. According to him, strategy ought to be deliberate and purposeful especially when it involves establishing relationships to achieve strategic objectives. It means ensuring compatibility between partners since it involves dedicating resources to growing the relationship to a point where it is mutually beneficial and for the long term.

ROGER (AUTO)
...the strategy *ought to be* to find those suppliers that *we want to have* these relationships with, and develop them, work with them, helping them to become more productive. Teaching them the things...

Also Ron's (APPAREL-2) description of the carrier selection process at APPAREL-2 stresses simple, objective and non-strategic characteristics such as

price and basic capabilities. It is *designed* to be *operational*. The *intention* is to choose a carrier capable of providing a service at a competitive price. When the need arises, the vendor who is most competitive and has the capabilities is awarded the business.

> RON (APPAREL-2)
> If our business is increasing and we need to hire another truckload carrier what if we just want to keep abreast with the market. I have truckload carriers coming in to see me every week. Where these people come from, I don't know. I mean they are just names you have never heard of – the guy comes in, he's got 30 or 40 trucks, and he wants to do business with APPAREL-2. What we do and I'm getting into the qualification part, what we do is we give him that *initial* bid sheet. We ask him...we had one in yesterday for example. They leave us information, business cards, a profile of the company, their insurance certificate – the *basic* capabilities that they have. They give us that and most everyone of them will have a folder (shows interviewer a folder) when he walks into the door, here's my company and I have got 35 trucks and I'm based in Charlotte and I want to do business with APPAREL-2, O.K. The first thing I do is I say O.K., well to even get the thing started here is our bid package. *We want to qualify the person to see if they are number one price competitive*...I then take that and put it in here and I will be very frank and honest about the process – if they are price competitive we take...that file stays on top of the desk up here with me, O.K. So if we need somebody, I've got someone to choose from. If they are not price competitive, if they don't pass that first test, we put him in the back in a file drawer pretty much out of sight.
>
> [When the need arose]...I went to the guys who were lying on top of the desk, who are price competitive, O.K. Selected probably the one who was the *most price competitive*, who I *felt had the capabilities of doing the job*. And then I advised them to come in now. So...this is a process we go through. You bid competitively, you make that cut, you are in the back-up pool so to speak, that if we need to change out a carrier we will call you and further qualify you - to be sure that you do indeed have the capabilities of doing the things that we want you to do.

The above discussions, highlighting the evolutionary process and critical aspects of IOLRs, parallels the evolutionary process of strategy as described by Mintzberg's (1978, 1991).[57] While purporting the notion that strategy is usually about 'hindsight', he develops a typology of strategy, which is reflected in the descriptions of interviewees. The *designed* nature of IOLRs is very similar to the *intended* strategy Mintzberg identifies in his typology.

> Ask almost anyone what strategy is, and they will define it as a plan of some sort, an explicit guide to future behavior. Then ask them what strategy a competitor or a government or even they themselves have actually pursued. Chances are they will describe consistency in *past* behavior – a pattern in action over time (p. 404).

Darrel's description of AUTO's IOLR with SCH-LOG *begins* as designed and tactical but *ends* as evolutionary and strategic. This relationship with one of its lead logistics provider (LLP) has its roots in a formal "Request-for-Proposal" – (RFP) process; and it is tactical (more than one provider was available at the time, and price was a decisive factor). *Designed* as a tactical relationship, *with*

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[57] *Intended Strategy: a priori,* conscious and explicit process
Realized Strategy: pattern in a stream of decisions.
Deliberate Strategy: Intended strategies that get realized
Unrealized Strategy: Intended strategies that do not get realized, perhaps because of unrealistic expectations, misjudgments about the environment, or changes in either during implementation
Emergent Strategy: Realized strategies that were never intended, perhaps because no strategy was intended at the outset

the passage of time and the presence of key ingredients (such as inter-organizational learning), it clearly *evolved* into a strategic relationship. This akin to Mintzberg's (1978; 1991) descriptions of how intended strategies transform into realized strategies through deliberate actions.

> DARREL (AUTO)
> Well, *it started with a traditional bid process*...After studying our business for a while and *they gave us proposals.*
>
> ...Of course, you know that plan has changed, its been altered since we started that process, but the relationship that has...*in my mind that has developed in a strategic way*...relationship has come as the organizations have got to know one another, as the people that are on the project, specially on their side have come to understand what our business is what our strategic direction is what are objectives are...what's important to us. How we operate politics of our organization. And as they have learned that I think the partnership has been more efficient. We have able to get more things done...the more they know about our business. So *it has developed over time* as they have learned about us and we have learned about them.

Lee's (HOMEIMP) description of strategy formulation is different. In the example quoted below, while the primary (*intended*) strategy may be to "set up a mail order business," development of the vendor is not. However, in due course, the vendor may bring in new ideas and concepts, or develop systems that generate strategic benefits for HOMEIMP. The *emergence* of such strategies is neither intended nor planned; it *just* happens during the course of the relationship – just as it happened in Thomas' (COMM-1) relationships with APORT and AEI. This unintended aspect literally emerges from 'out of the

blue' transforming otherwise operational relationships into tactical (as in Tom's relationships in APPAREL-1) or strategic IOLRs.

> LEE (HOMEIMP)
> ...a lot of these strategic strategies are *not strategies as how we intend* to accomplish our mission. For instance, we go set up a mail order business...*that* is what I would consider a strategic level. How do our vendors fit in that? Once we have decided as to how we want to market as implementers, finding the best fit [for] the company out there – [the one] that may benefit the most, or is most willing, or most able to support that strategy... So *we are not developing them in concert necessarily.* That [development] *happens some times when vendors bring in some ideas and concepts that are strategic* and...

For any relationship to *evolve* into a strategic relationship (as it did with HOMEIMP and VPAINT and APPAREL-2 and HTRANS), key factors must come together or external stimuli (such as learning) must be applied. In HOMEIMP's relationship with VPAINT, it was a deep commitment on both sides to foster the relationship. Commitments were made in both tangible and intangible manner. Persistence, hard work and a continuous drive to improve and learn paid off.

In the case of APPAREL-2's relationship with HTRANS, "strategic" location, coupled with serious commitments made by HTRANS to the relationship (such as buying APPAREL-2's terminal and employing several of its employees) generated a level of trust and understanding desired by individuals within

APPAREL-2. *That* was sufficient to transform an otherwise routine relationship into what can be construed as critical if not strategic *because* of the level of trust, enhanced comfort levels, and open communication channels, which in turn fostered a more efficient and effective logistics service. While the specific service itself may not exactly merit the "strategic" label from resource-based strategists (Barney 1991, 1996; Mahoney and Pandian 1992; Peteraf 1993; Wernerfelt 1984, 1995; Varadarajan and Cunningham 1995) the relationship *as a whole*, with all its intangibles, tacit knowledge and learning, certainly does. Thus, as seen from the discussion reproduced below, the relationship between APPAREL-2 and HTRANS *evolved* over a period of time from being routine-like and operational to one that was critical and strategic.

> RON (APPAREL-2)
> HTRANS... and I'll just mention them as an example...HTRANS is two brothers...their father started the company and is since deceased, but there are two brothers in Lynchburg, Virginia. They bid on our business [as any other vendor might have]...*they've been such close and good partners* that they actually bought the terminal that we had in Lynchburg. When we closed that terminal, they bought the terminal. They moved in to the terminal. They even hired some of our dispatchers, O.K. So you can understand why they are probably our best partners. In all of our substitute carrier group HTRANS is probably the best. Because they assumed our terminal and our people we sold it to them. We sold them the terminal leased-to-buy type deal. They bought the terminal, they hired some of our people. So we really had an advantage there, their people were now some of the people that had done our business for years, O.K...We started with them, they were very price competitive to begin with, they *were attuned to our every need*, we've been able to *grow and develop* with them and do a lot of different things...like loading directly from our plants, on large shipments versus bringing it back to our terminal and actually having to re-handle it and load it out of terminal. So, that partnership...

JIM (APPAREL-2)
Let us stick with HTRANS...*location* is what is keeping them...where they are located in relation to our major shipping plants in Virginia.

JIM (APPAREL-2)
We have a very long-standing relationship with HTRANS. I talk to them, five or ten times a day, about various things...they have...If you went into their office, they would probably tell you that if you asked who their no.1 customer was, they would tell you that APPAREL-2. Of course if we asked them, of course they will tell us that. But...I mean *you just sense that* when we call at a certain... *attentiveness its not urgency*, to...current problem at hand, and that they are trying to work...you sense that they are trying to work on the problem. *They realize what they are*...what the problem is, at the same time we do any more, because it is such a tight link now. OK. *That they are working on the same problem that we might be working on simultaneously*. We'll talk and we'll say "can you work this out, can you work that out, put this off, do this instead of that." Give them a certain priority to work with and so forth and so on. So *they are very attuned* to what we need, on a daily basis. When our volume increases, as we had on the weekends, for example, they were able to plan for that, and I think they will give our account a real special attention.

Thus, a first step in understanding inter-organizational relationships is to categorize them based on the nature of their inception or conception, as either *Designed* or *Evolutionary*. Then, the other strategies identified by Mintzberg (1978, 1991) *deliberate, realized,* and *unrealized,* manifest themselves in the management, success and failures of these IOLRs respectively.

Careful scrutiny of the data will support the categorization of:

(1) Ron's relationships in APPAREL-2, COMM-1's IOLRs with AB and GTES, and AUTO's relationships with SCH-LOG and CAL as *Designed* IOLRs, and

(2) APPAREL-2's relationship with HTRANS, HOMEIMP's with VPAINT, Tom's in APPAREL-1, and Thomas' with VPORT and AEI as Evolutionary.

Figure 4-3 conceptualizes this integration of the typology of inter-organizational logistics relationships developed in this study with Mintzberg's (1978, 1991) strategy typology. "Face One" represents strategic, inter-organizational logistics relationship types on two dimensions: *Designed-Evolutionary dimension* and the *Operational-Strategic dimension.* Figure 4-4 "places" the above mentioned IOLRs in the appropriate cells of a 2x2 matrix formed by these two dimensions.

4.4.2 "Face Two": IOLR Typology

...It's truly a living contract...

– James (AUTO)
(Interview conducted on August 4, 1997)

In addition to the two dimensions identified earlier, a third dimension that emerged as the data were analyzed was the *Individual-Organizational dimension*, which reflected the degree of involvement of individuals, departments and whole organizations in the relationships. On one side of the continuum are those relationships, which were predominantly established, managed, monitored and evaluated by individuals on an individual basis.

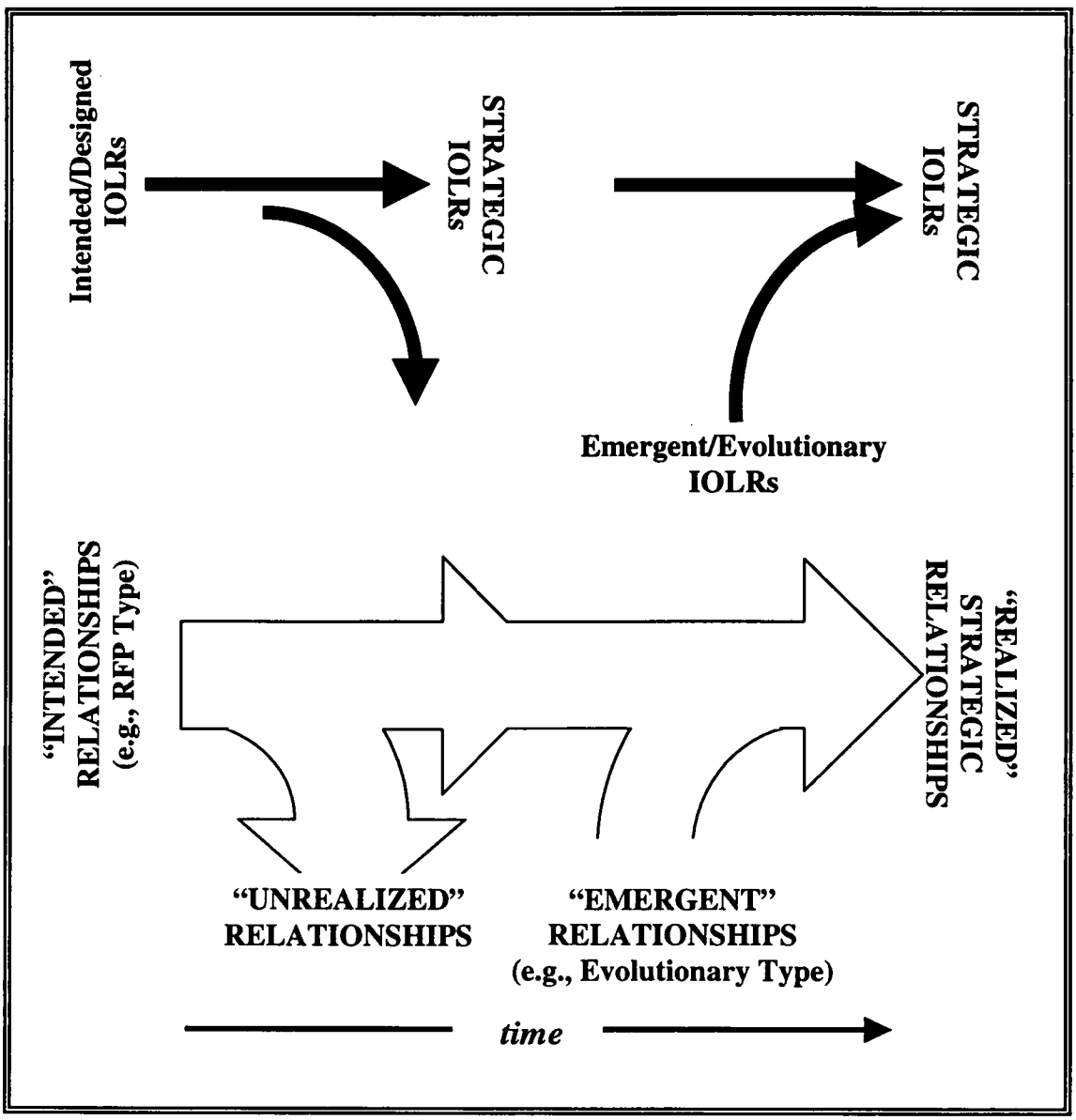


Figure 4-3 "Face One": "Intended" vs. "Evolutionary" IOLRs

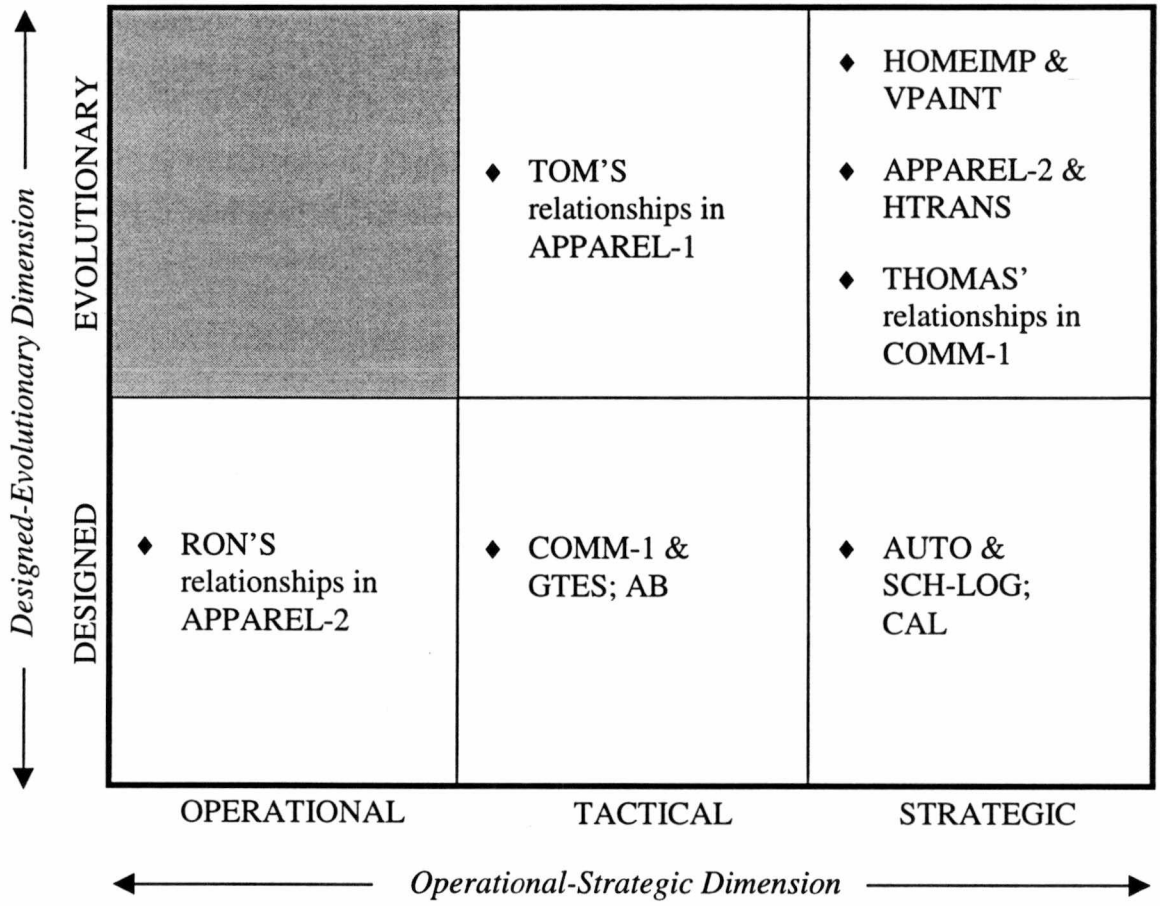


Figure 4-4 Examples of IOLRs Within Cells on "Face One"

These relationships are characterized by a high content of personal preferences and individual choices. The other end of the continuum is represented by those relationships that are characterized by a great degree of close cooperation and organizational consensus. While the ends of this continuum represent the "pure" types[58] and may be difficult to find[59], IOLRs placing in the middle of this dimension should be easier to identify.

Figure 4-5 depicts the typology of IOLRs developed in this study that is based on two dimensions: the *Individual-Organizational dimension* just mentioned and the *Operational-Strategic dimension* developed and presented earlier. This typology is developed and discussed in the next few sections.

As seen in Figure 4-5, although the two dimensions along which the typology has been created are continuous, an intermediate level of involvement and

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[58] Similar to Shrivastava's (1983) conceptualization

[59] Given the fact that relationships – especially good ones – tend to grow and expand rapidly, the level of involvement gravitates more towards the middle of this dimension; i.e., most IORs involving logistics or logistics-related activities are managed at a functional or departmental level. Chances of IOR involvement permeating across functional boundaries is limited, especially in organizations where logistics is still a relatively new concept.

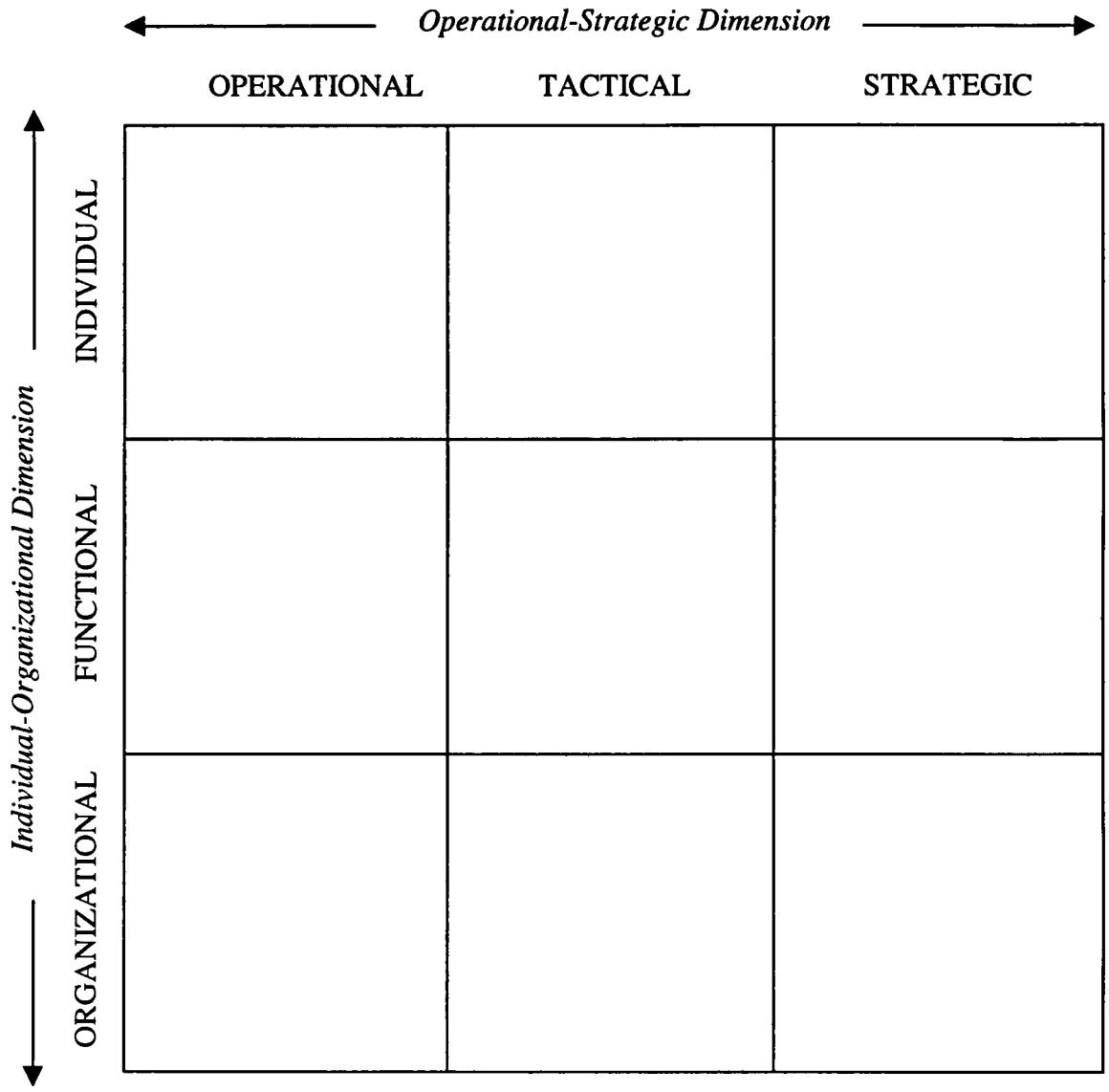


Figure 4-5 "Face Two": Typology of IOLRs

degree of criticality emerged from the data analysis creating a 3x3 matrix, resulting in nine cells or IOLR types. While each cell is specific and unique, in some cases characteristics manifested themselves in varying degrees making it difficult to identify them with one cell instead of another. This process was very carefully done, in several iterations. I compared my analysis with that of a colleague who did hers independently, and in instances where there were disagreements a third person[60] was consulted for clarification. Items describing characteristics and features of each type were checked for accuracy and consistency. While the whole process was time-consuming and elaborate, it nevertheless resulted in a rigorous and robust classification system. A similar procedure was also followed in identifying characteristics of learning systems in each cell. The discussion that follows describes each cell, identifying characteristics in detail.

Cell 1: Individual level, Operational IOLRs

Relationships in Cell 1 are typically established by single individuals in situations where quick decisions or temporary solutions are needed – as is the

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[60] This person is a colleague and a professor in the School of Business and Economics, at North Carolina Agriculture and Technical State University, Greensboro, NC 27411.

case in APPAREL-2[61]. Such decision-making authority is often vested in upper-level managers (Ron is Vice President, Operations, and Jim is Regional Manager), who also have the discretion in selection. Ron, for instance, states that such IOLRs are often motivated by changes in capacity requirements, temporary failure of existing service provider's systems or other unforeseen circumstances.

> RON (APPAREL-2)
> If our business is increasing and we need to hire another truckload carrier...what if we just want to keep abreast with the market. I have truckload carriers coming in to see me every week. Where these people come from...
>
> ...this is if we need to hire somebody extra because the business has gone up or say one of the five...and this has happened, not very often but occasionally... one of the five come in and say I want out of the business. We had that at Gastonia...

Capabilities sought are often "basic" and ubiquitously available. Selection criteria include tangible evidence such as price competitiveness, past performance, financial history and recommendations are usually sought before awarding the business. In most situations simplified "bid-packages" are sufficient to capture a vendor's viability. When intangibles are mentioned as selection criteria, they usually refer to human characteristics and traits such as

---

[61] In order to develop the profile of Cell 1 IORs, interview data of *other* respondents (some *not* belonging to APPAREL-2) are used. This is done to accentuate the characteristics of any IOR that may fall in this type.

'being able to work together' and being 'enthusiastic' and 'genuinely' interested.

> RON (APPAREL-2)
> Where these people come from I don't know. I mean they are just names you have never heard of – the guy comes in he's got 30 or 40 trucks and he wants to do business with APPAREL-2. What we do and I'm getting into the qualification part, what we do is we give him that initial bid sheet. We ask him...we had one in yesterday for example. They leave us information, business cards, a profile of the company, their insurance certificate – *the basic capabilities that they have.* They give us that and most everyone of them will have a folder [shows interviewer a folder] when he walks into the door... "here's my company and I have got 35 trucks and I'm based in Charlotte and I want to do business with APPAREL-2". O.K. The first thing I do is I say "O.K. Well to even get the thing started here is our bid package". We want to qualify the person to see if they are number one price competitive. And I ask them to fill it out for me, not to even type it, to fill it handwritten to me and send it back 'cause we have it in word process. *If they are competitive,* and we want to add a carrier...I then take that and put it in here and I will be very frank and honest about the process – if they are price competitive we take...that file stays on top of the desk up here with me, O.K. So if we need somebody, I've got someone to choose from. If they are not price competitive, if they don't pass that first test, we put him in the back in a file drawer pretty much out of sight.
>
> JIM (APPAREL-2)
> So somebody who *expresses a genuine interest* in what we're doing and *is enthusiastic* about working with us, for what ever reasons, or what ever their reasons is, and it is up to us to weed out...
>
> ...you can just sense some people just have an *affinity* for the business.

Such IOLRs tend to thrive in stable environments where "fear of the unknown" and potential for surprises are fewer. They often last only as long as the demand for that service exists (see Dan's comments below), and continue to remain at an operational level since criticality of the service remains minimal.

While it is important to have it perform efficiently and effectively, disturbance in its performance, as John (COMM-2) notes, do not have serious repercussions. As Steve-R (COMM-1) states, expectations from such IOLRs is no different from more critical and important ones.

> DAN (CHEM)
> The majority of the relationships are "I have a transaction I'd like you to do and I'm willing to pay this amount of money. Will you do it?"
> "Yes I will."
> "It's done. Good-bye, so long."
>
> JOHN (COMM-2)
> The vast majority of our suppliers...we work with them on the quality process we measure what they do and how they perform and we share that information with them and we work them and to identify areas for improvement. But that is us – *almost more one sided than anything else*...and we have some carriers that they are there for...some transportation companies especially that are strictly movers of freight that have only one issue that is pick up the box and deliver it. That is what they are paid for and that is what they want do. You say pick up a box every hour and they will pick up the box every hour. They will not come back and say "you know you will be better off if I can come and pick it up in the afternoon". They would not do that. Again may be they just do not care or may be they are just not efficient. But it depends on what we are looking for them to do and things like that you know. If we move a box from point A to point B, sometimes *it is not that critical* and again you get back to the issue of strategic partnerships and whether that is a critical issue or not. *If they do not move it well there are five other carriers that can.*
>
> STEVE-R (COMM-1)
> There's...no difference in expectation. We expect all of our suppliers to deliver 100% on time.

While commitments and investments are not expected, technological enhancements do serve to strengthen the bond and promote it to the next level. While interactions are infrequent or virtually non-existent, communications in

operational IOLRs are low-key, simple, one-on-one, and most often conducted by telephone.

> JIM (APPAREL-2)
> Most of it [communication], most of it takes place either by telephone or by fax. Very, very heavy emphasis on the telephone.

> STEVE-B (COMM-1)
> With those relationships, it would be...it is going to be more of a monthly salesman type thing or a key contact and it would be more with the *person at the low end* handling service issues and those kind of things. And there wouldn't be that much interaction at the top level. At the top level, what they would have is maybe...it would almost come across as *cold calls from a salesman's* standpoint and then they would typically...senior people in logistics would typically come down to the lower person and say "*tell me* what's going on with this company".

Rules are well defined, targets are specific and objectives are explicit. Performance measures are usually the same as those in more critical IOLRs, except that they are less focused on the actual activity but broader, such as, say, the carrier's on-time performance in general, rather than for the firm in particular. Data capture and reporting is aggregated.

> JOHN (COMM-2)
> We do that for all of them, we track specific performance measurements for all of our contracting carriers.

> STEVE-B (COMM-1)
> I think it is a little bit different because...with the typical buyer/seller relationship, they're usually *not going to be able to segment out the customer satisfaction rating that would be specific to us.* What they would be giving us back is, "here is our entire customers and this is how satisfied they are". And also doing some of the unique more specific COMM-1 measurements, they probably wouldn't be able to do.

Table 4-1 provides a complete profile of operational type IOLRs that are individually run.

Cell 2: Individual level, Tactical IOLRs

IOLRs in Cell 2 are also managed and monitored primarily at the individual level (as is the case in some of Tom's relationships in APPAREL-1). However these are more critical to the organization than those in Cell 1. Similar to those in Cell 1, IOLRs in Cell 2 are also motivated by desires to lower costs. However, a major addition to the earlier list of motives is a list of subjective ones. Thus, individuals managing such IOLRs seek easier working conditions, an environment in which to work more effectively and to be able to resolve problems *in addition to being able to reduce costs.* Looking for joint solutions and continuing an existing relationship is important. Excerpts presented below highlight the individual nature of these relationships Tom has (there are more than 23 "I's" in this short conversation alone, describing his feelings about *his* relationships), and the motivations behind them.

> TOM (APPAREL-1)
> *I am trying* to make sure that happens because...I want to tell you the kind of person that I am is...*I feel like* those relationships that *I had with* those people...they are friends of mine so...and *I know...I am trying to work* on with the...my counterpart to make sure that does not die. What *I have tried* to do with the people at L&T's is, say, "OK, here is the guy that you need to talk to," and *I even follow up* with him...and *I am* kind of out of line and he is new to

Table 4-1 Individual Level-Operational (Cell 1) IOLR Characteristics

Characteristic	CELL 1
Motivation	Objective
Capabilities	Basic; Ubiquitous
Involvement	Individual driven
Selection factor	Objective
Environment	Stable; Certain; Simple
Expectations	Basic level; Tangible; Objective
Explicitness	High control
Scope	Specific; Activity related
Duration	Short term; Transaction
Commitments	None
Communications	Minimal contact
Performance	Objective; General

customer service and so, *I am saying* "Mark, you need to make sure you take care of these people. Make sure because we had a good relationship and it will help you in the long run" and so forth. So, *I have not* just dropped it down. *I do not* have any direct...but *I have made it very clear,* and *I know I might* be wrong on this, but *I made it very clear* that if they get into problems *I am still here* and *I will get* to the right person if they cannot get what they need done. *I do not need* to do that because, *I need to* be...feel *I have* a rightful place. *I need to deal* with my own people but...*I would want to work* on that customer and help them. *I have to* if they needed to get...

...where it was just APPAREL-1 and SARs and we went through a lot of issues and try *to figure how it was easier to do business with each other* and *how we could work together effectively to reduce cost,* and the emphasize was not always on we have to do...

...another good example of a customer that I can tell you that is in Greensboro, NC. Their distribution is with...L&T has a distribution center in Greensboro. I am no longer in customer service but I have an excellent relationship with them and that was like a customer service here and their one distribution center but...I really think that we had a true partnership when I was working with them because, it was in openness, we have a problem here, so let us solve it together. So, I do not know...it really makes a big difference to me the attitude that people approach you with. I mean that I had a customer that spoke to me recently, and they said "we will...you know...you got excellent number of days to do this and if not we will charge back." I said "well, can't we discuss?" There is no discussion. Either you do it or you don't. That is a big difference going out there. How people approach you.

The environment surrounding these IOLRs is often complex – but not difficult to decipher. In some cases the relationship itself fosters understanding of the environment and in other instances it compels or forces IOR participants into learning about it. A reason why the complexity may be easy to understand (once exposed to it) is because much of it involves technical processes and

activities, which may be intriguing to an outsider. Once shown and explained the complexity is shed, making it more apparent and transparent.

> TOM (APPAREL-1)
> ...the other side of it is when they come to you and *they see the complexity of your operation* especially, I think I mentioned last time when they come visit we take them to a gray mill to a finishing plant, printing plant, sewing operation and then the customer service, and *they are just absolutely flabbergasted at all of the procedures* that go through, and *they start to begin to understand* so...they are on [the] learning side and you become the teacher and they become the pupil and they learn what you are going through and I believe...I have always been like that even when we bring difficult customers in...
>
> ...what I have found is that if you can ever get those customers to come down and get them to spend a day or a day and a half and tour your facilities and see what goes on. See the attitude; the very open positive attitude of APPAREL-1's associates, then it is amazing. You can have...I have seen in times past when the crabbiest or hard-to-get-along-with customers in the world always giving you a hard time, always had a bad time...they come down here and see what we do, and they meet our people and they go back with a whole new attitude and I have seen it, it has just been amazing to me with a 180 degree turn around, because they go back, and the next time they call you, then they got a lot of appreciation for what you do and *understand the problems better,* and they are much more conducive to working with you to help solve the problems together

Expectations in these IOLRs are similar to most other relationships – including low cost, value, service and quality. However, in Cell 2 partners are expected to deliver what has been promised and agreed upon in a contract; *and some more.* In addition to agreed upon services, IOLR members seek integrity, openness and an understanding of each other's situations in order to promote

the longevity of the relationship. Expectations in Cell 2 are higher than those in Cell 1 and include specific objectives *and* some subjective ones too.

> TOM (APPAREL-1)
> ...this is not the word I intend to use but *integrity* between the two parties and what I mean is, I suppose, if maybe that is not the word that I was looking for, but it is the first one that flashed in my mind, *I think what you have to do is you have to have an understanding of each other's situations* that you are not, and it goes back to that partnership thing in my mind that if you can...

Since expectations tend to extend beyond those normally sought, the scope of IOLRs in Cell 2 also go beyond that which is openly evident. Activities involved within the purview of the individual managing, monitoring and fostering the relationship are broad and extend beyond well-defined functional areas. The individual (in this case Tom) is responsible for the whole account as such, with responsibilities spanning functional boundaries within the organization. Thus the scope of the relationship Tom has in this case is broad, specific *and* general at the same time. The success of the relationship depends upon Tom managing the whole range of activities in an efficient and effective manner.

> TOM (APPAREL-1)
> ...due to my valuing role now *I am kind of the main communicator of my areas*...main communicator *with the shipping facilities*. Because, I think we found out that if we do not coordinate with the warehouse...we create problems between our customers and us. I do a lot of the communicating and coordination with the warehouses. Even if is for the Departmental and Specialties...we have just agreed that I will be the communicator, so we can focus through one point instead of having...we have kind of come down to

> that...*I currently have the database, the valuing database*...I am responsible for is the customer database where we actually set up the information about the customer...any particular like department number that they may want us to use their ship to address, their bill to address, the store locations. *All of the stores fall under that by store number, just a complete customer database operation. Also have the pricing database* where my area sets up the pricing at a SKU level for all the products that we ship in. We generally have that set up and in some cases specifically for customers and in other cases just a general generic that is the price for their particular product. And so *I have customer valuing and pricing database and I have some other related things like information*...

As seen from the above discussion, communications between members in these types of IOLRs are typically one-on-one. The individual takes it upon himself or herself to be the "gateway" for all communication by that ensuring smooth operations across functional boundaries that affect better levels of customer service. Personable attention is a key ingredient in the success of Cell 2 IOLRs, which are tactically important to the organization and are managed and run by individuals such as Tom in APPAREL-2. Table 4-2 provides a synthesis of characteristics describing IOLRs of this type.

Cell 3: Individual level, Strategic IOLRs

Cell 3 reflects those IOLRs that are of paramount importance to the organization. These are relationships, which generate the competitive advantages an organization seeks in the market place. Yet, IOLRs in this Cell

Table 4-2 Individual Level-Tactical (Cell 2) IOLR Characteristics

Characteristic	CELL 2
Motivation	Objective/Subjective
Capabilities	Less basic; Less ubiquitous
Involvement	Individual driven
Selection factor	Objective/Subjective
Environment	Less stable; More uncertain; Moderately complex
Expectations	Higher level; Less tangible; Objective/Subjective
Explicitness	Medium control
Scope	Broad; Function related
Duration	Medium/long term
Commitments	Minimal; 'Shareable'
Communications	Frequent
Performance	Objective/Subjective; Specific

are managed and monitored by single individuals. Excellent examples of such IOLRs are some of those that Thomas of COMM-1 has with companies such as APORT and AEI. When queried about the nature of these relationships he states, and repeatedly emphasizes, that these IOLRs are *his*, and are only strategic because of certain unique characteristics, *and* because of *his* presence in the relationship.

> THOMAS (COMM-1)
> ...was I developing a strategic relationship? I was just taking what I knew and ...*It's MY strategic relationship NOT COMM-1's* strategic relationship that achieved that. So that's why I get cynical about this philosophical approach that says now really where we are going is to this open book talk...we've done that...we've been down that road. Let's go for action within...
>
> ...you build a network...but you can't do it all yourself. Build a network with the people you trust, and *I say people, not companies.* People you trust and your life will be simple. None of us like banging our heads against the wall. *Whatever you call that, that's a strategic partnership. It is a partnership of individuals.*

Thomas' list of motivating factors for Cell 3 IOLRs reflects a very high degree of subjective involvement. Goals are broad and less defined. The overall intent of these IOLRs is to generate mutual benefits for all parties involved. In some IOLRs, such as the one with AEI, opportunities to grow manifest themselves in ways unseen prior to their becoming strategic. A close relationship with COMM-1 has opened a window of opportunity for AEI to grow, by gaining access to other customers too. Thus motivations for close relationships are usually not openly distinguishable, and they tend to supercede immediate

objectives. To be in a position to do so, while they are financially driven like most other IOLRs, issues of cultural compatibility and matching self-interests are crucial.

> THOMAS (COMM-1)
> Strategic to me should be where *self-interests meet exactly*. In the sense that *our financial goals are the same* and that our...*we need each other in a relational sense more strongly than we need anybody else*. How you achieve that...
>
> ...*they are trusted*. So, yes, they [AEI] have worked very hard to develop relationships with our customers, and interestingly enough the motivation for that is to get our customers' business themselves...that's where self-interest reinforces and they work very hard at that. *That's fairly unusual. I've not seen that*. I mean it is fairly obvious sort of thing to do. If you've got a good relationship with a supplier, you visit his customers every day.

Since motivating factors are general and broad, capabilities that are sought in partners are also general, broad and less defined. Many of the capabilities sought are difficult to define, are intangibles, and not ubiquitously present or evident in most providers. For example, Thomas describes AEI as the best service provider in the Philippines, where COMM-1 has extensive business dealings. Realizing how important customer service was to COMM-1's business, AEI went out and purchased an organization just to provide COMM-1 with it. In addition to having the broadest set of functional capabilities, AEI had "connections" – which is a key factor in conducting business, especially in Asia. Finally, AEI had earned Thomas' trust.

THOMAS (COMM-1)
...I do view some people who have what I would call more boxes ticked [referring to a hypothetical matrix comparing companies and their competencies and areas of expertise]. They have a greater capability. They have particular skills in certain areas, regions, and maybe AEI in the Philippines is about as close as I come to. There are a lot of things...if you put the matrix in, they probably only fill in half of the ones. *But there are things, you know, we'd probably not think of.* The owner is related to one of the big families in the Philippines that controls the Philippines. That relationship within the structure of the Philippines is critical. He is also President of the Customs Brokers Council. They have other staff people who are equally well connected. But it is not anything to do with facilitation, I mean it has to do with doing business in that region...*they understood what customer service really meant at the core face* and rather than try and set up their own organization, they bought this one. We were using them for...so in that particular region... and *we trust them with a whole range of logistics services, like the clearance, the warehousing, local delivery.*

The environment in which Cell 3 IOLRs are set is usually highly dynamic and unpredictable. Operating conditions are different from those seen in either Cell 1 or even Cell 2 IOLRs. According to Thomas (COMM-1), environmental predictability and distance are inversely related, with the magnitude increasing a few notches when it crosses international boundaries. For example, Thomas mentions shipments being escorted by 30 guards armed with Kaleshnikov rifles in order to prevent hijacking.

THOMAS (COMM-1)
...within the U.S., we have within any country, any stable country, you can qualify that. *Within the stable country where there are stable lanes, then the individuasl...individuality becomes less significant.*

...It is probably a factor....*inverse ratio at the distance from where you are.* But, and you know...Billings, Montana....very far away we could probably get and very few people go there given the climate out there. So, but the moment you cross

> the border, *just crossing that border*, even the Canadian border. That puts the next order of magnitude of difficulty on that. If you then cross a language border, that's another order of magnitude that...particularly the Anglo-speaking people. They are not comfortable doing... internationally with people that are...English is not their first language. Some are better than others are, but as a general statement I find that...
>
> ...There is a large chunk of the world we're dealing with, I mean, three years ago our international markets with non-North American sales represented 20% of our business. Next year that'll be 50%. So we're going up that learning curve. What that means is the markets we are dealing with now are the unstable ones, and I don't use that in a majority of the sense, I'm talking about what the traditional way of doing business in North America doesn't hold. The relationships we discussed...well known in the Middle East. That's, you know, the essence of doing business is to understand relationships. If you are trying to do business in the Communist, ex-Communist block countries, the CIS countries, I mean, the challenge we had six or eight months ago is where to find 30 people armed with Kaleshnikov rifles who will be prepared to sit...I'm talking about for 700 miles, because we were going to be hijacked if we didn't have that. Yeah, I mean, your friendly Consolidated Freightway would be slightly baffled when you phoned him...

Commitments made to the relationship, by each partner in the relationship is greater than in either of the other two cells, and tend to be very specific to servicing that relationship alone; commitments made are unique and systems and skills developed are generally not applicable to other relationships. There is a high degree of exclusivity in the nature, form and type of commitments made to these IOLRs, and the following description of APORT's relationship with Thomas illustrates it extremely well.

> THOMAS (COMM-1)
> APORT in the U.K. did our installation deliveries and have done for years and *I see no prospect of them ceasing to do it. They have developed a very strong capability of* ...we may be putting the office equipment, the equipment, up on the 10th or 12th

floor. This means we have to shut streets down. They not only will shut streets down, *they have developed...framing equipment* that will get round those middle steps, they have developed equipment...I don't know whether you are aware...every elevator in the world underneath it has a rink. They get somebody on the roof and they crank the elevator up by hand and they put boards in the shaft, slide the goods in, hang if from the elevator and will take it up to any...

INTERVIEWER:
Using the elevator like a crane?

THOMAS (COMM-1)
Yeah...using just as a crane. *They've developed these techniques and skills.* Our customers love them. The local police forces love them because when they say they are going to shut down the streets for 20 minutes, they shut it down for 20 minutes not 25. And so, that relationship...and *they have invested a lot of time and energy developing this equipment.*

Table 4-3 shows a synthesis of the characteristics describing a profile of IOLRs in Cell 3, and compares all three Cells across similar characteristics allowing a comprehensive look at the variations, differences and similarities between them.

Cell 5: Functional level, Tactical IOLRs

IOLRs in Cell 5 are monitored and managed by the logistics division as a whole. Collectively, departmental personnel are responsible for establishing that relationship and, as a group, are actively engaged in maintaining, monitoring and fostering it. In many cases plans are also made to include the

Table 4-3 Individual Level-Strategic (Cell 3) IOLR Characteristics

Characteristic	CELL 3
Motivation	Subjective
Capabilities	Unique; Rare
Involvement	Individual driven
Selection factor	Subjective
Environment	Dynamic; Unpredictable; Highly complex
Expectations	Highest level; Mostly intangible; Subjective
Explicitness	Low control
Scope	Broadest; Activity and function related
Duration	Long term; Relational
Commitments	Extensive; Exclusive
Communications	Frequent
Performance	Subjective/Objective; Specific

provider as an active participant in the operation and management of the relationship.

Thus, when referring to "important IOLRs[62]" interviewees cite those relationships, which by consensus were critical to their companies *and* involved almost all of them.

> ROBERT (COMM-2)
> I think *it is truly team arrangement* whereby you make...number one, *you need to get all of the individual's of your organization*...representatives of each of the organizations that are involved in the service that needs to be performed, but then make that strategic partner or that supplier part of that team to be exposed to everything that is going on. And I think sometimes we have a reluctance to bring them [supplier's personnel] in. But, I think in order to even approach progress you need to bring them in and that supplier needs to know much about the business and what the needs are, as we do in that particular function that they are performing.

> JOHN-H (COMM-2)
> Well, it is probably since we awarded the contract it has been about 10 months. So, *we are deeply into the implementation stage of it right now,* and I am not...one of the things that is the key that points out that this is strategic and also that it is truly a partnership arrangement is while we are deeply into the implementation of the first stage of this as a group, we are already thinking about where are we going to be and sharing our view of this organization in a year, 2 years, 5 years down the road and already we are talking about the types of services we will be looking for them to provide and they are coming back to us with ideas on where they might be 2 or 3 years from now to help provide that. So, we are kind of working this in two pieces. We are working the real-

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[62] In many instances, interviewees refer to their firm's IOLRs as "strategic," yet characteristics exhibited are more in-line with the description of "tactical" relationships. In some instances the IOLR mentioned by an interviewee is too early in its initial or formative stage to have realized the potential of being truly strategic. As the analysis unravels, further elaboration will support this contention.

time issues that are there right now, we are also working in parallel on planning where we want to be within 5 years from now, and what they need to continue to be a partner with us 5 years from now.

As seen from the several excerpts given in this section, many of Cell 5 IOLRs are *intended* to be important right from the onset; i.e., most are established after an extensive search following a formal request for proposals. Whether they are important enough to be labeled strategic instead of tactical or vice versa depends on the definition used. According to the definition of the term strategic that is used in this particular study[63] all examples of IOLRs in Cell 5 are clearly tactical. While there is a very fine line differentiating the two, and a "gray" zone in between; data analysis clearly indicates that IOLRs in this cell are tactically positioned and not strategically. While some IOLRs (like COMM-2's with S-WAY) were *just realizing* their tactical potential, others (like COMM-1's relationship with GTES and AB) were *poised to achieve* a level that can be described as strategic, but it was not there at the time of the interviews. The *tactical* level of Cell 5 IOLRs is exemplified in the following excerpts:

JOHN-H (COMM-2)
...*I think we have very few true strategic alliances*. We do have some. I mean there are very few places where we are doing joint development of product or joint

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[63] In this study, a strategic, inter-organizational logistics relationship (IOR) is one which, is mutually beneficial, generates significant, competitive advantages that are difficult to duplicate, reproduce or find in the marketplace, and are for the long-term.

development where this is the product we are developing and our suppliers are developing some very specific component...*we do not do a great deal of that in the transportation area*. Up to now we have done very little of it. We do have some instances in this area where we have a third party running a warehouse. *That's to me in most instances is not a strategic alliance because we are telling them that this is the level of performance we expect...this is the delivery performance etc. etc.* But we do not have a real relationship where they are coming back and then we have on-going teams where they are saying "if you change your process over here, we in turn can do this more efficiently, and save you money". *I don't think we have any relationship at that level right now*. I think we have some that as we mature we might be able to take that level. *Our relationship with S-WAY* for network systems...as we mature through that *probably will end up calling that a strategic alliance* because you know we are working very closely together. They are actually going to have their people sitting and scheduling our shipments. Arranging carriers for our shipments – all the things that you really talk about.

JOHN (COMM-2)
...I think that *we do not have a lot of strategic partners right now*. I think we had some suppliers that have come back with some suggestions for changing operations that we have adapted. But, *none of them are of any significance*. Not to this date. But that is...not to say we are not hoping that some of this happens with the relationships that we are starting to develop. We look, going forward at least with this one company more than some of the others, as we form more of these relationships we are going to be looking for suppliers to provide a lot of that input and suggestions for us. We...

Similarly, Steve-B's description of the renewal process for an ongoing relationship is characteristic of tactical relationships.

STEVE-B (COMM-1)
...what we do instead of going out and doing another full quote from the entire market would be we would benchmark their costs. And *if the service has been good*, we benchmark their costs *and the cost is in line*, then we just now started an automatic renewal process. And we are doing the same thing on dedicated contract carriage. And where we think that the service is good, when we benchmark, when we look and see what we would perceive as to be best in class on service and cost if we feel the company that we are using today is providing that for us, *then we would just continue that*...just roll that agreement over.

A key characteristic that differentiates Cell 5 IOLRs from either Cell 4 (operational) or Cell 6 (strategic) IOLRs is their duration. Cell 5 relationships last longer than the former, which last for the duration of a specific service, yet less than the latter, which are essentially "for-the-foreseeable-future" or "forever". Cell 5 IOLRs typically lasted one to six years and had been frequently evaluated, benchmarked and re-bid. As seen from the above statement by Jim-H (COMM-2) Cell 5 type relationships are scrutinized every few years to ensure that the firm is getting what it paid for.

> STEVE-B (COMM-1)
> ...are a little bit longer term especially more outside the logistics ring. If you just look at material and service purchases...getting away from one-year contracts to three year contracts and that way *we have five year purchase agreements and the same thing on the logistics end.* And really looking at service as one of the key factors as well as price, especially in the logistics end. *We are still making that transition within COMM-1* where we are really starting to look at service above cost.
>
> *...on the dedicated contract carriage is a five-year contract* and when we did the benchmarking. I believe we rolled it for another three years. And with the transportation, or freight forwarder agreements, those now may be two-year agreements. You know that particular industry. I think it is harder to establish a rate that you are going to hold to. But...dedicated contract it is a little bit easier to establish a rate that would be in place within five years or we're going to review the cost every two years. *With transportation companies, usually I would do that every year,* but especially on the air freight side because it is so tied in to the fuel price.

As mentioned earlier, this was the most difficult cell to demarcate clearly, as many of the characteristics reflected adjacent cell-like characteristics. Many of

the relationships cited in the interviews fell into this cell, before they were carefully teased apart. It was by far the most popular type of IOLR, especially with companies facing complex or dynamic environments – a characteristic of Cell 5 IOLRs. Short product lifecycles and rapidly changing technologies render tactical relationships most advantageous. The distribution or outbound side of an organization's operations was more likely for this type of IOLR. They can be setup and running in very short periods of time and dismantled and dissolved once the objectives are met[64].

> ROBERT (COMM-2)
> ...where some thing may be...*something very, very cutting-edge today and nine months or a year later it has been surpassed by additional technology and so forth.*
>
> ...transportation is a business where *you never know what to expect* and you cannot cover every contingency when you are putting together a process...

In addition, conditions of a firm's external environment (as in the case of COMM-1) may compel firms to establish tactically positioned IOLRs (such as those with minority owners) to derive certain advantages in other areas.

> STEVE-B (COMM-1)
> ...then on the regulatory side, the only thing we are really having to deal with there is since most of the COMM-1 operating companies get their funding from State and Federal government, they have a strong mandate to utilize as many minority vendors as they can and, in turn, since they are not really manufacturing...all they are doing, they're purchasing services or products...then therefore they look to their suppliers to give them that minority

[64] Similar views were expressed in his Opening Remarks by Ken Sharma, Co-Founder of i2 Technologies at i2's 1998 Textile and Apparel Industry Conference, in Greensboro, NC.

vendor and that minority contact. So one of the things that we've had to do is again look at alliances with smaller companies that can provide us with the minority content from a service side, and then use that as increased leverage with our customers. And so *we've had to develop some alliances there* from an installation service standpoint and, in some cases, a logistics distribution standpoint *to give our customers more minority content in their purchases.*

Motivating forces behind Cell 5 IOLRs are very objective. While internal drivers included a desire to lower costs, external drivers were equally, if not more, crucial. A shrinking supplier base, coupled with a spate of consolidations in the logistics industry, is forcing companies to at least *begin* aligning with one logistics provider or another.

STEVE-B (COMM-1)
I guess the biggest thing on the...well, from the customer end...*technology changes* so fast. And our customers, just like you and I, demand service; and we are going to look for the telecommunications side, we are going to go with whoever can provide us with the service the fastest. So COMM-1 has really had to react to that. We can only do so much as from a manufacturing interval standpoint and what *the real gains that we can make with a customer* is that if we can shorten that transportation interval, shorten that distribution cycle, move product as close to the point of consumption as possible, all these kinds of things. And *that has really driven us I think more toward having these alliances...drove us more toward even dedicated contract carriage, as an example, within transportation.* And most of our product is very, very expensive so when you look at the cost of transportation logistics, it is a small percentage and we feel like that we can offer a very high level of service although the expense may be a little bit greater since the *customer expectation in time is money.*

STEVE-R (COMM-1)
What we've done is...again, the ability for COMM-1to deliver this equipment on time and complete is not what I consider a core competency in COMM-1. I mean that is not what we are in business for. So *we are looking for proven companies* that this is what they do and that's how we came up with GTES and AB. I mean that is why they are out there. They are distributors of equipment. They also service the Siemens and the Lucents of the world so this is nothing

> new to them. So *we are trying to capitalize on this activity as a core competency of them*. So it differentiates them from any individual supplier who doesn't have that kind of networking capability.

Another motivating factor was the compulsion to have service providers be oriented towards the company's goals – in the case of COMM-1, towards its customers. Realizing that its products were only as competitive as the services that went along with it, COMM-1 was motivated to establish closer ties with its service providers. Thus they are very objectively chosen and important to the company.

> STEVE-B (COMM-1)
> So, and at that same time, we were dealing with a number of different service providers so if we first looked for consolidating, and then the second is how can we *get these companies oriented toward COMM-1*. We found by forming an alliance, trying to push as much business as we could toward that company, and trying to communicate it as effectively as we could...it helped us from a customer service standpoint and we've been pretty successful with the companies that we've formed alliances with, bringing them in as part of our team.

The expectations from Cell 5 IOLRs are far higher than Cell 1 relationships. While they are both subjective and objective, the latter dominate. All aspects of the service contracted are expected to be delivered, while *more* is always desired. Expectations were that vendors would, in addition to providing the service contracted for, provide solutions to a slew of business situations and hypothetical problems; prepare for contingencies and project possible scenarios; position existing services for strategic future usage.

STEVE-B (COMM-1)
Well, *we defined what the requirements that we needed them to provide* if it was warehousing distribution first, and we are going through this process now. First, we went out and looked at...we polled companies that we had contacts with and found out who was providing warehousing distribution services for them and who they thought was best in class. Went out and visited about 15, 16 companies to bring back what we thought would be good ideas that we could put into a request for a proposal. And one of the things we were looking to do is really changing the way that we do warehousing distribution today. Then we would go through a fairly formal request for a proposal solicitation process. And from that, *we'd look for business solutions* to come back. *Not so much outlining the way we think business should be done, but outlining a problem or a situation and asking how you would handle this, how you would put a warehousing distribution center together to meet these needs and those kind of things...* go through a formal process looking for *who has the best business solutions, who we think is best in class,* and then once we make that decision, that selection, then actually have them on our staff and become part of our organization.

Another expectation from such close, tactical relationships is that the supplier *understands* the uniqueness of the company's customers (especially since the environment, as described earlier, is dynamic, complex and leaves no margin for error) and does everything necessary to provide the level of customer service the company itself would have provided. It may be noted that this expectation stems from a motivating factor identified earlier – a desire to instill an orientation towards the company's customers. In addition to customer orientation, companies with Cell 5 type IOLRs expect their partners to dedicate resources to the relationship, bring about change, provide unique and tailored services and most of all be consistent. Expectations of Cell 5 IOLRs are thus highly objective and technically oriented.

STEVE-B (COMM-1)
COMM-1 is a little bit unique in that when we make deliveries of products into a customer location, it is usually very sensitive electronics. Most of our customers' locations don't have any receiving facilities, don't have a dock, these kind of things and in a typical arrangement with a carrier, you're going to provide them basically with very limited information to tell them what they are going to expect when they go to make a delivery, and they are going to make the assumption that a facility is going to have what is needed to get the material off loaded. And with our customers, that is usually not the case. And getting that when you start having problems and you start having service failures or customer service, negative customer service feedback, relating back to the carrier why you are unique...it's expected and having them come back with a different service type offering. That can be such a long drawn out process. They just don't understand the company...*the expectations of our customers and the expectation of our company* and I think we struggled with it for six to eight, nine years.

You know one of the things that we look at in an alliance partner is enhancing communications we can have with our customers. *Enhancing ways that we can do business with them or understand or, if they can bring solutions to the table that really relate...may not relate 100% to COMM-1, but they will relate to a customer.* It is very difficult to measure. You wouldn't want to say I expect five...I expect you to bring five customer associated solutions to the table this year. So that's something...that's more of a feel, *more of an expectation* than I want to have. I may expect X solution may be out there. But I...it is very important for me as a customer to articulate those expectations

Capabilities sought in partners of Cell 5 type IOLRs are usually difficult to find, as they are technology driven to a large extent. Partners should have the capability of modeling logistics systems and providing solutions to complex situations. Information systems and other automation capabilities are sought too. Partners are *also* expected to have the capability to provide the most cost-efficient services and have proven track records in addition to other standard ones, such as financial soundness and strength in core areas.

ROBERT (COMM-2)
...their capabilities. *How well they performed with others. How we fit into their strengths.* They may have certain strengths in...geographically but yet we are trying to force-fit them into one of ours and so we need to find out what their strengths and...Then, you need to find out any particular lanes where they may have a heavy concentration of freight movement, and then we align ourselves in that *so that we can gain any kind of benefits*...you know we talked about leverage of from within COMM-2, but yet if we can leverage pricing by giving their business where they have a lot of traffic movement and they have some arrangements with an air craft where they consistently are moving between certain points and we know we have *some kind of an assurance* that we will be able to *help meet our delivery requirements at a much lower price* and then try to find those niches and work together on it. The other thing we found out is that *we have to go beyond brochures*...and what their capabilities are...

JOHN (COMM-2)
...the thing that would differentiate a regular third party logistic provider or transportation provider from some body that I would be [consider] strategic would be the systems piece, the automation, the mechanization and how closely they were aligned with and tied to and interfaced with our systems. And how much development work they did. You know that kind of supported what we did. So, for me I think...[it] is the systems piece of it. It is the information management systems.

Selection factors of Cell 5 vendors tend to be highly specific and geared towards performing highly specific tasks. Thus, in addition to looking at the capabilities of the vendor, companies attempt to weigh those with the specific requirements of the service and select the one with the best fit. Tactically this is a good move as the vendor is readily positioned to offer services of the highest caliber; they have the systems in place to deal with contingencies that may arise and provide tailored business solutions – all of which are issues that have been listed earlier.

ROBERT (COMM-2)
In this particular case there were a number of companies that could provide delivery to the port. Whether it be by air or by ocean. But, *we had a requirement in-country* whereby we needed some one with strength in-country, number one to go through customs, number two that had an innovated system or an ability to work with someone for distribution within that country. *Maybe a need for temporary warehousing* in country and so forth. So, when *we went through our analysis and we had various criteria* in our freight-forwarder selection...

STEVE-B (COMM-1)
Let me expand on the alliances part also. Just to let you know where COMM-1's logistics comes from when we go outside for these services. *We were looking for companies that are best in class* and *we would only make an alliance with somebody that we thought was going to be the best provider of that particular service.* I guess that is really what forming an alliance like that would be...

Since IOLRs in Cell 5 are tactical *but have strategic aspirations*, their scope is often difficult to define as they cover both present and future requirements. While it is broad, it is limited to typical logistics functional areas such as inventory management, systems modeling and forecasting. Since the expectations from the provider include an orientation to the firm's customers, the scope and coverage of the relationship changes and/or expands depending on the customer's needs. Based on how dynamic the environment is the scope of the IOLR also varies.

STEVE-R (COMM-1)
It would be, I guess the way we are looking at it. *It is a service approach to delivering*. Again, maintaining, managing inventory levels...*it's more than just a COMM-1 buyer placing an order on a supplier.* Here we work with both of the partners. We supply them forecast information, so that they can see what's

happening from an order standpoint - and our customer's standpoint. Where they see increased business coming, the different...the various types of business, line extensions versus initial switches, etc. *So we are working with them to have them further develop their*...they use multiple linear regression models to forecast some of the parts. It is a very difficult business to do discrete forecasting. So we are using some statistical tools to do that. *So we're working together to build*...again, this relationship where we can share the information with them, so that they are ready to respond to our needs rather than us placing an order on them.

In order to meet the high expectations and cope with the dynamic environments of Cell 5 type IOLRs, communications are extremely important – and are treated so. Meetings, both formal and informal, are held - some as frequent as weekly, otherwise monthly. Regular contact and interplay between partners characterize the conduit type setting for exchange of information and news – both good and bad. However, unlike Cell 6 IOLRs, communications tend to flow more from the buying company to the provider, more so in those IOLRs which are in the initial stages of formation.

JOHN (COMM-2)
Usually *through regular meetings* with the carriers and these companies with the suppliers. Even in some cases where we might not have identified anything in particular to discuss, just getting together sometimes on a regular basis to *just review* where we are, even if we didn't...as I said if we had not identified anything in particular, need just get together and talk where they are and maybe what services they might be considering, and us talking about where we are going and what services we are going to need. We also have *informal discussions* with a lot of our suppliers. Typically at the contract specialist level. But in some cases that are at a little bit higher level. It really depends on who we are talking to at the suppliers. In some cases we...

In the initial stages, rules tend to be enforced more strictly, while in the later stages, especially as the bond becomes stronger, it tends to be relaxed. As mentioned at the onset of this discussion, suppliers are chosen for their expertise in a specific area. The expectation is that the company will ride the coat-tails of the provider, who is the 'best-in-class.' Combining this with a dynamic environment often leaves little choice other than to allow the supplier the freedom and flexibility to do their best. In the following discussion, Steve-B (COMM-1) describes the importance placed on managing the relationship. While sufficient leeway and flexibility is provided to the supplier, 'rules' governing these IOLRs is still somewhat rigid.

> STEVE-B (COMM-1)
> Let me expand on the alliances part also. Just to let you know where COMM-1's logistics comes from when we go outside for these services. We were looking for companies that are best in class and we would only make an alliance with somebody that we thought was going to be the best provider of that particular service. I guess that is really what forming an alliance like that would be, *and COMM-1 attaining management of the process is to make sure that they are meeting our expectations.* But we use a lot of other companies to provide services on our behalf that traditionally we've done internally.

Finally, performance measures of Cell 5 IOLRs tend to be unique to the service provider, well designed and systematic. However, while they include both quantitative and qualitative measures there is a greater tendency to focus on the 'hard measures.'

ROBERT (COMM-2)
Also, we have had in place for quite some time a quality program that continuous to evolve say a term we call SVA – Supplier Value Added, which is a uniform measurement of supplier quality performance with a very common set of measurements that includes purchasing as well as the purchase of transportation services. So it is structured as far as that goes, we break it down to various modes of transportation. We are just really getting involved in expanding of these measurements from what was quantitative to more of a qualitative analysis. I know you got some...

JOHN (COMM-2)
We do that for all of them, *we track specific performance measurements* for all of our contracting carriers. And it is the same that the methodology might vary slightly from mode to mode because you know some of the delivery issues might be slightly different but in general *we track all of our carriers on a set of both quantitative and qualitative data points and we review that with them regularly.*

STEVE-B (COMM-1)
How are they different [from traditional buyer-seller relationships]? Well, one of the ways it is different is we are measuring, or they measure, customer satisfaction of the service they are providing for COMM-1...*specifically for COMM-1.*

Table 4-4 shows a synthesis of the characteristics describing a profile of IOLRs in Cell 5.

Cell 6: Functional level, Strategic IOLRs

Cell 6 IOLRs are those relationships that are managed at the departmental level, similar to Cell 5 IOLRs, except that they are strategic. As the discussion in this

Table 4-4 Functional Level, Tactical (Cell 5) IOLR Characteristics

Characteristic	CELL 5
Motivation	Objective/Important
Capabilities	Difficult to find; Technology based
Involvement	Departmental/Functional driven
Selection factor	Highly Objective
Environment	Uncertain; Complex; Dynamic
Expectations	Highly Objective; Technically Oriented; Systems driven
Explicitness	Low/Medium Control
Scope	Broad; Function related
Duration	Medium/Long Term
Commitments	Dedicate Personnel and Capital resources; 'Shareable'
Communications	Frequent; Extensive; Designed
Performance	Objective/Subjective; Specific; Formal

section will show, these are IOLRs that generate the kind of competitive advantage that is difficult to duplicate or reproduce due to the very nature of the interaction, and usually take time (six or more years in most cases) to evolve into strategic relationships. At first glance the relationship used as an example (APPAREL-2 and HTRANS) *may* seem to be just another, operational or at best tactical relationship. However, a careful analysis and in-depth understanding of the relationship will highlight characteristics and features which make it an outstanding example of typical Cell 6 IOLRs. Similarly, (as indicated earlier through views expressed by Darrel and James) IOLRs between AUTO and SCH-LOG, and AUTO and CAL are also clearly strategic.

Most IOLRs of this type are motivated by *extremely strong* forces. While motive forces seen in other types of IOLRs, such as a desire for efficient prices and services, a shrinking supplier base or a desire to capitalize on the core competencies of a provider may exist an even stronger force is often present. In this example it is *survival* of APPAREL-2's transportation and logistics division as a viable, internal provider of logistical support for the parent organization. It is powerful, and often very subjective, motivations such as these that influence the other characteristics of Cell 6 IOLRs. In the following excerpt, Ron brings

out very forcefully the compelling reasons behind APPAREL-2's desire for close partnerships.

> RON (APPAREL-2)
> Service and *that's the reason we are still in it today* is to give service to our customer. *The only thing that we have in our division* that we sell is service, where the other division is making denim...and whatever...we are a service organization. We grew with the transportation division as the company grew. At our peak we had 330 tractors, 1300 trailers and about 600 drivers, O.K. and we were rocking along, and APPAREL-2 got the credit, whether we were or not, for being the largest private fleet in the country. Then what happened in 1989...88-89...we had a hostile takeover attempt. We took ourselves private, and to do that it took all the cash that the company had and we were in debt up to our eyeballs. We did sell off 4 or 5 divisions of APPAREL-2, keeping about 8 divisions. When we did that we switched that business from private carriage to for hire carriage. We were so deeply entwined with those [APPAREL-2] people, in their just in time programs, in bringing in [their] inbound and doing their intermediate...that...and I take it today is our biggest complement with these people when they were sold they *could have easily used anybody else they wanted in the transportation business* and you have always heard people complain about the private fleets I wish I didn't have a private fleet, so I could use anybody. Well, that was the case for these people; *but they didn't – they stayed with us,* we priced the business very competitively and we gave a high level of service so all of those sole divisions stayed with APPAREL-2. But what happened, is, we had to downsize our operation; transportation was not a core business of APPAREL-2. APPAREL-2 is a textile company, and they say, if we've got a $100,000 to spend we will spend it on textile machinery and not buy more trucks. So, *we were charged in our division with doing the same with a whole lot less*...We reduced our operations from 8 terminals to 2...we reduced our tractors from 330 down to 130. We reduced our trailers from 1300 down to 810. Now you say well how do that and do the same thing. OK. *This is where the partnership comes in...*

In AUTO's case, the IOLRs with SCH-LOG and CAL were established to service AUTO's inbound logistics needs; provide services that are *extremely critical* to AUTO's viability as a competitive manufacturer of automobiles. Any

disruption in such services, according to James, can result in millions of dollars in losses.

> JAMES (AUTO)
> ...the automotive use of the lead logistics providers and focused on the inbound flow to support manufacturing. And in most of the other industries it is a focus on the outbound distribution to their customers. And the demands, I think, are entirely different. Well, significantly different, not entirely, significantly different in terms of performance expectations and the potential penalty for failure. Yeah, they might have a lost sale if something's late. *We shut down a manufacturing operation with 3500 people making 25 bucks an hour if there's failure. So delivery to the hour is far more critical in the inbound than it is on the outbound.* So I think the standard of service is something that caught the industry by surprise.

Another motivating force, which was equally *critical* in AUTO's decision, was a lack of adequately qualified personnel within it's own organization. This was due to a lack of an internal career path in the organization. A desire for exemplary service and the possibility of leveraging the provider's core competency to one's owns benefit linked with this was a powerful motivator too.

> DARREL (AUTO)
> ...reasons we looked outside in the first place was that we did not have the resources to man a logistics department...from a standpoint...you know, there is really not a career path in this organization through and in logistics. And so you get good people but they're passing through on their way to someplace else. And so I would say we didn't really have any logistical professionals in our group. Nor did we have the money to keep our systems updated. I mean, I had a department of about thirty people and two-thirds of them were devoted to paying bills; and I really didn't have the capability to look at the system in total and see how the movements were occurring where I did have an opportunity for synergies, or for back hauls or where to save money, and so we decided to go outside and get that done.

Capabilities sought in Cell 6 type IOLRs are similar to most other IOLR types: financial stability, proven performance, technology and the necessary resources to provide the service. Additionally, experience with *similar* situations, an understanding of problems (which are perceived as unique), and the capability to generate solutions is also important.

> RON (APPAREL-2)
> I think we learned the right questions to ask going in now. We of course always looked at the *financial stability* of the partner we are bringing in, we today now ask that they have QualComm, which is a *satellite communications tracking network,* which we have found in today's environment with customers need to know where the fabric is between our plant and their location. They don't want to call you up and say we put it on a truck Tuesday and it should be there today, but we don't know where its at.

> JIM (APPAREL-2)
> Well somebody who has brought me or dealt with some similar piece of business before and found that it fits their system very well. *They then have an understanding of what the problems are* and they can...they *develop an approach to solving those problems*...go ahead...they develop systems of solving those problems. So that when we come along they'll say, "OK, textiles we do textiles for some...

Similarly, in AUTO's case Darrell (AUTO) notes that companies should have the capabilities to answer 'what if' questions and provide multiple solutions, thus adding to the objective content a subjective requirement.

> DARREL (AUTO)
> I think the capabilities they bring to the relationship has allowed us as an organization to learn and ask those kind of questions. For example, *the technology and the modeling capability* that they bring of our system *allow us to be more analytical.* And we have people throughout our organization now who are asking different questions than they did four years ago. Because they didn't understand and know the capabilities that were out in the real world. They didn't know to ask the questions. But now that they've seen the capabilities, *we*

have people asking all sorts of "what if" kinds of questions that we can respond to now with, you know, theoretical data, theoretical results.

While the above capabilities are sought in service providers, selection is usually driven by more basic factors such as being price competitive and service oriented. In addition, the selection process is influenced to a large extent by more subjective, but equally important factors such as "an affinity for the business", enthusiasm and interest. As Jim notes, these are traits that are not easy to fake and are easy to "sense".

RON (APPAREL-2)
...partners *have to be very service conscious,* and *would be very price competitive* for us to give a through service that meets the needs of out customer.

JIM (APPAREL-2)
...the first indication to me that somebody might make a good partner *is the enthusiasm they express for our type of business* whether it be the commodities that we are hauling or whether it be a certain lane that we are looking to fill...

...*somebody who expresses a genuine interest* in what we're doing and *is enthusiastic about working with us,* for whatever reasons, or whatever their reasons are...

...you can just sense *some people just have an affinity for the business.* There are other people for example, you tell them to go to the garment center in New York City and make a delivery on the 15th floor, they'll laugh at you. They'll say are you crazy. Because if your dealing with some...*You can just sense that from talking to people.*

Since the motivation for such close IOLRs stems from crucial forces such as survival, these IOLRs tend to be very explicit. There is a tendency in these

IOLRs is to maintain a high degree of control within the department. As James notes, AUTO even conducts extensive vendor training to ensure that services provided are efficient.

> RON (APPAREL-2)
> ...downsized our fleet *what we wanted to do was keep that same service level on product to the customer keep control of it totally within our organization* so what we did is we introduced truck-load carriers who at that time were coming on and growing in this...
>
> JAMES (AUTO)
> ...And *we've also conducted an awful lot of supplier training* on site with our suppliers on site by region. We *brought them in and talked but expectations* and *set the stage* for them to tell us through supplier-councils and partner-carrier councils how are we doing? What can we do better? So *we've formalized it to that degree.*

As indicated while discussing Cell 5 IOLRs, the duration of strategic relationships is much longer. They tend to be the "forever" or "for-the-foreseeable-future" kind, and synonyms such as "marriage" are often used while describing them. Both objective and subjective reasons may be given to justify such duration lengths.

> DARREL (AUTO)
> ...strategic partnership *as opposed to a traditional buyer-seller,* we knew that in order to make this thing work, *we couldn't be changing sources every two years;* that it takes time to get to know your business and the personalities in that business so they can operate and *so when we signed the deal it was a four year deal.* Which was longer than we'd signed before. *We just extended it for two,* so we're in it for six years at least, at this point in time. *I mean, this is like getting married. It would cost us a bunch of money if we ever decided to end this relationship.*

JAMES (AUTO)
...relationship is not transaction based, and in *fact will be very difficult for us as the customer to extract ourselves or simply dance with another partner on a whim...*to chase a 1% reduction in cost or something. It will be much more difficult to extract ourselves from this [closer] relationship. And that's recognized I think.

Commitments in Cell 6 IOLRs are much more extensive and relationship specific than the other cells. Justification for such commitments, which usually includes human and capital resources, is not immediately apparent. The intent of commitments is more for the benefit of the partnership than the activity; returns expected are more long-term than short-term; they are more tailored, exclusive and designed to *that* relationship than for others.

RON (APPAREL-2)
HTRANS is two brothers...their father started the company and is since deceased but there are two brothers in Lynchburg VA. They bid on our business...they've been such close and good partners that *they actually bought the terminal* that we had in Lynchburg when we closed that terminal they bought the terminal. They moved in to the terminal, *they even hired some of our dispatchers* O.K. So you can understand why they are probably our best partner. In all of our substitute carrier group, HTRANS is probably the best. Because they assumed our terminal and our people we sold it to them. We sold them the terminal leased-to-buy type deal. They bought the terminal they hired some of our people. So we really had an advantage there their people...

Communications in Cell 6 IOLRs is characterized by being extensive, frequent and more informal than formal. However, in designed IOLRs such as the one between AUTO and either SCH-LOG or CAL, they are more formal, technology based (e-mails, video-conferencing, etc.) and organized. Regular meetings are

the norm. An important characteristic of Cell 6 IOLRs is that communication and information flows two ways, instead of the predominantly one way seen in Cell 5 IOLRs.

> JIM (APPAREL-2)
> I think that they are very pleased the way the business developed. We have a very long-standing relationship with HTRANS. I talk to them, 5 or 10 times a day, about various things...We'll talk and we'll say "can you work this out, can you work that out, put this off, do this instead of that." Give them a certain priority to work with and so forth and so on. So they are very attuned to what we need, on a daily basis.
>
> ...I think what happens is that over time that patterns develop and you learn what those patterns are. Their organization learns what our patterns are and we learn what our patterns are or how they are able to handle our patterns...It's not rocket science. I mean it's really not...anything very elaborate any more than close...*telephone contact*, but...*there is feedback constantly from them on a daily basis* as to where they are going, what problems they are having where they are.
>
> JAMES (AUTO)
> In terms of operating practices and discovering what works, one of the things that we have *implemented across power train is the application of what we call a knowledge folder*...You've just *got the ongoing day-in day-out feedback* that comes from...the CAL site reps, that's their people that work day to day in our plants. And they have *frequent communication and meetings to bring back feedback* – "Here's how ÇAL's impacted the plants. Here's what we can do better. Here's how the plant is impacting you. Here's what it can do better." We *have a regional manager team that works for me*, five transportation managers that were picked from the plants who now have a series of plants reporting to them instead of just the one that they had previous to this. And so they have the opportunity to go to four or five or six plants that they're responsible for and share knowledge and share learning from plant to plant. That's certainly is paying off for us. *A number of different tools and techniques for sharing knowledge.*
>
> ...meetings are brief. They're held to two hours. And then we also have a monthly half-day meeting with all of the plant representatives, all of these CAL site reps and the regionals; and again, it's a feedback session. *So they're structured*, they're time limited, and it's all for the purpose of that shared information.

Finally, performance expectations include both subjective and objective measures. Performance factors are "hard" measures; very tangible, specific and measurable. At the same time, intangibles are looked at too.

> DARREL (AUTO)
> I mean we try to capture them, and you know we keep a list of things like that. I mean the hard measures. *The performance measures, are really what drives not only us as an organization but the...the partnership. It drives their payment and it...certainly...drives our salaries and our recognition awards...whatever you want to call them...it's the hard numbers. But there has been a lot of intangibles, things...*I think on both sides of the table, of our agreement, that has occurred. But *it's more of an informal listing* of those things as it is. To trying to put a value on it...

Table 4-5 shows a synthesis of the characteristics describing a profile of IOLRs in Cell 6.

Cell 9: Organizational level, Strategic IOLRs

IOLRs in Cell 9 are strategic to the company as a whole, and treated so by everyone and at all levels in the organization. An outstanding example of such a relationship is the one between HOMEIMP and VPAINT. As explained earlier, the relationship between HOMEIMP and VPAINT evolved over a long

Table 4-5 Functional Level, Strategic (Cell 6) IOLR Characteristics

Characteristic	CELL 6
Motivation	Subjective/Crucial
Capabilities	Difficult to duplicate; People based
Involvement	Departmental/Functional driven
Selection factor	Highly Subjective
Environment	Certain; Simple; Less Dynamic
Expectations	Highly Subjective; People Oriented; Culture driven
Explicitness	High Control
Scope	Broad; Activity and Function related
Duration	Long Term
Commitments	Commit/Invest in Personnel and Capital resources; Exclusive
Communications	Frequent; Extensive; Impromptu
Performance	Subjective/Objective; Specific; Less Formal

period of time. It started as the typical buyer-seller relationship, and with "things" being done; such as building trust, improving communications, and learning about each other, amongst other things, it *evolved* into a key, strategic relationship. Similar to other cells and their respective IOLRs, in Cell 9 too characteristics identifying with such IOLRs were carefully drawn from the data. Extensive and careful analysis led to a profile of the IOLR, which is discussed next.

When asked to name and describe a strategic relationship, every interviewee at HOMEIMP – without exception, named VPAINT. This was truly a relationship that was acknowledged organization-wide as critical and strategic to the company. Data analysis shows that IOLRs in this cell are motivated by both objective *and* subjective criteria. They are driven by basic criteria such the desire for the most price competitive, quality supplier or service provider. In addition, companies seek to benefit by leveraging those who are the "best in their core areas" and "perfect".

> SCOTT (HOMEIMP)
> I guess that HOMEIMP is *looking for good solid vendor partners* that will give us *competitive prices*, that can *service all of our stores*, you know, *100% in stock* position *all the time*, you know the, *the perfect world*...

The external environment is also responsible in compelling or motivating HOMEIMP into seeking stronger ties with its vendors. Consolidation on the retail end and successes of other companies in other industries prompted HOMEIMP to look at the same.

> GREG (HOMEIMP)
> *The main one is the consolidation of channels of distribution in the retail end of the block.* In our sector there are approximately, roughly, four large healthy players and two are much larger than the other two...So all these vendors in that scenario are saying "My God! Where is my product gonna be distributed in the future?" So they're trying to figure out; "so what can I do differently that will make me important to HOMEIMP, HD, MAN or EAG?"...and in some cases choose one so they focus efforts and...so consolidation of that part of the channel of distribution has been a major, major, major, factor there. *I think also of an understanding that traditional methods of trying to uh sell to an organization...to a retail organization are ineffective*...Companies have been watching Wal Mart real closely as an example. P&G...and particularly Wal Mart...and so recognizing that...integrating new organizations into a retail organization can be very, very effective so *people in our sector of serving this industry watching other sectors have seen things work such as the Wal Mart-P&G example.*

When selecting suppliers, factors that are important include the financial health of the other company, technological sophistication, and how much of the other company's survival is going to depend on you. HOMEIMP did not want to be the "sole provider" of the other firm, nor did *it* want to be too small a part of the other whereby it may be ignored (similar views were expressed by Thomas (COMM-1) regarding his strategic relationship with AEI). In a sense, HOMEIMP was looking out for its own benefits *as well as those of VPAINT's.* HOMEIMP also wanted a strategic relationship with someone that was

technologically capable and superior in its own field of business. Last, but not the least, HOMEIMP wanted a company that was innovative.

> PERRY (HOMEIMP)
> Several things, one in today's environment most even small suppliers have to be *technologically in the market* whether you're *using EDI* transmissions you got to have the *ability to bar-code, technology is definitely one aspect that I look for. Health of the company* is another especially...you look *...who else that company is working with currently,* so you make sure, very importantly at least in my book, that we are not even though we can be a prime player for a company we should not exceed more than 15 to 20% of their revenues, otherwise we're both at risk so I look at volume and comparison with other suppliers that this vendor has...
>
> SCOTT (HOMEIMP)
> ...and again I keep coming back to...VPAINT, I hate to do that but that particular department you know, we *require it does require the state of the art paint matching equipment, it requires time motion studies* that would validate the number of steps between the paint mixture and the customer and so *there's lot to be gained by having this strategic alliance with our vendor partners.* The risk-rewards certainly I think...
>
> LEE (HOMEIMP)
> *...really they* [VPAINT] *were innovative* and how they tried to penetrate...our stores...recognized areas of weakness within the stores and they truly tried to say "how can we help HOMEIMP better serve our mutual customers?"

Expectations of suppliers in strategic relationships are much higher than any other type of relationship. These expectations are of anyone, at any level. While the utmost cooperation, coordination, open communications, sharing of information and other similar relationship-enhancing activities are expected from top and middle management, it is witnessed even at the lowest level. As seen from Scott's and Greg's descriptions of the relationship with VPAINT,

even in-store employees of VPAINT behave as if they were HOMEIMP's when the need arises.

> SCOTT (HOMEIMP)
> ...there's a partnership there by which *our store manager and their field rep are certainly working toward the same goal*...so if there's a can of paint missing from the shelf, our store manager is concerned, their field rep is concerned, because ultimately they're both incentivised on sales...you'd see *the VPAINT representative taking ownership in a store* sales, they would be reporting back plus or minus variance the budget, for each store within the district and so *its really probably the best, the most synergistic team that I've seen out there* by which *the store manager and the field rep are almost one*, I mean they really, there's a great partnership that exist.

> GREG (HOMEIMP)
> ...they [VPAINT] are so HOMEIMP oriented. I *mean you could walk into a HOMEIMP store and behind the counter the person waiting on you may or may be a HOMEIMP person or may be VPAINT person. I mean it's just as forward as that...*

The analysis of the data indicated that the rules governing Cell 9 relationships are implicitly explicit. There are guidelines for performance and according to Perry:

> PERRY (HOMEIMP)
> *...a great vendor is one that adheres to the guidelines set up and they never waiver from those its just like its just automatic.*

Similarly, HOMEIMP has specific guidelines regarding training and updating of skills. HOMEIMP University (discussed in detail in the next section) was created for the purpose of training HOMEIMP's own employees and those of its vendors; all vendors are expected to utilize this resource. Mike also mentions how seriously HOMEIMP is about fostering the relationship, whereby both

companies can benefit. In order to do so, HOMEIMP has a fairly structured process and set of expectations in place.

> MIKE (HOMEIMP)
> ...really what we have done is *we set up certain standards for the first time.* We tried to *make it crystal clear what HOMEIMP expects.* We tried to have these conferences to *educate our suppliers* on how important these different elements are and in these conferences we say, "here are some of the opportunities for you to save money. Take advantage of those. Tell us. Come to us and say 'Well, if you can do this, we can sell you this product 2% less.'" May be it is a 3 % savings for them, of the HOMEIMP's 2% savings their profitability has gone up ours has as well...

The duration of Cell 9 IOLRs are typically the "forever" type, very similar to the ones in Cell 6 and Cell 3 – all other factors staying the same. In the case of HOMEIMP and VPAINT, it evolved from just another, typical buyer-seller relationship to its current strategic status over a period of more than fifteen years. VPAINT's representative (David) had a presence in HOMEIMP's office complex for over eighteen years.

> SCOTT (HOMEIMP)
> ...I have a lot of experience with VPAINT because I worked in the stores for about fifteen years before I joined the general office and that was one of our first strategic alliance partners, I guess, if you will, as they have in-branded HOMEIMP paint under the X name for us...

One of the two most obvious areas for differentiation between the various IOLRs is in the type and form commitments made by each partner to the relationship (the second being communications). In Cell 9 type IOLRs, commitments made are made at all levels and by every one involved.

Management makes a commitment in human, capital and physical resources, which are exclusive to the relationship. In fact, HOMEIMP uses VPAINT's commitment to the relationship as an example and showcases it to other prospective partners.

> GREG (HOMEIMP)
> When you get down to a VPAINT relationship *they have 3-7 people in the field who's just dedicated to...*
>
> ...We call them [VPAINT] up as an example of commitment to field service and describe in detail what they've been doing. In other divisions...would pick up on that and...when ASTRONG decided to make a major commitment to HOMEIMP we asked them to study VPAINT and they did...

Interestingly, personal commitments are made by individuals to ensure the success of the relationship. In some instances, individuals went beyond that which was expected. Greg's reaction to one such instance is reflected in the following excerpt

> GREG (HOMEIMP)
> Handle failures like this...they make that commitment to address a failure they're gonna learn enough about the process that's gonna have fewer and fewer failures and they're gonna *turn failure into a success of a good learning experience. It's wonderful*, so I went in and just thanked

Similarly Scott's description of a particular episode highlights the personal commitment made by employees of both companies, at all levels, to ensure the success of the relationship.

SCOTT (HOMEIMP)

> ...these VPAINT representatives that work in our stores...*the VPAINT representatives picked up on* recently the fact that stores aren't replacing the little color chips in their paint selectors so if customers come in and they want to take this paint chip home to match it to their with their couch its empty. So, through that they get out their and through their network...and *they have their conference calls and team meetings* and say its not an isolated problem its a chain-wide problem. So, *they give that information to Robert* who in turn gets it into this funnel process and from that action would take place by which we would say "hey company we're having this problem and here's we're gonna do about it step 1, 2, 3, 4, 5..."

The second most obvious area for differences between Cell 9 IOLRs and the others is in the level, intensity and frequency of communications between the organizations. Greg describes the model for communications as "back-to-back" isosceles triangles (Figure 4-6). The side shared and common to both triangles is like a sieve, which allows for the free flow of information between the two organizations. Such free flows are witnessed at all levels in the relationship, resulting in an inter-organizational relationship that is truly strategic.

> GREG (HOMEIMP)
> ...[it is] a true execution of the back to back pyramid in terms of communication and you know what I mean by that is uh...*it's the two isosceles triangles that have a common side* and at the top there is communication of strategies, of capabilities, of interest of long term ideas concepts and that at the very bottom of the organization...firing line in stores, in the shipping department there is a kind of a commonality of goals there is an understanding of each other's capabilities and strengths and weaknesses and *all throughout the organization in between there is linkages of communication that add benefit to the relationship and problems are solved quickly across lines not up and down organizations, across lines relationships are strong, a common understanding, a common goal an effort to make each others business better...*

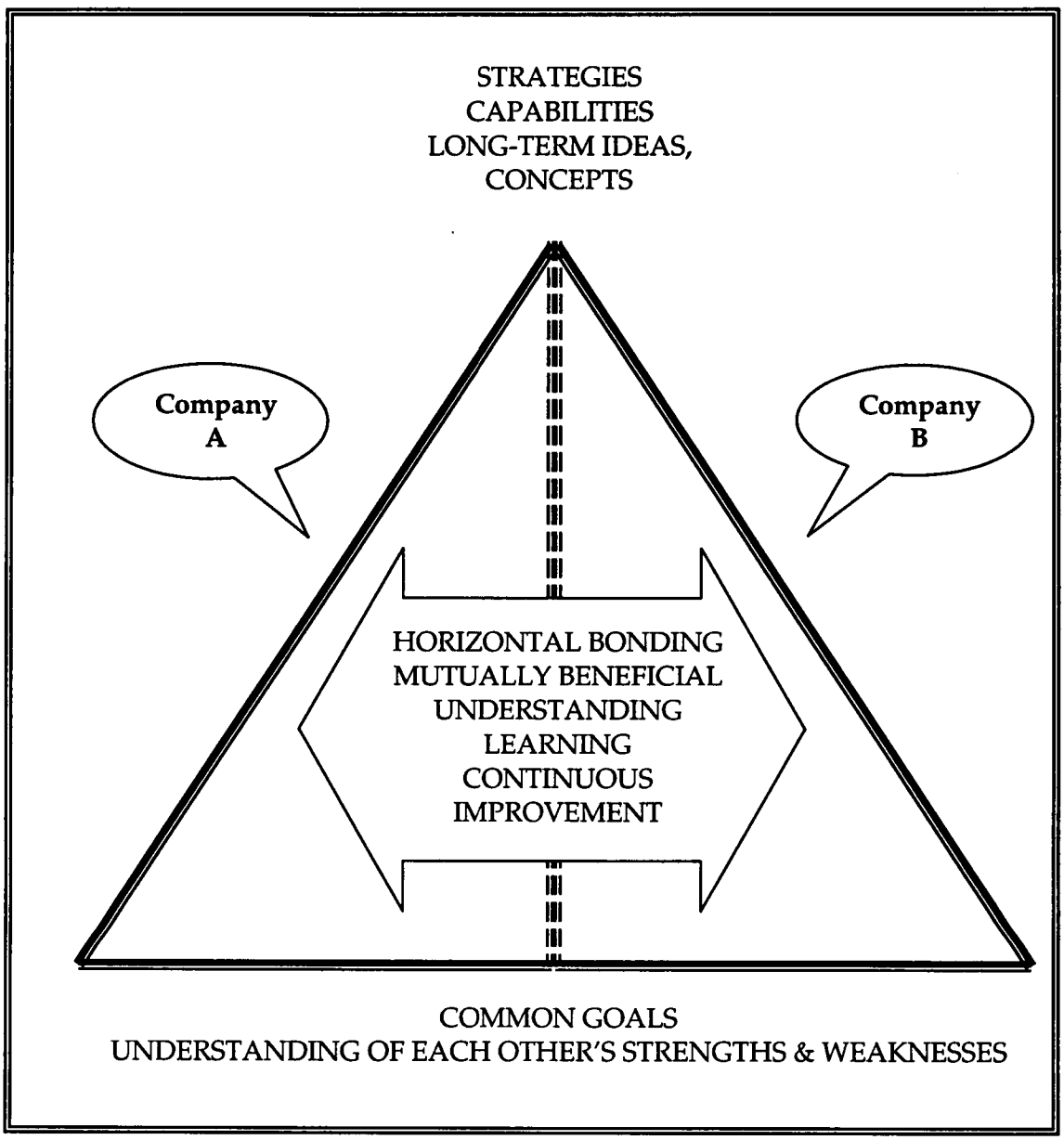


Figure 4-6 HOMEIMP's "Back-to-Back" Communications Triangle

Several interviewees, including Scott reiterate this emphasis on communications. Not only are communications between HOMEIMP and VPAINT viewed as important, it is treated as such in *every relationship;* in this example with yet another vendor. Table 4-6 presents the characteristics of a Cell 9 type SIOLR.

> SCOTT (HOMEIMP)
> You attend a meeting, which I have many...involving our vendor partners. That meeting will be kicked off, in a lot of cases by Bob our CEO. So he understands the importance of the partnerships. We had one late last year with ASTRONG and it was a co-chaired...I guess...if you will by Bob and CEO President of ASTRONG. So that's what you're seeing. *I think at a very high level you see in the establishment of those relationships, communication channels opening up at a very high level and the setting of the stage so to speak for lower management within the organization to follow suit.* So you see at least in our organization I think you have to in most organizations the high level partnerships that are formed between the executives...

Conclusions

Figure 4-7 presents the matrix formed between the *Individual-Organizational* and *Operational-Strategic* dimensions. These were the two dimensions that were considered while discussing the typology of IOLRs represented by the various cells. When represented thus, as a 3x3 matrix, it may be noticed that some of the cells "house" more than one IOR example. However, when the "Face Three" is developed in the next section, they separate out into distinctly different positions.

Table 4-6 Organizational Level, Strategic (Cell 9) IOLR Characteristics

Characteristic	CELL 9
Motivation	Objective AND Subjective
Capabilities	Technology based; People driven
Involvement	Whole organization; CEO through front-line
Selection factor	Financially sound; Technologically capable
Environment	Competitive; Slightly dynamic Growth potential
Expectations	Highest level; Tangible AND Intangible; Objective AND Subjective
Explicitness	High structure; Control; Consistent
Scope	Broadest; Business related
Duration	Extremely long-term
Commitments	Partner's dedicate resources People dedicate personally
Communications	All formats; All levels; Extensive;
Performance	Objective AND Subjective

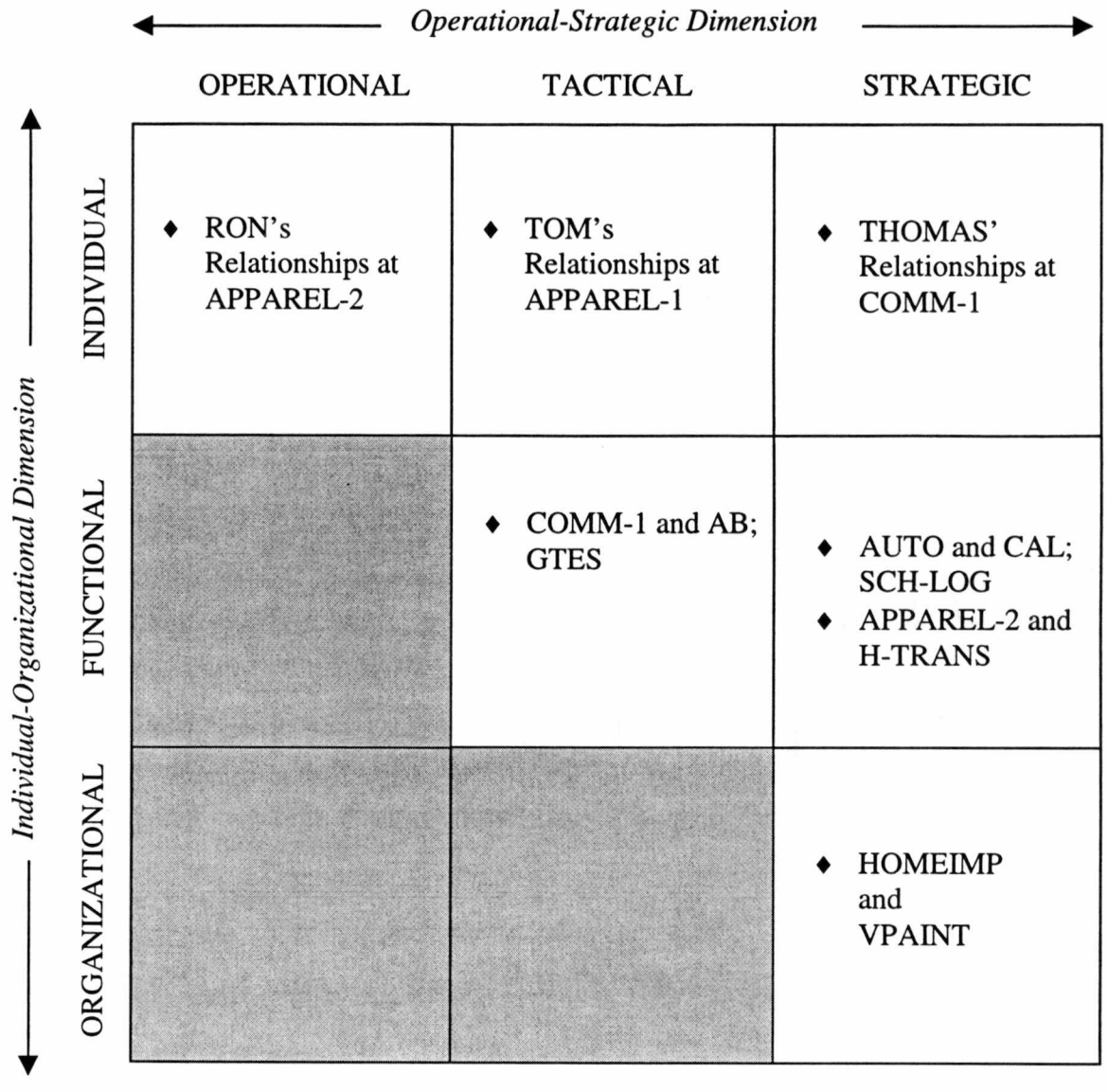


Figure 4-7 Examples of IOLRs Within Cells on "Face Two"

4.4.3 "Face Three": Learning Systems & IOLRs

"Face Three" is formed between the *Designed-Evolutionary dimension* and *Individual-Organizational dimension*. Both dimensions have been identified in earlier sections, and used to develop ILOR typologies based on the nature of "birth" of relationships – "Face One", and degree of criticality – "Face Two". In this section, these IOLR typologies are viewed from an organizational learning perspective, using Shrivastava's (1983) typology of organizational learning systems. Figure 4-8 depicts the 2x3 matrix formed by the two levels on the *Evolutionary-Designed dimension* and the three on the *Individual-Organizational dimension*. In the following sections, each type of organizational learning system identified by Shrivastava (1983) will be examined in light of the data analysis for each of the seven IOLRs identified thus far. At the same time characteristics describing learning orientations, based on DiBella, Nevis and Gould's (1996) study will be identified.

Ron's Relationships in APPAREL-2

In the relationships Ron (APPAREL-2) has with service providers, where carriers are selected by him (individually) for operational purposes and

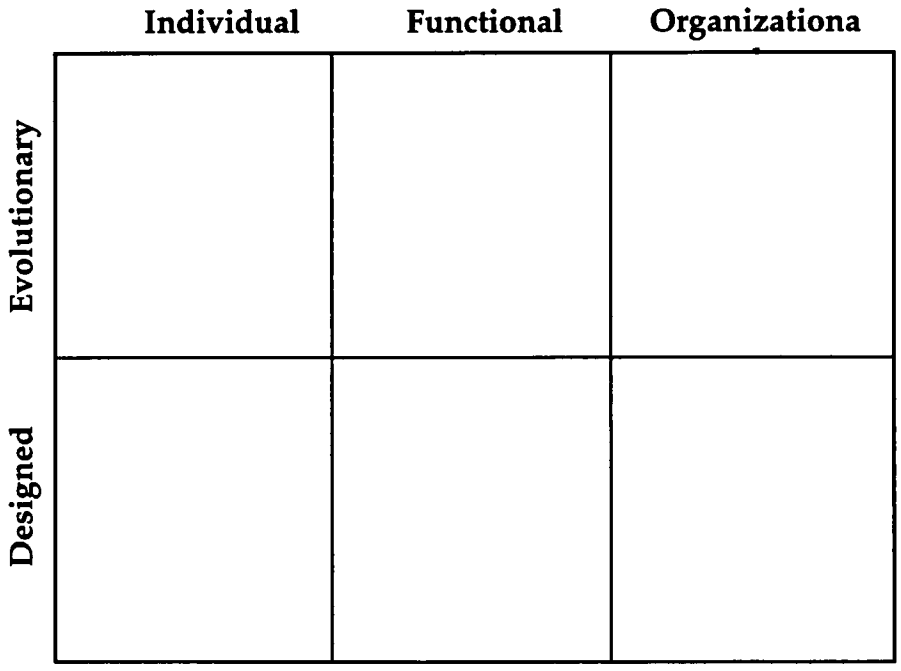


Figure 4-8 "Face Three": IOLRs & Learning Systems

typically on a transactional basis, he is the "key broker" (Shrivastava 1983) of organizational knowledge. Ron acts as the go-between and filter, controlling the flow and dissemination of information to the rest of the division. In most instances, however, since the transaction lasts only as long as it is being performed, most information is after the fact. For his part, Ron disseminates information to others in the division through writs and memos. The type of knowledge often sought is subjective, and usually general in content. In many instances it is usually triggered of by an urgent need for information. There is a need to keep abreast with current information, since the transactions themselves are very current too. For example, Ron states that he is very cognizant of facts such as fuel prices and monitors them frequently. To ensure that service providers are competitive he benchmarks the competition in a very broad and basic manner. The scope of the learning system in place is virtually non-existent as far as the provider is concerned, as these relationships are transactional. Explicitness of rules for learning is low in these relationships since there is very little going on between the participants other than the performance of the service itself. The tendency is to limit learning topics to simple and "obvious" areas which APPAREL-2 and Ron "feel" comfortable with. Once that is achieved, emphasis on learning degenerates and complacency tends to set in. Based on Shrivastava's (1983) descriptions, this

relationship has all the hallmarks of a *"one-man learning system"* (Table 4-7). Thus, the learning orientation in this cell tends to be internally focussed. Documentation mode for information is personal and dissemination is formal. Finally skill development is focussed on the individual (Table 4-8).

Tom's Relationships in APPAREL-1

The type of knowledge sought in these relationships too is subjective to some extent, but has an equally important objective portion. Since these relationships are for a longer term and are more critical than those discussed earlier, the type of knowledge sought is more job-specific. Facts are sought to enhance one's understanding of the situation to make modifications when required, in the process adding to Tom's experience base. Here too, Tom is the "gatekeeper" for information flows between the partner and his own organization – APPAREL-1. Most of the information-dissemination process within the organization is through discussions, although they are limited. Tom acknowledges that the system in place to foster intra-organizational learning about these specific relationships is low and unstructured.

> TOM (APPAREL-1)
> To be honest with you because of the load that we have on us most of the time we do not do as could a job as we could. Now, what we do usually...what I try to do is utilize that knowledge and in our discussions we discuss this and what

Table 4-7 Learning System Characteristics of IOLRs Identified in This Study: Cell 1 - 3

Characteristic	CELL 1	CELL 2
Type of knowledge	Subjective[1]	Objective/Subjective[2]
Structuredness	Low	Low/Medium[2]
Explicitness of rules	Low[1]	Low/Medium[2]
Scope of system	General[1]	Problem specific[2]
Media for communication	Newsletters; Reviews	Discussions[2]; Visits
Motivation of activity	Crises[1]	Problem/situation specific[2]
Time frame	Current information[1]	Current information[2]
Organizational make up	Individuals[1]	Individual[2]; Informal

Characteristic	CELL 3
Type of knowledge	Objective/Subjective[2]
Structuredness	Low/Medium[2]
Explicitness of rules	Medium[2]
Scope of system	General/Problem specific[2]
Media for communication	Stories[3]; Notes
Motivation of activity	Problem/situation specific[2]
Time frame	Current information[2]
Organizational make up	Individual[2]; Informal

[1]Shrivastava's (1983) *One man institution* type of organizational learning system
[2]Shrivastava's (1983) *Participative learning* type of organizational learning system
[3]Shrivastava's (1983) *Mythological learning* type of organizational learning system

Table 4-8 Learning Orientations of IOLRs Identified in this Study

NAME	APPROACH					
	Cell 1	*Cell 2*	*Cell 3*	*Cell 5*	*Cell 6*	*Cell 9*
Knowledge Source	♦ More Internal	♦ Internal & External	♦ More External	♦ More Internal	♦ Internal & External	♦ External
Product/Service-Process Focus	♦ Service Focus	♦ Service & Process Focus	♦ Process Focus	♦ Service Focus	♦ Service & Process Focus	♦ Process Focus
Documentation Mode	♦ Personal	♦ Personal	♦ Personal	♦ Personal & Collective	♦ Less Personal More Collective	♦ Collective
Dissemination Mode	♦ More Formal	♦ Formal & Informal	♦ More Informal	♦ More Formal	♦ Formal & Informal	♦ Formal & Informal
Learning Focus	♦ Adaptive	♦ More Adaptive & Less Innovative	♦ Innovative	♦ Adaptive	♦ More Adaptive & Less Innovative	♦ Innovative
Skill Development Focus	♦ Individual	♦ Individual	♦ Individual	♦ Individual & Group	♦ Group	♦ Group

> is going on with this and try to share that information at that time, what really would be the best if we can put this information of what you learned *we do not do a good job of that either*...I do not think we take, what I am saying, *in my own opinion is we do not a very good job of sharing that information*

Between the IOLR partners itself, the communication is usually very personal. For example, Tom mentions in-person/telephone conversations and site visits, which he says, enhances the understanding of each other's systems eradicating potential problems.

> TOM (APPAREL-1)
> ...I told you about when customers come to see us and the other part of it when we go and you visit this and I go and visit a distribution center and *I do not understand why they are asking us to do something* and *then I see how they do things* and *that is a learning experience* and I know why they are asking us to do what they are asking us to do and I can support better at that time, us trying to get to a point where we can do it for them because I understand the importance of it, just like they understand the different things about us *when they visit us is that same learning experience going the other way so it is very important.*

In most instances, learning in these types of IOLRs is not self-motivated. Instead, a problem or a specific situation triggers the need to gather information, analyze it and make sense of it to generate solutions. In this case too, information and knowledge sought is very current. This type of IOLR has the ingredients of both *"one-man learning system"* as well as some from Shrivastava's (1983) *"participative learning system"* (Table 4-7). The 'learning orientation' in this cell however, through networking and other modes, tends to be less internal and more externally focussed. Knowledge is sought from

external sources. While documentation mode of information is still personal, dissemination is less formal (Table 4-8).

Thomas' Relationships in COMM-1

In this example, the type of knowledge sought is once again both subjective and objective. The environmental setting for the relationship is very dynamic and uncertain. There is the need for a broad and general understanding of the environment within which the relationship functions. At the same time, specific functions have to be performed and issues resolved for which a more objective approach and knowledge base is needed.

> THOMAS (COMM-1)
> *...the way to get on both internally within the organization or across the core organizations is to push the boundaries of your knowledge and out,* and it is not only about if you're a customs broker but how to get the customs working but about different countries, different aspects. There are opportunities almost daily to push that particular envelope out and so you have...

Similar to the earlier two cases, the learning system in this relationship is relatively low in structure. As Thomas notes, the situation in these relationships is such that each individual sets up his or her own learning system, and hopes that the others will learn as there is neither the time nor the inclination to teach.

THOMAS (COMM-1)
Well, there's two problems. One, the relation...the only people who learn are the individuals not the corporation and that is ...the problem with that addresses is the forwarding...*the logistics industry is notoriously light footed.* People are going...moving backwards and forwards. So if you have unstable population in terms there, *learning is a very frustrating...or teaching...teaching is a very frustrating* attempt because they may be there for a year, may be there for six months, and then he is gone and you've got B coming in and C coming in and so on there.

For the same reasons cited above, explicitness of the rules for learning within the relationship are low. Added to that, the environment for logistics services is changing, and more importantly it is uncertain, especially as instances traversed increase or shipments go across national boundaries.

THOMAS (COMM-1)
And *the challenge is to change daily.* In logistics, you have...the people who end up in logistics are one of two categories – the generalist or the lame holding the blind. Ignore the lame holding the blind but generalist has actually an interest in that...in an environment which I've described as we don't know whether we are going to do business here there or everywhere, anywhere, *the closer you can get to him, the more chance you have at predicting or getting advance knowledge...*

...I have a strategic relationship with all sorts of strange people around the world and genuine relations. I can pick the phone up and phone somebody...*I'm trying to get something into Sierra Leon in the middle of the civil war...*

Thus characteristics of learning systems in IOLRs such as the one Thomas has in COMM-1 are a combination of Shrivastava's (1983) *"one-man learning system"* and *"participative learning system"* (Table 4-7). Learning orientation is however vastly different from earlier IOLRs. The source for knowledge is largely

external. The focus is on the process. While documentation mode is *still* personal, dissemination is informal, and the learning focus is very innovative (Table 4-8).

COMM-1 and AB; COMM-1 and GTES

The learning characteristics exhibited by the COMM-1 & GTES relationship and the COMM-1 and AB relationship are similar to Shrivastava's (1983) *"formal management system."* The learning system in place is designed to foster communications, information exchange, joint planning and execution in a formalized manner. Knowledge sought and generated is often through formalized, technology-based mechanisms (such as the use of root-cause methods, modeling techniques or decision support systems). Such an approach results in very objective knowledge being generated. Structuredness of the learning system is high and formal, with emphasis on training and updating of skills stressed. The scope of the learning system appears to be well defined, task or function related, and once again very objective. Information sharing and dissemination is structured and done through formal meetings, reviews, newsletters and the use of technology such as the internet and intra-nets.

STEVE-B (COMM-1)

I guess *within our organization we try to have fairly structured ways that we communicate and that would be in scheduled meetings with our staff...structured open forum type staff meetings, communication letters that go out on a monthly basis...*And we are also in the process of putting together just some *general information about our organization in hard-form media that would go out. And off of the Internet,* within the COMM-1 Intranet, we also have a web site that we go up and people can populate with information, add to, and we also have our organization that we report up through is doing supply chain management processes for the company. So *we have newsletters monthly* about that, and logistics newsletters as well...

The organizational makeup is however broader that the earlier three IORs, and involves most everyone at the functional level (Table 4-9). From DiBella *et al's.* (1996) perspective: (1) source for knowledge is more external than internal, (2) documentation mode is more collective than personal, (3) dissemination mode is both formal and informal, and (4) skill development is focused more on groups of individuals (Table 4-8).

AUTO and CAL; AUTO and SCH-LOG

These IOLRs too, have the characteristics of Shrivastava's (1983) *"formal management system."* As he notes, "By far the most common way of perpetuating organizational learning is through the design and implementation of formal management systems for information, planning, and control." (p. 23). The focus on technologically driven learning, learning systems and knowledge

Table 4-9 Learning System Characteristics of IOLRs Identified in This Study: Cell 5 - 6

Characteristic	CELL 5	CELL 6
Type of knowledge	Objective[1]; Fact-Based	Subjective; Mythical[2]
Structuredness	High[1]; Formal	Low[2]; Informal
Explicitness of rules	Low[1]	Low[2]
Scope of system	Task/Area specific[1]; Objective	General[2]; Functional related
Media for communication	Structured; Reviews; Meetings; Intra/Internet; Newsletters[1]	Informal; Word-of-mouth; Stories[2]
Motivation of activity	Periodic requirements[1]	Social[2]
Time frame	Current/Future information[1]	Historical[2]
Organizational make up	Functional; Departmental	Functional; Departmental

[1]Shrivastava's (1983) *Formal Management* type of organizational learning system
[2]Shrivastava's (1983) *Mythological learning* type of organizational learning system

generation is highlighted very clearly in Darrel's description below. The focus on objective issues and highly structured learning system is also evident.

> DARREL (AUTO)
> I think *the capabilities they bring to the relationship has allowed us as an organization to learn and ask me those kind of questions.* For example, *the technology and the modeling capability that they bring of our system allows us to be more analytical.* And we have people throughout our organization now who are asking different questions than they did four years ago. Because they didn't understand and know the capabilities that were out in the real world. They didn't know to ask the questions. *But now that they've seen the capabilities, we have people asking all sorts of "what if" kinds of questions that we can respond to now with, you know, theoretical data, theoretical results.*

Task specific issues are dealt with and reports and similar forms of communication are used to disseminate and share information. Routine meetings, scheduled quiet frequently are the norm (Table 4-9).

> JAMES (AUTO)
> *We meet on a monthly basis, sometimes it's weeks, but let's say it's monthly.* And we're *reviewing the programs,* and *we're reviewing the objectives, expectations, and deliverables...* and how we're doing.
>
> *...We also have routine weekly or at worst every other week meetings on operations* and go through the status of various things and, you know, what have we learned in the last two weeks? What do we need to change to do better? So there's that learning. *A number of different tools and techniques for sharing knowledge...*

From DiBella *et al's.* (1996) perspective: (1) source for knowledge is more external than internal, (2) documentation mode is more collective than personal, (3) dissemination mode is both formal and informal, (4) learning is very

innovative and (5) skill development is focused more on groups of individuals (Table 4-8).

APPAREL-2 and HTRANS

This IOLR, has some characteristics of Shrivastava's (1983) *"formal management system"* but most reflected his *"mythological learning system."* Knowledge sought is often more subjective. "Campfire" stories and real-world examples perpetuate knowledge. There is a low level of structuredness to the learning system, and it is very informal. Technological involvement is low and information is usually spread by word-of-mouth or in a story form. Personal involvement and other similar socio-cultural norms promote learning. In such environments, strong individuals foster such IOLRs, which are solidified only *after* the acceptance by the others in the department on a personal basis. The following excerpts highlight some of the aforementioned issues.

> JIM (APPAREL-2)
> Well it's...Ours is a partnership among people who are also in the transportation textile business. You see what I'm saying...So if they are successful, they have obviously developed their own systems that...*I'm not talking of computer systems* now, I'm just talking of routing systems, day-to-day freight handling systems, dispatch office systems, you see it in our dispatch office, you saw what we have ...we go some place else it would be totally different. But if it works for them, it'll work for us. There's really not a need to integrate what they do...

RON (APPAREL-2)
Well once in a while I just remind them that we have a certain customer that we don't get every week. *For example I'll say "Hey," ... I'll leave a message ... "be sure that you call so and so." Very informal kind of thing. Very brief. Two sentences and they in turn will build up their own files down there who to call and what to do under certain circumstances.*

Viewed from DiBella *et al.'s* (1996) categorization of learning orientations, the IOLR between APPAREL-2 and HTRANS indicates a documentation mode that is less personal and more collective at the departmental level. Dissemination of information too is less formal and more informal (Table 4-8).

HOMEIMP and VPAINT

Most of the characteristics of this IOLR are from Shrivastava's (1983) *"information seeking culture"* learning system. This IOLR has attained a level of comfort and interdependency that such a learning system flourishes in those conditions. As seen earlier, the motivation for the relationship is to generate long-term, true benefits for both the partners. It was also shown that the level of involvement was tremendously high. Given these, and the fact that there is a high level of expectation and explicitness, learning is implicitly stressed. Greg's description on how HOMEIMP encourages, fosters and implements learning depicts a "well-oiled", highly structured and formal system with great flexibility and few rules explicitly stated.

GREG (HOMEIMP):
...Um from a very basic standpoint if I was a new vendor just coming to HOMEIMP I would get a information package which is about a 50 page packet which tell a little bit of the history of HOMEIMP, how we operate, our logistical capability, what we require our vendors from a logistics...from a um a shipping standards standpoint. And this handbook which Mike can get you a copy of or I can get you a copy um is uh very important its like the its an introduction it like an introduction course and introductory course to HOMEIMP. We do offer to all vendors approximately once a year a through the logistics organization a course on how to deal with HOMEIMP from a logistics standpoint. *That's very, very important.* At the hardware show every year we have sessions for vendors on how HOMEIMP handles marketing...we have another session on logistics...we have other rotating um subjects every year...we have these sessions [at the annual vendor day conference] I was mentioning, one on logistics, one on marketing, um one on how to do business with HOMEIMP just specifically like and open binder and we come in and we give literature--products, buyers there and then in past we've had one on specific programs that we're trying to get involved with such as the marketing of safety and we have one this year that our international sourcing opportunities...

Scott's description further accentuates the formality and structuredness of HOMEIMP's learning system

SCOTT (HOMEIMP):
...more detail about that in the future but we had a new structure in place that we have called HOMEIMP University and it was founded back in 1961 under HOMEIMP Leadership School but Dwight is our director over what we call HOMEIMP University and we're just getting that process off the ground. But the university concept is to bridge the general office, the store environment with the external environment in bringing in potentially universities, to offer courses, course credits through HOMEIMP tie it back to the university, vendor partners are brought into this as the university would help would be actually the liaison between the store and the vendor in terms of product training, in terms of issues that need to be raised between logistics merchandising and that vendor partner, so this is a newly formed subset I guess of what we used to call

...begins with the vendor receiving letters, these are our expectations, this is what you will do for us, during the grand opening, this is the training that would be given to and so its negotiated up front, its contractual and for the most part and is facilitated by the university but *it is fairly structured.*

The scope of the HOMEIMP-VPAINT IOLR is broad and general. Service and product improvements are pursued as well as innovations and new ideas in other areas. While the relationship evolved from a product orientation, it has grown to span broader areas as well. Goals and objectives have gone beyond what the original IOLR envisioned.

> GREG (HOMEIMP):
> ...important because these are huge opportunities. Someone the size of VPAINT or Sylvania which has a divisional office in Germany has tremendous resources but not funneled in the right direction its all wasted but I want to make sure that...are *constantly setting our goals a little bit higher* as the organization...*as the relationship learns.*

Communications in IOLRs such as the one between HOMEIMP and VPAINT are varied and open. The "back-to-back" triangles described earlier, is evidence of the importance of communications in this relationship. Brainstorming and group discussions, facilitated by technology (e-mail and videoconferencing) intermingle with less formal modes such as word of mouth – thus a combination of Shrivastava's (1983) *Bureaucratic learning* and *Information seeking culture* type learning systems (Table 4-10).

> GREG (HOMEIMP):
> ...is uh a true execution of the back to back pyramid in terms of communication and you know what I mean by that is uh it's the two isosceles triangles that have a common side and at the top there is communication of strategies, of capabilities, of interest of long term ideas concepts and that the very (use those terms loosely) the bottom of the organization, firing line in stores, in the shipping department there is a kind of a commonality of goals there is an understanding of each other's capabilities and strengths and weaknesses and all throughout the organization in between there is linkages of

Table 4-10 Learning System Characteristics of IOLRs Identified in This Study: Cell 9

Characteristic	CELL 9
Type of knowledge	Objective AND Subjective[1] Deep; Broad
Structuredness	High[2]
Explicitness of rules	High[2]
Scope of system	Broad; General; Business related[3]
Media for communication	Brainstorming; Open Discussions; Technology driven
Motivation of activity	Benefit end customer Learn all about logistics
Time frame	All information in general
Organizational make up	Organization wide

[1]Shrivastava's (1983) *Information Seeking* type of organizational learning system
[2]Shrivastava's (1983) *Bureaucratic* type of organizational learning system
[3]Mixed

GREG (HOMEIMP):
Well, *its not formal I would say* we do it in staff meetings if we have a major success with one vendor with something that happened *we share that information in staff meetings and at divisional meetings* uh sometimes vendors will come out with a new form of packaging or a new form of unitizing product that can break and *you usually try to get that word around* and if the vendor will share that with other vendors that are not that still compete then we try to make sure that information is available. *I would not say its formalized per se.*

PERRY (HOMEIMP)
...you *have meetings* for and you *publish memos* for and you have training sessions for.

Looking from DiBella *et al.'s* (1996) viewpoint, this IOLR has a process-focused learning orientation. Documentation mode is collective and dissemination mode is both formal and informal. Learning focus is more innovative than adaptive and the skill development process is formal but focussed on groups (Table 4-8).

Tables 4-7, 4-9 and 4-10 shows all the above mentioned IOLRs with their characteristics (detailed characterizations are shown in Tables A.5, A.6, and A.7 in the appendix). Table 4-8 presented DiBella *et al.'s* (1996) learning orientation scheme overlaid on these IOLRs.

4.5 *Conclusions*

The data analysis presented in this chapter is detailed, systematic and rigorous. It has resulted in a firmly grounded theoretical model of IOLRs established for logistics purposes, or "Inter-Organizational Logistics Relationships" (IOLRs). This model provides a crystal-clear picture of *strategic* IOLRs (SIOLRs). Our understanding now of this complex, yet crucial phenomenon is clearer than when we started off. Viewed from an organizational learning perspective, several relationships were carefully categorized. Three "Faces" emerged from that categorization. The resulting model is shown in Figure 4-9 and 4-10. In the next chapter, this model will be expanded to develop several propositions for future study and suggest ways in which it can be applied to real-world situations. Additionally, some of the strengths and weaknesses of the methodology and resulting model will also be discussed.

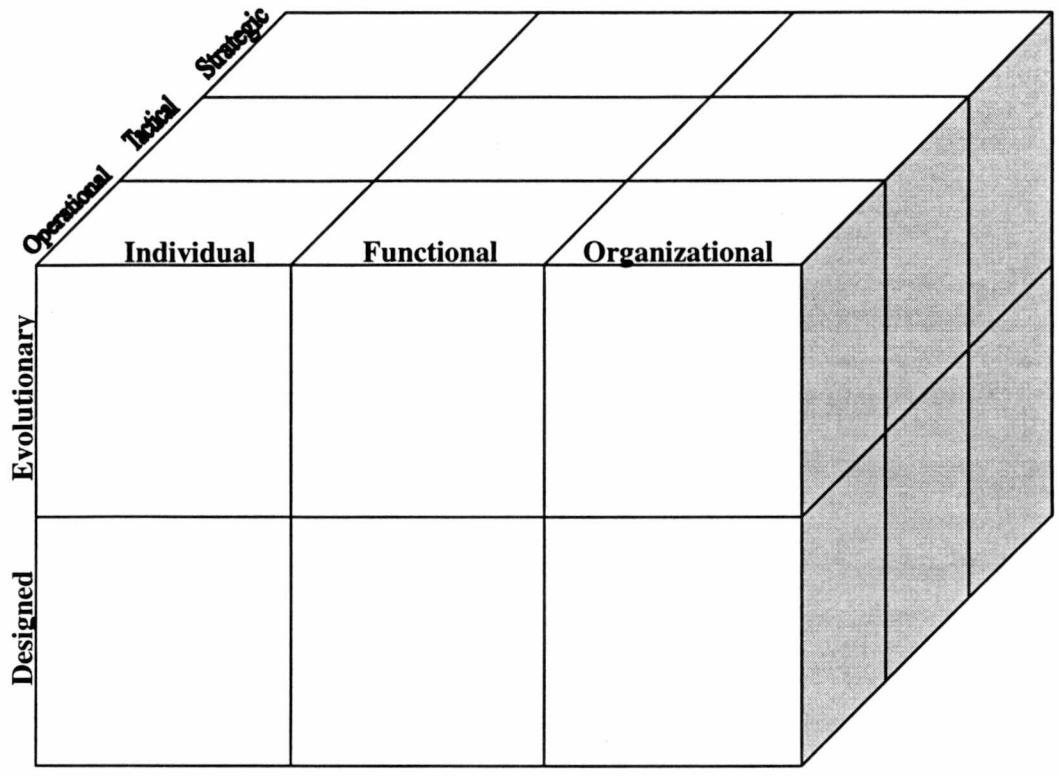


Figure 4-9 The Basic "Three Face" Model of IOLRs

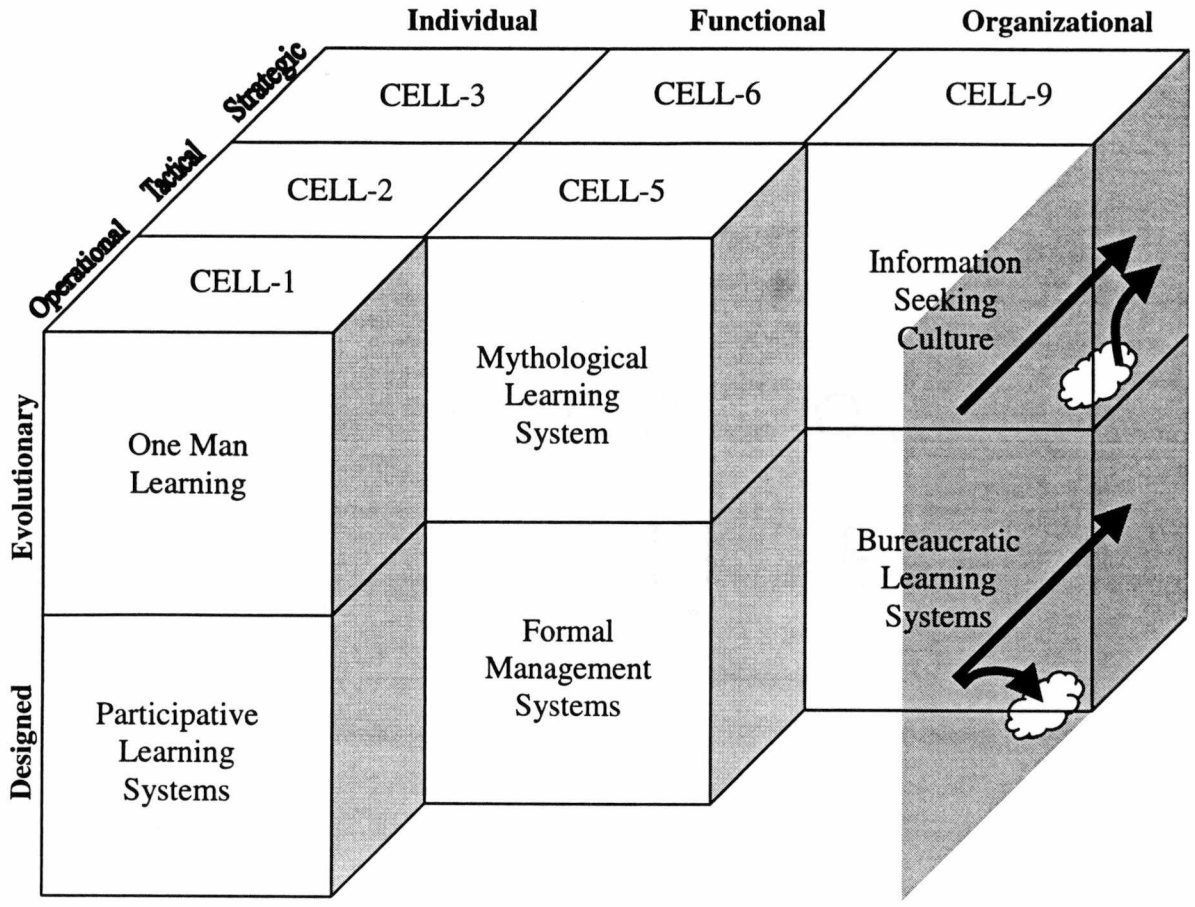


Figure 4-10 The Fully Developed "Three Face" Model of IOLRs

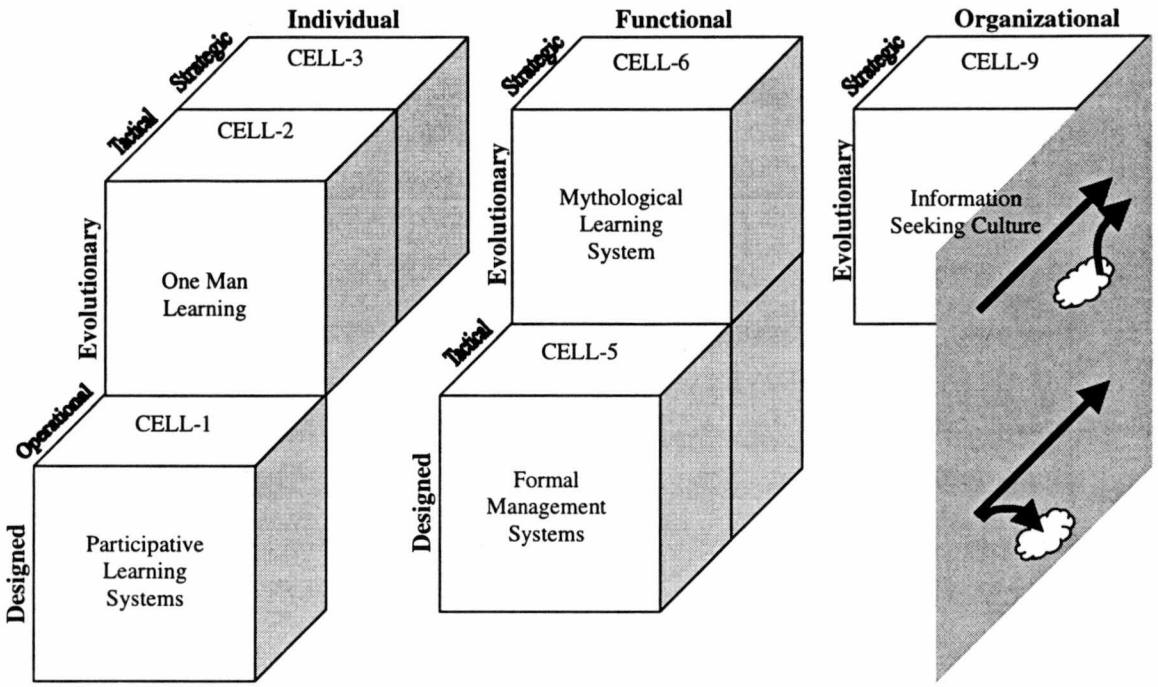


Figure 4-11 The "Three Face" Model Incorporating IOLRs Identified in This Study

CHAPTER 5: Discussion & Conclusions

5.1 Introduction

The purpose of this research has been to develop a rigorous, comprehensive, well-grounded theoretical model describing inter-organizational logistics relationships (IOLRs). It began with the following research questions in mind:

- How do inter-organizational logistics' relationships (IOLRs) form?
- How do strategic and non-strategic inter-organizational logistics' relationships (IOLRs) differ?
- Finally, is the learning perspective more effective than existing ones, in describing and explaining inter-organizational logistics relationships (IOLRs)?

To find answers to these questions, more than 40 logistics professionals, at various levels – ranging from Directors to Managers and Supervisors – in 8 organizations were interviewed and their responses were recorded, transcribed and carefully analyzed. Following an extremely rigorous analysis, involving one – at times two – other colleague(s), a categorization of inter-organizational logistics relationships was developed.

First, a categorization based on the nature of IOLR formation – *Designed* or *Evolutionary* was presented. In addition to their categorization based on the nature of formation, IOLRs were also categorized on an *Operational-Strategic* dimension, which captured the degree of criticality involved in each relationship. In doing so, three levels of criticality were clearly identified: operational, tactical and strategic. Thus a typology of IOLR formation, forming "Face One" of the final model, was developed and shown to have its roots in Mintzberg's (1978) typology of strategies; sharing many of the characteristics therein. Thus, all examples of IOLRs cited by study participants were 'placed' in the cells of a 2x3 matrix formed by these two dimensions.

Then, based on the interview data again, a third dimension was identified – *Individual-Organizational*. This dimension represented the level at which each of the IOLRs were being monitored and managed, and the degree of involvement in them. Following a careful analysis it was shown that three distinct levels exist: Individual, Divisional or Functional, and Organizational. Along with the degree-of-criticality dimension – *Operational-Strategic* – it formed a 3x3 matrix, resulting in 9 'Cells' and "Face Two" of the "Three Face" model. 'Occupants' to six of the nine cells (Cells 1, 2, 3, 5, 6, and 9) were identified while three others (Cells 4, 7, and 8) were found to be empty. This is not to say that there aren't

any IOLRs in other organizations, which may occupy these cells; just that in the limited sample chosen for this study there were none. However, a careful review of cell-features will clearly support the lack of 'occupants.' It can be rationalized – and justifiably so – that as more members of an organization become involved in an inter-organizational logistics relationship, more time and expense is involved. Hence, the IOLR should be of sufficient importance and value to justify such an investment. Thus, it would be uncommon to have the focus and attention of a whole department, let alone the entire organization on operational IOLRs. The costs of paying attention to, managing and monitoring such low-level IOLRs would be far too prohibitive. Hence the lack of 'occupants' in Cells 4 and 7. *If* however, there were such IOLRs, then it would be in the best interests of both parties to "move it along" and increase the level of criticality to justify the returns on investment. Similarly, to focus the attention of the *entire* organization on a tactical IOLR would neither be efficient nor effective – hence the lack of any example in Cell 8.

Bringing the two "Faces" together automatically resulted in "Face Three", which was formed between the *Designed-Evolutionary* and *Individual-Organizational* dimensions. Following the recommendations of most 'theory-building' researchers (Bonoma 1985; Eisenhardt 1989; Glaser and Strauss 1967;

Guba 1978; Patton 1978, 1980; Strauss and Corbin 1990; and Yin 1994), and by constantly 'flitting' back and forth, between the data and extant literature, and between established categories and evolving ones, the following observations were made. Learning characteristics of the IOLRs identified in the study were found identical to many of Shrivastava's (1983) organizational learning systems. In some IOLRs more than one organizational learning system was identified. In addition to Shrivastava's (1983) typology of organizational learning systems, characteristics of DiBella *et al.'s* (1996) learning orientations were also identified within the data.

The rest of this chapter explains the implications of the findings presented earlier in Chapter 4. Observations are synthesized, discussed and then presented as testable propositions. Following that, directions for future research with implications for industry and academia are presented – thus bringing closure to this dissertation process.

5.2 *Research Review & Summary*

5.2.1 Inter-Organizational Logistics Relationships

Table 5-1 presents a synthesis of the characteristics of IOLRs found within Cells identified on "Face Two". These IOLRs were compared across several characteristics such as motivation, capabilities, selection factors, environment, expectations, explicitness, scope and duration, commitments, communications and performance. To validate this model, it will be necessary to test these characteristics and establish their credibility through a rigorous empirical test. In the next few paragraphs, several of these characteristics will be discussed and in some cases specific propositions will be presented. Additional propositions can be formulated too.

Motivation

It will be noticed that as inter-organizational logistics relationships (IOLRs) proceed from an operational level of criticality to a strategic level, motivations increase in subjective content. While the desire for low cost and for meeting specific needs remain, more subjective motivations become obvious. These

Table 5-1 "Face Two": Characteristics of IOLRs

Characteristic	CELL 1	CELL 2	CELL 3
Motivation	Objective	Objective/Subjective	Subjective
Capabilities	Basic; Ubiquitous	Less basic; Less ubiquitous	Unique; Rare
Involvement	Individual driven	Individual driven	Individual driven
Selection factor	Objective	Objective/Subjective	Subjective
Environment	Stable; Certain; Simple	Less stable; More uncertain; Moderately complex	Dynamic; Unpredictable; Highly complex
Expectations	Basic level; Tangible; Objective	Higher level; Less tangible; Objective/Subjective	Highest level; Mostly intangible; Subjective
Explicitness	High control	Medium control	Low control
Scope	Specific; Activity related	Broad; Function related	Broadest; Activity and function related
Duration	Short term; Transaction	Medium/long term	Long term; Relational
Commitments	None	Minimal; 'Shareable'	Extensive; Exclusive
Communications	Minimal contact	Frequent	Frequent
Performance	Objective; General	Objective/Subjective; Specific	Subjective/Objective; Specific

Table 5-1 (contd.)

Characteristic	CELL 5	CELL 6
Motivation	Objective/Important	Subjective/Crucial
Capabilities	Difficult to find; Technology based	Difficult to duplicate; People based
Involvement	Departmental/Functional driven	Departmental/Functional driven
Selection factor	Highly Objective	Highly Subjective
Environment	Uncertain; Complex; Dynamic	Certain; Simple; Less Dynamic
Expectations	Highly Objective; Technically Oriented; Systems driven	Highly Subjective; People Oriented; Culture driven
Explicitness	Low/Medium Control	High Control
Scope	Broad; Function related	Broad; Activity and Function related
Duration	Medium/Long Term	Long Term
Commitments	Dedicate Personnel and Capital resources; 'Shareable'	Commit/Invest in Personnel and Capital resources; Exclusive
Communications	Frequent; Extensive; Designed	Frequent; Extensive; Impromptu
Performance	Objective/Subjective; Specific; Formal	Subjective/Objective; Specific; Less Formal

Table 5-1 (contd.)

Characteristic	CELL 9
Motivation	Objective AND Subjective
Capabilities	Technology based; People driven
Involvement	Whole organization; CEO through front-line
Selection factor	Financially sound; Technologically capable
Environment	Competitive; Slightly dynamic Growth potential
Expectations	Highest level; Tangible AND Intangible; Objective AND Subjective
Explicitness	High structure; Control; Consistent
Scope	Broadest; Business related
Duration	Extremely long-term
Commitments	Partner's dedicate resources People dedicate personally
Communications	All formats; All levels; Extensive;
Performance	Objective AND Subjective

IOLRs are motivated by desires to generate 'mutual benefits' and 'competitive advantages', resolve problems and generate solutions, assist in business expansion and growth, etc. Often, these motivations are difficult to 'peg down' in specifics and are therefore left to broad, subjective interpretations. These differences are obvious at all levels of involvement: individual (Cells 1-3), divisional/functional (Cells 5-6), and organizational (Cell 9). In addition, motivating factors take on an added characteristic of "importance" and "criticality" as they move down vertically, i.e., from Cell 3 to 6 to 9. Based on this discussion the following proposition is offered:

> *PROPOSITION 1: The MORE critical an inter-organizational logistics relationship (IOLR) is to an organization, the MORE subjective are the factors motivating that IOLR.*

Capabilities

Capabilities sought in Cell 1 IOLRs are seen to be basic and ubiquitously available. Thus, while selecting providers of operational type services and products the over-arching driver becomes cost. However, as a relationship traverses up the *operational-strategic* dimension, capabilities sought are less widely available and become rare when the relationship occupies Cell 3, 6 or 9. Capabilities now assume characteristics that are technologically sophisticated, people centered and difficult to duplicate. Many of these characteristics are

often intangible and difficult to describe or quantify. Based on this discussion the following propositions are offered:

> *PROPOSITION 2: The MORE critical an inter-organizational logistics relationship (IOLR) is to an organization, the MORE specialized are the capabilities sought from partners.*
>
> *PROPOSITION 3: The BROADER the level of involvement[65] in strategic inter-organizational logistics relationship (SIOLR), the GREATER is the emphasis on TECHNOLOGICAL capabilities*
>
> *PROPOSITION 4: The BROADER the level of involvement in strategic inter-organizational logistics relationship (SIOLR), the GREATER is the emphasis on PEOPLE capabilities*

Selection Factors

Characteristics describing the differences in selection factors across the types of IOLRs mirrored those describing motivational factors – and rightly so. Cell 1 selection factors were more objective and specific, while Cell 3, 6, and 9 had a higher degree of subjectivity.

Environment

Characteristics describing the differences in cell-environment issues is perhaps most surprising. As expected, and supported widely in the literature, both

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[65] i.e., as the level of involvement moves up the *Individual-Organizational dimension*

strategy formulation (Chakravarthy 1986; Hofer and Schendel 1978; Mintzberg 1978) and establishing strategic IOLRs (Cravens *et al.* 1993; Frazier and Antia 1995; Harrigan 1988b; Hart and Garone 1994; Lewis 1990) is impacted significantly by the environment. For instance, Cravens *et al.* (1993)[66] advocate a strategic alliance when environmental turbulence and skill/resource gaps are high, and an in-house strategy when both are low. The same may be noticed with respect to IOLRs in Cells 1, 2, and 3. In the former, it is low, and relationships were operational. In 2 and 3, environmental uncertainty increases, enhancing the criticality of relationships; i.e., the uncertainty in the environment itself contributes to the criticality of the relationship. Keeping in mind that IOLRs in Cells 1, 2, and 3 are managed and monitored at the individual level, the following propositions are offered:

> *PROPOSITION 5: The MORE uncertain an Individual-level IOLR's environment is, the MORE critical and strategic the IOLR is.*

The surprising finding in this research was the environment-criticality relationship in functional and organizational level IOLRs. Unlike relationships in Cells 1, 2, and 3, those in Cells 5, 6, and 9 followed a reverse relationship – meaning that as environmental uncertainty and dynamism increased, IOLRs were no longer viewed as strategic and were classified as tactical. One way to

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[66] see Figure 2-1

explain this rather surprising finding may be to look at the type of industry these relationships were found in. COMM-1's relationships with GTES and AB and COMM-2's with S-WAY are examples of IOLRs in the high-tech arena. Product lifecycles are extremely short and demands on the supply chain are unique. Flexibility and speed are of paramount importance. Reconfiguration of the supply chain and realignment of its participants may be frequent. Providers of logistics services are often *told* what to expect and what to do, and communication is usually one-way. While expectations from providers and vendors may be just as high as in other strategic IOLRs, longevity of the relationship *may not be*. Thus it is my view that functional level, tactical IOLRs (or those typical of Cell 5) will be predominantly found in the high-tech industry; hence the following proposition is posited:

> *PROPOSITION 6: The MORE dynamic a Divisional/Functional-level IOLR's environment is, the MORE Tactical that IOLR is.*

Expectations

Characteristics describing the differences in expectations across the types of IOLRs are similar to those describing capabilities. Thus, Cell 1 expectation – descriptors are 'basic, objective and tangible.' As IOLRs move up the criticality

and involvement dimensions towards Cell 9, expectations become more subjective, intangible and people oriented.

Explicitness

This was another area where results of the data analysis were somewhat surprising. It will be noticed that explicitness of rules and degree of control varied with the environment of the IOLR. Hence, as environmental complexity, uncertainty and dynamism increased degree of explicit control decreased. Thus, while Cells 3 and 5 exhibited lower levels of control than the others, Cell 1 exhibiting the highest.

> *PROPOSITION 7: The MORE uncertain and dynamic an IOLR's environment is, the LESS explicit are the rules and controls governing that IOLR.*

Scope and Duration

Results regarding the differences between operational and strategic IOLRs at all three levels of involvement (individual, functional/divisional, and organizational) were not out of the ordinary. For instance, the scope of the IOLR expanded as it moved from an operational relationship to a tactical and then onto a strategic IOLR. Cell 1 IOLRs were very specific and activity related. They lasted as long as the activity was needed and were then dissolved or

terminated. Cell 2 IOLRs, which were tactical, were broader, functionally related, and lasted anywhere up to 6 years. They were periodically audited and benchmarked for satisfaction and performance. Non-performance meant termination and re-issue of an RFQ. Cell 3, 6 and 9 IOLRs were very broad in scope, both activity and functionally related, and were meant to last 'forever' – or in the case of individual level IOLRs as long as the individual was involved.

Commitments

Cell 1 IOLRs expect minimal to zero commitments. These are relationships that are established for a specific purpose or activity. Successful completion of that is the only outcome desired. Hence, beyond utilizing resources necessary for the performance of the activity, no other resources are dedicated to the IOLR. In Cell 2 IOLRs, more resources are dedicated to the relationship. However, they are typically 'shareable' across several relationships or activities. It is Cell 3 relationships, which sees an extensive commitment of resources that are usually unique to that IOLR.

> *PROPOSITION 8: The MORE strategic an Individual-level IOLR is, the MORE extensive are the commitments made to that IOLR.*

> *PROPOSITION 9: The MORE strategic an Individual-level IOLR is, the MORE exclusive are the commitments made to that IOLR.*

Commitments made to IOLRs in Cells 5, 6, and 9 take on an added meaning. In addition to capital resources, personnel resources are also committed to these relationships. Further, Cell 6 and 9 are differentiated from Cell 5 in that these resources (capital, equipment and personnel) *are usually exclusive to that IOLR.* And further more, Cell 9 witnesses an additional characteristic that is unique to it: personal commitments by individual employees are made to the SIOLR. Individuals exhibit a personal sense of involvement, pride and "ownership", thus making the highest level of commitment possible in any type of strategic IOLR. To capture this special feature, the following proposition is presented:

> *PROPOSITION 10: The MORE strategic an IOLR is, and the GREATER the level of involvement in it, the MORE intense, exclusive and special are the commitments made to it by the organization and the people to that IOLR.*

Communications

Referring to the relative amount of fuzziness within alliance environments, Lynch (1993) states that, for example, conditions of high ambiguity within alliances will call for more information to be processed, more collaboration, lower-level decision making, and stronger lateral relations and *vice versa.* Similarly, in the "Three Faces" model developed in this study, which represents different types of IOLRs, communication is seen to vary with the environment in terms of frequency and intensity. Cell 1 IOLRs are characterized by minimal

and zero communications (past the initial establishment of the relationship), while Cells 3, 5, 6, and 9 are characterized by extensive and frequent communications between individuals, divisions or organizations depending on the level of functioning. Cell 9 SIOLRs are especially distinct; and this was clearly established and described in Chapter 4 using the "Back-to-Back Communications Triangle" Model (see Figure 4-6). Hence, an appropriate proposition at this stage would be:

> *PROPOSITION 11: The MORE strategic an IOLR is, the MORE intense, frequent and extensive are the communications between individuals, functions or organizations, depending on the level of involvement*

Performance

Finally, performance characteristics too varied across the different types of IOLRs. Cell 1 performance measures were simple, generic, objective and defined. However, they were general and tended to reflect the provider's general performance profile. Aggregated numbers and figures would suffice and serve as a proxy for the IOLR. However, as an IOLR progressed up the hierarchy, it was noticed that in addition to objective measures, performance measures increased in subjective content. Performance was based on data representing that specific IOLR, and measures were designed specifically for it.

> *PROPOSITION 12: The MORE strategic an IOLR is, the MORE unique, tailored and specific are the metrics measuring that IOLR's performance.*

PROPOSITION 13: The MORE strategic an IOLR is, the GREATER is the qualitative content of the metrics measuring that IOLR's performance

5.2.2 Systems of Inter-Organizational Learning

The analysis in Chapter 4 identified Shrivastava's (1983) typology of organizational learning systems in each of the IOLRs identified in the research (Refer to Tables 4-7, 4-9, 4-10). Simultaneously, the IOLRs were reviewed for their learning orientations, and were then 'mapped' according to DiBella *et al.'s* (1996) schema (Refer to Table 4-8). In this section the analysis is synthesized and discussed in detail.

Individual Level, Inter-Organizational Logistics Relationships

In all three examples, the organizational make-up of the learning system consisted of a key individual – Ron (APPAREL-2), Tom (APPAREL-1) and Thomas (COMM-1). Each was responsible for managing the IOLR that they had with their respective logistics services providers. This is about the only characteristic they had in common. For example, the type of knowledge sought after in the operational IOLRs Ron (APPAREL-2) had was highly subjective. It depended upon what he thought was pertinent to the relationship and

essentially what he felt comfortable with. On the other hand, in the tactical relationship Tom (APPAREL-1) had and the strategic one of Thomas (COMM-1), the type of knowledge forming the essence of learning and sought after tended to be more specific and objective too, along with a subjective content. Information and data were pursued to generate concrete solutions to deal with specific problems – which evidently were the scope of the inter-organizational learning system too.

Time frame for all three IOLRs was based on current information. The nature of the service being performed was such that there was little sense in even attempting to deal with future situations – given the fact that it was a learning system designed for one individual. In Ron's (APPAREL-1) case, there was no need to even consider future information needs, as the relationship was operational and limited to specific transactions. In Thomas' (COMM-1) case this is even more pronounced as the environment in which the IOLR flourished was highly uncertain and dynamic. Hence, on an individual level, IOLRs' information needs are kept strictly current.

Both structuredness and explicitness of rules within these three types of inter-organizational learning system are low to medium. In operational level

relationships especially, due to the temporary nature of the transaction, these characteristics are a bit different from the other two. Motivation for learning, the search for knowledge is often precipitated by crises in operational type, individual level IOLRs, while problematic situations trigger them in the other two. The former may be explained in light of the manner in which the relationship is formed. These IOLRs are established when there is a specific need only; a need which is short-term and in some cases arises due to the failure of the existing system (such as a current provider going bankrupt or a sudden and unexpected surge in capacity requirements). It becomes imperative to "fast-forward" the learning process so that the "stop-gap" provider can do a good job. In the other two IOLRs the learning system in place is motivated by problems arising in the course of performing the logistics service.

For his part, Ron (APPAREL-2) disseminates information to others in the division through writs and memos, while between the partners itself it is usually limited but very personal. Tom (APPAREL-1) mentions in-person/telephone conversations and site visits, which he says, enhances the understanding of each other's systems by that eradicating potential problems. Thomas' (COMM-1) on the other hand is in an inter-organizational learning system, which is characterized by stories of "out-of-the-ordinary" happenings

borne from a rich and colorful international environment. Sharing of such experiences fosters learning in this type of IOLR.

Thus, based on Shrivastava's (1983) descriptions of organizational learning systems, Ron's (APPAREL-2) IOLR has all the hallmarks of a *one-man learning system,* while Tom's (APPAREL-1) and Thomas' (COMM-1) are *participative learning systems.* In addition, one aspect of Thomas' (COMM-1) IOLR exhibits the *mythological learning system* too (Refer to Table 4-7). Using the same approach, it was possible to map DiBella *et al.* (1996) learning orientations onto these three IOLRs (Refer to Table 4-8).

Functional Level, Inter-Organizational Logistics Relationships

The learning characteristics exhibited by COMM-1 and AUTO in their respective IOLRs are similar to Shrivastava's (1983) *"formal management system."* It is my opinion that if more examples of functional level, tactical or strategic IOLRs were identified, they too would exhibit similar characteristics; this would be the most popular and effective type of inter-organizational learning system given the circumstances. Even Shrivastava (1983) notes that "By far the most common way of perpetuating organizational learning is through the

design and implementation of formal management systems for information, planning, and control." (p. 23). Thus, even though AUTO's relationships with its logistics providers – SCH-LOG and CAL – were categorized as strategic inter-organizational logistics relationships (SIOLRs), and COMM-1's were labeled as tactical, *they were found to have the same inter-organizational learning systems.*

In both companies the learning system in place is designed to foster communications, information exchange, joint planning and execution in a formalized manner. Knowledge sought and generated is often through formalized, technology-based mechanisms. Root-cause methods, simulation, optimization, and other modeling techniques or decision support systems are widely used. Such an approach often results in highly objective knowledge. The following example illustrates the benefits of inter-organizational learning through the use of modeling techniques – even when they are as basic as that cited herein:

> DARREL (AUTO)
> ...one of their people was down in one of our plants and had an idea that if we loaded our racks differently, we could get four more on the trailer. Well we said, we've always loaded them this way; we're not...He wanted us to turn them around. We're not going to do that. Well, *the only way they could convince us was, they constructed little racks and had a little truck,* and said, "now look. You guys are loading them like this. You count them you get 48 on a truck. If you

> would turn one of them sideways, you get 52 on a truck. And over the course of a year, that would save you X dollars". So it's that kind of...*simple kind of things* that you've just got to, you've done something all your life one way, and somebody comes and says, there's an alternative. You got to look out...

But the demand of a performance and rewards system driven by quantifiable measures requires such an approach. Structuredness of the learning system is high and formal, with emphasis on training and updating of skills. The scope of the learning system appears to be well defined, task or function related, and once again highly objective. Information sharing and dissemination is structured and done through formal meetings, reviews, newsletters and the use of technology such as the internet and intra-nets. The organizational makeup is however broader that the earlier the three IOLRs described earlier, and involves most everyone at the functional level.

The other functional level IOLR – the one between APPAREL-2 and HTRANS, has some characteristics of Shrivastava's (1983) *"formal management system"* but most reflect his *"mythological learning system"* . Knowledge sought is very subjective. "Campfire" stories and real-world examples perpetuate knowledge. For example, Ron's description of why a certain trucking company was "let go" – despite having strong ties with the APPAREL-2 highlights this point very clearly.

RON (APPAREL-2)
The B&B drivers were from the south, ok. Culturally a lot of them were probably white, ok. And they probably had their southern rebel flags hanging up in their sleeper berths if you will (BRYAN: I saw one or two) Yeah. And so they are going into a metropolitan area and I touched on this earlier...not being so cultural about it. But you know that was a different culture. They are not going to go into the Brooklyn and the Bronx and feel safe at night. The places we had them going. Because that is where our agents were sometimes located in Jersey City, and Staten...the different places...and when it would get dark, they would just have a fear of going into those areas. So yes, it was probably a cultural issue in that we had carriers who had never performed at night in those areas and it was very critical for us to get our freight to our agent at 2 a.m. in the morning, because they broke it; they had it on the street the same day. And if he were afraid to go into the city at night they just ruined our whole distribution; it delayed all of our freight for one day. So we had to go through the qualification process and these guys have been ...culturally adept to doing that, lets say. They just...and so we got to find...we had to roll through a few of these carriers to find the partners that we have today.

There is a low level of structuredness to the learning system, and it is very informal. Technological involvement is low and information is usually spread by word-of-mouth or in a story form. Personal involvement and other similar socio-cultural norms promote learning. In such environments, strong individuals foster such IOLRs, which are solidified only *after* the acceptance by the others in the department on a personal basis.

Organizational Level, Inter-Organizational Logistics Relationships

Most of the characteristics of IOLR HOMEIMP has with VPAINT are reflected in Shrivastava's (1983) *"information seeking culture"* organizational learning system. The IOLR has attained the highest level of comfort and interdependency. As seen in the earlier section, the motivation for the relationship is to generate long-term, true benefits for both the partners. This is possible when the IOLR has the backing and involvement of everyone within the organization. Given these, and the fact that there is a high level of expectation and explicitness, learning is implicitly stressed. HOMEIMP encourages, fosters and implements learning through a "well-oiled", highly structured and formal system with great flexibility and few rules being explicitly stated. The scope of this SIOLR is broad and general. Service and product improvements are pursued as well as innovations and new ideas in other areas. While the relationship evolved from a product orientation, it has grown to span broader areas as well. Goals and objectives have gone beyond what the original IOLR envisioned. Communications in IOLRs such as the one between HOMEIMP and VPAINT are extensive. Brainstorming and group discussions, facilitated by technology (e-mail and videoconferencing)

intermingle with less formal modes such as word of mouth – thus a combination of Shrivastava's (1983) *Bureaucratic learning* and *Information seeking culture* type of learning systems. One reason for finding both types of organizational learning systems may be due to the fact that, when the relationship was established, these organizations were young and growing unfettered by the bureaucratic inertia of larger organizations. But, as the organizations grew in size, more formal mechanisms were necessary to streamline functions and processes. However, the advantage of such an evolutionary process is its rooting in strong values, which are not compromised.

> GREG (HOMEIMP)
> I can think of one and it's about a partnership, and we thought we were on our way to partnership. It was a plumbing vendor...well known plumbing vendor representative...and they had done a fairly good job of trying to get to know us integrating their learning process...but their senior management strangely enough and our senior management *did not have shared values,* and we were never able to break through values and...um, to put it in very simple terms, uh, when you get down to the practical details, uh, they insisted on treating us like they treated their traditional... traditional small plumbing wholesalers...We offer a value and, uh, rather than modify their approach to us, uh... "what we're trying to do for you...you know, you don't understand everyday low price, we bring value to the market place, well we don't care..." It's fascinating. It's like, uh, I think that...that's a case where the bottom of the pyramid [referring to the back-to-back "communications triangles] was getting to be fairly tight and the top of the pyramid was heading into two different directions.

5.3 *Implications for Managers*

> My method of learning is to become, as far as possible, Japanese
> – Dr. Edward Deming[67]

The analysis of the more than 40 interviews shows how organizational learning processes, both formal and informal, manifest themselves in the several relationships the 8 companies have with their logistics providers. For instance, analysis in the previous chapter showed that HOMEIMP has very formalized support systems that helps foster learning within the relationships it has with companies such as VPAINT and others. The availability of excellent communication channels[68], top management's involvement and an internal culture promoting learning; supported by the availability of training and educational avenues through HOMEIMP University reinforce HOMEIMP's stature as a true learning organization. On the other extreme are companies like APPAREL-2 where both formal and informal relationships were evident, but they lacked any *visible indication* of formal learning; this was the case in many of the others too. Yet, upon careful analysis of the interview data, it was

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[67] Dr. Edward Deming in Mary Walton's *The Deming Management Method*, 1986: 11

[68] Refer to the "Back-to-Back" communications triangle (Figure 4-6) discussed in Chapter 4

evident that most aspects and concepts of learning as described in the literature were present. For example when asked about their interpretation of what 'learning' meant, almost all descriptions fit the definitions of learning as explained in the literature. Researchers have referred to learning as (Fiol and Lyles 1985):

(a) new insights or knowledge (Argyris and Schön 1978; Hedbrg 1981); or
(b) new structures (Chandler 1962)
(c) new systems (Jelinek 1979; Miles 1982)
(d) actions (Cyert and March 1963; Jelinek 1979), or
(e) some combination of the above (Bartunek 1984; Shrivastava and Mitroff 1982)

Table 2-2, shown earlier in Chapter Two, presents some definitions describing learning. Based on the following sampling of responses taken from my research data, learning is:

1. **Knowledge Building** (Fiol and Lyles 1985; Gupta and Fisher 1994; Huber 1991)
   - Picking up, Improving, Increasing and Using knowledge

   DARREL (AUTO)
   It's [learning] *picking up knowledge of something or someone,* and so...I mean, they learned, they picked up knowledge of what our objectives are...what's important to us, what drives our cost, what we're trying to do in....as we support our role in the AUTO Corporation.

   LEE (HOMEIMP)
   [Learning is]...*improving our knowledge base...and capabilities.*

   MIKE (APPAREL-1)
   ...*learning is just increasing your knowledge of anything*...I mean it can be technology, business...and so...*to me it is just developing more knowledge and be able to use that knowledge*...

2. **Understanding** (Fiol and Lyles, 1985)
   - Developing higher levels of understanding

   GREG (HOMEIMP)
   ...I believe it [learning] means developing *higher levels of understanding of the abilities of the retailer and the manufacturer...*

   WILL (COMM-1)
   Learning is...well, it is an *assimilation of new information to reach some meaningful conclusions.* It is...I guess, it is *understanding of business...*

   GREG (COMP)
   Learning is a better understanding of our requirements...

3. **New Experiences** (Stata, 1989)
   - New set of experiences; Experiences – both good and bad; Interaction between a person and a situation; Being exposed to, understanding and reacting to new things

   STEVE R (COMM-1)
   Well, I think it [learning] comes down to *sharing experiences...*

   SUSAN (APPAREL-1)
   I think learning is *experiences...new set of experience* that you *add to your knowledge base.*

4. **Information Seeking** (DeGeus 1988)
   - Assimilating new information to reach meaningful conclusions; Getting, relating, and using information efficiently

   WILL (COMM-1)
   Learning is...well, it is an *assimilation of new information to reach some meaningful conclusions.*

   MIKE (HOMEIMP)
   I think first of all learning is absorbing...*getting all the necessary pieces together* and learning about *how everything affects everything else.* And once you get the *understanding,* learning is knowing how to *move to a more optimal result...*

Yet another aspect of learning – the practice of trying to "get-into-the-other's-shoes" and understanding their mental models of situations – was also evident. The stress on communications and teamwork, in close IOLRs especially, was apparent. For example, several respondents cited instances where the on-site presence of the partner's personnel enhanced learning and presented greater opportunities to innovate. Even those who did not have such practices in place stated their preference to "become Japanese" or in other words look at issues from the partner's perspective to fully comprehend the value of an existing relationship

> RON (APPAREL-2)
> What I would love to do, is to see Bryan [of APPAREL-2] and sit in Skooter's [of H-TRANS] seat, and bring Skooter down here and let him sit in Bryan's seat and do each other's job for a whole week. Ok. So that ... if we had plenty of cash and plenty of time ... to do that, we could do that interchange...Now, we have done some of that. Our distribution center in Hunt Virginia, which has tons of breakbulk coming out of that we...Bryan...lines up them and we never touched it in our terminal. We have been able to have their people come down and sit down besides the people here and work with them; and have dinner with them, and keep them overnight. We've had our people go up and spend some time in their location. About 3 weeks ago I've got a second shift planned down in Gastonia who is critical to setting up loads going west. He'd never been to Hunt. He'd never seen the big facility. With the high rise stackers, and robots going in and pulling out the fabric. So I took the time to take him and the operations manager of that terminal, to the APPAREL-2 DC [Distribution Center] and they worked on every shift. He got to know the people face-to-face he got to know what they are facing in their job. So yes. One thing if I had plenty of cash...If I had that convenience...*yes I would be inter-swapping people between us and our partners so that we can have a better understanding of what internally is going on...*

Thus, it is evident that learning at the individual level is widely prevalent (although in many cases it was not apparent immediately). Most respondents had ideas on how learning took place; how it could be improved; what were the impediments and what were the fostering factors. While learning at the functional level was evident, much of the new knowledge and learning resided in individuals. It is imperative that this knowledge be gathered and utilized for the benefit of the organization as a whole.

Even in its preliminary form, the model presented in this research has several applications for businesses. Logistics executives can map the IOLRs their companies have currently, and see what type of inter-organizational learning system they can expect to find. Based on the characteristics that define the learning system, senior management can then implement systems and processes to support and enhance learning. The model can also be used to see how to grow an IOLR in terms of involvement (individual → organizational) and importance (operational → strategic). Figure 5-1 shows the different paths a relationship can take while moving from a simple, individual level-operational IOLR to a complex, organizational level-strategic IOLR.

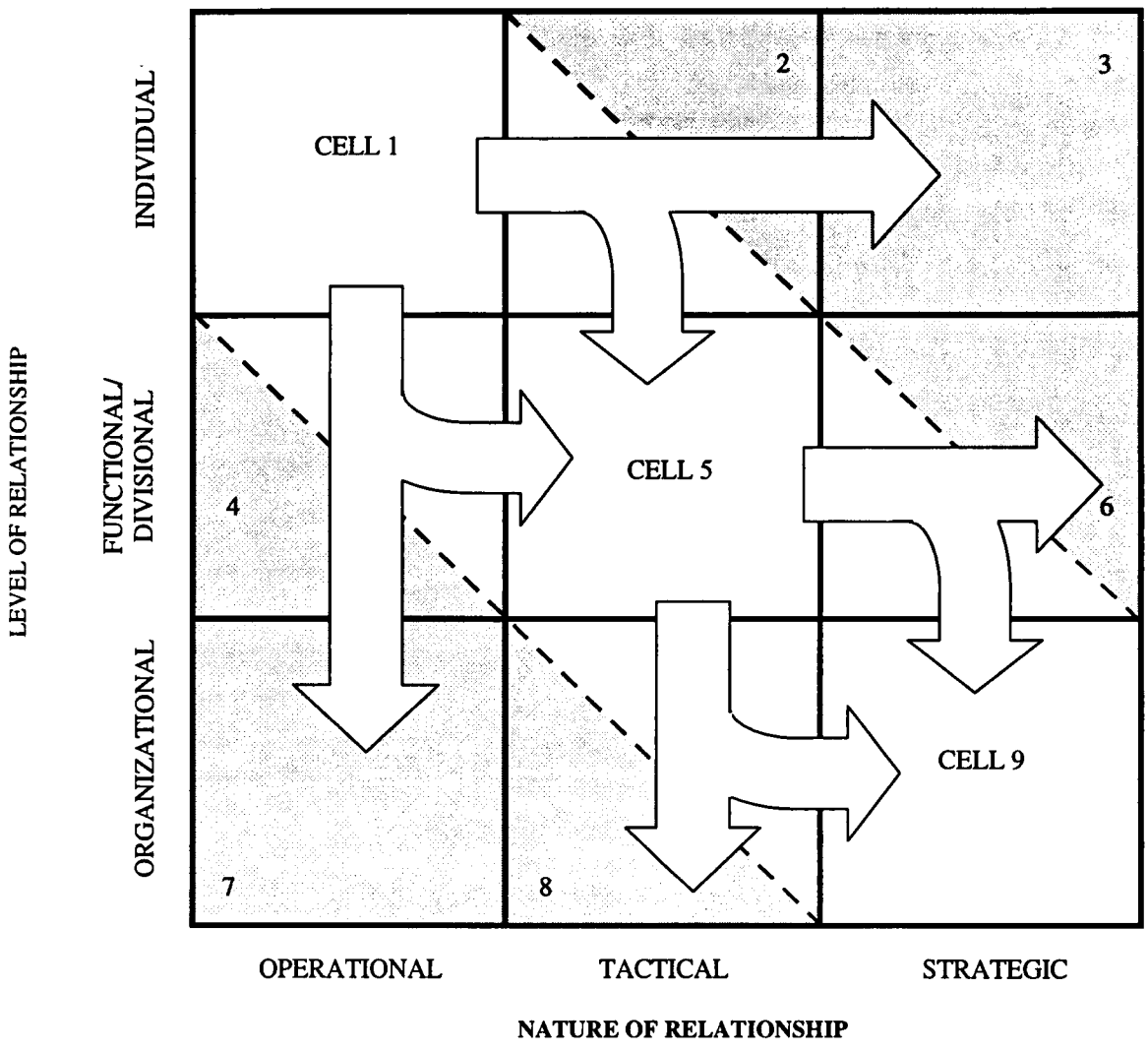


Figure 5-1 Transformation Process of IOLRs Using the "Three Face" Model

The "grayed" area represents states that it would not be advisable to be in. For example, if one were to go back and look at the characteristics describing IOLRs in Cells 2 and 3, it would be evident that the efficiency and effectiveness of the IOLR depends on one individual. The strategic benefits of the IOLR are dependent on the personal contacts of that person, who in turn would have spent a considerable amount of time and energy to build the trust needed for it to function. If that individual were to "move on", the IOLR could be adversely effected. In companies such as COMM-1, whose products and services are time sensitive, it would have disastrous consequences. Similarly, Cells 4 and 7 were grayed to caution against moving into them. Examples of IOLRs occupying these cells would likely be those where one partner is phenomenally larger than the other (like FedEx or UPS) and to whom the relationship is "operational". In situations where the other partner is small, it would be just another buyer-seller relationship, with the buyer at a disadvantage. However, in instances where the other partner is also large, but the logistics function is small, any IOLR in this cell would most likely end up in failure.

> THOMAS (COMM-1)
> XYZ[69] walked in and said "we want to develop this strategic relationship..." and we said...

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[69] This is a large logistics services provider. Actual name of the company is disguised.

> I said "Great." This is a senior vice president from Tennessee and I said "now let's talk about it".
> He said "No, no, no, no. I'll tell you what we've got and you can mix and match".
> I said "Hang on, that' not a partnership. You're doing a W-M[70] on me. You're coming in here, you're selling set products and the only choice you are giving me is which product I buy". He looked at me and in a sort of faint fashion and I said "you are not even in the second round of our RFQ...too expensive, too monolithic and you pay lip service to a partnership". So he was not a happy man when he left ...the only driver in any of this is self-interest.

Thus, the model is useful in charting one's way through the minefield of pitfalls and dangers to achieve a mutually beneficial strategic relationship; an SIOLR that is capable of delivering the competitive advantages companies sought when first establishing it. Additionally, based on the responses of several interviewees a "Relationship Growth Model" is shown in Figure 5-2.

As seen from the model, there are clearly two sets of requirements for every relationship: "Relationship Antecedents" and "Partner Antecedents". The relationship has to be in a key area for the company, which has the potential to grow and deliver mutually beneficial gains to the firm. The prospective partner on the other hand has to have several basic qualities and capabilities (technology, financial stability, equipment, personnel, etc.) AND be key to the

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[70] This is a company that has been known to "railroad" its partners into lop-sided transactions. Actual name of the company is disguised.

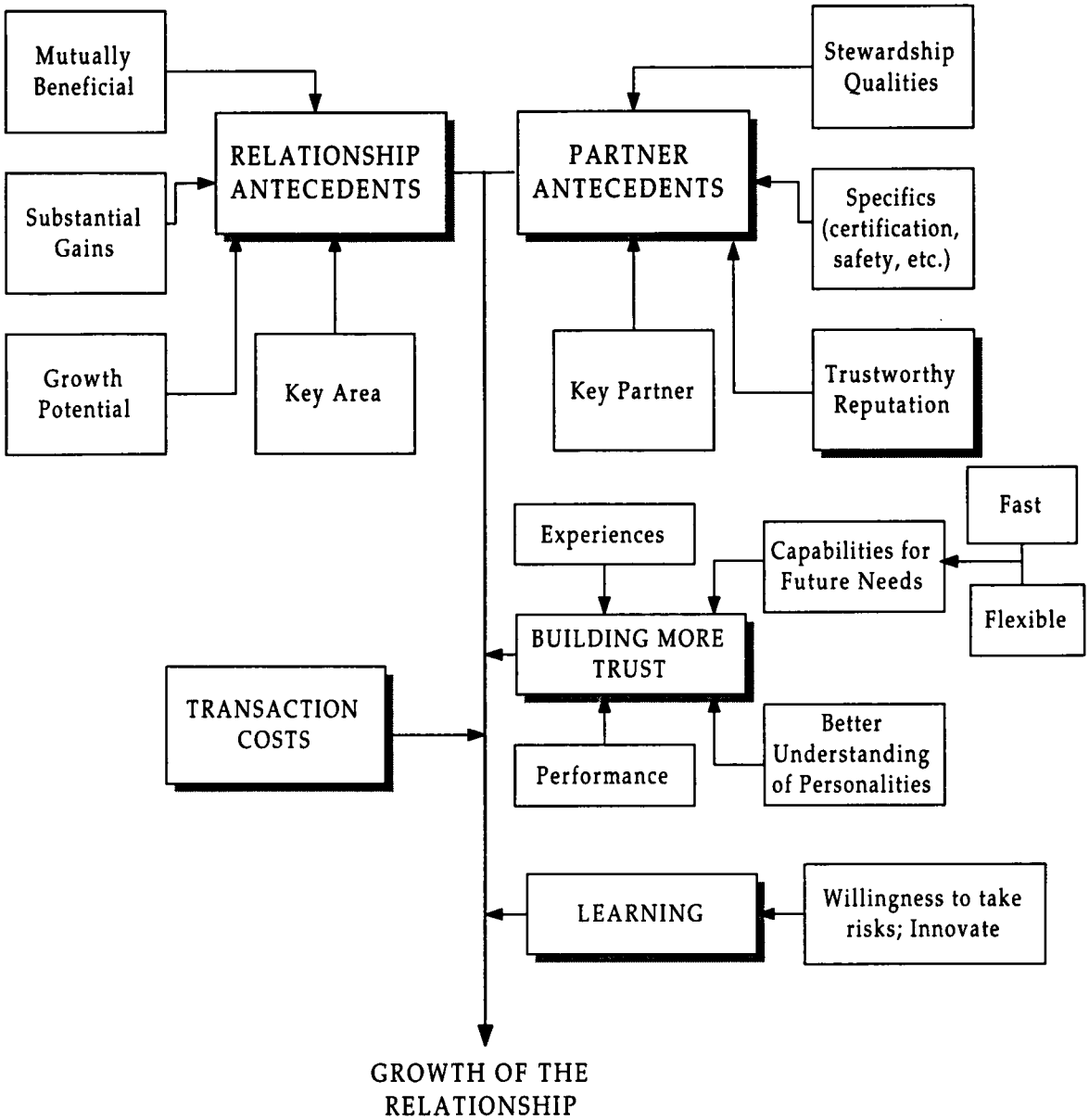


Figure 5-2 Relationship Growth Model

company (by being 'linked' to the other company, the firm may derive substantial reputation and visibility in the industry). In addition, there should be an initial form of TRUST (trust in the other's reputation, capabilities, values, etc.). The preliminary IOLR can then grow to more strategic levels. However, this growth is influenced by three key factors:

(1) Transaction costs (continued costs of functioning together)
(2) Inter-Organizational Learning (willingness to take risks, innovation etc.), and
(3) Trust (trust in personnel, continued capabilities, performance etc.)

Companies need to pay attention to all three factors simultaneously if they are interested in "moving" the relationship along (where the IOLR eventually ends up depends upon the level of criticality seen in it – not all relationships are meant to end up in Cell 9). While, the focus of this research was on inter-organizational learning, the third (trust) is equally important. Figures 5-3 and 5-4 also show the intimate relationship between Learning and Trust[71]. Thus, it is critical that an organization, department, or individuals understand the delicate role played by these two factors in growing a relationship.

[71] All these models have been developed by synthesizing interviewee responses.

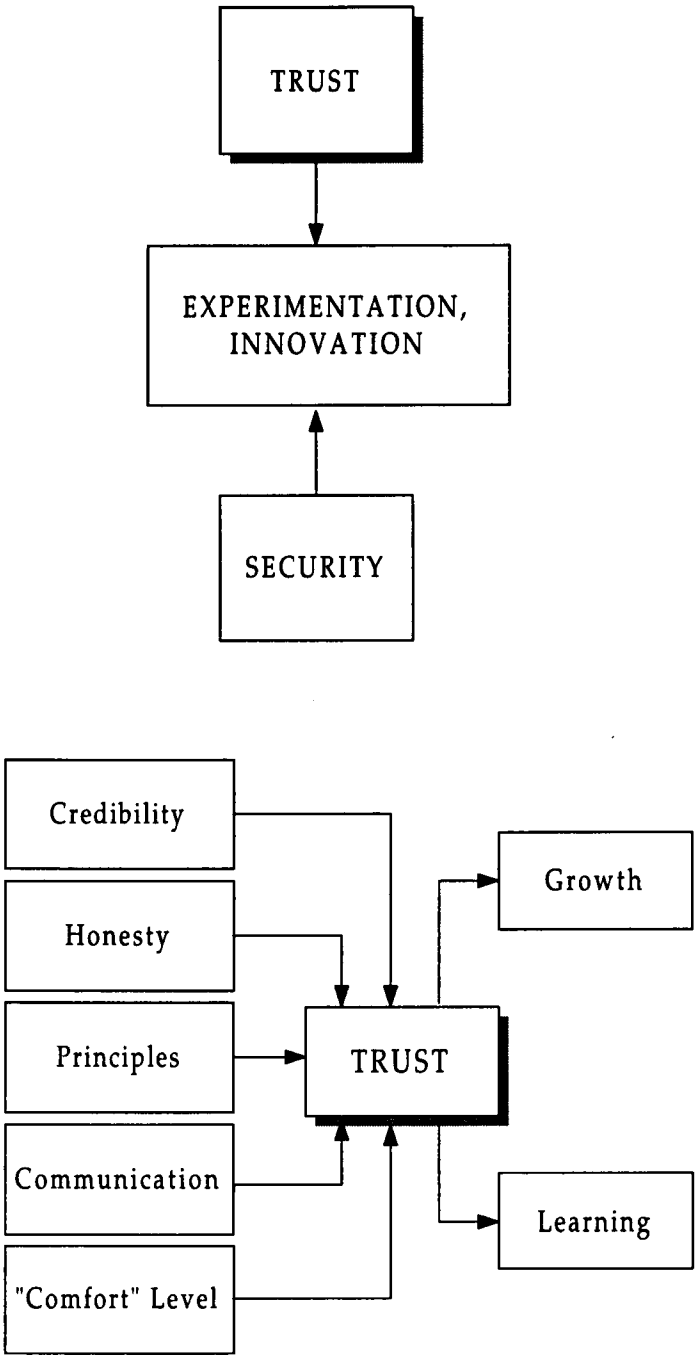


Figure 5-3 Examples of Learning and Trust Relationships Established from Interview Data

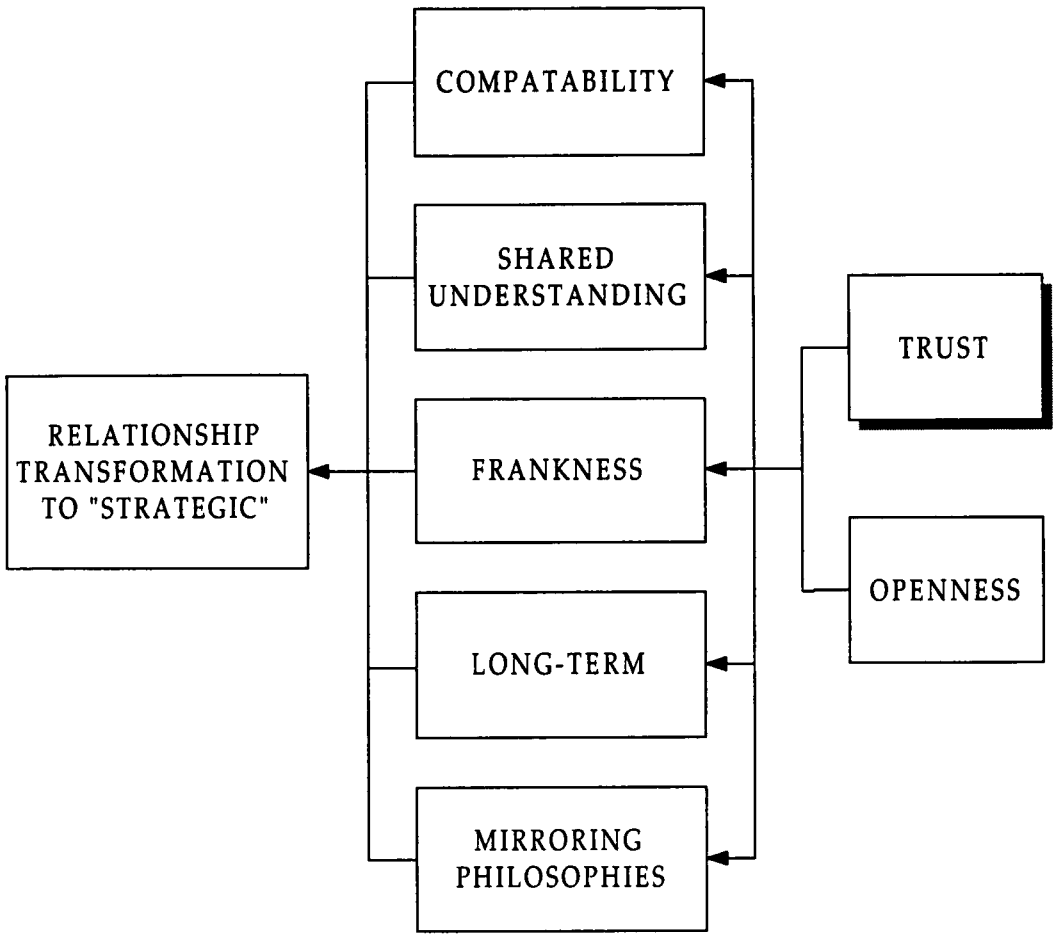


Figure 5-4 More Examples of Learning and Trust Relationships Established from Interview Data

5.4 *Implications for Academics*

> Learning for me is gaining the knowledge, but I guess I would put the word "continuous" [in front] and...It will never stop in this industry any more.
> – John (COMM-2)
> Interview Conducted on July 03, 1997

This research has literally thrown the 'doors' of inter-organizational logistics relationships wide open; opening up new planes to research it from; and new lens to view it from. It has presented a model that accurately captures the nuances of inter-organizational learning within several types of inter-organizational logistics relationships. However, this model needs to be developed and empirically validated. Several propositions were presented, which need to be further explored. A critical factor that emerged from this research is the lack of a better understanding of "trust" in inter-organizational relationships. Most studies to date have viewed trust in a behavioral sense. However, this research emphasizes the cognitive side – which evidently has a strong bearing on inter-organizational learning. In fact, the academic community should pursue the relationship between learning and trust and enumerate its impact on the performance of inter-organizational relationships. Figure 5-5 depicts these two critical factors in the form of "Yin and Yang" to show how closely they are related. According to the theory of "Yin and Yang",

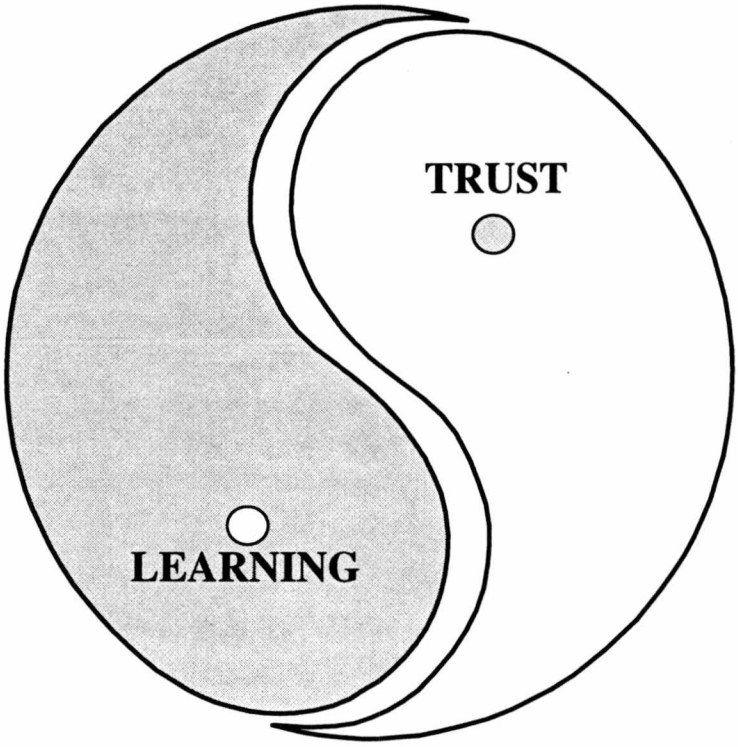


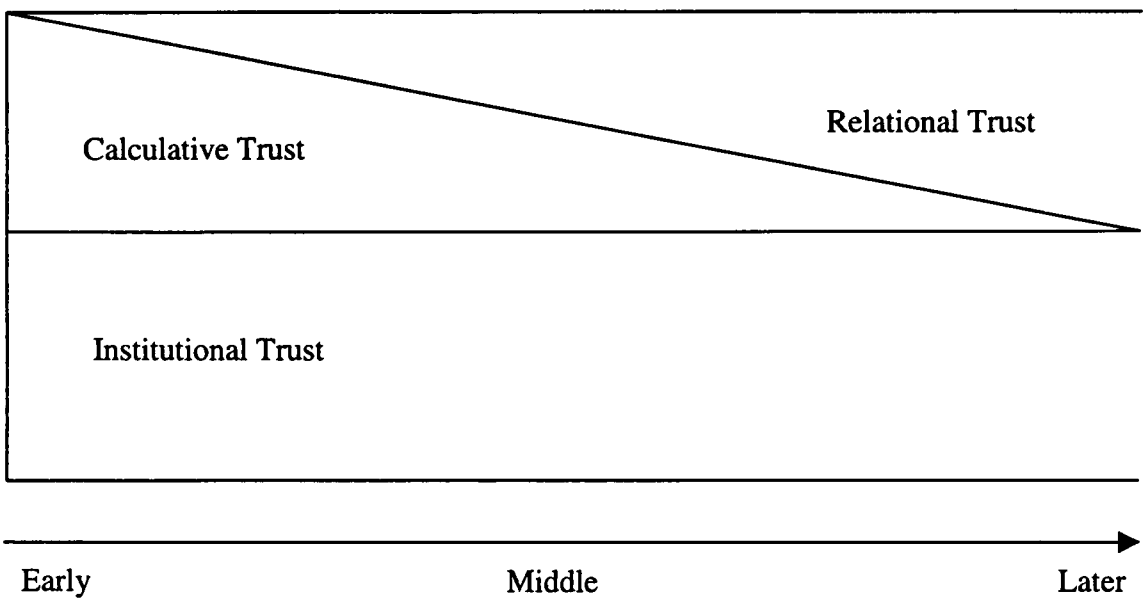
Figure 5-5 The "Yin and Yang" Relationship Between Learning and Trust in IOLRs

Yin represents negative energy and Yang represents positive energy. Everything in the universe exists because of the way these energies interact with each other. Yin and Yang are two forces complimenting each other and not repelling one another. Similarly 'trust' and 'learning' can be viewed as complimentary forces, feeding off of each other. Just as Yin and Yang exist in a fine balance, trust and learning too exist in fine balance – a disturbance in the state of one will lead to a disruption in the other. According to the theory, balance is maintained not only because Yin and Yang attract each other, but because they also contain the potential to repel each other (the 'holes' in each represent the presence of one in the other). This explains why one never finds either force existing without the presence of the other – just as trust and learning in inter-organizational logistics relationships will not exist without the presence of the other.

Having established the importance of exploring the relationship between trust and learning within inter-organizational logistics relationships, it is equally important to establish the linkages between my research and the extant literature on the issue. Thus, literature on trust, and trust within inter-organizational relationships was reviewed, *albeit* briefly, and presented in the next few sections.

A recent issue of the *Academy of Management Review* (July 1998, vol. 23, no. 3) presents a "mother lode" of articles on trust within and between organizations. While all the articles have some aspect that is relevant to this discussion, perhaps the two most interesting and revealing ones are the introduction to the special topic forum by Rousseau, Sitkin, Burt and Camerer (1998), and the one by Sheppard and Sherman (1998).

Rousseau *et al.* (1998) synthesize the literature on trust, and contend that "To date, we have no universally accepted scholarly definition of trust" (p: 394). However, the many definitions of trust converge on a, commonly accepted, core idea that trust is "the willingness to be vulnerable" (p: 394). They also conclude that trust involves risk and interdependence. They identify four principle forms of trust: (1) Deterrence-based trust; (2) Calculus-based trust; (3) Relational trust: and (4) Institution-based trust. Finally, they conclude that the first form is not trust, and exclude it from a model of trust, which they develop. This model (Figure 5-6) is pertinent to this study as it reinforces the elements of trust seen in the "Relationship Growth Model" presented earlier.



Source: Rousseau, Denise M., Sitkin, Sim B., Burt, Ronald S., and Camerer Colin, (1998), "Not So Different After All: A Cross-Discipline View of Trust," *Academy of Management Review*, v. 23, no. 3, p. 401.

Figure 5-6 Model of Trust

Sheppard and Sherman (1998) present a model of trust based on the form and depth of interdependence in a relationship. The premise of their research is expressed as follows (Sheppard and Sherman, 1998: 422-3)

> We believe, then, that trust most often is not an irrational act but a manageable act of faith in people, relationships, and social institutions. Therefore, when properly understood and managed, risks associated with interdependence can be mitigated.

They proceed to develop and present four forms of dependence (Shallow Dependence, Deep Dependence, Shallow Interdependence and Deep Interdependence) and the associated risks and qualities of trustworthiness.

In a recent study Lincoln, Ahmadjian and Mason (1998) studied the role of purchase-supply relations in organizational learning and knowledge-creation in Japanese firms. They state that "trust and co-prosperity," is the corner stone to Matsushita's approach. In the process, these authors state that, a form of trust Matsushita hopes to build is the freedom from having to constantly monitor supplier performance. This is possible only when the buyer (Matsushita) trusts in the supplier's capabilities to produce and supply quality goods. Many smaller suppliers were known to have received extensive assistance on this issue. Costigan (1998) studies the dynamics of lateral, vertical, and institutional trust in the work place. Stating that by the year 2000 an estimated 40 to 50% of

U.S. workers will be participating in teams, the author emphasizes that interdependencies between team personnel may suffer if there is a lack of trust[72]. While the study looks at relationships *within* organizations, researchers may want to investigate the possibilities of extending them to relationships between individuals of *different* organizations involved in IOLRs. Costigan (1998) studied both affect-based and cognitive-based trust in supervisor-subordinate and subordinate-co-worker relationships. One interesting finding was that the longer one is in the job, the higher the level of dyadic trust of the supervisor. This may be the case in SIOLRs too, where the longevity of an individual (especially in individual level IOLRs), may increase trust. In other levels of IOLRs, managers and senior executives must constantly strive to foster and support trust-generating activities. As James O'Toole (1995:xiii) states: "In essence, the leadership challenge is to provide the glue' to cohere independent units in a world characterized by forces of entropy and fragmentation. Only one element has been identified as powerful enough to overcome the centrifugal forces, and that is trust."

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[72] Banker et al. (1996) too found that team-based work settings yielded positive outcomes for the organization in terms of higher quality and quantity of work.

In a study of supply chains, and the performance of suppliers and buying companies Tan, Kannan, and Handfield (1998) found empirical evidence that selected purchasing practices and customer relation practices are strongly associated with the perceived financial and market success of firms. Their results (shown below) support many of the assertions made in my study and support the profiles developed for some of the IOLRs:

- Manufacturers are integrating their suppliers' knowledge into new product and process design
- Attempts to improve performance, encourage trust, and improve communication are prevalent, in turn fostering long-term cooperation and strategic alliances
- (1) Using supplier knowledge and skills; (2) Requiring supplier certification of products and processes; (3) Visiting supplier facilities regularly; (4) Sharing confidential information, and (5) Using commodity teams to set supplier goals – all correlate positively with return on assets, growth in market share, sales, and return on assets

Zaheer, McEvily and Perrone (1998) study the determinants and outcomes of trust in buyer-supplier relationships. Defining trust as the belief that an actor: (1) can be relied upon to fulfill obligations, (2) will behave in a predictable manner, and (3) will act and negotiate fairly when the possibility of exploitation exists, Zaheer *et al.* (1988) state that trust matters. A critical finding, which may have a bearing on this study, is the finding that inter-organizational trust is a more critical determinant of supplier performance than trust between individuals managing the inter-organizational relationship. This is important,

especially in individual level IOLRs: does this finding prove that individuals managing individual level IOLRs (like Ron (APPAREL-2), Tom (APPAREL-1), and Thomas (COMM-1)) are less relevant than the organizations they represent? Another factor, which had a significant binding on inter-organizational trust, was the role of the history of past interactions – a factor that was found to be important in my study too.

Finally, Moore (1998) provides some new insights into logistics alliances by examining the roles of trust and commitment in such relationships. Not surprisingly, his results indicate that both trust and relationship commitment, are important elements in logistics alliances. Interestingly, the results indicate that relationship commitment and effectiveness are influenced more by negative outcomes associated with conflict – than by positive outcomes associated with trust. This finding may have some bearing on the findings in my research where conflict arising out of a learning situation is proposed as a positive aspect. Another way to view this finding would be to rationalize that it is easier to lose trust than to build it. Since conflicts result in reducing trust faster than good times can build it, this is what is being seen.

As Mariotti (1996: 60-1) states

> Trust cannot be bought, cannot be mandated or dictated, nor can it be gained easily - but it can certainly be lost easily.

Thus it can be concluded that, while this study is adequately represented by extant research findings, there is still much more to establish and validate.

5.5 Conclusions

This research started out by presenting a simple paradox: "...the almost certain failure of a strategic initiative deemed to be necessary to generate competitive advantage in the market place". Frankel and Whipple (1999) expressed the same view more recently: "Although contemporary interest in alliances certainly is significant, one question continues to frustrate interested parties: Why is the success rate for alliances so small when the potential benefits are so large?"

The literature review revealed several shortcomings in our current understanding of the inter-organizational relationship (IOR) phenomenon. Additionally, it was shown that the literature on vertical relationships or inter-

organizational logistics relationship (IOLR) issue is even more confused. While academicians may have a natural affinity for disagreement, even practitioners are confounded by the confusion. Thus, while I concur with Thomas R. Terfehr's[73] view that the word 'partnership' is the most misunderstood word and a term that needs "constant definition" (Minahan 1998), I would disagree with Thomas Slaninka[74] who says that perks such as splitting savings and giving preferential treatment are key components of a successful buyer-supplier alliance. "There needs to be some form of 'glue' in the partnership," says Slaninka. Instead, I would reiterate that these are components of the 'real' glue, which are trust and learning.

The methodology chosen to address the research questions certainly has its limitations. First, being a qualitative study there is a lack of statistical or empirical rigor, which is typically associated with academic research. However, this shortcoming was addressed in Chapter 3 when the strengths and weaknesses of the research methodology were discussed. It is recommended,

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[73] Vice President of Materials, Transportation, and Logistics for Champion International Corp., a Stamford, Conn. based paper manufacturer.

[74] Director of Sector Sourcing for Motorola Corp.'s land mobile products sector in Schaumberg, Ill.

however, that the theoretical model developed, propositions posited, and constructs presented are empirically validated in future research. Second, the selection process of companies, and respondents themselves may be questioned. However, limitations of access to a wider population, access to senior executives and budgetary constraints were practical issues, which hampered a more rigorous sampling process. Third, personal biases of the researcher do represent a serious concern. This was to some extent mitigated by using input from a colleague (at times two) who viewed and analyzed the same data independently. However, despite these limitations, the model developed was shown to be rigorous, well grounded in extant literature, and promising. The usefulness of this model to provide a better explanation of inter-organizational logistics relationships is certain. Looking back on the study the following statements (Mariotti 1996: 61, 63) capture the true essence of IOLRs: the intimate relationships between IOLRs and trust, and learning

'Trust can flourish only in the absence of doubt

&

...it [Trust] is probably the most essential ingredient in building a real partnership

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APPENDIX

A. 1 Company Contact Letter

June 25, 1997

Mr. John Doe
Director, Material Transportation & Logistics
AUTO
P.O. BOX 1234
Nice Place, AB 98765-1234

Dear Mr. Doe:

Following some of our earlier conversations at last year's CLM meeting and at Tennessee's *Supply Chain Forum* gathering, I am writing this letter to give you some more information on my background, the nature of my study and the types of information I will need to gather.

I am an Assistant Professor in the Department of Economics, at North Carolina A&T State University, Greensboro, where I teach courses in Transportation, and Logistics. Concurrently I am a doctoral candidate, in the Department of Marketing, Logistics & Transportation, at the University of Tennessee, Knoxville, where I am in the process of completing my dissertation work. Dr. Ray A. Mundy is the Chairman of my committee, and Drs. C. John Langley Jr., Mary C. Holcomb, and Eric D. Sundstrom are the other committee members.

The title of my dissertation is "The Three Faces of Inter-Organizational Relationships: Towards a Theory of Logistics Relationships, Strategy, and Inter-Organizational Learning". Through this study, I intend to develop a better understanding of inter-organizational logistics relationships (IOLRs) such as partnerships, contractual agreements, strategic alliances, strategic supplier-partnerships and relationships with third-party logistics service providers. In today's business environment where agility, flexibility, continuous improvement, managing change and providing value are keys to gaining competitive advantage, successful IOLRs may be key to *sustaining* them. As you may be aware, IOLRs are an extremely popular organizational strategy, and their numbers keep growing every day. However, there is an interesting paradox here: the number of unsatisfactory or failed relationships keeps growing too.

While many earlier researchers have studied IOLRs, there still is a lack of understanding and consensus on many issues. Many of the drivers, that are mentioned above, have been studied previously with the exception of perhaps the most critical one-- *learning*. The central proposition of this study is: *Inter-organizational learning is critical for successful management and performance of inter-organizational relationships.* Other propositions include: (1) different types of IOLRs will have different kinds of inter-organizational learning taking place within them; (2) different kinds of business environments will foster different kinds of inter-organizational learning; and (3) different kinds of inter-organizational learning will result in different levels of IOLR success.

Several factors influence the learning that takes place when two organizations interact. Examples of such factors include organizational structures, environmental aspects, strategic orientations, organizational cultures, competitive conditions, technological influences, etc. Aspects of organizational learning typically manifest in terms of an organization's adaptability, flexibility, propensity to experiment, inquiry orientation and quality systems. Knowledge acquisition; information gathering, interpretation and distribution; and 'organizational memory' tend to reflect an organization's learning process. Thus, when two or more organizations are involved in a relationship, each brings with itself specific learning capabilities, capacities, and systems. How each *individual* firm contributes to the success of the *joint* relationship is the focus of this study.

Within the next few months, I will be interviewing several members of a few select organizations; people who are involved in different types of IOLRs and at different levels in the organization. Some of those interviewed will be able to describe relationships (successful, mediocre, failing, or otherwise) in very specific terms, while others will be able to describe them in general. However, *everyone* who interacts with the other companies has an important role to play in IORs and can contribute substantially to my study.

I am very interested in the personal experiences of the individuals involved in IOLRs and stories of their past experiences. To build credibility in my research I will need data from several sources. Thus, in addition to these semi-structured interviews I may need any reports, newsletters and company archival records you can provide to strengthen my interview data. Finally, I hope to follow up later with a short questionnaire to validate my findings.

Some of this research will create and verify academic theory, but much of it will document the successful elements of the organization's IOLR strategy. I would like AUTO to be one of these organizations. **I will provide you, and anyone else I meet with, an executive summary report** of my research findings when the project is completed in the Fall of 1998. Here are the details of what I need to achieve my objectives:

- **start with a senior person** responsible for logistics activities within AUTO, and with that person's help, expand to other logistics professionals. Typically, these people will be interacting with their counterparts in firms that AUTO has close relationships with
- interview **5 to 10 people** within AUTO, covering different logistics functions such as transportation, warehousing, purchasing, customer service, etc.
- hold each interview for about **1 hour** and audio tape it (the interviews will be **completely confidential**. Only myself and the four members of my Committee, all professors at the University of Tennessee, will have access to them)
- if possible, observe operations and processes, and tour any facilities that might help me better understand your business environment

I realize that setting aside a one-hour slot is not easy in this day and age; however I would like to complete all my interviews by July 1997. This is an extremely important project from a personal standpoint and may be from yours too. While it helps me towards my Ph.D. degree, it helps companies involved in IOLRs understand and manage them more successfully. I certainly hope you will help me in this endeavor and identify people within AUTO whom I can

interview. I have attached a sheet on which you can write the names and phone numbers of people you think may be appropriate and willing to help. You can give them a copy of this letter if you wish, and add/delete names, as the interviews progress, to accommodate any changes you deem necessary.

I will call you in a few days to discuss the project in greater detail. Thank you in advance for your help, and if you have any questions please do not hesitate to call me at (910) 334-7744 ext. 2012, or e-mail me at pappum@aurora.ncat.edu

Sincerely,

_____

Madhav Pappu
Assistant Professor
North Carolina A&T State University

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A.1 (contd.)

AUTO CONTACTS WHO ARE INVOLVED IN

INTERORGANIZATIONAL RELATIONSHIPS
WITH OTHER FIRMS
(Purchasing, Quality Control, Transportation, Logistics, Marketing, etc.)

Name	Title	Phone

A. 2 Informed Consent Form

"The Three Faces of Inter-Organizational Relationships: Towards a Theory of Logistics Relationships, Strategy, and Inter-Organizational Learning".

Informed Consent to Audiotape

I, _____ , hereby authorize Madhav Pappu to audiotape our discussion held on _____, 1997 for approximately one hour as a part of the data collection for his dissertation research project exploring logistics alliances. This authorization applies only to this conversation on this date. Any other audio recordings are authorized by separate consent forms.

I understand that:

- my participation is completely voluntary and I have authorization from my company to do so.
- I am at complete liberty to withdraw from the study with no fear of repercussions of any kind
- I may terminate the conversation at any time
- by participating in this research project I will be helping to identify ways in which firms can better manage logistics relationships, thus enabling them meet the company's objectives and goals
- my name and any sensitive information will be kept confidential
- risks in any form or shape are absolutely minimal and virtually non-existent
- I may request a copy of the audiotape and/or interview transcript
- Madhav Pappu will be the only researcher knowledgeable of my name
- by participating in this research project I may gain insights to how professionals like myself experience, deal with, and manage logistics alliances
- the transcript may be reviewed by other members of the research team to provide a check on its interpretations. They are: Drs. Ray A. Mundy, C. John Langley, Jr., Mary C. Holcomb, and Eric D. Sundstrom, all of the University of Tennessee, Knoxville.
- the audiotapes, transcripts and informed consent forms will be locked in the office of Madhav Pappu's advisor, Dr. Ray A. Mundy in the Department of Marketing, Logistics & Transportation, at the University of Tennessee,

Knoxville, TN 37996 and maintained for three years, after which all audiotapes and consent forms shall be destroyed.

I understand that if I have any questions concerning the project I may contact Madhav Pappu at:

306 Merrick Hall
Dept. of Economics
North Carolina A&T State University
Greensboro, NC 27411
Tel: (910) 334-7744 ext. 2012
Fax: (910) 334-7093
e-mail: pappum@aurora.ncat.edu

_____

(Signature) (Date)

_____

(Please Print Name Above)

_____

Madhav Pappu, Principle Investigator

A.3: BRIEF COMPANY PROFILES

COMPANY NAME	SIC	BRIEF DESCRIPTION	# EMPLOYEES	1996	
				SALES (000$)	NET INCOME (000$)
APPAREL-2	2231: Broad-woven fabric mills, wool (Others: 2221, 2211, 2273)	Develops, manufactures and markets fabrics and other textile products utilized in wide variety of apparel and interior furnishing.	21,000	2,182,347	41,603
APPAREL-1	2392: House furnishings, (Others: 2391, 2591, 2221, 2231, 2299)	Manufactures, purchases for resale and markets home furnishings; Purchases for resale and markets a broad range of fabrics; Manufactures and markets fiberglass industrial fabrics etc.	20,700	2,243,300	84,900
HOMEIMP	5211: Lumber and Other Building Materials (Others: 5722, 5731, 5261, 5251)	Operates retail stores selling building materials, structural lumber, home decorating products, kitchen and bathroom products, heating, cooling and water systems, home entertainment products, tools and other related products.	54,000	8,600,241	292,150
CHEM	2834: Drugs; bio-technology; pharmaceuticals (Others:)	Develops medical, health care, nutrition and pharmaceutical products; Infant and baby foods; Agribusiness including crop protection, seeds and animal health.	97,600	19,033,793	2,245,517

A.3 (contd.)

COMPANY NAME	SIC	BRIEF DESCRIPTION	# EMPLOYEES	1996	
				SALES (000$)	NET INCOME (000$)
AUTO	3711: Motor Vehicles and Car Bodies (Others: 3714, etc.)	Designs, manufactures, assembles and sells automobiles, trucks and related automotive products; Provides financial services; Manufactures military equipment; etc.,	647,000	164,069,000	4,963,000
COMM-1	3661: Telephone and Telegraph Apparatus (Others: 3669, 1731)	Designs, develops, manufactures, markets, sells, installs, and services central office switching equipment, integrated business systems and telecommunications.	62,300	12,847,000	623,000
COMP	3571: Electronic Computers (Others: 3572, 3577, 3575, 7372, 7378, 7373)	Develops, manufactures and markets a broad line of computer and office equipment, including general purpose computer systems, servers, direct access and tape storage etc.	305,648	75,947,000	5,429,000
COMM-2	3661: Telephone and Telegraph Apparatus (Others: 3679)	Designs, develops and manufactures systems and software which enable network operators to provide wireline and wireless local, long distance and international voice, data and video services, and cable TV services etc.	124,000	15,859,000	224,000

A. 4 List of Companies, Participants and Designations

No.	Interviewee	Company	Position
1	Dan	CHEM	Senior Manager Operations
2	Levi	CHEM	Manager Transportation
3	Austin	CHEM	Senior Regional Cust. Service Manager
4	Mike	CHEM	Manager International Transportation
5	Jim	APPAREL-2	Regional Manager
6	Bryan	APPAREL-2	Manager
7	Ron	APPAREL-2	Vice President Operations
8	Scott	HOMEIMP	Vice President Store Operations
9	Bob	HOMEIMP	Div Merchandizing Manager
10	Lew	HOMEIMP	Logistics Director
11	Vaughn	HOMEIMP	Vice President Store Plan
12	Perry	HOMEIMP	Regional General Manager
13	Greg	HOMEIMP	Senior VP General Merchandizing
14	Mike	HOMEIMP	Vice President Logistics
15	Lee	HOMEIMP	Senior Vice President Logistics
16	David	VPAINT	VPAINT Representative
17	Mike	APPAREL-1	VP Transportation & Distribution
18	Susan	APPAREL-1	VP Liz Merchandizing
19	Liesa	APPAREL-1	Director Transportation
20	Tom	APPAREL-1	Manager Customer Service
21	John	COMM-2	Transportation Manager
22	John-H	COMM-2	Director Transportation
23	Glenn	COMM-2	Transportation Specialist
24	Jenny	COMM-2	Transportation Specialist
25	Dick	COMM-2	Transportation Supervisor
26	Jim-C	COMM-2	Transportation Specialist
27	Joan	COMM-2	Transportation Specialist
28	Bazziano	COMM-2	Transportation Specialist
29	Jim-R	COMM-2	Transportation Specialist
30	Bill	COMM-2	Transportation Specialist
31	Robert	COMM-2	Transportation Manager

A.4 (contd.)

No.	Interviewee	Company	Position
32	Steve B	COMM-1	Senior Manager US Logistics
33	Thomas	COMM-1	Director Logistics Process & Engineering
34	Will	COMM-1	Manager Operations & Engineering
35	Tom	COMM-1	Senior Manager US Logistics
36	Larry	COMM-1	Senior Manager, Alliance Programs
37	Steve R	COMM-1	Manager, Supply Management
38	Darrel	AUTO	Director Phy. Distb. & Supply Manager
39	Fred	AUTO	Manager Material Movement & Log.
40	Bryan	AUTO	Manager, Logistics
41	Don	AUTO	Director Procurement & Logistics
41	Roger	AUTO	Director Materials Flow Plan
42	James	AUTO	Manager, Power Train
43	Wayne	COMP	Manager US Trans Operations
44	Greg	COMP	Manager World-Wide Prod Distribution
45	Burl	COMP	Site Distb. & Dealer Identification

A. 5 "Face Two": Detailed Characteristics of IOLRs (Cell 1-3)

Characteristic	CELL 1: DESCRIPTOR	CELL 2: DESCRIPTOR	CELL 3: Descriptor
Motivation (for the relationship)	Low cost Need Meet market needs Meet extra business needs Existing vendor leaves	Reduce cost Easier working together Work more effective Problem resolution	Mutually beneficial Financial-goal driven Need each other 'relationally' Matching self-interests
Capabilities (sought)	Basic capabilities Ubiquitously available		'Best' in area; Unique Broad and specific capabilities Non-function related, 'intangible' capabilities (political connections etc.)
Involvement (of...)	Individual driven	Individual driven	Individual driven
Selection factor(s)	Price competitive Had capabilities Ability to work with		Human factor important
Environment (of the relationship)		Complex – but easily understood	Less predictable; uncertain 'Baffling'; unstable Difficult to understand
Expectations (from the relationship)	Low cost Value Service Quality	Integrity Openness Longevity Understand each other's situations	Provide specific services Have broad capabilities Have strategic offerings (networks etc.) Steady revenue stream
Explicitness (of rules)	High control		Low
Scope (of the relationship)	Specific Activity related	Problem related	Broad Changing frequently Issue dictated
Duration (of the relationship)	Short term Single transaction		Relational
Commitments (of each member)			Some form of 'investment' Develop exclusive systems and skills
Communications (between IOR members)	Minimal contact Intermittent "Cold-calls"	Individual as "gateway" Extensive communications One-on-one	
Performance (measures etc.)	General measures Less firm specific		

A. 6 "Face Two": Detailed Characteristics of IOLRs (Cell 5-6)

Characteristic	CELL 5: DESCRIPTOR	CELL 6: DESCRIPTOR
Motivation (for the relationship)	Consolidate and leverage Shrinking supplier base Lack capabilities internally Lower costs Customer service Capitalize on provider's core competency	Survival
Capabilities (sought)	Performance Match in core areas/fit Price leverage Technological sophistication Modeling capabilities Best provider Speed Proven companies	Financial stability Technological capabilities (tend to be simple, however) Done SIMILAR work before Basic
Involvement (of...)	Departmental Functional	Departmental Functional
Selection factor(s)	Objective criteria Systematic Past performance Systems compatibility Best in class Best for that service	Service conscious Price competitive Enthusiastic and interested Have affinity for business
Environment (of the relationship)	Short product life-cycle Uncertain Complex Dynamic Unique	Slow changing Not very dynamic
Expectations (from the relationship)	Certain level of performance Dedicate resources Bring about change Provide unique and tailored services Specific advantages like transportation interval, cycle time Bring business solution Consistency	Understand problems Develop TAILORED systems and solutions Attuned to you Tight
Explicitness (of rules)	Training 'encouraged' Low/medium	High degree of control

A.6 (contd.)

Scope (of the relationship)	Present issues AND future ones simultaneously Often difficult to define Forecasting Inventory management Modeling	
Duration (of the relationship)	More than 1 but less than 5 years More than 2 years; approx. 6 5 years with 2 year review	4, 5, 6 and more years
Commitments (of each member)	Dedicate resources and people	Heavy investments – both personnel and capital
Communications (between IOR members)	More contact & interplay Regular meetings Informal discussions Sit in on meetings Monthly/daily (top level/lower level) meetings In 'natural and complete' form Treated as 'conduits'	Extensive – 5 to 10 times daily Informal Telephone; fax
Performance (measures etc.)	Specific to provider Quantitative and qualitative measures (5) Formal and designed system of measurement Intangibles too Hard measures	Specific and measurable

A. 7 "Face Two": Detailed Characteristics of IOLRs (Cell 9)

Characteristic	CELL 9: DESCRIPTOR
Motivation (for the relationship)	Best in "core competency" Price competitive Industry consolidation Mutual benefits – "lot to be gained"
Capabilities (sought)	Technologically capable 100% in-stock capability
Involvement (of...)	Whole organization CEO through front-line
Selection factor(s)	Financially sound Technologically capable
Environment (of the relationship)	Fairly competitive Slightly dynamic Growth potential
Expectations (from the relationship)	Execute expectations Look after partner's interests Recognize partner's weaknesses Training Improve continuously "Delight" the partner Take "ownership" Set example to others Trust
Explicitness (of rules)	Structured Sticks to guidelines Consistent
Scope (of the relationship)	Broad out-look Grow business Expand area
Duration (of the relationship)	Extremely long-term In excess of 15 years
Commitments (of each member)	Partner's dedicate resources People dedicate personally
Communications (between IOR members)	Back-to-back communication triangles Share success stories Visits Verbalize "Funnel" approach to information dissemination
Performance (measures etc.)	Defined Structured Systematic

A. 8 "Face Three": Detailed Characteristics of IORL Learning Systems: Cells 1-9

Characteristic	CELL 1: DESCRIPTOR	CELL 2: DESCRIPTOR	CELL 3: Descriptor
Type of knowledge (seen/sought from the relationship)		Experiential Situational Subjective Job specific	Broad Function specific Peripheral to function too Dynamic knowledge base Mythical
Structuredness (for learning)	Low/Medium	Low	Low/Medium – not by accident but by virtue of several factors
Explicitness of rules (for learning)	Low		Medium Little more structure
Scope of system (for learning)	General		Widely varied Specific issue/problem General Diverse
Media for communication (that supports/ fosters learning)	Monthly newsletters Quarterly reviews "Salesman type" visits	Limited, intra-firm discussions Site visits	Stories Notes
Motivation of activity (to learn)		Important for functioning Enhance understanding Improve interaction Solve problems	Deal with crises
Time frame (of learning)	Current information		Current information
Organizational make up (fostering or doing the learning)	Individuals	Individual One-to-one Informal	Individual

A.8 (contd.)

Characteristic	CELL 5: DESCRIPTOR	CELL 6: DESCRIPTOR
Type of knowledge (seen/sought from the relationship)	Specific such as pricing etc. Very objective knowledge Generic AND specific Good AND bad news Experiential Benchmarking	'Knowing' from experience Subjective knowledge
Structuredness (for learning)	High Rapid and higher quality	Low Informal
Explicitness of rules (for learning)	Low	Low
Scope of system (for learning)	Task specific Very objective; rewards and learning linked	General Broad
Media for communication (that supports/ fosters learning)	Informal discussions Reviews Regular meetings Fairly structured Intranet Company newsletters Logistics newsletters	Informal Word-of-mouth Stories
Motivation of activity (to learn)	Learning about the competition Unpredictability of environment Generates competitive advantage	
Time frame (of learning)	Present and future issues	Historical
Organizational make up (fostering or doing the learning)	Functional; departmental	Functional; departmental

A.8 (contd.)

Characteristic	CELL 9: DESCRIPTOR
Type of knowledge (seen/sought from the relationship)	Higher level of knowledge Deeper understanding
Structuredness (for learning)	Structured; organized Extensive training Course modules, seminars, workshops, for everyone Formalized and actively promoted
Explicitness of rules (for learning)	Planned Structured Required Implemented
Scope of system (for learning)	Broad General
Media for communication (that supports/ fosters learning)	"Funnel" approach Brainstorming Open Discussions Technology driven
Motivation of activity (to learn)	Benefit end customer Learn all about logistics
Time frame (of learning)	
Organizational make up (fostering or doing the learning)	Organization wide

VITA

Madhav Pappu is currently an Assistant Professor in the Department of Marketing at the University of North Texas, in Denton, Texas. In addition to this Ph.D., his academic background includes a Bachelors degree in Mechanical Engineering, from Andhra University, India; a Masters in Civil Engineering (Transportation) from Virginia Tech, Blacksburg, VA, and an MBA (Strategic Management) from the University of Tennessee, Knoxville, TN.

Prior to coming to the United States in 1989, Madhav worked for nearly nine years (1981-1989) in the merchant marine. During that period, he worked his way up from a Junior Engineer's rank to that of a Chief Engineer, and served on nearly every type of merchant vessel including oil tankers, bulk carriers, cruise vessels and container ships.

As a Research Assistant at the U. T. Transportation Center, Madhav was involved in several projects including one that studied and analyzed traffic characteristics and flows through the Panama Canal and made recommendations on alternatives to the existing system. He worked on several

projects, workshops and proposals, while he was an Adjunct Professor at North Carolina A&T State University from 1997 to 1999. Additionally, he worked with institutions such as the Kenan Institute for Private Enterprise, at the University of North Carolina, Chapel Hill, NC.

His research interests include Logistics and Transportation Systems Design and Modeling, Business Logistics Strategy and Supply Chain Management, and Global Logistics and Transportation. He has given invited talks at workshops such as the Product Realization Consortium and has presented at several conferences including the International Intermodal Expo and the Annual Transportation Management Conference - his articles appeared in these Proceedings.

He is an active member of several professional organizations, including the Council of Logistics Management and APICS. He is also a Member of the Beta Gamma Sigma Honor Society, UT-Knoxville Chapter.